

Operational Plan of the Commission for Environmental Cooperation 2011–2012

Commission for Environmental Cooperation



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This Operational Plan was approved by the Parties to the
North American Agreement on Environmental Cooperation.

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1 Introduction and Context

In 2009, the Council, the environment ministers of North America set forth an ambitious agenda with a new policy direction for the CEC, to ensure it is positioned to deliver clear results and is focused on the key environmental priorities of North America, namely:

- Healthy Communities and Ecosystems
- Climate Change – Low-Carbon Economy
- Greening the Economy in North America

Council further recognized that addressing environmental problems across North America could only be accomplished by partnering and engaging extensively with stakeholders and the public in all three countries and by promoting a sense of shared responsibility and stewardship for the environment in our region.

Last year, the Council Session in Guanajuato also served to solidify the new focus by presenting the 2010–2015 Strategic Plan, which elaborates clear objectives for results-focused collaboration among our countries on the new environmental priorities.

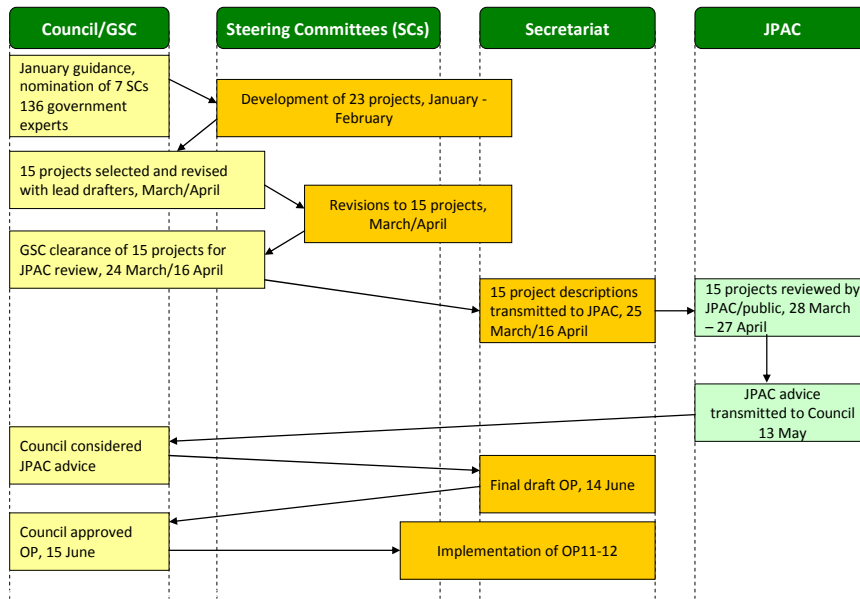
The Strategic Plan also gave the Parties a concrete avenue for implementing Council's direction on increasing the engagement with stakeholders and the public. Council did so through the establishment of the North American Partnership for Environmental Community Action (NAPECA). The NAPECA adds a new element to the bold vision of Council to forge new synergies and provide the leadership required to ensure the integration of the environmental priorities.

Furthermore, Council now directs that the Secretariat enhance the use of Request for Proposals (RFP) processes to seek bids from other levels of government, community organizations, tribal nations/indigenous communities, nongovernmental organizations and other relevant stakeholders to support the delivery of projects outlined in this Operational Plan, to the extent appropriate. This would strengthen the opportunities for collaborative and effective cooperative work and furthers the organization's commitment to the principles of fairness, openness and transparency.

This 2011–2012 Operational Plan is the first step in delivering on Council's new vision and work will begin in earnest. More than one hundred governmental officials and experts from the three countries met to determine the appropriate activities or projects that would translate the broad goals into concrete actions. (See Figure 1 detailing the process used to develop this operational plan.)

Figure 1.

Development of the Operational Plan 2011-2012



Building on the solid foundation developed since 2009, Council set the direction towards a reconfiguration of the process that determined the new projects. The 2011–2012 Operational Plan is a reflection of the priorities of the three Council members, arising from the vision they provided, shaped by the advice and input of the public through the Joint Public Advisory Committee and the expertise within the Secretariat.

The Council's vision, as reflected in the projects and activities of this Operational Plan, is foundational and will set the stage for important environmental results through cooperative action on the part of Canada, Mexico and the United States over succeeding years. As a consequence of the work profiled in this Operational Plan we look forward to significant accomplishments, including:

- Improving the environmental health of vulnerable communities in North America;
- A demonstration project to improve indoor air quality and reduce exposure to airborne contaminants in severely impacted children in Alaska native populations and other indigenous communities in North America;
- Cooperative conservation activities to protect and enhance two of North America's iconic ecoregions and transboundary landscapes—the North American grasslands and the Big Bend-Río Bravo watershed;
- Completion of a North American foundation of consistent, comparable information on toxic chemicals of mutual concern, including the first comprehensive chemicals inventory for Mexico;
- Improving the comparability and completeness of national greenhouse gas (GHG) inventories—an essential precursor to coordinated climate action at a North American scale;

- Supplying data, information, and scientific tools to monitor and report on initiatives for ecosystem carbon management to reduce GHG emissions, particularly as associated with forest degradation and land cover change;
- Continued efforts to green critical components of the supply chains for the North American automotive manufacturing sector; and
- Combating the illegal movement of hazardous electronic waste within and from North America, and enhancing capacities of e-waste recycling and refurbishing sectors.

This new agenda is accompanied by a renewed commitment to cooperative work. These and other projects will be accomplished through the collaborative efforts of countless officials and experts of each of our three Parties and the Commission. Canada, Mexico and the United States share cultural, social, economic and environmental values that led the three Parties first, to negotiate the ground-breaking North American Free Trade Agreement and then, because of the realization that the environment is a shared resource, the North American Agreement on Environmental Cooperation. Through this Operational Plan, the three environmental ministers and their representatives have developed robust and efficient initiatives that will maximize the opportunities available to us as a region and achieve common objectives in protecting our shared environment.

CEC Operational Plan 2011–2012

2 2011 Budget

The CEC's 2011 budget is based on total Party contributions of US\$9 million. The operational budget is complemented by staff time, expertise, and travel support, as well as other in-kind contributions from the Parties and project partners.

DESCRIPTION	Budget 2011	% of Total	Budget 2012	% of Total
	(in thousands of Canadian dollars)		(in thousands of Canadian dollars)	
REVENUES				
Parties' Contributions (\$ 9,000 US at 1.00/C\$.)	9,000.0		9,000.0	
Surplus	3,267.6		3,545.6	
TOTAL REVENUES	12,267.6		12,545.6	
EXPENSES				
Cooperative Work Program				
Projects	5,182.0		5,722.2	
Project Communications	60.0		250.0	
Grants:				
Council Directed Grants (Note 1)	150.0		150.0	
North American Partnership for Environmental Community Action (NAPECA)	600.0		800.0	
Completion of 2010 Project Outputs	449.0		0.0	
Scoping/planning Activities	50.0		0.0	
Mexico Liaison Office	345.4		345.4	
Managing CEC Environmental Information	131.0		146.0	
Monitoring, Evaluation and Reporting	90.0		90.0	
	<u>7,057.4</u>	57.53%	<u>7,503.6</u>	59.81%
Secretariat report (Article 13)	300.0	2.45%	300.0	2.39%
Submissions on Enforcement Matters (Articles 14 & 15)	762.0	6.21%	766.5	6.11%
Council Support	439.3	3.58%	510.4	4.07%
JPAC Support	478.4	3.90%	480.2	3.83%
Communications	649.3	5.29%	659.3	5.26%
Administration and Management				
Executive Director's Office	140.2		122.2	
External Administrative Support (Insurance, Audit, Fiscal expertise, Banking, Legal)	228.0		228.0	
Relocation/orientation, Recruitment	150.0		150.0	
Operating Expenses (Telecommunications, Rent, Operating Equipment, Office Supplies)	1,016.1		766.1	
Management, Administration Salaries and Professional Development	996.9		1,009.3	
	<u>2,531.2</u>	20.63%	<u>2,275.6</u>	18.14%
Reserve for Unforeseen Needs	50.0	0.41%	50.0	0.40%
TOTAL EXPENSES	12,267.6	100.00%	12,545.6	100.00%

Note 1: For 2011 the amount for Council Directed Grants is \$433,500, of which \$283,500 are integrated under Projects. The amount for 2012 is \$310,200, also integrated in Projects.

2011-2012 Projects

Project Title	Budget 2011 (in thousands of C\$)	Budget 2012
HEALTHY COMMUNITIES AND ECOSYSTEMS		
Improved Environmental Health of Vulnerable Communities in North America	460.5	485.2
Improving Indoor Air Quality to reduce exposure to Airborne Contaminants, Including Fine Particulates and Chemical Compounds in Alaskan Native Populations and other Indigenous Communities in North America	283.5	310.2
Capacity Building to Improve the Environmental Health of Vulnerable Communities in North America	177.0	175.0
Increased Resilience of Shared Ecosystems at Risk	879.0	994.0
North American Grasslands: Management Initiatives and Partnerships to Enhance Ecosystem and Community Resilience	285.0	305.0
Big Bend-Rio Bravo Collaboration for Transboundary Landscape Conservation / North American Invasive Species Network	509.0	584.0
Engaging Communities to Conserve Marine Biodiversity through NAMPAN	85.0	105.0
Pollutant Release and Transfer Registers (PRTR)	130.0	305.0
Tracking Pollutant Releases and Transfers in North America (North American PRTR Project)	130.0	305.0
Enhanced Regional Approach to Sound Management of Chemicals	891.5	634.5
Approaches for Identifying and Tracking Chemicals in Commerce in North America	326.0	86.0
Risk Reduction Strategies to Reduce the Exposure to Chemicals of Mutual Concern	280.5	283.5
Environmental Monitoring and Assessment of Chemicals of Mutual Concern	285.0	265.0
Strengthening Regional Environmental and Wildlife Law Enforcement	242.0	382.0
Enhancing Environmental Law Enforcement in North America	242.0	382.0
CLIMATE CHANGE - LOW-CARBON ECONOMY		
Improved Comparability of Emissions Data, Methodologies and Inventories Among the Three North American Partners	140.0	55.0
Improving Comparability of Emissions Data, Methodologies and Inventories in North America	140.0	55.0
Engagement of Experts and Strengthened Information Sharing in Climate Change and Low-Carbon Economy	330.0	500.0
Ecosystem Carbon Sources and Storage: Information to Quantify and Manage for Greenhouse Gas Emissions Reductions	250.0	320.0
North American On-line, Interactive Informational Platform on Climate Change	80.0	180.0
GREENING THE ECONOMY IN NORTH AMERICA		
Improved Private Sector Environmental Performance in North America	305.0	540.0
Improving Conditions for Green Building Construction in North America	60.0	185.0
Improving the Economic and Environmental Performance of the North American Automotive Industry Supply Chain	80.0	120.0
Sound Management of Electronic Wastes in North America	165.0	235.0
WORK PROGRAM SALARIES, BENEFITS AND PROFESSIONAL DEVELOPMENT	1,804.0	1,826.5
Total	5,182.0	5,722.2

3 Cooperative Work Program

3.1 Strategic Framework

This Operational Plan presents how the CEC's goals and objectives will be implemented through project activities and other initiatives in 2011 and 2012. CEC Operational Plans are updated every year for budget purposes, with project planning focused on a two-year horizon within the CEC's 2010–2015 Strategic Plan (Appendix B). As this is the first year of full implementation of that five-year plan, 2011 project-level work is largely focused on foundational and base-line efforts, upon which we expect to see significant environmental results over the next five years. The strategic framework for the regular project activity described in this plan stems from the CEC Council's adoption, in 2009, of three broad priorities for the cooperative work program of the Commission:

- Healthy Communities and Ecosystems;
- Climate Change – Low-Carbon Economy; and
- Greening the Economy in North America.

To advance these priorities, the Council adopted the *Strategic Plan for the Commission for Environmental Cooperation 2010–2015* (Appendix B). This plan embraces specific five-year goals and objectives as well as several multi-year initiatives to accomplish them.

The Council, as the governing body of the CEC, approves and oversees the implementation of the work program by officials and experts of each of the three Parties. The Secretariat provides technical, administrative and operational support to the Council and to committees and groups established by the Council in the implementation of the cooperative work program. Throughout implementation of these projects, the Council and the Secretariat consult with the CEC's Joint Public Advisory Committee and stakeholders on an ongoing basis.

3.2 Strategic Objectives and Projects, 2011–2012

The CEC's 2010–2015 Strategic plan sets out a number of five-year strategic objectives in support of each of the CEC Council's priorities. The following is a summary of the CEC's 2011–2012 projects that have been adopted by the Council to support these objectives. Detailed project descriptions, including implementation tasks and budgets, can be found in Appendix A.

3.2.1 Healthy Communities and Ecosystems

Canada, Mexico and the United States recognize that our wellbeing in North America—both environmental and economic—is grounded in healthy communities and ecosystems. Therefore, the Parties commit to build upon and renew collaborative efforts within the CEC to protect, sustain and restore the health of people, communities and ecosystems using integrated and comprehensive approaches and partnerships.

Four strategic objectives have been identified:

- improve environmental health of vulnerable communities in North America;
- increase resilience of shared ecosystems at risk;
- enhance regional approaches to sound management of chemicals; and
- strengthen regional enforcement and wildlife law enforcement.

In support of these objectives, the CEC Council has adopted the following ten projects for 2011–2012:

Improved Environmental Health of Vulnerable Communities in North America

- Improving Indoor Air Quality to Reduce Exposure to Airborne Contaminants, including Fine Particulates and Chemical Compounds in Alaskan Native Populations and Other Indigenous Communities in North America
- Capacity Building to Improve the Environmental Health of Vulnerable Communities in North America

Increased Resilience of Shared Ecosystems at Risk

- North American Grasslands: Management Initiatives and Partnerships to Enhance Ecosystem and Community Resilience
- Big Bend-Río Bravo Collaboration for Transboundary Landscape Conservation/North American Invasive Species Network
- Engaging Communities to Conserve Marine Biodiversity through NAMPAN

Pollutant Release and Transfer Registers (PRTR)

- Tracking Pollutant Releases and Transfers in North America (North American PRTR Project)

Enhanced Regional Approach to Sound Management of Chemicals

- Approaches for Identifying and Tracking Chemicals in Commerce in North America
- Risk Reduction Strategies to Reduce the Exposure to Chemicals of Mutual Concern
- Environmental Monitoring and Assessment of Chemicals of Mutual Concern

Strengthening Regional Environmental and Wildlife Law Enforcement

- Enhancing Environmental Law Enforcement in North America

3.2.2 Climate Change – Low-Carbon Economy

Canada, Mexico and the United States recognize that incremental trilateral collaboration, consistent with national circumstances and capacities brings added value to respective efforts to address climate change and support the transition to a low-carbon economy. Therefore, the Parties could undertake a set of key initiatives to work towards aligning domestic standards, regulations, and policies and to support this transition in a manner that is consistent with respective national plans and priorities.

Two strategic objectives have been identified:

- improve comparability of emissions data, methodologies and inventories among the three North American partners; and
- strengthen engagement of experts and information-sharing.

In support of these objectives the CEC Council has adopted the following three projects for 2011-2012:

Improved Comparability of Emissions Data, Methodologies and Inventories among the Three North American Partners

- Improving Comparability of Emissions Data, Methodologies and Inventories in North America

Engagement of Experts and Strengthened Information Sharing in Climate Change and Low-Carbon Economy

- Ecosystem Carbon Sources and Storage: Information to Quantify and Manage for Greenhouse Gas Emissions Reductions
- North American On-line, Interactive Informational Platform on Climate Change

3.2.3 Greening the Economy in North America

Canada, Mexico and the United States intend to focus cooperative work through the CEC on positive steps towards building a North American economy that minimizes the potential negative environmental impacts of economic growth, while enhancing the competitiveness of key industrial sectors in North America.

One strategic objective has been adopted by the Council:

- improve private sector environmental performance in North America.

Three projects will be pursued in 2011–2012 in support of this objective:

Improved Private Sector Environmental Performance in North America

- Improving Conditions for Green Building Construction in North America
- Improving the Economic and Environmental Performance of the North American Automotive Industry Supply Chain
- Sound Management of Electronic Wastes in North America

4 Secretariat Reports

With a view to helping the NAFTA partners improve the environmental performance of freight transportation in North America while contributing to the region's competitiveness, the CEC Secretariat completed in 2011 its latest independent study under Article 13 of the North American Agreement on Environmental Cooperation.

Sustainable Freight Transportation in North America profiles the environmental status of freight transportation in North America and look at opportunities for improving its environmental sustainability at a time of major infrastructural development along its trade corridors.

With the assistance of an international advisory group of representatives from transportation industries, nongovernmental organizations, and government agencies, the study evaluated scenarios for improving the environmental performance of freight transportation by 2030 and made several key recommendations to the CEC Council and the governments of Canada, Mexico and the United States to enhance both the sustainability and efficiency of a North American freight transportation system.

For more information please go to <<http://www.cec.org/freight/>>.

5 Submissions on Enforcement Matters Process

The Submissions on Enforcement Matters (SEM) process enables the CEC Secretariat to consider citizen submissions on matters concerning effective enforcement of domestic environmental law in Canada, Mexico and the United States. The SEM process can facilitate an exchange of views among citizens and Parties to the NAAEC on what effective enforcement of environmental law entails, and thereby plays a valuable role in advancing the public participation objectives of the NAAEC.

The CEC Secretariat endeavors to ensure timely processing of submissions, while also paying attention to detail in the consideration of citizen submissions and any Party responses thereto. Moreover, the Secretariat must to the extent possible act neutrally, fairly, and transparently. The

SEM process must be understood by both the public and the Parties as non-adversarial and aimed at providing objective, fact-based information on the effective enforcement of environmental law in North America.

The SEM budget for 2011 primarily covers the processing of submissions, from their receipt through possible development and publication of Factual Records. The submissions budget was based on a projection of the existing workload at the end of 2010, plus a number of new submissions estimated according to the historical average, and using average costs at each stage of the submissions process. The budget also considers activities to promote the process with persons and organizations not presently engaged in the mechanism; efforts aimed at increasing efficiency of the SEM process; and official CEC participation in activities related to the SEM process.

This year, following Council's direction in the Strategic Plan, the Parties will conduct a trilateral process to improve the effectiveness and efficiency of the SEM process so that it can better serve the public. This review is premised on improving the implementation of this innovative fact finding and public information mechanism, within the limits of the North American Agreement on Environmental Cooperation.

Information on the SEM process is available at:
<<http://www.cec.org/citizen>>.

6 Institutional Support

The Secretariat provides support for and coordinates the operations of the Council to ensure that the directives and initiatives of the latter are carried out in a timely fashion. It also provides logistical and administrative support to JPAC.

6.1 Council

The Council, the governing body of the CEC, is composed of cabinet-level or equivalent environmental representatives of each country, or their designees. The Council convenes at least once a year in a regular session for the purpose of making decisions and developing recommendations on matters within the scope of the NAAEC, and to provide oversight on the operations of the CEC Secretariat. The Council's regular session also features a public meeting that provides an opportunity to exchange with the North American public on environmental issues of importance.

It is the Secretariat's responsibility to submit the annual operating plan and budget of the Commission for the approval of the Council and to ensure that its directives and initiatives are carried out in a timely way. This entails liaison throughout the year with the Council's designees as well as administrative and logistical arrangements relating to the planning and conduct of regular sessions of the Council and the Council's designees. In 2011, the regular session of the Council will be held in Canada.

6.2 Joint Public Advisory Committee

The Joint Public Advisory Committee (JPAC) was established as a cooperative mechanism to advise the Council in its deliberations and to advise the Secretariat in its planning and activities. Its vision is to promote continental cooperation in ecosystem protection and sustainable economic development, and to ensure active public participation and transparency in the actions of the Commission.

JPAC is composed of fifteen citizens, five from each country. In 2011, JPAC will hold three public meetings: the first, in Mexico, to review this program of work, a second in Canada in conjunction with the annual Council Session, and a third in the United States in the late fall. JPAC will also continue with its efforts to engage stakeholders across North America, with support from the Secretariat.

7 Communications

Raising awareness of North American environmental issues and the opportunities and challenges presented by continent-wide free trade is fundamental to the CEC's mission. Moreover, effective communication of the results of CEC work is integral to the Commission's success. Specifically, the CEC's ability to fulfill its mandate depends, in part, upon the extent to which good communication practices generate visibility and support for its work with audiences throughout North America.

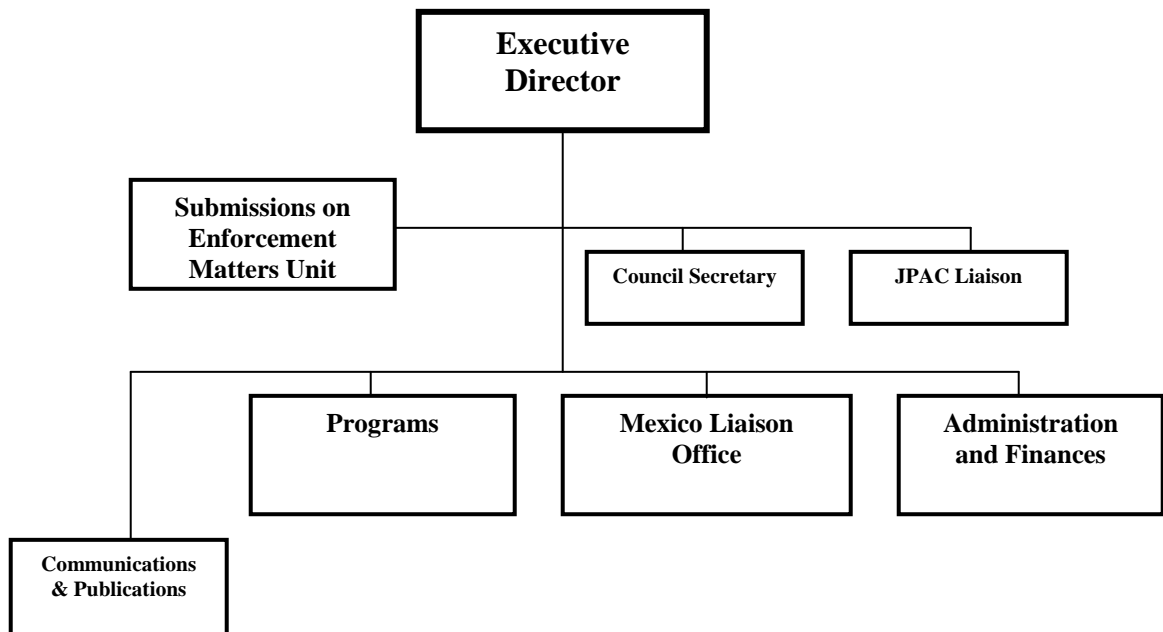
In recognizing the role of effective communications and responding to input from the public, Council has directed the Secretariat to update and expand a communications strategy that will promote public awareness of the work of the CEC. Council further directed that in the development of the communications strategy, the Secretariat identify innovative and cost-effective means of building public awareness that could be considered by Council.

8 Administration and Management

The Secretariat is responsible for providing technical, administrative and operational support to the Council and to committees and groups established by the Council. Headed by an executive director, the Secretariat has an expert and highly motivated staff of 54 people drawn from each of the Commission's three countries. Program, Communications, Administration and General Services staff provide support integral to implementation of the cooperative work program and institutional objectives.

The CEC Secretariat is headquartered in Montreal, with a regional liaison office in Mexico City. The Mexico liaison office is engaged in facilitating CEC's work and environmental stakeholders in Mexico.

CEC Secretariat Organization



8.1 Quality Assurance

The CEC's Quality Assurance Policy and Procedures document establishes the principles and mechanisms for ensuring the objectivity, utility, accuracy and integrity of CEC research and information products and services. This Operational Plan has been prepared in accordance with that policy. Individual quality assurance project plans will specify the particular steps required for each information product or service (including Party, peer and expert review, where appropriate) to meet the requirements of the CEC's quality assurance policy.

Appendix A: CEC 2011–2012 Project Descriptions

HEALTHY COMMUNITIES AND ECOSYSTEMS

Improved Environmental Health of Vulnerable Communities in North America

- A Improving Indoor Air Quality to reduce exposure to Airborne Contaminants, Including Fine Particulates and Chemical Compounds in Alaskan Native Populations and other Indigenous Communities in North America
- B Capacity Building to Improve the Environmental Health of Vulnerable Communities in North America

Increased Resilience of Shared Ecosystems at Risk

- C North American Grasslands: Management Initiatives and Partnerships to Enhance Ecosystem and Community Resilience
- D Big Bend-Rio Bravo Collaboration for Transboundary Landscape Conservation / North American Invasive Species Network
- E Engaging Communities to Conserve Marine Biodiversity through NAMPAN

Pollutant Release and Transfer Registers (PRTR)

- F Tracking Pollutant Releases and Transfers in North America (North American PRTR Project)

Enhanced Regional Approach to Sound Management of Chemicals

- G Approaches for Identifying and Tracking Chemicals in Commerce in North America
- H Risk Reduction Strategies to Reduce the Exposure to Chemicals of Mutual Concern
- I Environmental Monitoring and Assessment of Chemicals of Mutual Concern

Strengthening Regional Environmental and Wildlife Law Enforcement

- J Enhancing Environmental Law Enforcement in North America

CLIMATE CHANGE - LOW-CARBON ECONOMY

Improved Comparability of Emissions Data, Methodologies and Inventories Among the Three North American Partners

- K Improving Comparability of Emissions Data, Methodologies and Inventories in North America

Engagement of Experts and Strengthened Information Sharing in Climate Change and Low-Carbon Economy

- L Ecosystem Carbon Sources and Storage: Information to Quantify and Manage for Greenhouse Gas Emissions Reductions
- M North American On-line, Interactive Informational Platform on Climate Change

GREENING THE ECONOMY IN NORTH AMERICA

Improved Private Sector Environmental Performance in North America

- N Improving Conditions for Green Building Construction in North America
- O Improving the Economic and Environmental Performance of the North American Automotive Industry Supply Chain
- P Sound Management of Electronic Wastes in North America

<p>Improving Indoor Air Quality to Reduce Exposure to Airborne Contaminants, Including Fine Particulates and Chemical Compounds, in Alaskan Native Populations and other Indigenous Communities in North America</p>	<p>Operating Year(s): 2011–2012</p>
<p>Planned Budget: \$283,500 (2011); \$310,200 (2012)</p>	
<p>Strategic Priority/Objective: Healthy Communities and Ecosystems/Improved Environmental Health of Vulnerable Communities in North America</p>	
<p>Project Summary: <i>Improved indoor air quality: a pilot project to reduce the need for respiratory medical care in severely impacted children in Alaskan Native populations and in other indigenous communities in North America.</i> The project addresses acute and chronic respiratory conditions through interventions to reduce exposure to airborne contaminants in homes.</p> <p><i>Rationale:</i></p> <p>Studies show that a combination of substandard housing, overcrowding, poor indoor air quality, lack of indoor plumbing, and other environmental factors contribute to poor health outcomes in indigenous populations. Alaskan Natives experience a high burden of acute and chronic respiratory disease. One in four infants from one region of Alaska is hospitalized annually with acute respiratory infections, and hospitalization rates of respiratory syncytial virus (RSV) in infants are among the highest ever documented. Bronchiectasis, a chronic lung sequela of severe pneumonia that has nearly disappeared from the developed world, is still common among Alaskan Natives of this region. Similar environmental conditions and health effects are found in indigenous communities in elsewhere in North America.</p>	
<p>Environmental Outcome: By 2015, reduce by 30 percent the indoor airborne contaminants, including fine particulates and select chemicals of wood smoke combustion (levoglucosan, abietic acid, guaiacol and ethylguaiacol), that affect the health of the high risk group of affected children in indigenous communities in specific regions in Alaska. It is expected that the project will be replicated in appropriate communities in Canada and Mexico by 2015.</p> <p>In 2011–2012, the first stage of this pilot project, the Alaska Native Tribal Health Consortium’s (ANTHC) Division of Environmental Health Support, which provides comprehensive healthcare and public health services for over 220 Alaska Native Tribes and is the largest Tribally managed health organization in the US, will begin the activities listed to address the need for respiratory medical care among a very high risk group of Alaska Native children. ANTHC will develop a list of potential Alaskan project communities by September 2011. Canada and Mexico would have to develop their lists as well.</p>	
<p>Tasks necessary to reach the Environmental Outcome: 1) ANTHC will hire consulting staff to perform required activities and administer the program; 2) outreach to stakeholders, establish partnerships, identify individuals to plan interventions and assessments; 3) gather baseline data on sources of exposure; administer health questionnaires; 4) plan, design and conduct interventions; 5) provide evaluation and initial data analysis for report; and 6) share information.</p>	

Task 1: Increase ANTHCs capacity to address environmental health threats in targeted communities and specific regions in Alaska in compliance with ethics policies, and develop infrastructure to ensure sustainability of the project beyond CEC participation.				
Subtask	Project outputs	How does the subtask/output move the project towards the Environmental Outcome?	Timing	Budget (C\$) (activities)
1.1 Hire a project manager and assistant to perform air monitoring, oversee woodstove change outs and other interventions and administer the program.	Capacity to address airborne contaminants in the homes of Alaska Native people	Provides ability to complete project tasks	May–December 2011 January–May 2012	\$113,582 (salary & fringe) \$11,358 (indirect charge)
1.2 Obtain approval from the Indian Health Service Alaska Area Institutional Review Board; obtain support from participant communities; develop tools and materials; order materials and equipment for the future intervention; coordinate with partners; refine the overall approach. Other options, such as community assessment processes, will be explored to increase trilateral workability in the future.	IRB application and approval Consent of participant communities Securing of materials and equipment Written project plan	IRB approval and participant community consent ensure the project complies with ethics policies Coordination with partners ensure sustainability and effective use of resources	May–October 2011	\$5,746 (travel to regional tribal health organizations to request support for IRB approval; travel to villages to develop and test materials) \$6,000 (contract/purchase-development and production of education and outreach materials for use in subtask 4.2) \$42,071 (materials, supplies and equipment for use with subtasks 3.2 and 4.2 and related shipping/freight cost.) \$5,382 (indirect charge)
Task 2: Establish partnerships through outreach to stakeholders; identify appropriate individuals and communities.				
2.1 - Pre-Intervention Establish working partnerships with pulmonologists at the Alaska Native Medical Center to identify individuals suffering from the most severe respiratory health issues.	An understanding of communities where children are most severely impacted by respiratory disease from indoor exposures	Allows for focusing resources on creating healthy environments for the most at-risk individuals	May–October 2011	

<p>2.2 Contact communities to identify those who are both interested in the program and would likely benefit from the intervention. This may include communities with a high number of individuals living in homes with leaky woodstoves, poor or no ventilation, etc.</p>	<p>A list of communities in Alaska, Canada and Mexico with a high potential to benefit from the intervention</p>	<p>Improves ability to create effective interventions to mitigate harmful environmental exposures</p>	<p>July–September 2011</p>	<p>\$7,660 (travel to potential participant villages to request their support for the project) \$766 (indirect charge)</p>
<p>Task 3: Develop baseline data.</p>				
<p>3.1 - Baseline data Conduct a visual assessment of the home environment to identify likely sources of exposure</p>	<p>An assessment tool for identifying potential environmental exposures within the home that can be shared with other environmental health practitioners</p>	<p>Identifying key sources of exposure is essential for addressing these risk factors. This tool can also be disseminated for use in other communities.</p>	<p>November 2011–February 2012</p>	<p>\$3,191 (travel to remote villages to obtain baseline data) \$319 (indirect charge) Local contract option for all baseline data activities.</p>
<p>3.2 Collect baseline airborne contaminant data on the following parameters: -PM_{2.5} -Volatile organic compounds such as markers of wood smoke and formaldehyde. -Temperature, relative humidity, carbon dioxide</p>	<p>Baseline data analysis (internal report)</p>	<p>Baseline data will be used to design the intervention strategies and be compared to post-intervention data to measure the impact of the intervention</p>	<p>November 2011–February 2012</p>	<p>\$3,191 (travel to remote villages to obtain baseline data) \$11,100 (lab fees) \$750 (freight for shipping samples to lab) \$6,000 (local contract for assisting with data collection) \$ 2,104 (indirect charge)</p>
<p>3.3 Administer respiratory health questionnaires with the high risk individuals and those living in their households. The instrument may be piloted with early participants. This element will be contingent upon IRB approval to collect sensitive health data in a timely manner.</p>	<p>Baseline data analysis (internal report)</p>	<p>Baseline data will be used to design the intervention strategies and be compared to post-intervention data to measure the impact of the intervention</p>	<p>November 2011–February 2012</p>	<p>\$3,191 (travel to remote villages to obtain baseline data) \$319 (indirect charge)</p>

Task 4: Plan, design, and conduct interventions.				
4.1 - Planning the Intervention Analyze the baseline data and use this to design the most appropriate intervention strategy for each home. Ship materials and supplies to worksite.	Baseline data analysis (internal report) and recommendations for intervention design	This thorough baseline assessment will ensure that the intervention design is appropriate for the target population	December 2011–February 2012	
4.2 - The Intervention Implement the interventions. A combination of education, no-cost low cost and light home modifications will be used, with an emphasis on woodstove replacement and installation of ventilation systems in homes with failed heat recovery ventilations systems.	Implementation of interventions (e.g. woodstove change-outs, installation of ventilation systems, etc.)	Interventions will improve environmental conditions in identified homes.	December 2011–February 2012	\$5,746 (travel to villages to implement/facilitate interventions) \$15,454 (shipping/freight to transport equipment/materials/supplies from Anchorage to villages) \$12,000 (contract labor for assisting interventions) \$3,320 (indirect charge)
Task 5: Conduct evaluation and provide initial data analysis for report.				
5.1 - Evaluation Collect post intervention air quality and health data. Data will be collected on the same parameters as in the baseline phase for use in pre-post analysis.	Post-intervention data analysis (internal report)	Post-intervention data will be analyzed alongside baseline data to determine environmental and health impacts	February–March 2012	\$9,575 (travel) \$6,000 (local contract for assisting with data collection) \$1,558 (indirect charge)
Task 6: Share information with subsequent cohorts. (We anticipate that steps 2.1 through 5.1 will be repeated with 5 cohorts during the project period).				
6.1 - Closeout Enter data; refine materials and approach if needed; begin composing report to share with partners.	Post-intervention data analysis (internal report)	Results will be used to improve ongoing activities and leverage new/existing resources	April–May 2012	

<p>6.2 - Sharing Information</p> <p>Information about the project and its impact will be made available to environmental health practitioners and policymakers in Canada, Mexico and U.S. A demonstrated reduction in indoor air pollution and reduced need for respiratory care over the long term among this very high-risk group may facilitate broader interventions in North America.</p>	<p>A report describing the intervention’s methodology and impact at end of Year 1</p> <p>Materials and resources made available through distribution and the ANTHC website</p> <p>Presentation of project results (possibly via phone conference) for appropriate national-level officials from the three countries, to ensure relevance to North America.</p>	<p>Disseminating initial outcomes, lessons, and tools from this project may benefit other communities facing similar environmental health challenges and facilitate future dialogue and collaboration.</p>	<p>Summer 2012</p>	
<p>Task 7: CEC Secretariat project management and support</p>	<p>Coordination and communications with the ANTHC, Parties and other stakeholders, as appropriate (meetings, project communications, etc.)</p>	<p>Sharing of projects results to support the implementation of similar projects across North America</p>		<p>Meetings, teleconferences, publications, travel</p> <p>\$7,118 (2011) \$20,000 (2012)</p>

Explain how this project meets the selection criteria adopted by Council in the Strategic Plan (See below).

The goal of all projects funded by the CEC will be to support the efforts of the Parties to conserve, protect and/or enhance the North American environment. The following criteria will guide the Secretariat, Working Groups, Committees, and other appropriate officials of the Parties in considering cooperative activities for Council approval under operational plans. These selection criteria do not apply to activities funded through the NAPECA grant program.

- **Does the project contribute to achieving Council’s strategic objectives as described within the current Strategic Plan, or as related to other priorities subsequently confirmed by Council? How?**

Yes. This project is submitted under the Healthy Communities and Ecosystems priority of the CEC Strategic Plan, strategic objective #1: Improved Environmental Health of Vulnerable Communities in North America. The project contributes to Council’s achieving strategic objective by working directly with targeted tribal and native communities with demonstrated respiratory health needs that are directly related to environmental hazards through the use of a woodstove as the primary heating source in the households resulting in improved indoor air quality. The project addresses acute and chronic respiratory conditions through interventions to reduce exposure to airborne contaminants in homes.

- **Are the proposed objectives North American in scope? In other words, how are the proposed results relevant to protecting the environment in North America?**

By identifying specific Tribal and First Nations and indigenous communities in each of the three countries in North America, we are seeking to address environmental health issues that may be different in each instance, but are often the result of similar circumstances related to poverty, substandard housing, unsafe indoor air, insufficient sanitation infrastructure or other environmentally related issues. All of these communities, no matter where they are located, can be greatly helped by interventions in their environmental conditions, elimination or reduction in harmful environmental exposures, and subsequent improved health outcomes. Lessons learned through this project will be shared and the model developed through our pilot project in Alaska will serve as a guide for subsequent projects in Canada, Mexico, and other parts of the United States

Furthermore, the Environmental Health Research Division of the First Nations and Inuit Health Branch, Health Canada is interested in the outcomes of this project as it is focused on the engagement of First Nations and Inuit stakeholders in the project. The project is focused on an issue of much relevance to northern communities in Canada. The approach proposed by the project will be informative in helping us to better scope out the future modalities of our work in undertaking indoor air quality research and/or intervention studies in collaboration with key Indigenous stakeholders.

Finally, federally-acknowledged US Indian Tribes, including those proposed for this project, will engage directly with the US government through a government-to-government relationship. As such, the results of this project will be brought forward trilaterally by the US at a meeting of appropriate national-level officials from the three countries, to ensure relevance to North America.

- **Does the project identify specific clear and tangible results that will be achieved and how progress toward each result will be measured over time?**

The project will include three evaluation methods: process evaluation, environmental impact evaluation, and human health and behavior change evaluation. Pre- and post-intervention air quality and health data will be collected and analyzed to determine intervention effectiveness with each cohort. Baseline airborne contaminant data will be collected for PM₁, PM_{2.5}, respirable PM₁₀ and total PM size fraction, volatile organic compounds, formaldehyde, temperature, relative humidity, and carbon dioxide. A visual assessment of the home environment will be conducted to identify likely sources of exposure, and a respiratory health questionnaire will be administered to all household occupants.

The sampling strategy and the 30% reduction target were informed by a similar program carried out on the Nez Perce Reservation in Idaho.
- **Is the CEC the most effective vehicle for the Parties to undertake the project, considering:**
 - **The value-added of doing it under the CEC cooperative program**

ANTHC has a history of collaboration with counterpart agencies, but has not had the resources and capacity to use this important relationship to its full potential. A CEC cooperative program would encourage international collaboration and support resource-sharing and cooperative learning.
 - **Any other public, private or social organizations that work on such activities and opportunities to cooperate and/or leverage resources with such organizations**

Partners may include the Bureau of Indian Affairs, the Alaska Office of Housing and Urban Development, the Northwest Pediatric Environmental Health Unit, the Canada Pediatric Environmental Health Specialty Unit at Misericordia Community Hospital in Edmonton, Alberta, Canada, the US Environmental Protection Agency (Region 10), Alaska Housing Finance Corporation, the USDA, the Denali Commission, multiple Healthy Homes workgroups, and others. The actual organizations in Canada & Mexico will be identified in subsequent years.
- **Does the project propose a clear timeline for implementation of the activities, including a target end date for CEC's involvement? Where applicable, describe how the work will continue after CEC involvement ends?**

The project is estimated to take place over four years, beginning in 2011. See table above for when specific activities fall into this time frame; most activities will take place in an ongoing manner over the four years, as we plan to conduct the project interventions with up to seven cohorts over the period to continually address acute and chronic respiratory conditions. ANTHC's existing and continued environmental and public health work in Alaska will help to sustain this project past CEC's involvement, which is expected to end in 2015. Cohorts in Canada and Mexico will be identified in subsequent years through the involvement of the appropriate Tribal, First Nations, state, provincial and local governments and stakeholders.
- **Where applicable, does the project identify with reasonable specificity:**
 - **Linkages with other relevant CEC projects, past or present, in order to create synergies, capitalize on experience, or avoid duplication?**

This project could link with the North American Pediatric Environmental Health Specialty Unit Network. Last year, council created a unit in Guadalajara, Mexico, a resource of environmental health professionals with pediatric and occupational expertise designed and equipped to provide information to communities and health care professionals on the prevention, diagnosis, management and treatment of illness in

children related to environmental exposures and conditions. The Network has units in Canada, Mexico, and the United States (as well as in other countries).

- **The target audience, as well as its receptivity and capacity to use the information that may be produced as a result of the project?**
The target audience for this proposal includes indigenous populations and Native Villages and public health, environmental health, and housing workers in rural Mexico, Alaska and Canada, which are to be identified in subsequent years through the participation of the appropriate Tribal, First Nations, state, provincial and local governments and stakeholders.
The work will begin by addressing dire environmental health challenges in Alaska Native Villages. ANTHC has a longstanding presence in Alaska Native Villages, thus has developed trust with community members, which ensures the likelihood of receptivity and success of the proposed activities. Many villages have already been organized and working to address environmental health issues in their communities, thus will be positioned well to receive and use the resources available through this project. The existing capacity and expertise among ANTHC's community health aides will also support the roll-out of this work.

- **The beneficiaries of capacity building activities that the project may include?**
The beneficiaries would include residents of local communities the housing workforce, school staff, regional health corporations, and other environmental and human health staff who seek at address health issues in indigenous populations in the three countries.

- **The relevant stakeholders, with particular attention to communities, academia, NGOs and industry, and their involvement and contribution to a successful outcome.**
Relevant stakeholders and partners in this project include Alaska's 220+ Native Villages and their tribal councils and regional health corporations, Alaska Offices of Housing and Urban Development (HUD), the US Department of Agriculture (USDA), and the US Environmental Protection Agency (EPA), the Denali Commission, the Alaska Energy Authority, the North American Network of Pediatric Environmental Health Specialty Units, and the Alaska Housing Finance Corporation. Additional key stakeholders and potential partners in all three countries will be identified as appropriate. For Canada, key stakeholders include Canadian Territorial Governments and Inuit Tapiriit Kanatami (ITK).

ATTACHMENT 1

ANTHC Budget Justification OP 2011–2012, Project: Improving Indoor Air Quality to Reduce Exposure to Airborne Contaminants, including Fine Particulates and Chemical Compounds, in Alaskan Native Populations

Salaries and Wages:				
Position	Annual	Time	Months	Amount Requested
Project Manager, (New Hire)	\$94,800	80%	12	\$75,200
<i>Job Description:</i> This person will be responsible for performing daily activities necessary to achieve project objectives, including project management, home assessment, air monitoring and administration of respiratory health surveys.				
Project Assistant (New Hire)	\$51,000	20%	12	\$10,200
<i>Job Description:</i> This person will assist the Project Manager with air sampling and home assessment, project coordination and data entry.				
Program Director	\$135,150	10%	12	USPHS In-kind contribution
<i>Job Description:</i> This person will provide advanced technical assistance and project oversight. Research and IRB support. Ensure grant conditions are met. *The ANTHC also receives in-kind research, statistics and data management support from the CDC Arctic Investigations Program.				
Fringe Benefits:				
Position	Salary	% of Salary	Total Fringe	
Project Manager	\$75,200	33%	\$24,816	
Project Assistant	\$10,200	33%	\$3,366	
Program Director	\$135,150	0%	USPHS In-kind contribution	
Travel:				
Position	# Trips	Unit Cost	Cost Breakdown	Total Travel
Project Team	20	\$1,915	- Airfare to regional hub= \$480 - Airfare to village= \$450 - 5 nights lodging= \$500 - 5 days per diem= \$430 - 5 days parking= \$55	\$38,300

<p><i>Travel Justification:</i> Most villages can only be accessed by small airplane. It typically requires two air segments to reach a village from Anchorage. Air travel will be required to coordinate with tribes, air and health data collection, home assessments, education, home interventions, etc. This estimate assumes work will be performed in five villages during the first year, with four trips per village.</p>				
Home Modifications:				
Item	# Units	Unit Cost	Cost Breakdown	Total
Combined Interventions	~15	\$5,605*	- Woodstove purchase= \$775* - Freight= \$1030* - Installation materials= \$300 - Other (ventilation, mold, etc.)= \$1500 - Local hire labor= \$2000	\$84,075*
<p><i>Justification:</i> Home interventions will be customized to the needs of the specific home and family. Average costs are presented. *Costs for stove purchase and shipping increased recently as project timing does not allow for EPA to purchase the stoves. [4/28/11 m.berger]</p>				
Sampling Supplies:				
Item	# Units	Unit Cost	Cost Breakdown	Total
Sampling Supplies	15	\$1,020	- Hobo Monitors= \$230 - Canister Sampling (2/unit)= \$740 - Sampling shipment= \$50	\$15,300
<p><i>Justification:</i> Items will be used to perform pre-post air sampling to determine effectiveness of the intervention on reducing exposure to air toxics.</p>				
Total Direct Costs				\$251,257
Total Indirect Costs (10%)				\$25,125
Year 1 Total Request				\$276,382
<p>Year 2 Request (For Year 2, we estimate that overall project costs will increase by ~5%. If costs do not increase as expected and/or if process efficiencies are realized, any savings will be used to increased the number of homes where work will be performed. This would include additional travel, intervention supplies and labor and sampling supplies.)</p>				\$290,201

Capacity Building to Improve the Environmental Health of Vulnerable Communities in North America		Operating Year(s): 2011–2012
Planned Budget: C\$177,000 (2011); C\$175,000 (2012)		
Strategic Priority/Objective: Healthy Communities and Ecosystems/Improved environmental health of vulnerable communities in North America		
Project Summary:		
<p>It is well established that environmental contamination can have a significant effect on human health. It is also well established that many variables directly or indirectly influence an individual’s susceptibility and sensitivity to environmental hazards. That is, some individuals may be more susceptible to a given environmental stressor, or more sensitive to the hazard it causes, making such individuals more vulnerable to the risks posed by the stressor. The same can be said for populations or groups of people.</p> <p>Many environmental health risks are preventable or can be mitigated. Accordingly, the utilization of variables that influence the vulnerability of individuals, communities or populations in combination with other information (e.g., emissions data, ambient air quality conditions) enable one to characterize the vulnerability as it relates to a particular community, population, or subpopulation. This characterization will allow the identification of risk mitigation activities. The project can serve as a powerful tool to raise awareness of environmental health risks in the pursuit of community-based initiatives.</p> <p>In support of the CEC Council’s stated objective to support improvements to the environmental health of vulnerable communities in North America, the goal of this project will be achieved by leveraging and building on:</p> <ul style="list-style-type: none"> • existing tools (in Canada and the US, for example, AIRNow-International ambient air monitoring data collection, analyses and dissemination to decision-makers and the public; Canada’s Air Quality Health Index, Heat Alert Response System, new Environmental Health Guide, tools kits and training modules for health care practitioners and in the US, for example, Community Action for Renewed Environment Resource Guide) • data sources [e.g., the CEC’s <i>Taking Stock Online</i> tool provides integrated North American pollutant release and transfer data and is annually updated; for inventory of NAM sources developed by the CEC/SMOC see http://www.cec.org/Storage/84/7965_QA08_38-NP-NA_Monitoring_Initiatives-final_en.pdf • best practices 		
Environmental Outcome: To provide individuals throughout North America (with a focus especially on particularly vulnerable populations such as children and indigenous communities) the capacity to make more informed decisions about how to protect their health from environmental contaminants and global hazards, by enabling identification of potential health risks and the actions that can be taken to mitigate them.		
Tasks necessary to reach the Environmental Outcome:		
<ol style="list-style-type: none"> 1. Continue activities aimed at integrating North American ambient air monitoring network data and information under the AIRNow-International (AIRNow-I) system to improve the quality and public access to ambient air quality conditions information. 2. Establish project steering committee (i.e., an advisory group for the implementation of Tasks 3-6). 3. Develop analytical blueprint (project plan) for completing the project. 4. Hold workshop to discuss and refine draft outline of the framework document. 5. Develop draft framework document 6. Develop final framework 		

Task	Project outputs	How does the subtask/output move the project towards the Environmental Outcome?	Timing	Budget (C\$) (activities)
Task 1 Continue activities aimed at integrating North American ambient air monitoring network data and information under the AIRNow-International (AIRNow-I) system to improve the quality and public access to ambient air quality conditions information				
Subtask 1.1 Establish trilateral steering committee specifically for Task 1, and conduct initial meeting to review existing approaches used by the US, Canada, and Mexico in the development of Air Quality Indices to inform the public about air quality conditions and possible health impacts, and to determine means by which to achieve comparability in the use of AIRNow-I in North America.	Creation of a task 1-specific diverse, trilateral steering committee, which will develop a road map for consistent North American use of AIRNow-International, and realization of consequent benefits. (Note: This Task 1 steering committee should not be confused with the overall project steering committee described below under Task 2.	Sets the stage for achieving comparability among our three countries, and provides the continued training necessary to build capacity in Mexico's systems' O&M, data analyses, dissemination, and AQ indices	Late Summer 2011	2011: \$7,000 (for face-to-face meeting)
Subtask 1.2 Build capacity through training programs in Mexico for federal, state and local officials on pilot locales in system maintenance; data collection and analysis; and dissemination of air quality indices that are consistent with and comparable to those of the US and Canada.	Improved, sustained and comparable data quality of ambient air monitoring information in Mexican pilot locales for public dissemination and use in air quality management planning.	Through pilots, implementation of systems will produce comparable monitoring and data collection operations, analyses and dissemination, informing remaining locales in system development, and the nation in AQ index consistent with those in Canada and the US.	Late 2011 and Early 2012	2011: \$60,000 2012: \$60,000
Task 2: Establish project steering committee (i.e., an advisory group for the implementation of Tasks 3–6) Convene project steering	The steering committee serves as an advisory group for the project. Ideally, the steering committee should be trilateral and diverse in composition (i.e., composed of individuals that represent government, industry,	Necessary step. It establishes a governing body for the project. The role of the steering committee is to provide advice and guidance to help ensure successful	One month	\$5,000 (for teleconference calls, and cost of interpreters)

committee	the CEC, public interest groups, etc., across North America).	completion of the intended project outcome.		
<p>Task 3: Develop analytical blueprint (project plan) for completing the project</p> <p>Develop project plan or analytical blueprint for completing the deliverable of this project [i.e., a framework document for building capacity among individuals throughout North America (with a focus especially on particularly vulnerable populations such as children and indigenous communities), to make more informed decisions about how to protect their health from environmental contaminants and global hazards, by enabling identification of potential health risks and the actions that can be taken to mitigate them.]</p>	<p>Provides a tangible, prescriptive plan (road map) for completing the project. The final version will set forth the strategic approach that will be followed in developing the framework document. The analytical blueprint will provide the specific project tasks, and the names of the individuals/organizations assigned to take the lead on the tasks.</p> <p>The primary output of this task is the development of an analytical blueprint with which the steering committee concurs.</p>	Serves as a road-map for reaching the project objective	2011, within two months following completion of Task 1	\$15,000 For teleconference calls (includes cost of translation and interpretation of any documents)
<p>Task 4: Hold workshop to discuss and refine draft outline of the framework document</p>	<p>The purpose of the workshop is to solicit ideas and thoughts from subject matter experts, stakeholders, NGOs, etc., to discuss draft framework outline.</p> <p>The workshop should identify any essential elements that may be missing from the framework outline.</p> <p>A draft outline of the framework document will be prepared in advance of the workshop.</p>	<p>Obtains input from subject matter experts early on in the process</p> <p>Establishes a final version of the outline for the framework document</p> <p>Necessary before Step 4 (development of draft framework document) can be initiated</p>	<p>In 2011, within three months of Task 2 completion</p> <p>In 2011, within one month after the workshop</p>	<p>\$90,000</p> <p>Includes costs of:</p> <ul style="list-style-type: none"> - conference calls for workshop planning - workshop facilitator - translation/interpretation services - rental of venue space and equipment - travel and lodging expenses of about 15 participants - note takers

	<p>Workshop participants will be asked to comment on/discuss the draft outline.</p> <p>Discuss outcome of the workshop with the Steering Committee.</p> <p>Discuss and obtain concurrence from the Steering Committee on any changes made to the draft outline of the framework document.</p>	<p>Helps to ensure that a high quality framework document will be developed</p>		
<p>Task 5: Develop draft framework document</p> <p>Initiate development of draft framework document.</p> <p>Submit draft framework for review (original workshop participants included in review).</p> <p>Request that reviewers include in their review of draft framework any recommendations for: a) follow-up work and b) how the framework can be used.</p>			<p>In 2012, within four months of Task 3 completion</p>	<p>\$90,000 [Includes the cost of two international conference calls (at \$5K per call), and cost of translators]</p>
<p>Task 6: Develop final framework</p> <p>Revise draft to make final framework.</p>			<p>In 2012, within two months of Task 4 completion</p>	<p>\$25,000</p>

Explain how this project meets the selection criteria adopted by Council in the Strategic Plan (See below)

The goal of all projects funded by the CEC will be to support the efforts of the Parties to conserve, protect and/or enhance the North American environment. The following criteria will guide the Secretariat, working groups, committees, and other appropriate officials of the Parties in considering cooperative activities for Council approval under operational plans. These selection criteria do not apply to activities funded through the NAPECA grant program.

- Does the project contribute to achieving Council's strategic objectives as described within the current Strategic Plan, or as related to other priorities subsequently confirmed by Council? How?

Yes, most certainly. The first of three trilateral priorities of the Strategic Plan of the Commission for Environmental Cooperation 2010–2015 is "Healthy Communities and Ecosystems." A major objective (Strategic Objective #1) of this priority is to improve the environmental health of the vulnerable communities in North America.

- *The deliverables of this two-year effort will be a framework document for building capacity among individuals throughout North America (with a focus especially on particularly vulnerable populations such as children and indigenous communities), to make more informed decisions about how to protect their health from environmental contaminants and global hazards, by enabling identification of potential health risks and the actions that can be taken to mitigate them, and progress in the development and consistency of air quality indices across North America to inform the public about air quality conditions and possible health impacts.*

- Are the proposed objectives North American in scope? In other words, how are the proposed results relevant to protecting the environment in North America?

Once completed, this framework document is intended to be used by Mexico's Ministry of Environment and Natural Resources; Environment Canada; Health Canada; the United States Environmental Protection Agency; other relevant agencies of the Parties and the Commission for Environmental Cooperation, as the foundation for the development of different types of products that provide individuals throughout North America the capacity to make more informed decisions about how to protect their health from environmental contaminants and global hazards, by enabling identification of potential health risks and the actions that can be taken to mitigate them.

The outcome from this project is also expected to improve data quality of ambient air monitoring information for public dissemination and use in air quality management planning through North America

- Does the project identify specific clear and tangible results that will be achieved and how progress toward each result will be measured over time?

The deliverable of this two-year effort will be a framework document that can be used as a basis for building capacity among individuals throughout North America (with a special focus on such particularly vulnerable populations as children and indigenous communities), for more informed decisions about how to protect their health from environmental contaminants and global hazards by enabling identification of potential health risks and the actions that can be taken to mitigate them.

The above table provides details on how the framework document will be developed and how the progress of its development will be measured.

- Is the CEC the most effective vehicle for the Parties to undertake the project, considering:
 - The value-added of doing it under the CEC cooperative program
 - Any other public, private or social organizations that work on such activities
 - Opportunities to cooperate and/or leverage resources with such organizations

Yes, absolutely. There is no better vehicle than the CEC for the Parties to undertake this project. The project, by its very nature, is North American-centric. In addition, there are many public interest groups, environmental justice organizations, environmental journalism organizations that focus on this particular project activity. There is no doubt that they would be interested in cooperating with this effort. The subject matter of this project was a major theme at the recent US EPA's annual TRI National Training Conference, and the CEC's annual PRTR meeting, both of which were held in Washington, DC, in November of 2010.

- Does the project propose a clear timeline for implementation of the activities, including a target end date for CEC involvement? Where applicable, describe how the work will continue after CEC involvement ends?

The initial objective of this project (i.e., CEC involvement) is achievable within a two-year timeframe. The results of this undertaking, however, may very well foster other projects of mutual interest to Mexico, Canada and the United States, and, therewith, may compel further CEC involvement.

Once completed, this framework document is intended to be used by Mexico's Ministry of Environment and Natural Resources; Environment Canada; Health Canada; the United States Environmental Protection Agency; or other relevant agencies of the Parties and the North American Commission for Environmental Cooperation, as the foundation for the development of different types of products that provide individuals throughout North America the capacity to make more informed decisions about how to protect their health from environmental contaminants and global hazards, by enabling identification of potential health risks and the actions that can be taken to mitigate them. The products could include easy to use, replicable methodologies made available in the form of computer applications or a user guide that provides an approach for assessing the vulnerability of a community to the risks posed by environmental contamination or global hazards, and steps that can be taken to mitigate such risk. Such a user guide could include one or more case studies that illustrate how the guide can be applied. Other deliverable options could be: an internet-based module that brings together available tools or databases; or a computerized tool that draws upon other datasets and information sources, and enables the user to input information to assess vulnerability.

- Where applicable, does the project identify with reasonable specificity:
 - Linkages with other relevant CEC projects, past or present, in order to create synergies, capitalize on experience, or avoid duplication?
 - The target audience, as well as its receptivity and capacity to use the information that may be produced as a result of the project?
 - The beneficiaries of capacity building activities that the project may include?
 - The relevant stakeholders, with particular attention to communities, academia, NGOs and industry, and their involvement and contribution to a successful outcome?

In addition to the organizations mentioned above, other organizations, such as public interest groups, may find the framework document useful for the same purposes as well.

This project is directly linked to the CEC as follows:

- *Aligns with Strategic Objective no. 1 and capacity building objectives, including language around health professionals and "supporting virtual training networks and evaluating best practices;"*
- *Leverages past CEC projects (such as SMOC inventory cited above), and current CEC projects, such as the CEC's PRTR Project*
- *Could also incorporate existing PRTR dataset thereby responding to CEC Council, JPAC and stakeholders views to better utilize this information;*
- *Could also tie into SMOC/Greening Economy work*

In order to create synergies and capitalize on experience, project proponents will consider, to the extent practicable, the incorporation of new and emerging technologies, as advised by the Joint Public Advisory Committee. Furthermore, to avoid duplication, existing frameworks from the three countries will be reviewed. Finally, with regard to capacity of the target audience to use the results of this work, project proponents will seek to develop tools, both on- and offline, pursuant to the advice of the JPAC, and recognizing that the development only of online methods may not be useful to communities that do not have the resources to access them.

North American Grasslands: Management Initiatives and Partnerships to Enhance Ecosystem and Community Resilience		Operating Year(s): 2011–2012
Planned Budget: 2011 - C\$285,000 2012 - C\$305,000		
Strategic Priority/Objective: Healthy Communities and Ecosystems/Increased resilience of shared ecosystems at risk		
<p>Project Summary:</p> <p>Grasslands are recognized as perhaps the only true continental biome in North America and are arguably the region that is most at risk due to impacts from a host of human activities. This at-risk nature is reflected in the large number of species that have been identified under national endangered species legislation in all three countries. In order to address threats and their impact on the region’s biodiversity, sustainable management practices that enhance biodiversity conservation and production in grassland ecosystems are slowly emerging. A focus on agricultural production using grassland ecosystems has been identified as being key to the survival of species in the region. Recommended sustainable grazing practices are expected to produce multiple benefits for biodiversity—including sustainability, water conservation, and habitat for native species. In the process, not only will healthy human and biological communities result, but also sustainably produced products, such as beef, will represent a green approach to industry and the high capacity for grasslands to sequester carbon, and will then contribute significantly to a low-carbon economy. To date, best management practices and actions have been lightly developed, poorly coordinated and are not explicitly linked to research that demonstrates the biodiversity value and sustainability of these practices. This proposal provides this value-added and will build a legacy of information for producers and the communities they represent as well as lasting partnerships at regional, national and continental scales to ensure ongoing development of sustainable practices. The expected timeframe is for 2011–2012 for this proposal (extension to 2015 is possible should funds become available), and focuses on establishing strong networks and developing information to disseminate and implement best sustainable and biodiversity enhancing management practices across North America’s most threatened terrestrial ecosystem. The project combines community-level involvement, multi-agency partnerships, research and monitoring to develop and demonstrate incentives for landowners to support grassland conservation.</p>		
<p>Environmental Outcome:</p> <p>Enhanced ecological integrity and sustainability of North American grassland biodiversity will result by engaging communities, developing partnerships and sharing sustainable management practices for producers on rangelands that will benefit their economic activities as well as the viability of this critical ecosystem. In Canada alone, 21 million hectares are in production as natural or tame seeded pastures which make up about one-third of all agricultural lands. Through the actions proposed in the coming two years of this project, the foundation will be laid to increase the number of hectares that are managed in a way that supports overall biodiversity. Activities occurring in the years following this work should show an increasing trend in lands being managed sustainably. Legacy products will include a continental-level partnership that is functional at national and regional levels, the ability to engage and inform ranchers and other producers on the economic and biodiversity benefits of adopting sustainable practices, recognition of priority conservation areas, an understanding of the economic value of healthy grassland ecosystems, and an integrated monitoring system to measure progress.</p>		
<p>Tasks necessary to reach the Environmental Outcome:</p> <ol style="list-style-type: none"> 1. Coordinate, synthesize and disseminate information and experiences that already exists in ranching and other related activities on the landscape into guidelines and best management practices that can be used for the promotion of sustainable production. 2. Initiate a continental partnership to identify and implement actions for grassland conservation at regional, national and continental levels. 3. Monitor recovery of birds in the grasslands as indicators of overall biodiversity health to better understand the linkages between recovery and conservation actions. Adoption of this approach using birds recognizes that the status of species occupying various ecological niches reflects the condition of biodiversity as a whole and will indicate both successful recovery of grasslands as well as areas where conservation concerns persist. 4. Conduct research to confirm the economic, green and low-carbon benefits of adopting sustainable rangeland practices and other conservation measures in the grasslands. 		

Task 1: Coordinate, synthesize and disseminate information and experiences that already exists in ranching and other related activities on the landscape into guidelines and best management practices that can be used for the promotion of sustainable production				
Subtask	Project outputs	How does the subtask/output move the project towards the Environmental Outcome?	Timing	Budget (C\$) (activities)
1.1 Compile, develop where needed, and distribute best practices of sustainable management	Wide dissemination of guidelines and beneficial practices for maintaining resilient grassland landscapes to local communities Uptake of best management practices by the ranching industry	Develops a set of common practices to promote sustainable grazing, production, wildlife management and water use Provides a framework for sustainable and holistic ranging	2011–2012	2011 - \$70,000 2012 - \$75,000
Task 2: Initiate a continental partnership to identify and implement actions for grassland conservation at regional, national and continental levels				
Subtasks	Project outputs	How does the subtask/output move the project towards the Environmental Outcome?	Timing	Budget (C\$) (activities)
2.1 Identify appropriate partners (governmental, nongovernmental, local communities) to participate in regional, national and continental networks. This partnership will use existing habitat conservation structures where possible such as those developed under the North American Bird Conservation Initiative.	Meetings of experts and partners, including Joint Ventures, UMAs, Natural Protected Areas, and the new Mexican conservation partnership (Regional Alliance), <i>Alianza Ecoregional para la Conservación de Pastizales del Desierto Chihuahuense</i> Establishment of appropriate networks	Develops an expanded and consolidated network of partnerships to coordinate more effective and efficient conservation and sustainable management actions.	2011–2012	2011 - \$50,000 2012 - \$50,000
2.2 Identify joint actions for the partnerships to undertake to enhance biodiversity and improve management practices.	Prioritization of actions and best practices to achieve sustainable management of grasslands	Provides a continental approach to conservation and management	2011	2011 - \$15,000
2.3 Identification of pilot projects and actions at the regional, national and continental scales.	Tools and practices that support conservation and sustainable management	Aim to demonstrate adaptive management practices that enhance biodiversity	2011	2011 - \$10,000
2.4 Review previously identified Priority Conservation Areas for prioritization for targeted conservation actions.	Land managers, including First Nations, will be made aware of the importance of their areas to biodiversity and are given the tools necessary to support biodiversity.	Ensures communities are armed with the knowledge of the importance of their lands and the means by which they may manage them in support of biodiversity	2011–2012	2011 - \$20,000 2012 - \$30,000

<p>Task 3: Monitor recovery of birds in the grasslands as indicators of overall biodiversity health to better understand the linkages between recovery and conservation actions. Adoption of this approach using birds recognizes that the status of species occupying various ecological niches reflects the condition of biodiversity as a whole and will indicate both successful recovery of grasslands as well as areas where conservation concerns persist.</p>				
Subtasks	Project outputs	How does the subtask/output move the project towards the Environmental Outcome?	Timing	Budget (C\$) (activities)
3.1 Conduct monitoring of bird populations and compile and coordinate information at a continental scale.	Data on distribution, abundance, habitat use and spatiotemporal patterns of migratory bird populations to guide strategic habitat conservation. Existing programs such as the Breeding Bird Survey will be used to the extent possible.	Determines population status and biotic and abiotic requirements of native grassland bird species reflecting the same for biodiversity as a whole	2011–2012	2011 - \$65,000 2012 - \$70,000
3.2. Disseminate results of monitoring in each year that data are collected.	Revised scientific guidance	Informs conservation actions and management activities	2011–2012	2011 - \$5,000 2012 - \$20,000
3.3 Develop action plans for the recovery and conservation of priority species and their habitats and enhance ongoing action plans.	Integrate and implement best practices through joint networks	Provides data and actions to enhance biodiversity throughout the grasslands	2011	2011 - \$5,000
<p>Task 4: Conduct research to confirm the economic, green and low-carbon benefits of adopting sustainable rangeland practices and other conservation measures in the grasslands.</p>				
Subtasks	Project outputs	How does the subtask/output move the project towards the Environmental Outcome?	Timing	Budget (C\$) (activities)
4.1 Conduct study on incentives and practices for preservation/ restoration/management of grassland and associated economic benefits.	Analyses of cost-benefits of various management strategies in terms of biodiversity and production	Informs development of practices that improve economic performance and biodiversity conservation	2011–2012	2011- \$35,000 2012 - \$30,000
4.2 Scope out the need for economic valuation of rangelands managed to the standard outlined in best management practices versus those managed using conventional approaches.	Data collected will outline the economic benefits stemming from ecological goods and services provided by healthy grasslands including those provided by carbon sequestration	Will provide data to confirm economic benefits of adoption of green, best management practices	2012	2012 - \$30,000

4.3 Compilation and distribution of best practices of sustainable management	Dissemination of practices that provide incentives for improved economic performance and enhanced conservation	Examples of "win-win" scenarios that link economic and ecological benefits	2011	2011 - \$10,000
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Explain how this project meets the selection criteria adopted by Council in the Strategic Plan (See below)

The goal of all projects funded by the CEC will be to support the efforts of the Parties to conserve, protect and/or enhance the North American environment. The following criteria will guide the Secretariat, Working Groups, Committees, and other appropriate officials of the Parties in considering cooperative activities for Council approval under operational plans. These selection criteria do not apply to activities funded through the NAPECA grant program.

- Does the project contribute to achieving Council’s strategic objectives as described within the current Strategic Plan, or as related to other priorities subsequently confirmed by Council? How?

This project addresses the “Healthy Communities and Ecosystems” priority, and strategic objective #2, “increased resilience of shared ecosystems at risk.” The project will help build capacity among the three countries for ecosystem-based management in our only continentally shared terrestrial ecosystem. Specifically, the project focuses on:

- *Wide dissemination of guidelines and beneficial practices for maintaining resilient grassland landscapes to significantly improve the status of biodiversity and manage them for sustainable grazing and water use.*
- *Uptake of best management practices by the agricultural sector for more sustainable and holistic management of rangeland habitats.*
- *Consolidated network of a continental grassland conservation group to coordinate more effective and efficient conservation actions.*
- *Expanded number of North American communities, inclusive of First Nations, acting as partners in conservation efforts.*
- *Visibly healthier habitat for migratory birds and other biodiversity.*
- *Improved well-being of natural and human communities associated with the grasslands.*

The project has a geographic focus on the grasslands, noted as a priority ecosystem in the CEC Strategic Plan.

- Are the proposed objectives North American in scope? In other words, how are the proposed results relevant to protecting the environment in North America?

The tall and short grass ecological regions of North America are the most threatened ecosystems on the continent and are of significant economic, ecological, and cultural importance to Canada, Mexico, and the United States. Grassland birds, perhaps one of the best indicators of the precipitous decline of grassland ecosystems, have declined more than any other group of North America birds and their survival is dependent on inter-connected habitats in Canada, Mexico and the United States. The project provides an integrated approach to enhanced conservation and economic performance of local communities by uniting interest and user groups and providing scientific information on habitat requirements for native species.

- Does the project identify specific clear and tangible results that will be achieved and how progress toward each result will be measured over time?

The project specifies clear and tangible results that will be measured over time, including the establishment of a continental alliance for grassland conservation, the compilation, dissemination and uptake of best management practices by local communities, as well as the monitoring of bird populations that will act as indicators of overall biodiversity health.

- Is the CEC the most effective vehicle for the Parties to undertake the project, considering:
 - The value-added of doing it under the CEC cooperative program
 - Any other public, private or social organizations that work on such activities
 - Opportunities to cooperate and/or leverage resources with such organizations

The CEC is uniquely positioned to support the Parties in achieving their goal of maintaining resilient ecosystems across North America. Accelerated conservation actions in grasslands regions could help slow the highest rate of natural habitat conversion of any other terrestrial ecological region in North America, help address the current levels of water stress, and allow options for species survival under changing climatic regimes. The CEC has also been a leader in supporting the identification of grassland priority conservation areas, developing a North American protected area database, and continental land cover map; products that support an accurate and comprehensive understanding of land use, carbon storage potential and conservation priorities for the grasslands.

It is expected that CEC funding for this project will facilitate the amalgamation of work already being carried out by a variety of partners in the public and private sectors. Included in this work is all of the upland habitat work being undertaken by Habitat Joint Ventures in the United States and Canada and the new Regional Alliance in Mexico, the work of BirdLife International partners at grassland Important Bird Areas in all three countries, and the work being undertaken by Industry Associations in all three countries. This proposal aims to coordinate and enhance this work underway by developing a mechanism cooperation using a framework of partnerships and common goals. Each partner comes with unique abilities to access funding from a number of sources, thus, the facilitation provided by CEC funding will allow partners to focus their resources on the conservation objectives of this partnership.

- Does the project propose a clear timeline for implementation of the activities, including a target end date for CEC's involvement? Where applicable, describe how the work will continue after CEC involvement ends?

While the current proposal is intended to be carried out in 2011 and 2012, many of the objectives will set up an environment for forward progress based on momentum established in meeting the objectives of this plan. While achieving the results of this project will be a positive step forward for the conservation of North American grasslands, a key role of the new North American Grasslands Alliance will be to use funds provided by the CEC to leverage additional funds, with the aim of enhancing the capacity to deliver grassland conservation and enhance the likelihood that the alliance can become a long-term presence and voice for grassland conservation. In this light, should such funds become available, there could be a need to support ongoing efforts through to 2015 to ensure the secure establishment of the alliance. The tasks will put in place strong continental partnerships, best practices for sustainable management and economic performance, the necessary scientific information to understand population trends for indicator species and conservation actions to enhance biodiversity. These activities will become legacies that will be mainstreamed into regional practices using the partnerships and linkages established by project end.

- Where applicable, does the project identify with reasonable specificity:
 - Linkages with other relevant CEC projects, past or present, in order to create synergies, capitalize on experience, or avoid duplication?
 - *This project builds on a number of previous CEC projects and thereby provides value added to work already supported by the CEC. Included are the CEC's 2003 Grasslands Conservation Strategy, the Priority Conservation Areas identified in the grasslands in the 2010 North American Atlas, as well as the Continentally Important Projects and monitoring capacity resulting from the CEC-initiated North American Bird Conservation Initiative. It also builds on work done for species of common conservation concern (SCCC) and the work program for 2008–2010 to support grassland conservation in northern Mexico.*
 - The target audience, as well as its receptivity and capacity to use the information that may be produced as a result of the project?

- *The project targets conservation organizations/institutions as well as practitioners on the landscape with an emphasis on ranchers and other rangeland managers. Included will be key NGOs such as the American Bird Conservancy, the World Wildlife Fund, BirdLife International Partners (Nature Canada, National Audubon, and Pronatura), the Rocky Mountain Bird Observatory; government agencies such as Semarnat, Conabio, US Fish and Wildlife Service, US Forest Service and Environment Canada and industrial representatives such as the Canadian Cattlemen's Association and the National Cattlemen's Beef Association. Each member of this target audience has indicated that it is receptive to contributing to the goals of this project and it is anticipated that they thereby use the products of this work towards meeting conservation goals.*
- The beneficiaries of capacity building activities that the project may include?
 - *It is anticipated that each of the target organizations listed above will benefit from the proposed work that will contribute in some way to their overall goals and mandates. In addition, individual ranchers and ranching communities will be expected to benefit from this work should they adopt sustainable practices which could increase the value of their product while reducing their costs for irrigation and feed.*
- The relevant stakeholders, with particular attention to communities, academia, NGOs and industry, and their involvement and contribution to a successful outcome.
 - *For this project to be successful, many of the participants will also be stakeholders since any successful alliance requires participation of those with a direct interest in successful outcomes. In this project, stakeholders include individual land managers, ranching and other industry associations, federal and state/provincial government agencies, and conservation organizations as indicated above.*
 - *Specifically, interested participants and supporters to date include the national wildlife agencies of all three countries, the North American Bird Conservation Initiative Trilateral Committee, Conabio, the US Forest Service, the Alianza Ecoregional para la Conservación de Pastizales del Desierto Chihuahuense, the Sonoran Joint Venture, the Rio Grand Joint Venture, the Prairie Habitat Joint Venture, the Nature Conservancy, the World Wildlife Fund, Pronatura, and the Canadian Cattlemen's Association, among others. Each brings essential and divergent experience and capacity that will be critical to the success of this effort.*
 - *Pursuant to the advice received from the JPAC, project proponents will also explore significant opportunities for partnership with other like-minded organizations, where practicable.*
 - *This project focuses on new areas strongly aligned with the new CEC strategic plan such as informed decision-making on a range of issues of common concern, such as sustainable management of landscapes to maximize benefits to human communities and wildlife, protecting species of common conservation concern, wildlife habitat and ecosystem health. In addition, the project will increase community-level awareness and the engagement and capacity in biodiversity conservation and sustainable use, through the establishment of networks with relevant actors from government, the private sector, and civil society, which help maintain resilient ecosystems.*
 - *The project links well with the Carbon Sources, Storage and Corridors: Information to Quantify and Manage for Greenhouse Gas Emissions Reductions project, as healthy grassland ecosystems are highly effective stores of atmospheric carbon.*

Big Bend-Río Bravo Collaboration for Transboundary Landscape Conservation/North American Invasive Species Network		Operating Year(s): 2011–2012
Planned Budget:	2011 C\$509,000 2012 C\$584,000	
Strategic Priority/Objective: Healthy Communities and Ecosystems/ Increased resilience of shared ecosystems at risk and (secondarily) Improved environmental health of vulnerable communities in North America		
Project Summary:		
<p>Strategic Objective 2 includes the concept of building collaboration among multiple agencies for improved management of transboundary landscapes. This is an important innovation in the new Strategic Plan for the CEC—reflecting a growing global trend to direct conservation efforts on the landscape scale—particularly to address growing stressors like the impacts of climate change on biodiversity and ecosystems. The current project centers on conserving the unique biological diversity in the Big Bend-Río Bravo region of Mexico and the US, using sound scientific data on challenges to ecosystem resilience to address the region's growing vulnerability to biodiversity loss and ecosystem degradation, and providing a model for collaboration among different decision-makers and partnerships focused on transboundary conservation work in other areas.¹ The North American Invasive Species Network (NAISN) support of the Big Bend-Río Bravo Collaboration for Transboundary Landscape Conservation Project will allow future extension of data-sharing protocols and best management practices to other multi-jurisdictional landscapes and landscape projects, such as the US-Canada border parks partnership.²</p> <p>In addition, the tasks identified for the NAISN (Tasks 6 and 7), will develop trilateral capacity to build on national and trilateral activities that are already underway to develop capacity and collaboration among agencies and partners for improved understanding and management of transboundary landscapes, seascapes and watersheds. NAISN is a consortium that uses a coordinated network to advance science-based understanding of, and effective response to, non-native invasive species in North America (http://www.naisn.org/).</p> <p>NAISN's future efforts will include assessing resources, quantifying impacts, identifying thresholds, and supporting informed decision-making on a range of issues of common concern, such as conserving native biodiversity and the prevention of non-native invasive species introductions that threaten North America's environment. Information on locations and expected spread of invasive species underpins management actions for sustaining community resources and development. Without shared data and models to predict the introduction and spread of invasive species, local communities risk the loss of biodiversity and the increased cost of production (and loss of productivity) for agriculture, forestry and mariculture, as well as the loss of ecosystem functions and risks to human, plant and animal health.</p>		
Environmental Outcome:		
<u>Big Bend/Río Bravo</u>		
<p>Improve ecosystem functioning and increase the resiliency of 250 river miles of the Rio Grande/Río Bravo (from Ojinaga, Chihuahua, Mexico/Presidio, Texas, USA, to Amistad Reservoir) and Chihuahuan Desert grasslands in the Big Bend-Río Bravo region. This includes, by 2015:</p> <ul style="list-style-type: none"> • river rehabilitation/restoration projects to enhance and maintain habitat and biodiversity; 		

¹ The National Park Service, the US Fish and Wildlife Service, US Geological Survey, and Texas Parks and Wildlife Department recently agreed to form the Big Bend Conservation Cooperative (BBCC). The BBCC is working with more than 30 conservation partners in the US and Mexico to formalize and organize a developing binational partnership, tentatively named the Big Bend-Río Bravo Conservation Cooperative (BBRBCC), to foster healthy ecosystems and communities along the border by increasing the resilience of ecosystems at risk

² There will be two separate groups of officials to coordinate the work related respectively to the Big Bend and invasives components of the project.

- doubling the river miles of Rio Grande-Río Bravo riparian habitat treated to remove invasive vegetation and increasing native plant species in treated areas by 50 percent;
- increasing biodiversity in riparian and aquatic habitats;
- improving the status of the endangered Rio Grande silvery minnow;
- recruiting additional landowners for implementing grassland restoration; and
- increasing economic resiliency and environmental health of rural communities while protecting ecosystems, by encouraging citizen involvement in binational conservation efforts.

North American Invasive Species Network (NAISN)

This component will put science into action by reducing the risks and impacts from invasive species in Canada, Mexico, and the United States. It will prevent the introduction of invasive species in the region and contribute directly to sustaining healthy ecosystems that provide essential ecosystem services and resources for growing vibrant communities in North America.

Tasks necessary to reach the Environmental Outcome:

Big Bend/Río Bravo

1. Expand existing conservation partnership to include more partners in Mexico and to increase the ability to coordinate and implement conservation efforts in the US and Mexico.
2. Develop a science-based binational conservation strategy for rehabilitation of the Rio Grande/Río Bravo.
3. Conduct scientific studies of the Big Bend Reach of the Rio Grande to define relationships between geomorphology and invasive species
4. Expand strategic planning and implementation of exotic and invasive species management.
5. Facilitate the development of sustainable economic and social tools for integrating the local communities of Boquillas, Coahuila, Mexico, and others along the border, with the binational conservation strategies for the Big Bend/Río Bravo region.

Additional activities also necessary to reach the environmental outcome for out-year funding or funding by other partners:

- Complete Rio Grande/Río Bravo Science Plan (this is currently funded and underway).
- Establish baseline understanding of sediment, invasive species and biodiversity in the Rio Grande and relevant US tributaries to the Rio Grande.
- Develop a binational strategy for conservation of the Rio Grande/Río Bravo
- Continue to restore the Rio Grande silvery minnow to the Big Bend reach of the Rio Grande/Río Bravo.
- Continue biodiversity studies on the Rio Grande/Río Bravo.
- Continue sediment and river studies on the Rio Grande/Río Bravo to inform adaptive management of river ecosystem health.
- Conduct water quality studies to be able to understand and remediate water quality issues.
- Implement pilot projects to mechanically restore Rio Grande/Río Bravo channel by improving sediment dynamics and increasing habitat diversity in

selected areas.

- Continue to implement grassland restoration on public and private lands.
- Work with public and private land managers and researchers to develop and implement a series of landowner workshops to demonstrate effective grassland restoration techniques.
- Expand existing Chihuahuan Desert grassland bird monitoring in the Big Bend-Río Bravo region.
- Expand surveys and field work related to endangered and rare bat populations, habitats, and human dimensions.
- Continue to implement research, monitoring, and conservation actions related to rare and endangered species.
- Coordinate with US Department of the Interior (DOI) and Semarnat partnerships to assess and address climate change related to natural resource management.
- Prepare and plan for the reintroduction of desert big horn sheep and pronghorn antelope, including control of auodad/barbary sheep.
- Establish means to limit impacts, such as grazing and disease transmission, related to domestic livestock in sensitive species and habitats, including developing and implementing protocols and procedures for response to and control of animal diseases.
- Conduct environmental education and outreach related to binational conservation strategies for local citizens and tourists.

North American Invasive Species Network (NAISN)

6. Enhance network collaboration in NAISN through increased information sharing via the Global Invasive Species Information Network (GISIN) and the Early Detection and Distribution Mapping System (EDDMapS) and other partners.
7. Implement community-based prevention, early detection-rapid response, and management of invasive species.

Task 1: Expand existing conservation partnership to include more partners in Mexico and to increase the ability to coordinate and implement conservation efforts in the US and Mexico

Subtasks	Project outputs	How does the subtask/output move the project towards the Environmental Outcome?	Timing	Budget (C\$) (activities)
1.1 Engage additional conservation partners in Mexico and the US. Conduct facilitated/translated bilingual technical meetings to share information, discuss annual priorities and work plans, and seek opportunities for increased cooperation, including travel assistance for partners in Mexico and the US:	Growth and development of binational partnership through active participation of Semarnat relevant agencies and officials: Conanp (Natural Protected Areas in Big Bend-Río Bravo Initiative), INE (Conservation and Border Issues Area), Wildlife General Direction, Conagua, IBCW and through addition of at least three major Mexican NGOs, and at least one	As we are building this international partnership, it will be imperative that we occasionally have in person meetings. Facilitated and translated bilingual technical meetings designed to assist cooperators in learning how to better communicate about technical projects and issues in both English and Spanish will improve our ability to function as a binational team and ultimately to identify, strategize for, and achieve our	2011–2012	2011 - \$38,000 2012 - \$60,000

<ul style="list-style-type: none"> • Binational coordination meeting for monitoring natural resources and rare species • Binational technical team meeting related to the development and implement of scientific studies to inform adaptive management of river ecosystem health • Annual meeting and conference of the BBCC/BBRBCC 	<p>Mexican University Facilitated/translated bilingual technical meetings to share information, discuss annual priorities and work plans, and seek opportunities for increased cooperation, including travel assistance for partners in Mexico and the US:</p> <ul style="list-style-type: none"> • Binational coordination meeting for monitoring natural resources and rare species • Binational technical team meeting related to the development and implement of scientific studies to inform adaptive management of river ecosystem health • Annual meeting and conference of the BBCC/BBRBCC 	<p>shared conservation goals.</p>		
<p>1.2 Increase ability to hold teleconferences and communicate over the Internet by outfitting major partners in the US and Mexico with equipment to enhance online meetings and webinars.</p>	<p>Major partners in the US and Mexico will be outfitted with computer-linked cameras, microphones, and software to enhance online meetings and webinars.</p>	<p>The ability to use technology to hold meetings online will save travel costs and reduce greenhouse emissions. The ability to meet more frequently without having to travel will enhance our effectiveness and efficiency in planning and implementing conservation actions.</p>	<p>2011</p>	<p>2011 - \$10,000</p>
<p>1.3 Conduct stream restoration course focused on the Río Grande/Río Bravo for BBRBCC partners.</p>	<p>Provide an overview of hydrologic, sediment transport, geomorphic, and ecological principles applicable to</p> <ol style="list-style-type: none"> (1) assessment of stream channel condition (2) developing approaches to stream management and restoration (3) evaluating project performance. <p>The course emphasizes the inter-</p>	<p>This course will ensure that BBRBCC conservation partners working on conservation of the Rio Grande/Río Bravo have a strong scientific understanding of riverine processes and restoration upon which management decisions can be made.</p>	<p>2011</p>	<p>2011 - \$30,000</p>

	relatedness of hydrology, hydraulics, sediment transport, geomorphology, aquatic ecology, fisheries, and riparian ecology.			
1.4 Develop and maintain a website for the BBRBCC to be used for both internal and external outreach, communication, and information sharing.	Develop and maintain a website for the BBRBCC, to be used for both internal and external outreach, communication, and information sharing.	A website will help us to more effectively communicate with each other, integrate communities and stakeholders into the partnership, and increase our opportunities for implementing conservation actions.	2011–2012	2011 - \$12,000 2012 - \$5,000
1.5 Plan and implement a series of public meetings in Mexico and the United States on ecosystem services and river management to provide information to communities and other stakeholders and identify shared conservation priorities. Public meetings would be focused on riverside communities and river and water users within the Big Bend/Río Bravo region.	Provide information to communities and other stakeholders and identify shared conservation priorities. Public meetings would be focused on riverside communities and river and water users on the Rio Grande/Río Bravo.	Public meetings will assist us in further identifying and understanding the conservation priorities and concerns of the communities we work in. This information can then be integrated into the work of the BBRBCC, including developing scientific studies for the Rio Grande and relevant tributaries in the interest of reducing flooding impacts on communities and restoring ecosystem health.	2011–2012	2011 - \$31,000 2012 - \$25,000
Task 2: Develop a science-based binational conservation strategy for rehabilitation of the Rio Grande/Río Bravo				
Subtasks	Project outputs	How does the subtask/output move the project towards the Environmental Outcome?	Timing	Budget (C\$) (activities)
2.1. Develop a Conservation Strategy for the reporting on the state of science on the Rio Grande/Río Bravo, identifying information gaps, and building consensus on priority resources, desired future conditions, and a strategy for achieving them.	A Conservation Strategy consisting of: 1. An assessment of scientific knowledge describing the state of science on the Rio Grande/Río Bravo, identifying prioritized resources to be protected by reach and the desired future condition (DFC) for each resource, and a prioritized list of hypothesis-driven process/response studies to relate	The Conservation Strategy will compliment the Rio Grande/Río Bravo Science Plan (currently being written), and will provide a scientific foundation that will allow stakeholders to describe a shared vision of the river and develop a prioritized series of "next steps" that guide future research to fill data/information gaps and more clearly define the binational conservation strategy for rehabilitation of the Rio Grande/Río Bravo. The strategy will	2011 Development of Report and conduct binational meeting to develop consensus vision and prioritized research needs.	2011 - \$25,000
2.2 Evaluate and describe the conservation status on the Rio Grande/Río Bravo. Identify			2012 Implement scientific	2012 - \$60,000

<p>priority resources and processes in critical reaches (as identified in the Binational Conservation Strategy for the Rio Grande/Río Bravo).</p>	<p>conservation status of management action. 2. Proposed preliminary plan for implementing scientific studies identified in above outcome (see number 1).</p>	<p>also describe critical monitoring objectives.</p>	<p>studies related to conservation strategy.</p>	
<p>Task 3: Conduct scientific studies of the Big Bend Reach of the Rio Grande/Río Bravo to inform adaptive management of ecosystem health.</p>				
Subtasks	Project outputs	How does the subtask/output move the project towards the Environmental Outcome?	Timing	Budget (C\$) (activities)
<p>3.1 Construct a GIS database, with maps and reports, of the human infrastructure and inundation potential of the river valley from Presidio to La Linda, TX, and key physical attributes of the river valley, as well as links to available scientific data and imagery via a web portal.</p>	<ol style="list-style-type: none"> 1. An evaluation of the effects of sediment transport on priority resources and processes in critical reaches of the Rio Grande/Río Bravo. 2. A GIS database and information sharing portal. 3. Sediment monitoring program on the Rio Grande/Río Bravo. 4. A pilot study of the fate and transport of tributary supplied gravel. 	<p>Generally, this task and subtasks will allow us to better understand the relationship between sediment dynamics and invasive riparian vegetation, water quality, and flood flow routing</p> <p>The GIS database will ensure that all partners are operating with similar understandings of resource condition and with the same data foundation. A suspended sediment budget will help guide conservation and vegetation management efforts for the Rio Grande/Río Bravo.</p>	<p>2011</p> <p>Create GIS database. Install suspended sediment gage.</p>	<p>2011 - \$35,000</p>
<p>3.2. Establishment and analysis of sediment study program for the Rio Grande/Río Bravo. This will be integrated into ongoing suspended sediment monitoring. This will be conducted in concert with suspended sediment monitoring conducted on the main stem by other partners.</p>		<p>The gravel supply and transport study will help in the development of projects designed to reduce flood risk to infrastructure near key regional tributaries and enhance aquatic habitat.</p>	<p><u>2011</u></p>	<p>2011 - \$35,000</p>
<p>3.3. Conduct a pilot study of the fate of tributary supplied gravel, and mobilization potential by main stem flows.</p>			<p><u>2012</u></p> <p>Construct sediment budget of Rio Grande and tributaries, Measure gravel</p>	<p>2012 - \$90,000</p>

			supply and transport.	
Task 4: Expand strategic planning and implementation of exotic and invasive species management				
Subtasks	Project outputs	How does the subtask/output move the project towards the Environmental Outcome?	Timing	Budget (C\$) (activities)
4.1 Develop short- and medium-term work plan for binational management of invasive species.	Annual and five-year work plans for managing invasive plants and animals on both sides of the Rio Grande/Río Bravo corridor. Document and project area maps in Spanish and English.	Annual plans will direct short-term on-the-ground exotic species management actions to improve environmental conditions of the Rio Grande/ Río Bravo. Five-year plan will direct strategies, identify partners and potential funding sources, and build capacity for long-term exotic species management. Specific details for 2012 and out-year projects and methods (subtasks 4.2-4.3) will be outlined in work plans, outlined in the binational invasives strategy document.	2011	2011 - \$15,000
4.2 Establish baseline environmental conditions for long-term monitoring.	Field and satellite maps of invasive plant and animal species' distribution, spread of biocontrol agents, and riparian plant communities Will feed data into NAISN	Assessment of current conditions, distribution, and abundance of invasive species (1.2), new infestations (i.e., Ruta Critica - 1.3), and native plant communities will provide baseline for evaluating effectiveness of management actions (2.4, 2.5). Will build on and expand Rapid Assessment (1.1) methods currently underway on the Rio Grande/Bravo. Mapping of existing conditions (2.1), status (2.2), and effects (2.3) of biocontrol agents (saltcedar leaf beetle) will allow the most effective and efficient management tactics, strategies, and location of projects.	2011–2012	2011 - \$20,000 2012 - \$15,000

<p>4.3 Control invasive species in the Rio Grande/Río Bravo corridor.</p>	<p>Maintain the previously-treated 40 km of Rio riparian habitat and prevent re-invasion of invasive plants</p> <p>Control invasive species on an additional 20 km of river habitat</p> <p>Control of feral hogs in an additional 2000 ha of riparian habitat</p> <p>Development of local expertise and capacity in exotic species management</p> <p>Identify and mitigate damages of saltcedar biocontrol agent on shade trees</p>	<p>Maintenance-level exotic species control will prevent re-invasion of previously treated sites, and riparian habitat will be in improved environmental condition (3.1, 3.2).</p> <p>Large areas kept free of invasive plants will provide data into the role of riparian vegetation in sediment dynamics and geomorphology.</p> <p>Expand existing feral hog control from 6000 to 8000 ha (3.2).</p> <p>Involving local communities and work crews will build a knowledge and experience base (CEC subtask 5.5) to maximize future effectiveness and efficiency of invasive species management (3.2).</p> <p>Shade trees (up to 1000) susceptible to attack will be protected from unintended damage from saltcedar beetle (4.1, 4.2).</p>	<p>2011 (pilot projects, capacity-building)</p> <p>2012 (large-scale projects)</p>	<p>2011 - \$15,000</p> <p>2012 - \$90,000</p>
<p>4.4 Identify and evaluate sites and methods for intensive habitat restoration</p>	<p>Map, description, and restoration prescriptions for sites with significant restoration potential</p>	<p>Plans and methods will be in place for out-year or other fund sources for habitat restoration (5.1).</p>	<p>2012</p>	<p>2012 - \$10,000</p>
<p>Task 5: Facilitate the development of sustainable economic and social tools for integrating the local communities of Boquillas, Coahuila, Mexico, and others along the border, with the binational conservation strategies for the Big Bend/Río Bravo region</p>				
<p>Subtasks</p>	<p>Project outputs</p>	<p>How does the subtask/output move the project towards the Environmental Outcome?</p>	<p>Timing</p>	<p>Budget (C\$) (activities)</p>
<p>5.1. Identify stakeholders and facilitate partnerships amongst citizens, government agencies, companies, NGOs, and academia in the US and Mexico.</p>	<p>Draft Sustainable Economic Development and Environmental Outreach Plan for Boquillas, Coahuila, Mexico, and other communities along the border.</p>	<p>The rural riverside communities of the transboundary region are generally low-income and lack the resources to develop sustainable economic opportunities. This project facilitates the development of resilient economies and</p>	<p>2011</p>	<p>2011 - \$32,000</p>

5.2. Inventory existing infrastructure and economic capacity in Boquillas, Coahuila, Mexico.	Implement the initial phase of the Plan as related to the opening of the Boquillas Crossing, including facilitation of training for local citizens related to: increasing the binational workforce for conservation actions, Boquillas-based boat operators, and CPR/first aid for local ecotourism guides.	environmental health for rural communities while protecting ecosystems by encouraging citizen involvement in binational conservation efforts. Facilitate opportunities for integrating the sustainable economic development of local communities with binational conservation priorities by developing a local workforce to implement conservation actions will promote values in the local community that are consistent with long-term conservation, promulgate environmental education for locals and tourists, and generate money via fee collection for conservation work in the protected areas in Mexico.	2011	2011 - \$15,000
5.3. Assist CONANP and NPS in compiling binational citizen input concerning sustainable economic development related to binational conservation strategies and the opening of Boquillas Crossing.			2011	2011 - \$15,000
5.4. Synthesize stakeholder input into a draft Sustainable Economic Development and Environmental Outreach Plan.			2011	2011 - \$12,000
5.5 Facilitate capacity building and training of local citizens related to integrating sustainable development with binational conservation strategies.			2012	2012 - \$60,000
North American Invasive Species Network (NAISN):				
Task 6: Enhance NAISN/GISIN backbone for web-based information sharing				
Subtasks	Project outputs	How does the subtask/output move the project towards the Environmental Outcome?	Timing	Budget (C\$) (activities)
6.1 Training and outreach for NAISN's data providers	Semi-annual online training sessions for NAISN data providers, using the GISIN platform	<ul style="list-style-type: none"> Improve capacity for data management and increase data interchange and cooperation among Network participants. Increase awareness of the Network will improve organizations' response to invasive species. 	2011–2012	2011 - \$13,000 2012 - \$13,000

6.2 NAISN technical support	Technical assistance for users of the GISIN data aggregator system	<ul style="list-style-type: none"> • Outreach and communication improves user confidence in the Network. • Improve capacity to respond to Network's information needs. 	2011–2012	2011 - \$46,000 2012 - \$46,000
6.3 NAISN system development	Improved capacity for data exchange, based on the GISIN platform	<ul style="list-style-type: none"> • Effective decision support through achievement of adequate information infrastructure. 	2011–2012	2011 - \$55,000 2012 - \$55,000
6.4 Mirror GISIN database on EDDMapS – combine data	NAISN distribution data security	<ul style="list-style-type: none"> • Provides backup security and additional service capacity for users; doubling the number of occurrence data records (2.6 million) for users across North America. 	2011–2012	2011 - \$15,000 2012 - \$15,000
6.5 Develop a comprehensive catalog of resources available across the NAISN network.	Catalog of resources available on each NAISN node's website	<ul style="list-style-type: none"> • Provides users a choice of information for detection and management of invasive species. 	2011–2012	2011 - \$10,000 2012 - \$10,000
6.6 NAISN virtual meetings	Face-to-face meetings using webinar technology	<ul style="list-style-type: none"> • Provides additional users access to the latest technology developments and training for users unable to receive onsite training. 	2011–2012	2011 - \$10,000 2012 - \$10,000

North American Invasive Species Network (NAISN):

Task 7: Implement community-based prevention, early detection-rapid response, and management of invasive species

Subtasks	Project outputs	How does the subtask/output move the project towards the Environmental Outcome?	Timing	Budget (C\$) (activities)
7.1 Extend existing efforts to local communities.	Training and field technical assistance by phone and webinar	Extend and create 'train the trainers' course based upon Great Lakes Indian Fish and Wildlife Commission web services (http://www.glifwc.org/invasives/)	2011	2011 - \$10,000
7.2 Two-day workshops in Mexico and Canada; lessons learned from Big Bend	Field use of NAISN data and modeling information to teach the trainers for other community-based prevention and EDRR projects	<ul style="list-style-type: none"> • Take training team to local community field sites selected by partners in Mexico and Canada – to share current successful examples, 	Nov 2012	2012 - \$20,000

		such as: <ul style="list-style-type: none"> • (http://www.for.gov.bc.ca/hra/Plants/application.htm) • (http://www.evergladescisma.org/) 		
7.3 Workshop on lionfish detection, eradication and control: Laguna Madre and western Gulf of Mexico	Training course tailored to marine and aquatic management of invasive species	Training workshop for on-the-ground resource managers to guide them in setting priorities for detection, eradication and control within marine environment Collaborative effort with marine protected area (MPA) organizations	2011	2011 - \$10,000

Explain how this project meets the selection criteria adopted by Council in the Strategic Plan (See below)

The goal of all projects funded by the CEC will be to support the efforts of the Parties to conserve, protect and/or enhance the North American environment. The following criteria will guide the Secretariat, Working Groups, Committees, and other appropriate officials of the Parties in considering cooperative activities for Council approval under operational plans. These selection criteria do not apply to activities funded through the NAPECA grant program.

Does the project contribute to achieving Council’s strategic objectives as described within the current Strategic Plan, or as related to other priorities subsequently confirmed by Council? How?

This project addresses the “Healthy Communities and Ecosystems” priority, and the strategic objective #2, “Increased resilience of shared ecosystems at risk.”

Big Bend/Río Bravo

This project would advance the CEC’s strategic objective #2: Increased resilience of shared ecosystems at risk. The Big Bend/Río Bravo region is internationally recognized for its unique biodiversity and landscape form. The long-term ecological integrity of this region is challenged by a range of factors, such as climate change, drought, endangered species, and intensification of human activities, including urban and rural residential expansion, increased and diversifying recreational use, ever-greater extraction of natural resources such as water and minerals, and the growth of the physical infrastructure.

The health of the rural economies and indigenous communities in the Big Bend/Río Bravo region are highly linked to the natural resources of the landscapes. For example, in the Rio Grande/Río Bravo basin, with an over-allocated system and a rural population remote from normal infrastructure, communities are dependent upon a diminishing Rio Grande. Locally in the Rio Grande/Río Bravo basin, the communities of the transboundary region are generally low-income with poor access to health and security facilities and infrastructure and thus have fewer options for enacting adaptive response to stressors threatening the ecosystems upon which they depend. Work is already under way with local communities on both sides of the border in both regions to build capacity and enhance their ability to respond. However, climate change and population projections increase the need for a well-formed, science-based resource management approach that balances the immediate needs of stakeholders with the sustainability of landscape elements. This project will address landscape resilience issues by developing, implementing and sharing proven technologies and approaches.

North American Invasive Species Network (NAISN)

- *A crosscutting issue, invasive species directly affect three of the four strategic objectives identified by the Council.*
- *Preventing the establishment and spread of invasive species increases productivity and environmental health for many communities—for example, by reducing the threat of West Nile virus or sources of dermatological afflictions such as giant hogweed, a phototoxic plant. Its sap can cause phytophotodermatitis (severe skin inflammations) when the skin that has contacted it is exposed to sunlight or to UV-rays. Lionfish have toxic spines—the venom of the lionfish, delivered via an array of up to 18 needle-like dorsal fins, is purely defensive. However, a sting from a lionfish is extremely painful to humans and can cause nausea and breathing difficulties.*
- *Removal of invasive species contributes directly to the resilience of shared ecosystems at risk—for example, rare or vulnerable biological communities are at increased risk when invasive species take hold, for instance, as in many Hawaiian ecosystems. Prevention and removal of invasive species helps ensure healthy ecosystems and communities in North America and will have a direct effect on the success of other CEC projects focused on ecosystem and species' conservation.*

Are the proposed objectives North American in scope? In other words, how are the proposed results relevant to protecting the environment in North America?

Big Bend/Río Bravo

This project focuses on a key transboundary area in the North American landscape and can provide a solid basis for deriving a set of approaches, best practices, and lessons learned for multi-jurisdictional landscape-scale conservation efforts that can inform similar initiatives across North America.

This multi-jurisdictional area includes diverse species that migrate across national and state boundaries, federal, community and private lands, and are increasingly stressed by a changing climate. Conserving functional habitat connectivity at the scale that wildlife requires makes complementary conservation planning across such landscapes essential, yet multiple jurisdictional authorities make such planning a challenge. Confronting the challenges facing this treasured landscape will provide an important proving ground for landscape-scale conservation strategies elsewhere on the North American continent.

North American Invasive Species Network (NAISN)

- *The objectives of this proposal typify nearly all North American environments (marine, aquatic, and terrestrial) and are extremely relevant in preventing the entry and spread of invasive species to the region, building capacity across the region, and intended to contribute to the effort of maintaining healthy ecosystems and communities throughout the three countries.*
- *Due to its diversity, geographical position and level of trade, North America is a region particularly sensitive to the impacts of invasive species—a wide diversity of habitats in this region match the climatic envelopes of numerous countries of origin, enabling a large diversity of invaders to find a niche here. While much work has been accomplished, the efforts are not uniform across the region. Thus, a project of this kind will build on other efforts and boost current capacities.*

Does the project identify specific clear and tangible results that will be achieved and how progress toward each result will be measured over time?

Big Bend/Río Bravo

Expected results include a shared understanding of ecosystem dynamics among partners and the ability to quantitatively evaluate effects of alternative decision options under a variety of scenarios for multiple resources, all of which will build capacity to implement an ecosystem approach for informed management decisions and increased resilience of transboundary landscapes. All of this results in on-the-ground restoration of wildlife species, their habitats, their migrations, and the culture that connects people to this landscape and all of its ecological components. This project will demonstrate, through numerous community-based conservation initiatives and partnerships, that ecological integrity can be sustained and, where necessary, restored through scientific inquiry, community participation, land acquisition, best management practices, and regulation. This effort can serve as a worldwide model.

Project success will be measured ultimately by tangible improvements in ecosystem and biodiversity indicators identified by decision-makers and stakeholders and, in the short term, by the number and quality of products delivered as outlined in the task matrix above. The transboundary data which will be developed, combined with multiple stakeholder participation in identifying critical watersheds, habitats, corridors and species targeted for restoration, will be available for this and other projects and will assist in restoring healthy habitats, reducing risks of flooding and other vulnerabilities, and protecting species' migratory routes.

North American Invasive Species Network (NAISN)

- *The project specifies clear and tangible results that will be measured over time. On-the-ground projects are identified. In some cases, initial measures for project subtasks have not been set; however, they will be determined during the project period. One important measure of success will be the increased coverage of the NAISN database network, including the following indicators: number of occurrences, number of participating organizations, number of people trained to use NAISN/GISIN, and geographic coverage of the projects spawned by NAISN/GISIN.*
- *Each country will be able to define its own indicators of environmental success in using NAISN for decision making.*

Is the CEC the most effective vehicle for the Parties to undertake the project, considering:

- ***The value-added of doing it under the CEC cooperative program***

Big Bend/Río Bravo

This project directly responds to the CEC's strategic plan to approach conservation at an ecosystem level and build collaboration among multiple agencies to tackle the transboundary conservation of landscapes. While there is a diverse range of actors in the region, the CEC brings unique, neutral authority to convene multiple decision-makers and stakeholders from across jurisdictional lines and encourage them to embrace the paradigm shift that is needed to integrate conservation planning on a landscape scale. The CEC is also uniquely situated to assist the conservation

partners in the Big Bend-Río Bravo Region in building a model for a transboundary, landscape-scale conservation partnerships and identifying, extracting, and disseminating lessons learned from this effort for application in multi-jurisdictional landscapes across the continent.

By focusing on transboundary conservation, cooperation, and communication and identifying linkages between communities and science-based resource management organizations, such as the Landscape Conservation Cooperatives and the Climate Change Science Centers, the CEC's support for these efforts will produce and test in diverse settings a model that will demonstrate the feasibility and benefits of landscape-scale conservation cooperation and inform other transboundary conservation partnerships.

- Any other public, private or social organizations that work on such activities

Numerous federal, state, local and tribal authorities, NGOs and community organizations are key stakeholders in this landscape-level partnership. While we are seeking funding from various sources, we believe the CEC is particularly suited to support the tasks and subtasks identified in the table above, and critical to providing the seed funding to leverage other potential sources of funding.

- Opportunities to cooperate and/or leverage resources with such organizations

The CEC's contribution will be invaluable in leveraging other potential resources to contribute to this effort. We believe that private foundations, for example, may be interested in following the CEC's lead in investing in positive efforts to promote cooperation and conservation in North America's border regions as a way to promote a positive counterpoint to public concerns about the security risks plaguing our border areas in North America.

In the Big Bend-Río Bravo Region, other possibilities for contributing to a broader and global environmental success include:

Ihlet. *Sul Ross State University is participating in an international program known as Ihlet, which seeks to identify the ecological, social, and economic status of 12 international watersheds, the ecosystem services that contribute to the social-economic wellbeing of dependent communities, and ways to improve and sustain those communities. (<http://www.ihlet.org/index.php>)*

Global Environment Fund - *Texas State University and the University of Mexico are selected recipients for funds to be used to support conservation research and pilot projects in the Rio Grande Basin. A black bear project and exotic riparian vegetation control project are already on the approved list of projects.*

Climate Change Action Plan: (first phase funded by NOAA and Coca Cola; additional funding pending notification from NOAA)

The BBRBCC, with leadership from the World Wildlife Fund, has initiated the development of a Climate Change Action Plan. Working with the BBRBCC, WWF has submitted a second proposal to NASA for the next phase, which will focus on facilitating discussions about climate change and river management with local communities and creating linkages with climate change science organizations, such as the Desert LCC and Central CSC.

Climate Change, Land Cover Change and Priority Avian Habitats: Decision support for desert grassland conservation_(Rocky Mountain Bird Observatory proposal submitted to NASA, pending notification)

This project will provide guidance for the adaptation of conservation sites based on future habitat-climatic scenarios that affect the quantity, diversity and connectivity of Chihuahuan Desert grassland habitats due to climate change and human activity. The long-term outcome will be a strategy for prioritizing a network of key conservation areas for grassland birds and biodiversity in anticipation of future climate and habitat changes. This research can be directly incorporated into conservation strategies for bird species by federal and state agencies in the US and Mexico, Landscape

Conservation Cooperatives, Joint Ventures, and others. The US Fish and Wildlife Service, National Park Service, and Bureau of Land Management will directly participate in this project, providing a link between research and monitoring and on-the-ground management of DOI lands and programs.

North American Invasive Species Network (NAISN)

- The value-added of doing it under the CEC cooperative program: *Subject matter experts from Canada, Mexico and the US have identified the NAISN model as an ideal strategy for information-sharing to prevent the expansion of biological invasions. The CEC has been a key partner promoting new collaboration, and it has already raised awareness of the issue within a regional context.*
- Any other public, private or social organizations that work on such activities: *Previous projects at local and regional levels are the springboard for NAISN; this is the first effort to tie together the distributed past efforts into one network specifically designed to encompass the North American continent. NAISN is a unique model addressing a critical information gap identified by the SMEs. Invasive species are of global concern, recognized as the second most-significant cause of biodiversity loss, so all regional efforts will benefit a larger community that also needs information, and could benefit from successful North American experiences.*
- Opportunities to cooperate and/or leverage resources with such organizations: *NAISN has identified opportunities to leverage with GISIN, EDDMaps as well as other “hubs” across North America. See partners list:*
 - **NAISN Partners:**
 - *Center for Invasive Species & Ecosystem Health, GA US*
 - *Center for Invasive Plant Management, MT US*
 - *Institute for Biological Invasions, TN US*
 - *Northeast - Midwest Institute US*
 - *Great Ships Initiative, MI US*
 - *National Institute of Invasive Species Science, CO US*
 - *Invasive Species Research Institute Ontario, Canada*
 - *UF/IFAS Center for Aquatic and Invasive Plan*
 - *CONABIO, Mexico*
 - *Algoma Univ., Ontario, Canada*
 - *Canadian Aquatic Species Network, Univ. of Windsor, Ontario, Canada*
 - *Marine Invasive Research Lab, Smithsonian Environmental Research Center*
 - *US Federal & state agencies (NOAA, DOI/USFWS & USGS, USDA)*
 - *US National Invasive Species Council*
 - *US Aquatic Nuisance Species Task Force*
 - *Global Invasive Species Information Network*

Does the project propose a clear timeline for implementation of the activities, including a target end-date for CEC’s involvement? Where applicable, describe how the work will continue after CEC involvement ends?

Big Bend/Río Bravo

The BBRBCC is a developing partnership that will continue beyond CEC involvement. We are actively seeking funding from multiple sources to accomplish our conservation goals and will continue to do so.

North American Invasive Species Network (NAISN)

The project clearly outlines that the project will end in 2012. NAISN relies heavily upon volunteers. NAISN/GISIN need core funding to support the development phase (two years). It is expected that NAISN will diversify its sources of funding through the development of a funding strategy. A second project may be presented to CEC, however, with a much lower request for supporting the core capacity.

As CEC support ‘winds down,’ NAISN will rely on new financing and on the volunteer efforts. CEC funding will provide critical and timely support for NAISN as it continues to identify other sources of financial support throughout North America. NAISN and GISIN support a transparent organizational structure that guides and allows for participation by all members/partners of the Network. Both NAISN and GISIN work across geopolitical boundaries at appropriate geographical scales.

Where applicable, does the project identify with reasonable specificity:

- ***Linkages with other relevant CEC projects, past or present, in order to create synergies, capitalize on experience, or avoid duplication?***
- ***The beneficiaries of capacity building activities that the project may include?***
- ***The relevant stakeholders, with particular attention to communities, academia, NGOs and industry, and their involvement and contribution to a successful outcome.***

Big Bend/Río Bravo

This project will be complemented by the proposed projects on grasslands and invasive species. The continent-wide focus of those projects and the more place-based and community-level engagement focus of this proposal in a key transboundary subregion of North America are mutually reinforcing and will provide opportunities for synergy between these projects.

A wide range of communities, NGOs, and institutions in both landscapes are concerned about or engaged in conservation of rivers, watersheds, grasslands and other habitats. Within the last year the BBCC, for example, has supported, organized, or participated in more than a half dozen meetings where partners and stakeholders were able to participate in the identification of shared resource values. Funding under this proposal would assist in reaching out to a greater number of potential partners and communities in both Mexico and the US to inform them about the work of this partnership and integrate their ideas, concerns and/or data into the work.

North American Invasive Species Network (NAISN)

The target audience, as well as its receptivity and capacity to use the information that may be produced as a result of the project? *The target audience includes natural resource managers and leaders from local, state, provincial and federal agencies as well as NGOs and local citizens across North America. Managers and scientists need the information NAISN already collects to make on-the-ground and in-the-water decisions for conservation and increased productivity of fisheries and agriculture. Shared information is the first request made when users discover a new invasive species website – the core value of NAISN is to increase connectivity and provide scientific information in a timely and useful format for management decisions and action to prevent and control biological invasions.*

The beneficiaries of capacity building activities that the project may include? *The beneficiaries of NAISN projects include federal, state, provincial, tribal and local citizens. Community-based programs along coastal areas, reefs, protected areas, watershed conservancies and others will benefit from the information accessible in the NAISN distributed network of data providers. For example, a rancher may seek mapping applications to model the spread of weeds across the range, and find models available on NAISN to use for predicting the best management practices to use to reduce spread and increase range productivity. The linkages to NGO and governmental resources for management assistance will yield benefits to fisheries and agricultural interests. Managers of natural areas will be able to find documented success stories for early detection and rapid response to limit the impacts of newly discovered invasive species. Documentation of failed efforts will also inform managers on tribal, public and private lands and waters, providing management alternatives they can consider to reduce costs and increase effectiveness.*

The relevant stakeholders, with particular attention to communities, academia, NGOs and industry, and their involvement and contribution to a successful outcome. *Relevant stakeholders include: North American communities that depend on healthy and vibrant ecosystems for critical services and resources, e.g., subsistence communities, indigenous communities, land managers, ranchers and farmers, natural resource agencies, researchers, modelers, educators, organizations (NGOs) and industries that manage and depend on sustainable natural resources. Ranchers and farmers have fought weeds for centuries; fisheries biologists are increasingly attuned to the need to control invasive disease pathogens and competitive invasive species from similar habitats in other parts of the world. As species move from place to place by intentional and unintentional means, and at an accelerating rate, the importance of sharing information to limit the harm they cause only increases. Action taken today can greatly reduce the likelihood of invasion and limit the costs of irreversible change to North American ecosystems. NAISN serves that role: to put science into action to conserve biodiversity and to assure a more productive future for local communities.*

Engaging Communities to Conserve Marine Biodiversity through NAMPAN				Operating Year(s): 2011–2012	
Planned Budget: 2011 - C\$85,000					
2012 - C\$105,000					
Strategic Priority/Objective: Healthy Communities and Ecosystems/ Increased resilience of shared ecosystems at risk					
Project Summary: Local community engagement and support, science and monitoring are essential components of successful marine conservation initiatives. The North American Marine Protected Areas Network (NAMPAN) provides a mechanism to increase the engagement of coastal communities in marine biodiversity conservation through connections to local Marine Protected Areas (MPAs). NAMPAN is a proven partnership among Canada, Mexico and the United States that supports national efforts to conserve marine biological diversity through the development of a North American network of MPAs. MPAs are established for a wide range of conservation and sustainable use purposes, and provide a place-based focus for marine conservation efforts to engage with associated communities across the three countries. This proposal is for the 2011–2012 Operational Plan and focuses on two components to support the long-term viability of marine resources and coastal communities: 1) launch a community-based public education and awareness initiative about the role of MPAs in sustaining healthy oceans and coastal communities, in partnership with aquariums, science centers and research institutions; and 2) improve the ability of the three countries to design, manage and assess MPA networks nationally and at the continental scale by applying cutting-edge scientific guidance on expected climate change impacts on marine ecosystems. This project will last 12 months, beginning June 2011, and will be closed out June 2012.					
Environmental Outcome: Improve the health of marine resources in shared marine ecosystems of Canada, Mexico and the United States through expanded public education, awareness and involvement to support healthy oceans and communities, and providing scientific information on climate change impacts to inform the design and management of marine protected areas, with primary emphasis in the Atlantic ocean zone.					
Tasks necessary to reach the Environmental Outcome: 1) In partnership with learning institutions, foster citizen involvement in sustaining healthy oceans and communities through community-based public education. 2) Design and manage MPA networks informed by probable climate change impacts.					
Task 1: In partnership with learning institutions, foster citizen involvement in sustaining healthy oceans and communities through community-based public education					
Subtask	Project outputs	How does the subtask/output move the project towards the Environmental Outcome?	Timing	Budget (C\$) (activities)	
1.1 Develop education and outreach strategy in conjunction with Coastal Ecosystem Learning Centers (CELC, a network of aquariums and research facilities in the three countries) and other interested institutions.	Education and outreach strategy - Workshop with partner aquariums in the three countries to identify common messages, materials and strategies. - Draft messages, materials and strategies. - Short videos drawing on footage obtained from CELC and NAMPAN member agencies to be shown at video kiosks at member aquariums (including one on climate change	1. Develops set of common messages, materials and strategies about how MPAs help sustain healthy oceans and coastal communities. 2. Sets specific network-wide numeric targets for outreach and education (e.g., number of people reached, percentage indicating increased understanding) 3. Promotes changes in people's	2011–2012	2011 - \$60,000 2012 - \$65,000	

	<p>impacts and MPAs that will draw on the findings of Task 2). Test and evaluate materials.</p> <ul style="list-style-type: none"> - Specific, measurable education, outreach targets (TBD through strategy). 	<p>behavior toward the ocean, increasing societal engagement in the protection of coastal and marine ecosystems.</p>		
<p>Task 2: Design and manage MPA networks in light of climate change impacts (Note: See background on this task provided under the third selection criterion, below)</p>				
Subtask	Project outputs	How does the subtask/output move the project towards the Environmental Outcome?	Timing	Budget (C\$) (activities)
<p>2.1 Conduct peer review of draft guidance by two International Council for the Exploration of the Seas (ICES) working groups.</p>	<ul style="list-style-type: none"> - Peer review comments from two ICES working groups on the results of the initial workshop, held in November 2010 (May 2011). - Meeting of NAMPAN-ICES Steering Group to incorporate ICES comments as well as additional input from selected experts to provide broader MPA science and management input from the three countries and ensure that information being developed is applicable throughout the Atlantic-Caribbean region (summer/fall 2011). 	<p>Ensure that information being developed and distributed is scientifically credible.</p>	<p>2011–2012</p>	<p>2011 - \$3,000</p> <p>2012 - \$30,000</p>
<p>2.2 Disseminate the first draft scientific guidance on considerations for MPA network design and management in light of climate change through partnership with ICES.</p>	<ul style="list-style-type: none"> - Draft scientific guidance on considerations for Atlantic MPA network design based on the 2010 workshop report, peer review comments from two ICES working groups, and additional MPA science and management input (fall 2011) 	<p>Inform ongoing network design and management activities.</p>	<p>2011</p>	<p>2011 - \$6,000</p>
<p>2.3 Engage ICES working groups and other scientific experts to apply guidelines to identify <u>priority</u> habitats and species groups vulnerable to climate change impacts at their 2012 meetings.</p>	<ul style="list-style-type: none"> - ICES Annual Planning Meeting – subject to approval by ICES, develop workplan to apply draft guidelines to identify priority habitats and species groups vulnerable to climate change impacts (fall 2011) - ICES working group reports on identifying priority habitats and species groups (spring 2012). 	<p>Develop information needed by MPA managers to design and manage MPA networks in light of climate change and set priorities for focal areas (fall 2012). Because this project is a collaboration between NAMPAN and ICES, NAMPAN cannot impose unrealistic time constraints that established ICES peer-review working group processes and agendas cannot adopt.</p>	<p>2011</p>	<p>2011 - \$16,000</p>

2.4 Concluding workshop to review results, address gaps, and draft final guidance document for MPA planners and managers	- NAMPAN/ICES scientific workshop to synthesize and add to working group products, produce synthesis document of species and habitats vulnerable to climate change (June 2012).	Concluding workshop brings results and selected participants from prior workshops together to compile final science-based project report	2012	2012-\$10,000
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Explain how this project meets the selection criteria adopted by Council in the Strategic Plan (See below)

The goal of all projects funded by the CEC will be to support the efforts of the Parties to conserve, protect and/or enhance the North American environment. The following criteria will guide the Secretariat, Working Groups, Committees, and other appropriate officials of the Parties in considering cooperative activities for Council approval under operational plans. These selection criteria do not apply to activities funded through the NAPECA grant program.

- Does the project contribute to achieving Council’s strategic objectives as described within the current Strategic Plan, or as related to other priorities subsequently confirmed by Council? How?

This project addresses the “Healthy Communities and Ecosystems” priority and the Strategic Objective #2, “increased resilience of shared ecosystems at risk.” The project will help build capacity among the three countries for ecosystem-based management in our shared marine ecosystems. Specifically, the project focuses on building community-level awareness, engagement and capacity in biodiversity conservation and sustainable use; building, beyond 2012 if supported at that time, monitoring systems to assess and report on the results of conservation and management initiatives; and strengthening the scientific basis for designing and managing MPA networks in light of climate change. Project partners have education and outreach programs specifically designed to reach urban and underserved communities and indigenous people, providing a critical link for the CEC/NAMPAN project to these communities. The project has a geographic focus on the Atlantic Ocean Zone, noted as a priority ecosystem in the CEC Strategic Plan.

- Are the proposed objectives North American in scope? In other words, how are the proposed results relevant to protecting the environment in North America?

Yes. The United States, Canada and Mexico are committed to establishing national networks of MPAs, which must be linked at the continental scale in order to maximize their conservation benefits, particularly in transboundary regions and with regard to highly migratory species. This scale is also essential for the conservation of shared marine ecosystems among the three countries.

- Does the project identify specific clear and tangible results that will be achieved and how progress toward each result will be measured over time?

The NAMPAN-ICES Study Group on Designing Marine Protected Area Networks in a Changing Climate (SGMPAN) brought together topical experts from Canada, Mexico, and the United States in November 2010 in Woods Hole, Massachusetts, USA. The overall aim of SGMPAN was to develop general guidelines for MPA network design processes that adapt to and mitigate anticipated effects of climate change on marine ecosystems. A Final Report synthesizing various physical and biological characteristics of the Gulf of Mexico, Caribbean Sea (in the area around Puerto Rico and the US Virgin Islands), and Atlantic coast of the USA and Canada was completed in December 2010. The next step for SGMPAN will be to take the information in this report and develop it into more accessible scientific guidelines for MPA network and other marine spatial planning.

The project specifies clear and tangible results that will be measured over time, including members of the public reached through marine education program, and specific changes in understanding. In some cases, initial targets for project components have not yet been set, but will be set during the project period. The limited time frame is a constraint, particularly regarding Task 1, but initial discussion with the Coastal Ecosystem Learning Center (CELC) Executive Committee Co-chair has already taken place to scope what can be achieved.

- Is the CEC the most effective vehicle for the Parties to undertake the project, considering:
 - The value-added of doing it under the CEC cooperative program
 - Any other public, private or social organizations that work on such activities
 - Opportunities to cooperate and/or leverage resources with such organizations

The CEC provides the necessary institutional framework to coordinate the development and assessment of common guidance and strategies. In contrast to the situation for terrestrial protected areas, there is no other forum that draws together MPA program managers from the three countries. In addition, it provides the mechanism for Mexico to be officially engaged in the ICES partnership on designing MPA networks in light of climate change. NAMPAN will continue to coordinate with the Trilateral Committee on Wildlife and Ecosystem Conservation on matters of shared interest, but leadership for this effort should remain under the CEC, which has the appropriate scale, mission and expertise to support the project.

- Does the project propose a clear timeline for implementation of the activities, including a target end date for CEC's involvement? Where applicable, describe how the work will continue after CEC involvement ends?

The project clearly outlines that the project will end in 2012. The activities will have completed their pilot phase and revision of materials and will be either completed (e.g. synthesizing scientific information on climate change impacts to support MPA management and design) or carried out by the individual countries under the coordination of NAMPAN (e.g. educational partnerships with the aquariums and other learning institutions). Throughout the period, the lead institutions at country level will institutionalize processes carried out with the project, in particular, those related to community engagement. Community involvement is key to ensure long-lasting results for the protection of coastal and marine environments through out the MPA Network. Consideration could be given to the dissemination of the scientific findings of this project to MPA managers in the three countries in future years.

- Where applicable, does the project identify with reasonable specificity:
 - Linkages with other relevant CEC projects, past or present, in order to create synergies, capitalize on experience, or avoid duplication?
 - The target audience, as well as its receptivity and capacity to use the information that may be produced as a result of the project?
 - The beneficiaries of capacity building activities that the project may include?
 - The relevant stakeholders, with particular attention to communities, academia, NGOs and industry, and their involvement and contribution to a successful outcome.

The project builds on a decade of work by the North American MPA Network, primarily in the Pacific, but focuses on new areas strongly aligned with the new CEC strategic plan, and on the Atlantic as specified in the strategic plan and as had been recommended in Council Resolution 08-05. For example, the project builds on a formative partnership between NAMPAN and the Coastal Ecosystem Learning Centers that has enormous potential to reach millions of aquarium visitors but has not yet had the opportunity to develop an education and outreach strategy and messages to tap that potential. A US workshop in 2010 resulted in a commitment from the CELC to work with NAMPAN on an education and awareness initiative; this proposal provides the means to turn these broad concepts into a strategic, shared initiative. Similarly, the project contemplates building, after 2012 if approved in a future operational plan, on the success of the Ecological Scorecards, piloted in the Baja to Bering Region (B2B), by adding a socio-economic component to the scorecard that will further engage local communities and capture critical information for MPA managers.

MPA managers and educators in the three countries are the target audience and beneficiary of capacity building efforts of the project. This audience has specifically noted the importance of education, outreach, social science and climate change to their mission and is very receptive to the proposed products. For example, a needs assessment of 160 federal and state MPA managers and staff in the United States conducted in

December 2010 found that information on adaptation to climate change was their top priority. (Similarly, in Canada, there have been preliminary discussions with the Vancouver Aquarium, which is a member of the CELC consortium.) Scientific information to address this need regarding enhanced understanding of climate change impacts will be provided through this project, and draw upon Task 2 results. Other nations, including many in Europe, have indicated a similar pressing need, so that partnerships beyond this CEC project may become feasible.

Other partners will contribute significantly to the project's success, including the CELC; government, academic and NGO scientists, including WWF, Pronatura, TNC, NatureServe, the Grupo de Ecología y Conservación de Islas (GECI), Nature Canada; and local MPA communities. As noted above, CELC members have enormous capacity to reach the public through displays and educational programs, and look forward to working with MPA programs in the three countries to focus the content of these messages. Government, academic and NGO scientists, including those who participate in the International Council for the Exploration of the Seas (ICES) will provide their expertise to identify, synthesize and peer-review scientific products in a format useful to MPA managers. Should a project to develop and test socio-economic indicators be supported after 2012, local communities and social science experts would be engaged to develop new indicators that can be shared across the three countries to monitor and communicate the impacts and benefits of MPAs on local communities.

Points of Contact for NAMPAN:

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Mexico: Vladimir Pliego, Conanp (vpliego@conanp.gob.mx)

Tracking Pollutant Releases and Transfers in North America (North American PRTR Project)		Operating Year(s): 2011–2012
Planned Budget: C\$130,000 (2011); C\$305,000 (2012)		
Strategic Priority/Objective: Healthy Communities and Ecosystems/Improved environmental health of vulnerable communities in North America		
<p>Project Summary</p> <p>The CEC’s North American PRTR project involves the compilation and dissemination of information on the amounts, sources, and management of pollutants from industrial activities in North America. The main products of this project are <i>Taking Stock Online</i>, a website featuring an integrated, North American PRTR data set based on publically-reported source data; and the <i>Taking Stock</i> report, based on analyses of North American PRTR data and information from other sources, where pertinent. <i>Taking Stock</i> regularly features a special analysis on a certain PRTR-related theme, such as releases and transfers from a specific North American industry sector; or releases to a specific medium (e.g., water).</p> <p>The project promotes public access to and use of North American PRTR data and information to improve understanding of the sources and management of pollutants of common concern. It also promotes use of PRTR data for priority-setting and decision-making to protect the health of North American communities and ecosystems, support chemicals management, and reduce pollution.</p> <p>Through this process, the CEC has contributed to national PRTR efforts, including the establishment of a mandatory Mexican PRTR program (RETC), streamlined national and subnational data collection and processing, and enhanced quality of reported data. As part of this effort, the CEC hosts an annual public meeting of the North American PRTR project, assembling government, public and industry stakeholders to discuss current and future work under the project, as well as future directions and special analyses for the <i>Taking Stock</i> report.</p> <p>Regional initiatives being developed in collaboration with the Parties and other stakeholders include the establishment of sector pollutant profiles to support the development of indicators of environmental performance; expanded analysis of facility pollution prevention activities information; and examination of trans-border transfer data to gain a better understanding of the flows of pollutants across North America. These analyses will serve to enhance the comparability and quality of data and to support the establishment of policies and programs to prevent and reduce pollution.</p> <p>Through these activities and outreach, the CEC’s North American PRTR initiative has supported pollution mitigation efforts undertaken by NGOs, the public, industry and academia in all three countries. The PRTRs are a major source of information on releases and transfers of hundreds of pollutants, including many substances of health and/or environmental concern. The project helps build capacity to improve the environmental health of communities in North America, including vulnerable ones (i.e., communities that might be disproportionately impacted by environmental degradation or pollution, such as children and indigenous communities) by promoting and providing tools and information relative to pollutant releases and transfers in their communities, as well as opportunities for involvement of these communities and other stakeholders such as industry, through outreach and stakeholder consultations efforts. Thus, the project lends itself well to supporting several objectives/priorities of the CEC’s Strategic Plan, including improving the health of vulnerable communities in North America and Greening the Economy of North America.</p> <p>The project would also leverage other CEC resources and infrastructure, including the provision of location-specific North American Environmental Atlas map layers and ongoing pollutant monitoring and assessment work under the Sound Management of Chemicals (SMOC) program.</p>		
Environmental Outcomes:		
<ol style="list-style-type: none"> 1. Support for regional environmental initiatives of all stakeholders (communities, industry, the Parties and the CEC) based on access to integrated, understandable North American PRTR data, analyses, and related tools 		

2. Increased awareness, among all stakeholders, of the sources, amounts and management of pollutants across North America via the integration and provision of data sets and publication of the *Taking Stock* report with pertinent analyses addressing North American health and environmental issues
3. Outreach and development of relationships with stakeholder communities, through the publication of *Taking Stock* and the annual public meeting
4. Increased comparability and consistency in the areas of data reporting, collection, and quality assurance of PRTR data, through trilateral collaboration
5. Improved characterization of pollutant releases and transfers from industrial sectors for to support decision making relative to industry pollution prevention efforts in North America

Tasks necessary to reach the Environmental Outcome:

1. **Coordination and communication with the three Parties and other stakeholders, as appropriate, via PRTR Ad hoc Advisory Group.** Advance project planning, deliverables and implementation, review progress, assess project needs, offer guidance and strategies for improvement, and assist in setting priorities. Key activities include, information exchanges relative to the development of PRTRs, the development of sector pollutant profiles in view of enhancing comparability and data quality, convening meetings with other related groups and subject-matter experts, etc. Products will include updating the *Action Plan to Enhance the Comparability of PRTRs in North America*.
2. **Data collection, integration, analysis and publication: North American pollutant release and transfer data.** Integrate information from the PRTRs and, where pertinent, other data repositories of the Parties; address data inconsistencies and incorporate results of relevance and use to the Parties and stakeholders in the *Taking Stock* report. Activities include providing the data in a format suitable for use in web and mapping applications (in accordance with CEC guidelines); and developing and publishing the *Taking Stock* report and online data overview.
3. **Development of information management infrastructure.** Explore innovative ways to improve the process of gathering, storing, and accessing the NA PRTR data in order to increase their usefulness in existing or future projects or applications (e.g., *Taking Stock Online*, Atlas mapping, projects under Greening the Economy of North America, and Sound Management of Chemicals, as well as ad hoc reporting for CEC programs).
4. **Outreach.** Organize the annual public meeting of the NA PRTR project, which provides feedback on *Taking Stock* and the project, and offers input into areas of focus and analysis for future reports; increase outreach via enhanced access to the *Taking Stock Online* website and tools, webcasts and webinars with stakeholders and potential users of the information (e.g., media, NGOs, industry); participate in national and international PRTR efforts.

Task 1: Coordination and communication with the three Parties and other stakeholders, as appropriate, via PRTR Ad hoc Advisory Group

Subtask	Project outputs	How does the sub-task/output move the project towards the Environmental Outcome?	Timing	Budget (C\$) (activities)
1.1 Trilateral collaboration and exchange to implement trilateral goals for the collection, comparability, quality, interpretation, reporting and access to PRTR data	<p>Enhanced North American PRTR data comparability and data quality management</p> <p>Updated Action Plan to Enhance Comparability of PRTR in North America</p> <p>Regular coordination with the Parties and other stakeholders,</p>	<p>Improved quality of the data for use by all stakeholders, including the development of sector pollutant profiles and related pollution prevention initiatives where applicable.</p> <p>These efforts support all of the environmental</p>	2011–2012	<p>2011 - \$15,000 (meetings/teleconference support, contract, travel)</p> <p>2012 – \$40,000 (Contracts, meetings/teleconference support, travel, publications)</p>

	as appropriate (meetings, project communications, etc.)	outcomes listed. Since the last update in 2005, important changes in the PRTRs, and in the methodology used for the <i>Taking Stock</i> effort have highlighted areas where comparability is needed—an updated Action Plan formalizes and can facilitate related activities and discussions taking place at the national level, under one or more of the PRTR programs.		
Task 2: Data collection, integration, analysis and publication: North American pollutant release and transfer data				
Subtask	Project outputs	How does the sub-task/output move the project towards the Environmental Outcome?	Timing	Budget (C\$) (activities)
2.1 Data collection, integration, analysis and interpretation for the <i>Taking Stock</i> report and <i>TS Online</i> data overview	An integrated data set using the publicly available PRTR data from the Parties, and data from other programs as needed Publication of the <i>TS Online</i> integrated NA PRTR database, as well as the data overview An agreed-upon strategy to incorporate additional information collected by the Parties to supplement the <i>Taking Stock</i> effort	This data set will be the basis for the <i>Taking Stock</i> report, <i>Taking Stock Online</i> database, and other initiatives. It enables the analysis of integrated data, with the objective of providing information (environmental outcomes #2, 3). It also allows for comparisons among the three countries (sectors, processes) and identification of potential outliers and inconsistencies—thus supporting environmental outcomes #1, 4 and 5.	Fall 2011 Fall 2012	2011- \$30,000 2012 - \$45,000 Contracts, publications, meetings
2.2 Research, detailed data analyses, interpretation and publication of the <i>Taking Stock</i> report, including special	Publication of the <i>Taking Stock</i> report (in 2012), including the Special feature analysis of a	This effort supports environmental outcome #2, as well as others that might be related to the selected	2011–2012	2011 - \$50,000 2012 - \$75,000 Contracts

feature analysis	PRTR-related topic of interest to stakeholders across the region, as expressed during stakeholder consultations (e.g., the annual public meeting of the NA PRTR project)	topic.		
Task 3: Development of information management infrastructure				
Subtask	Project outputs	How does the sub-task/output move the project towards the Environmental Outcome?	Timing	Budget (C\$) (activities)
3.1 Upgrade and enhance <i>Taking Stock Online</i> (Web application)	Value-added information for the users, more efficient access to the data, and cost reductions associated with reduced need for printed materials	Provides enhancements (e.g., mapping tools, high-level summaries) as well as access to the integrated, North American PRTR data set and related information for use by stakeholders, in support of all of the environmental outcomes listed.	2011–2012	2011 – \$30,000 2012 - \$45,000 Contracts, publications, teleconferences
Task 4: Outreach				
Subtask	Project outputs	How does the sub-task/output move the project towards the Environmental Outcome?	Timing	Budget (C\$) (activities)
4.1 Conduct stakeholder consultations, including the annual public meeting of the NAPRTR project	Webinars on the use of the CEC's NA PRTR data set and tools, for particular use by media, NGOs and communities Presentation of project results and receiving input on potential focus area of <i>Taking Stock</i> and future direction of PRTR project Information exchange among all stakeholder levels Promotion of national PRTR programs and publicly accessible data and related information	These activities support environmental outcome #3 and #1.	September–October 2011: Online webinars Fall 2012: Public meeting of PRTR project	\$5,000 Web-conference support \$100,000 Meetings, travel, publications,

Explain how this project meets the selection criteria adopted by Council in the Strategic Plan (See below)

The goal of all projects funded by the CEC will be to support the efforts of the Parties to conserve, protect and/or enhance the North American environment. The following criteria will guide the Secretariat, Working Groups, Committees, and other appropriate officials of the Parties in considering cooperative activities for Council approval under operational plans. These selection criteria do not apply to activities funded through the NAPECA grant program.

Does the project contribute to achieving Council's strategic objectives as described within the current Strategic Plan, or as related to other priorities subsequently confirmed by Council? How?

- This project responds to the Strategic Plan's call to support healthy communities and ecosystems through strengthening collaboration on tracking pollutant releases and transfers in North America, including the analysis of data through the CEC publication, *Taking Stock*. The CEC's North American PRTR project has supported pollution mitigation efforts undertaken by governments, NGOs, the public, industry and academia in all three countries. Thus, the project lends itself well to the objective of improving the health of vulnerable communities in North America by creating, promoting and enhancing access to a trilateral PRTR data set, along with tools and related information of interest to communities in North America. The integrated *Taking Stock Online* data set can be combined with other community-specific demographic, socio-economic, epidemiological, public health, and environmental data to assist regional efforts to support environmental health improvements in communities that may be disproportionately impacted by environmental degradation or exposure to pollution. These vulnerable communities can include minority and/or economically disadvantaged populations, those living in proximity to heavier concentrations of industrial facilities, as well as children, aboriginal and rural populations.
- The project also supports the *Greening the North American Economy* strategic objectives, through the analysis of data and trilateral exchange of information relative to sector-specific pollutant releases, profiles and related data quality efforts.

Are the proposed objectives North American in scope? In other words, how are the proposed results relevant to protecting the environment in North America?

- Yes, the project specifically adds value to national PRTR efforts by integrating, analyzing and comparing PRTR data from all three countries, and publicly disseminating information that is understandable at a regional scale. It also supports ongoing work at the national level on characterizing sectoral pollutant releases and comparing national data for specific sectors in order to identify options and actions relative to pollution prevention and mitigation.

Does the project identify specific clear and tangible results that will be achieved and how progress toward each result will be measured over time? The project identifies and provides details about the products and activities that will result from each task.

Is the CEC the most effective vehicle for the Parties to undertake the project, considering the value-added of doing it under the CEC cooperative program? The CEC compiles, integrates, analyzes and publicly disseminates PRTR data at the regional scale, thereby making it possible to understand and compare releases and transfers at that level—something that no national program does.

- *Any other public, private or social organizations that work on such activities:* There are NGOs in each country that work with PRTR data or on related issues, as well as other regional PRTR efforts outside of North America (OECD, Central American PRTR, etc.)
- *Opportunities to cooperate and/or leverage resources with such organizations:* We do so on a fairly regular basis: through our annual public meeting and the exchange of information on an informal basis; through their involvement in the review of *Taking Stock* feature analyses; and through the participation in meetings of other regional PRTR efforts mentioned above.

- *Does the project propose a clear timeline for implementation of the activities, including a target end date for CEC's involvement? Where applicable, describe how the work will continue after CEC involvement ends.*

Should the CEC no longer continue to integrate such data, any organization could collect, integrate and disseminate trinational PRTR data. The extent to which this would add analytical value and increase community and stakeholder access would depend upon the institutional focus and priorities of such an organization. Similarly the work of continuing to improve the comparability and quality of PRTR data from each county, pursuant to the CEC's *Action Plan to Enhance the Comparability of PRTRs in North America*, could be adopted as a cooperative task by one or all of the Parties.

The CEC Secretariat has established a North American PRTR data integration methodology and infrastructure through its *Taking Stock Online* web-based tool. This allows stakeholders to explore PRTR data, creating their own data tables and reports through search and mapping tools and provides context to the information. The *Taking Stock* analysis and comparison of PRTR data at the North American scale also contributes valuable online content. Hence adoption of the *Taking Stock Online* function would require replication and maintenance of an integrated database as well as the North American data analyses.

It is to be noted that a decision not to support PRTR activities under the CEC post-2010 would require the cancellation of Council Resolution 97-04 which represents an agreement to produce the annual CEC *Taking Stock* report as well as other measures towards promoting comparability of PRTRs.

- *Where applicable, does the project identify with reasonable specificity:*
 - *Linkages with other relevant CEC projects, past or present, in order to create synergies, capitalize on experience, or avoid duplication? Yes, linkages with other CEC efforts are made (e.g., *Taking Stock Online*, Atlas mapping, projects under Greening the North American Economy, Sound Management of Chemicals, and ad hoc reporting for CEC programs).*
 - *The target audience, as well as its receptivity and capacity to use the information that may be produced as a result of the project? The target audience of the products and outcomes of this project include the various stakeholders mentioned in this document.*
 - *The beneficiaries of capacity building activities that the project may include? Capacity-building is an inherent part of the data integration and analysis process, which includes information exchanges among the three Parties relative to data quality and inconsistencies, sector pollutant profiles, data harmonization and streamlining efforts; the project also supports industry and community initiatives relative to pollution prevention.*
 - *The relevant stakeholders, with particular attention to communities, academia, NGOs and industry, and their involvement and contribution to a successful outcome. The stakeholders of this project include NGOs that use the integrated data to further their own efforts relative to pollution prevention; governments and industrial facilities that are made aware of and that can use the information contained in *Taking Stock* to address pollution issues; and academic researchers that use the data in their work.*

Approaches for Identifying and Tracking Chemicals in Commerce in North America			Operating Year(s): 2011–2012	
Planned Budget:				
C\$326,000 (2011)				
C\$86,000 (2012)				
Total 2011–2012 = C\$412,000				
Strategic Priority/Objective: Healthy Communities and Ecosystems/Enhanced regional approach to sound management of chemicals				
<p>Project Summary. The aims of this project are to improve efforts to reduce the risk of exposure to human health and the environment by identifying and tracking chemicals in commerce and to establish compatibility between inventories of the three Parties. It will also explore ways to utilize the compatibility the Parties have been building to aid in achieving our chemicals management goals. Beyond the technical tools developed to achieve better understanding of chemicals, this project will promote transparency and highlight the efforts made in North America towards the sound management of chemicals. The North American Chemicals Conference (Task 3) is a key tool to will help disseminate key information as well as provide stakeholders with opportunities to provide feedback and learn about activities aimed at the sound management of chemicals in North America.</p>				
<p>Environmental Outcome: To complete the Mexican National Chemicals Inventory (<i>Inventario Nacional de Sustancias Químicas de México</i>) to achieve compatibility with other national inventories in North America that will allow the Parties to increase transparency and provide information to the North American public while supporting efforts to track and address chemicals of mutual concern.</p>				
<p>Tasks necessary to reach the Environmental Outcome:</p> <ol style="list-style-type: none"> 1) Complete work on the Mexican National Chemicals Inventory. 2) Compare chemicals information across national inventories for more informed risk management decisions and increased transparency. 3) Develop the North American Chemicals Conference 				
Task 1: Complete work on the Mexican National Chemicals Inventory				
Subtasks	Project outputs	How does the subtask/output move the project towards the Environmental Outcome?	Timing	Budget (C\$) (activities)
1.1 Collection of data on chemicals production from existing sources of information in Mexico	A database containing production volume data for the substances listed in the preliminary chemical inventory	This project will allow Mexico to complete the Mexican chemical inventory database with information on chemicals production and will be used for the development of compatible inventories in North America by the inclusion of the same chemical identity as in TSCA and DSL.	May-December 2011	TOTAL \$51,000

1.2 Revision of the chemical identity of the chemicals listed in the Mexican National Chemicals Inventory	A list of substances of the chemicals inventory with their chemical name and chemical identity validated	This project will allow Mexico to complete the its national chemical inventory with a review and validation of the identity of the chemicals listed in the inventory's preliminary list. The validated list will allow compatibility and comparison with the other chemical inventories of North America and a better tracking of chemicals of mutual concern in the region.	May-December 2011	TOTAL \$25,000
1.3 Development of policy options to assure accuracy and sustainability to the Mexican Inventory	An action plan to assure accuracy and sustainability of the Mexican inventory agreed by key stakeholders and backed through a legal analysis	This project will define the path forward for the Mexican Chemical inventory through sessions with other institutions, assuring the accuracy of the inventory and a prioritization of chemicals during their life cycle in North America.	February-December 2012	Development of a legal policy options document to institutionalize the Mexican Chemicals inventory. TOTAL \$31,000
Task 2: Compare chemicals information across national inventories for more informed risk management decisions and increased transparency				
Subtasks	Project outputs	How does the sub-task/output move the project towards the Environmental Outcome?	Timing	Budget (C\$) (activities)
2.1 Comparing chemicals information across national inventories	For pilot comparison in 2011: Determine subset of chemicals on US and Canadian inventories to compare. Conduct comparison, and identify chemicals with differing sets of information on the two inventories. Use information from each inventory to fill in gaps in the others.	Comparing and sharing available information about chemicals across the three countries will allow for more informed risk management decisions and increased transparency. Communication between authorities in North America might be enhanced in order to have a better tracking of	Spring-Fall 2011 Through December 2012	\$40,000 in 2011 \$55,000 in 2012 TOTAL \$95,000

	Expand project to comparison of full US, Canadian, and Mexican inventories in 2012.	chemicals in commerce.		
2.2 Chemicals Inventories Team face-to-face meeting	A set of recommendations to continue the development of the Mexican chemicals inventory and enhance comparability of inventories in North America.	This meeting will allow Parties to discuss the first prototype of the Mexican Inventory and its path forward to assure comparability of chemical inventories by 2015.	2011: Face to face meeting.	TOTAL \$10,000
Task 3: Develop the North American Chemicals Conference TOTAL C\$200,000				
Subtasks	Project outputs	How does the subtask/output move the project towards the Environmental Outcome?	Timing	Budget (C\$) (activities)
3.1 Individual interviews with selected stakeholders on NACC content and format			January 2011	(already completed with 2010 funds)
3.2 Webinar open to all SMOC stakeholders on NACC planning	Development of webinar agenda and materials Webinar session with stakeholders Report summarizing stakeholder recommendations from webinar	Recommendations from individual stakeholder interviews will feed into background materials for broader stakeholder webinar and will assist in focusing the discussion. Stakeholder consultation will ensure a robust NACC agenda and the dialogue necessary to advance reductions in exposures to chemicals of concern.	Spring 2011	See 3.3
3.3 Develop agenda and coordinate with speakers	Conference agenda and commitments from speakers	Developing a good agenda is necessary for a successful conference. The conference will provide a rare opportunity for in-depth discussion with North American stakeholders on a variety of topics necessary for the advancement of sound chemicals management. Key topics might include:	Spring-Summer 2011	TOTAL \$200,000 for subtasks 3.2-3.5 Approximate breakdown (to be further refined): \$125K for conference planning & logistics contract; \$75K for invitational travel (speakers & travel assistance)

		practices to improve transparency, chemical assessments, and sustainable products.		
3.4 Conduct outreach to potential conference participants	Brief and detailed conference announcements sent to potential participants Creation of CEC conference web page	Necessary to ensure participation of relevant stakeholders from North America on a variety of topics relevant to the advancement of sound chemicals management	Spring-Fall 2011	See 3.3
3.5 Support conference logistics	Logistics associated with venue, registration, travel assistance, preparation of materials	Necessary to implement conference; this might allow stakeholders from North America to be better informed of the sound management of chemicals in the region.	Spring-Fall 2011	See 3.3

Explain how this project meets the selection criteria adopted by Council in the Strategic Plan (See below)

The goal of all projects funded by the CEC will be to support the efforts of the Parties to conserve, protect and/or enhance the North American environment. The following criteria will guide the Secretariat, Working Groups, Committees, and other appropriate officials of the Parties in considering cooperative activities for Council approval under operational plans. These selection criteria do not apply to activities funded through the NAPECA grant program.

- Does the project contribute to achieving Council's strategic objectives as described within the current Strategic Plan, or as related to other priorities subsequently confirmed by Council? How?
 - *This project addresses Strategic Objective #3: Enhanced Regional Approach to Sound Management of Chemicals. Activities under this project will facilitate the establishment of compatible approaches for identifying and tracking chemicals in commerce in North America as a priority to establish compatible chemicals inventories, evaluate the comparability of chemical information to increase transparency across the region, and consult with stakeholders in order to support broader coordinated and effective risk management of substances of mutual concern.*
- Are the proposed objectives North American in scope? In other words, how are the proposed results relevant to protecting the environment in North America?
 - *Establishing compatible chemical inventories and enhancing transparency of chemical information in all three countries is essential for providing a comprehensive understanding of chemical sources in North America. Compatible inventories will allow for coordinated and effective risk assessment and management of chemicals based on a consistent approach to identifying and tracking chemicals. This in addition to the sub-task that facilitates consulting more broadly with stakeholders via the planned Conference is also further supported by Council Resolution 06-09 to develop a strategy for the sound management of chemicals in North America in an open, inclusive, participatory and transparent manner and to actively involve industry, business, trade unions, environmental nongovernmental organizations, academic institutions and other members of civil society in chemicals management initiatives, activities aim to increase transparency by providing complete and accurate information to the North American public.*

- Does the project identify specific clear and tangible results that will be achieved and how progress toward each result will be measured over time?
 - *The project seeks to establish a compatible Mexican National Inventory of chemicals based on standardized identification methods. Secondary results include an inventory populated with existing source information and utilizing a compatible approach to identification.*
 - *The project will compare national inventories and related information on chemicals to ensure that information is equally available to the public in all countries. The activity will occur in stages as information becomes available in all three countries. Project tasks will help identify chemical information that is publically available in one country, but not available in another and aim to identify opportunities to more regularly make this information available and accessible to the region's public.*
 - *In order to increase transparency, activities will be undertaken to engage and inform stakeholders and the North American public. Results include reporting on progress, achievements and future direction to Stakeholders in a North American conference, and participation of stakeholders in a variety of capacities throughout the Sound Management of Chemicals Program.*

- Is the CEC the most effective vehicle for the Parties to undertake the project, considering:
 - The value-added of doing it under the CEC cooperative program
 - *The CEC is able to link the initiatives currently underway in Canada and the USA with the outcomes of this project in Mexico and support the efforts related to comparability and compatibility.*
 - *The trilateral product is envisaged to demonstrate a cooperative agenda for others such as the Group of Latin America and the Caribbean Group (Countries GRULAC) region to consider and benefit from, in order to expedite similar initiatives.*
 - *The North American case will provide reference for international organizations such as OECD and SAICM, as a demonstration of the regional cooperative agenda that supports the sound management of chemicals globally.*
 - *Similarity of reporting requirement for the North American industry will be enhanced and reports in all three countries will be provided in a comparable manner*
 - *Decision-makers will be able to quantify and conduct activities to reduce risks associated with chemicals*
 - Any other public, private or social organizations that work on such activities

It is expected that the following groups will participate:

- *Federal agencies and their laboratory specialists with responsibility for health, environment, natural resources, agriculture, and customs/excise in all three countries.*
- *Private sector participants including the various chemical manufacturing, processing, transporting and importing associations and member companies.*
- *Environmental, Health and other nongovernmental organizations interested in chemical safety in the region.*
- *While many of these stakeholders have discrete activities that contribute to chemical safety efforts, non are singularly focused on the North American region and they also do not delve into the intricacies of chemical inventory and information availability on a national or regional basis as called for by these efforts. That said, many may be interested in the result of this work and contribute to or benefit from its success (see below).*

- *In the early stages of the Mexican Chemicals Inventory, the United Kingdom’s Department for Environment, Food and Rural Affairs (DEFRA) provided funds for initial work. Currently, the CEC is the organization that supports efforts on chemicals inventories for North America with internal support from governmental offices.*
- Opportunities to cooperate and/or leverage resources with such organizations
 - *The Stakeholder Engagement Strategy will provide a platform for cooperation with a wide variety of stakeholders, as appropriate. The Strategy will aim for streamlining, enhancing and modernizing the SMOC approach to working with concerned parties and citizens toward the sound management of chemicals in North America.*
 - *Specifically, this Strategy builds on the successes of established processes and introduces new initiatives to improve the collaboration within federal agencies, within the SMOC participants as well as with private sector participants.*
- Does the project propose a clear timeline for implementation of the activities, including a target end date for CEC’s involvement? Where applicable, describe how the work will continue after CEC involvement ends?
 - *The Chemical Inventory and Information work is anticipated to continue requiring CEC support to the end of 2012, after which Mexico’s national agencies will sustain the initiative as a domestic priority and adopt the agreed-upon protocols in partnership with similar directions in Canada and the US.*
 - *Stakeholder engagement is an overarching priority for the Sound Management of Chemicals Program and will be implemented strategically in conjunction with activities throughout the program and, specifically, by the conference discussed in task 3.*
- Where applicable, does the project identify with reasonable specificity:
 - Linkages with other relevant CEC projects, past or present, in order to create synergies, capitalize on experience, or avoid duplication?

This project supports the following CEC projects:

- *Mapping North American Environmental Issues*
- *Monitoring and Assessing Pollutants across North America*
- *Tracking Pollutant Releases and Transfers in North America*
- *Trade and the Enforcement of Environmental Law*
- *State of the Environment Reporting from now and in the future*

The project also supports the general direction the CEC is taking towards ensuring stakeholder engagement in the many facets of its works.

- The target audience, as well as its receptivity and capacity to use the information that may be produced as a result of the project?
 - *SMOC will engage a wide variety of actors (see groups above) in the implementation of this project and information produced will be published and accessible to the North American public. For Mexico: the Ministries of Environment, Health, Labor, Transportation, etc. will be users of the results of the projects, as well as academia and public organizations that deal with risks on chemicals management.*

- The beneficiaries of capacity building activities that the project may include?
 - *Mexico will establish a National Inventory, however, Canada and the United States among all three countries and the region writ large will benefit from the information generated and made available which also contributes to enhanced decision making and improved North American chemicals management.*

- The relevant stakeholders, with particular attention to communities, academia, NGOs and industry, and their involvement and contribution to a successful outcome.
 - *Federal agencies and their laboratory specialists with responsibility for health, environment, natural resources, agriculture, and customs/excise. Experts might be called to participate in the process of developing the Mexican inventory database. Furthermore, the cross-border exchange of samples might require a better collaboration with customs of involved countries in order to enhance the efficiency of this time-base process.*
 - *Private sector participants including the various chemical manufacturing, processing, transporting and importing associations and member companies. For example: Mexican petrochemical industry (PEMEX)*
 - *Environmental, Health and other non-governmental organizations interested in chemical safety in the region.*

Risk Reduction Strategies to Reduce the Exposure to Chemicals of Mutual Concern			Operating Year(s): 2011–2012	
Planned Budget: C\$280,500 (2011) C\$283,500 (2012)				
Strategic Priority/Objective: Healthy Communities and Ecosystems/Enhanced regional approach to sound management of chemicals				
Project Summary: Building on experience from past successes in the reduction or elimination of chemicals of mutual concern, including PCBs ¹ , DDT ² , Chlordane, Lindane and Mercury in North America, this project will continue to reduce releases and uses of a set of chemicals of mutual concern. Using expertise in all three countries in the fields of risk assessment and management, monitoring, research and modeling activities, the project will focus on improving the availability of information on chemicals of concern to inform management decisions as well as explore alternatives approaches and ways to reduce exposure to chemicals of mutual concern.				
Environmental Outcome: Concretely, identification of chemical emission sources, safer alternatives and options for overcoming barriers to use of alternatives will facilitate reductions and improve the environmental performance of sectors by addressing risks that may be presented by chemicals of concern. Overall, the environmental benefits of this project will consist of a reduced amount of toxic chemicals found in a range of media including air, soil, water, food and also in human beings. Additionally, the project will support institutional and governance needs in the area of environmental management, as it will improve the quality and availability of information for decision-makers and the public with regard to sources and risks from chemicals of mutual concern, as well as ongoing activities in risk evaluation and management programs in North America. In order to ensure that activities are providing the best value for North Americans, a program effectiveness evaluation will be performed. As this program has been in place for several years, it is timely to measure progress, review results and ensure that actions are targeted and leading to concrete environmental results moving forward.				
Tasks necessary to reach the Environmental Outcome: 1. Continue risk evaluation and management work to reduce risk related to dioxins and furans (D/F) as outlined in the <i>North American Strategy for Catalyzing Cooperation on Dioxins and Furans, and Hexachlorobenzene</i> , hereafter "Dioxins strategy" 2. Create a mercury strategy based on mercury (Hg) path forward and conduct risk reduction activities as deemed appropriate 3. Finish risk evaluation work on PBDEs ³ in Mexico and, as appropriate, expand to trilateral risk reduction work on flame retardants 4. Effectiveness evaluation 5. Coordination of the project				
Task 1: Continue risk evaluation and management work to reduce risk related to dioxins as outlined in the Dioxins strategy				
Subtasks	Project outputs	How does the subtask/output move the project towards the Environmental Outcome?	Timing	Budget (C\$) (activities)
1.1 Conference calls	Reports on the Strategy implementation	By assuring activities are being implemented as programmed.	2011-2012	TOTAL 2011:\$2,500 TOTAL 2012:\$2,500
1.2 Support for the Mexican monitoring network	Design of the second stage of the Mexican Monitoring network.	It will assure the implementation of next stage of the monitoring network in Mexico so the whole North American region is now covered in terms of	2011-2012	2011: Contractor - \$10,000 Conference Calls - \$1,000 Editing, translation, and publishing - \$5,000

¹ Polychlorinated biphenyls (PCBs)² Dichlorodiphenyltrichloroethane (DDT)³ Polybrominated Diphenyl Ethers (PBDEs)

		monitoring D&F levels.		TOTAL 2011: \$16,000 TOTAL 2012: \$1,000
1.3 Integrate data from the Mexican monitoring network with the US's National Dioxin Air Monitoring Network and Canada's National Air Pollution Surveillance Programme.	First report of the dioxins and furans levels in the North American region	By providing information on ambient levels of dioxins and furans in the region a better evaluation of the effectiveness of actions implemented can be done in addition to providing information for the Parties to evaluate risks.	2011	Editing, translation and publication - \$5,000 TOTAL: \$5,000
1.4 Design human biomonitoring program.	A multidisciplinary team of experts will be identified and called together to identify populations that are most likely to experience elevated exposure to dioxin-like compounds and HCB.	Through a series of workshop sessions, the scientific and technical basis for the design of a human biomonitoring program will be done. This biomonitoring program will provide data to the Parties to support risk reduction strategies, on dioxins and furans.	2012	Contractor - \$10,000 Workshop - \$25,000 TOTAL: \$35,000
1.5 Examine foods in Mexico as part of a trilateral program to determine potential for D/F contamination.	Report on the identification of potential risk for food contamination at the North American region.	A key element in evaluating risk from D/F is the levels of these pollutants in food in the region that at present does not include information from Mexico.	2012	Consultant: 20,000 TOTAL: \$20,000
1.6 Examine utility of atmospheric models to inform D/F risk management strategies and emission inventories for possible contribution to global modeling.	The modeling results from a 2010 expert training session will be examined in detail and consideration will be given to their value in guiding the development of risk management strategies and any further work that should be undertaken.	Through the analysis of the results from the modeling training activities during 2009–2010, this task will give experts and policy makers advice on appropriate D/F risk management options and make a regional contribution to global modeling work.	2011	Consultant: \$5,000 TOTAL: \$5,000
1.7 Develop public information materials on D/F for website.	Information on D/F on the website	Information on D/F for different sectors of the population to help inform individual decisions to reduce risk of exposure	2011-2012	Consultant - \$10,000 Translation - \$5,000 TOTAL 2011: \$15,000 TOTAL 2012: \$15,000
1.8 Source testing to generate and update information on D/F releases	Information on D/F releases for sources with importance in the region and identification of control or elimination options	A better identification of the contribution of specific sources will allow the Parties and industry to identify and implement actions to reduce these releases and therefore to reduce the risk.	2011 2012	2011: Contribution to GRULAC Workshop - \$10,000 Contractor - \$20,000 Report publication - \$5,000 2012: Workshop - \$25,000

				Stack testing - \$25,000 TOTAL 2011: \$35,000 TOTAL 2012: \$50,000
1.9 Trinational project to develop a D/F standard for fertilizers	Feasibility analyses of a trinational D/F standard for fertilizer to reduce risk associated to food production	Tools are needed for the Parties to be able to reduce and /or eliminate risk associated with exposure from foods.	2012	Contractor - \$15,000 Editing, translation, publication - \$5,000 TOTAL: \$20,000
Task 2: Create a mercury strategy based on Hg Path forward and conduct risk reduction activities as deemed appropriate				
Subtasks	Project outputs	How does the subtask/output move the project towards the Environmental Outcome?	Timing	Budget (C\$) (activities)
2.1 Develop a five-year mercury strategy (2011 to 2015).	A North American Strategy document for addressing mercury issues specific to the region	This project will provide clearer direction to Parties and stakeholders, including on priority actions that will be required to ensure reduction of mercury emissions in North America as well as capacity-building needs. Once approved and funding secured, the strategy would be implemented over the years of 2013-2015.	2011	2011: Contractor - \$15,000 Conf calls - \$1,000 Editing, translation, publishing - \$5,000 TOTAL 2011: \$21,000
2.2 Investigate options for long-term storage of elemental mercury in North America.	Final report	This work will offer decision-makers with a perspective on safe long-term mercury storage options in North America. Application of this knowledge would reduce the release of mercury to the environment. This is also a high priority topic globally.	2011 2012	2011: Contractor - \$20,000 2012: Contractor - \$20,000 Conf calls - \$1,000 Editing, translation, publishing - \$5,000 TOTAL 2011: \$20,000 TOTAL 2012: \$26,000
Task 3: Finish risk evaluation work on PBDEs in Mexico and, as appropriate, expand to trilateral risk reduction work on flame retardants				
Subtasks	Project outputs	How does the subtask/output move the project towards the Environmental Outcome?	Timing	Budget (C\$) (activities)
3.1 Characterization of PBDEs/brominated flame retardants in landfill leachate and biosolids in North America	Identify and implement risk reduction strategies to reduce the exposure of PBDEs/brominated flame retardants in North America.	This project will be used to identify the contribution of PBDEs/brominated flame retardants in landfills and biosolids from Mexican landfills as well as capacity building for analysis.	Spring-December 2011	Travel of two scientists to Canada for training- \$4,000 Sampling & analysis in Canadian lab - \$26,000 Conference calls - \$1,000 Sampling & analysis in Mexican lab - \$33,000 Conference calls - \$1,000

			February-December 2012	TOTAL 2011: \$31,000 TOTAL 2012: \$34,000
3.2 Identification of PBDEs/BFRs used in SMEs in Mexico	Identify risk reduction strategies to reduce the exposure of PBDEs/brominated flame retardants in North America.	This project will be used to identify the use of PBDEs/brominated flame retardants in small and medium enterprises in Mexico and identify technical and economic aspects of the use of alternatives for risk reduction.	Spring-December 2011	Consulting to identify PBDEs/brominated flame retardants used in SME's in Mexico and identification of technical/economic aspects that might affect the use of alternatives. TOTAL 2011: \$20,000
3.3 Identification and prioritization of alternatives to PBDEs/ BFRs, with characterization of risks and costs in specific applications in Mexico	Identify and implement risk reduction strategies to reduce the exposure of PBDEs/brominated flame retardants in North America, and conduct information exchange on risk management.	This project will be used to evaluate and implement alternatives to PBDEs/brominated flame retardants in Mexico for risk reduction.	February-December 2012	Mexican consultant contracted to identify alternatives of PBDEs/brominated flame retardants in Mexico. TOTAL 2012: \$20,000
3.4 Endeavour to assess the feasibility of separation techniques, which have already been evaluated in trial plants or which have yet to be developed for removing POP-BDE from plastic matrices in order to permit continued recycling of plastics.	Identify and implement risk reduction strategies to reduce the exposure of POP-BDE in North America.	This project will be used to develop or implement separation techniques to recycling of plastics without POP-BDE.	Spring-December 2011	Consulting to assessment of separation techniques of POP-BDE from plastic matrices. TOTAL 2011: \$20,000
Task 4: Effectiveness evaluation				
Subtasks	Project outputs	How does the subtask/output move the project towards the Environmental Outcome?	Timing	Budget (C\$) (activities)
4.1 Conduct effectiveness evaluation of Mercury (Hg), and Lindane North American Regional Action Plan (NARAP) as well as work on dioxins, furans and hexachlorobenzene (DFH).	Evaluation of effectiveness of SMOCs work on Hg, DFH and lindane	Progress on Hg, DFH and lindane requires evaluation to articulate the effectiveness of SMOC's actions on these substances, and inform future activities of local and trilateral interest to reduce risks in North America.	Spring-December 2011	Contract: \$35,000 Translate, Edit, Publish - \$5,000 TOTAL: \$40,000
4.2 Prepare closeout report for lindane NARAP.	Evaluation of NARAP implementation and final risk reduction strategies to be completed by the countries for	This project will be used to formally finish the activities of lindane under the NARAP and to identify specific activities of each country for the future	Spring-December 2011	Contractor - \$14,000 Conf calls - \$1,000

	lindane.	as well as missing activities of trilateral concern. This will contribute to the evaluation of the effectiveness of this NARAP (subtask 4.1) as well as provide information to each Party on potential areas of future work to reduce risks from lindane.		Editing, translation, publishing - \$5,000 TOTAL 2011: \$20,000
Task 5: Coordination of the project				
Subtask	Project outputs	How does the subtask/output move the project towards the Environmental Outcome?	Timing	Budget (C\$) (activities)
5.1 SMOC operations; calls and translation	Conference calls, translation, among others	Because of the many task and subtasks that needs to be implemented, budget for the coordination of the project will be necessary.	Spring-December 2011 March-December 2012	Spring meeting - \$29,000 Conference calls: \$1,000 TOTAL 2011: \$30,000 Spring & Fall meetings - \$59,000 Conference calls: \$1,000 TOTAL 2012: \$60,000

Explain how this project meets the selection criteria adopted by Council in the Strategic Plan (See below)

The goal of all projects funded by the CEC will be to support the efforts of the Parties to conserve, protect and/or enhance the North American environment. The following criteria will guide the Secretariat, working groups, committees, and other appropriate officials of the Parties in considering cooperative activities for Council approval under operational plans. These selection criteria do not apply to activities funded through the NAPECA grant program.

- Does the project contribute to achieving Council’s strategic objectives as described within the current Strategic Plan, or as related to other priorities subsequently confirmed by Council? How?

This project contributes to the Council’s Strategic Objective #3: Enhanced Regional Approach to Sound Management of Chemicals. The project addresses one of the three core areas of work under that strategic objective: implementing risk reduction strategies to reduce the exposure of North Americans and their environments to chemicals of mutual concern. To do this the project includes tasks such as identifying and monitoring emissions/releases and exposure sources, developing tools and techniques to aid in risk management, and providing information to inform the development of risk reduction strategies.

- Are the proposed objectives North American in scope? In other words, how are the proposed results relevant to protecting the environment in North America?

All of the tasks included in the project are North American in scope – either the information will contribute to a North American understanding of the substance in question (e.g., comparable data with similar sampling standards and data analysis across North America) or the tools or techniques to be developed can be applied to all three countries (e.g., mercury storage and separation techniques for PBDEs). It should also be remembered that chemical substances do not respect borders—and improved management of a substance in one country is of benefit to all three—particularly with respect to the persistent organic or inorganic pollutants dealt with under this project.

In particular, with respect to dioxins and furans in foods, initial focus of the work is on Mexico, as Canada and the US already have programs in place to monitor levels of such chemicals of concern in food.

- Does the project identify specific clear and tangible results that will be achieved and how progress toward each result will be measured over time?

The project identifies the steps to be taken toward implementing the risk reduction strategies for chemicals of mutual concern and achieving project outcomes. Each of the tasks and subtasks included has a clear and tangible outcome that will contribute to an environmental benefit. While it is difficult, and not always accurate, to measure progress in terms of % reductions of a specific chemical, progress can be measured by the amount and quality of information generated, the number of tools and techniques developed, and how all of this is used in decision making to reduce the risks from chemicals in each country.

- Is the CEC the most effective vehicle for the Parties to undertake the project, considering:
 - The value-added of doing it under the CEC cooperative program
 - Any other public, private or social organizations that work on such activities
 - Opportunities to cooperate and/or leverage resources with such organizations

North American cooperation on the management of toxic chemicals continues to be a key initiative of the Parties. The CEC provides a unique forum for the Parties to identify and work together on mutually beneficial activities related to their role as regulators in reducing the risk posed by chemicals. In addition, work on chemicals through the CEC has been a model of regional cooperation promoted in international fora, such as the Strategic Approach to International Chemicals Management (SAICM), the Asia-Pacific Economic Cooperation (APEC), and at the OECD. It provides a mechanism for disseminating and collecting information of importance to the Parties on domestic and international initiatives related to the management of chemicals, and is a forum for the Parties to undertake initiatives in support of broader international objectives and commitments. For example the CEC is the venue for North American regional implementation of the Strategic Approach to International Chemicals Management. For the Parties, these roles are unique to the CEC in North America and cannot be provided by any other public, private or social organization.

Furthermore, in choosing activities, the Parties are careful to avoid duplication of work occurring through such organizations or through multilateral intergovernmental cooperation (e.g., through the UNEP conventions) and/or seek to leverage the resources of public, private, social or international organizations where possible. The subtask "Source Testing to Generate or Update Information on D/F Releases" includes a component to leverage resources with UNEP to hold a workshop to disseminate the information obtained to GRULAC countries. This will provide a forum for the Parties to showcase work completed in N.A. on D/F with a broader audience.

Leveraging of resources from the World Bank, Pan American Health Organization (PAHO) and the Global Environmental Fund (GEF) is considered where possible. In the past, this has included funds from SAICM's Quick Start Program (UK, DEFRA of US\$100K) to support the development of an electronic database in Mexico for the chemical inventory project – these funds were secured with help from the CEC.

- Does the project propose a clear timeline for implementation of the activities, including a target end date for CEC's involvement? Where applicable, describe how the work will continue after CEC involvement ends?

Projects presented in this document have clear timelines indicated in the project description. Some projects are undertaken specifically under the CEC, such as the lindane close-out report and the effectiveness evaluation. Other projects, such as risk evaluation, management and monitoring of substances are part of broader national chemical management initiatives. CEC involvement in these areas is more one of

enhancing coordination/comparability of ongoing national programmes - the programs themselves would continue with or without CEC involvement.

- Where applicable, does the project identify with reasonable specificity:
 - Linkages with other relevant CEC projects, past or present, in order to create synergies, capitalize on experience, or avoid duplication?
 - The target audience, as well as its receptivity and capacity to use the information that may be produced as a result of the project?
 - The beneficiaries of capacity building activities that the project may include?
 - The relevant stakeholders, with particular attention to communities, academia, NGOs and industry, and their involvement and contribution to a successful outcome.

Linkages with other CEC groups have been explored. For example, cooperation with the hazardous waste group would likely be beneficial to explore waste issues and their interface with chemicals management possibilities. Other linkages can be made between the work to reduce mercury emissions and the newly created group on climate change. Finally, linkages could be strengthened between the monitoring conducted under this project and the PRTR initiative. However, while these linkages have been explored, institutional realities have made it difficult to establish joint workplans and initiatives between this project and others.

The Sound Management of Chemicals Working Group has been working to reduce the risk of chemicals in North America since 1996. The work under this project builds on previous experience and activities completed throughout this time. Key target audiences, stakeholders, and beneficiaries include the Parties themselves, academia, industry, other countries, NGOs, and the public in general. In 2010, the SMOC approved a Stakeholder Engagement Strategy that lays out the specific actions proposed to reach specific audiences. While the work of each task force differs, generally, task forces strongly welcome contributions from a range of stakeholders with an interest in specific aspects of their work. Scientists or anyone else with a specific interest in task force work can take part in open discussions and contribute to task force work and direction. Contributions are made at meetings and workshops, open to stakeholders, to disseminate work but also invite stakeholders to actively contribute to the work of the task forces. Moreover, all SMOC publications are made public in all three North American languages to provide North Americans with tangible information on the results of the SMOC projects. The audience considered for these products is the public in general, who has an interest in information regarding chemicals of mutual concern. Providing access to information is an empowering tool that allows stakeholders to take action regarding the presence in the environment or to inform their decisions to use or not specific chemicals. Industry, academia, NGOs can also access this information to guide their activities.

As mentioned above, beneficiaries of the project include national North American governments as they gain greater access to reliable information relating to chemicals of concern to inform their management decisions. Beneficiaries also include the public in general as well as specific groups, including NGOs, industry and academia who gain greater knowledge on proposed North American actions with respect to chemicals of concern and data which supports chemicals management decisions. Stakeholders have expressed continued support for the work of the Sound Management of Chemicals Working Group and have generally considered the information generated by this work of great value and useful in gaining a greater understanding of the chemicals-related issues they may face in their communities. While stakeholder receptivity and capacity varies depending on the stakeholder group, in general, stakeholders have proven receptive of the information provided. In order to ensure continued stakeholder engagement in the Sound Management of Chemical program, the Working Group has approved a Stakeholder Engagement Strategy to be implemented in the coming years. The strategy is based on stakeholder feedback received during a stakeholder consultation conducted in 2010 by a consultant hired by SMOC.

Environmental Monitoring and Assessment of Chemicals of Mutual Concern			Operating Year(s): 2011–2012	
Planned Budget for 2011: C\$285,000 2012: C\$265,000				
Strategic Priority/Objective: Healthy Communities and Ecosystems/Enhanced regional approach to Sound Management of Chemicals				
<p>Project Summary This project will continue to identify adverse effects to human health and the environment using a regional monitoring approach for health and environment to support risk reduction strategies, including identification of priorities, assurance of comparable data and monitoring for results. In developing such an approach on a North American scale, it is essential to consider national and international priorities and how such work links to other CEC objectives. To ensure an integrated North American data set, it is necessary to develop regionally compatible monitoring programs. While Canada and the US have a history of monitoring and assessment programs, Mexico just began to monitor chemicals of mutual concern at three sites under its <i>Programa Nacional de Monitoreo y Evaluación</i> (National Program for Monitoring and Evaluation—Proname) initiative.</p>				
<p>Environmental Outcomes: To collect and process representative data on chemicals in the environment in Mexico through a limited but representative monitoring program. To ensure an integrated North American data set, which is necessary for the implementation and assessment of risk reduction strategies at a regional level.</p>				
<p>Tasks necessary to reach the Environmental Outcome:</p> <ol style="list-style-type: none"> 1. Enhance the coverage of the environmental monitoring and assessment program in Mexico (Proname) by increasing the number of monitoring sites, and the media and chemicals to be monitored. 2. Assure the production of high-quality information, compatible and comparable. A Mexican network of laboratories that will be reliable and have a proven analytical capacity for POPs will be established 3. Integrate Proname into a regional monitoring approach, sharing the information with the US and Canada 4. Develop a human biomonitoring program in Mexico 5. Develop environmental indicators on a regional level. Utilize the CEC as a forum to collaborate on a North American approach to SAICM indicator work 6. Meeting to assess progress, with follow-up teleconferences 				
<p>Task 1: Enhance the coverage of the environmental monitoring and assessment program in Mexico (Proname) by increasing the number of monitoring sites, and the media and chemicals to be monitored</p>				
Subtasks	Project outputs	How does the subtask/output move the project towards the Environmental Outcome?	Timing	Budget (C\$) (activities)
<p>1.1. Incorporate new sites to Proname: December 2011: Establishment of one new Proname site</p> <p>December 2012: Establishment of two new</p>	<p>Three sites deployed by the end of 2012</p>	<p>Proname has to include enough sites to allow for representative monitoring in Mexico. Continued support for the development of a sustainable environmental monitoring and</p>	<p>December 2011– December 2012</p>	<p>\$70,000 (2011) \$140,000 (2012)</p>

<p>Proname sites</p>		<p>assessment program in Mexico will provide available and reliable information across the region which can be used to support, implement and evaluate risk reduction strategies.</p>		
<p>1.2. Fresh sediment cores in Mexico to be assessed for improving trends data. Review of the lake candidates that were identified in 2004, incorporating the experiences with the sampling in Miramar Lagoon, and define additional lakes that are appropriate for sediment analyses for dioxins. Sampling will be done in 2012.</p>	<p>Information about deposition of dioxins and furans (D/F) and its correlation to potential emissions from sources in Mexico.</p> <p>Product: report identifying potential lakes for D/F sediment analyses to determine trends in D/F emissions in Mexico.</p>	<p>Identification of Mexican lakes, where studies on sediments can result in useful information regarding emissions of D/F in Mexico over the last 50 years and add this to existing data in the US and Canada.</p>	<p>December 2011</p>	<p>\$5,000 (2011)</p> <p>Consultant contract.</p>
<p>1.3. Monitor Mercury deposition at regional level: Mercury wet deposition monitoring in Mexico</p> <p>2011 – Site Operation during one year (sampling, shipping, mercury analysis data management and quality assurance). The last three activities will be performed by Mercury Deposition Network (MDN).</p>	<p>Mercury wet deposition data from a new site in Mexico will be available on MDN website.</p>	<p>In 2003, Mexico carried out mercury monitoring in two pristine sites. In order to expand the coverage of MDN sites in Mexico, Hg monitoring in sites nearby to mercury anthropogenic source such as chlor-alkali industry, cement plants, mine tailings reprocessing plants, etc, will be relevant. Mercury wet deposition monitoring in Mexico will allow to establish data comparisons across the region. The information obtained on the site will be compared with data from two pristine sites in Mexico, and other MDN sites in Canada and the United States</p>	<p>December 2011</p>	<p>\$30,000 (2011)</p>

Task 2: Assure the production of high-quality information, compatible and comparable. A Mexican network of laboratories that will be reliable and have a proven analytical capacity for POPs will be established.				
Subtasks	Project outputs	How does the subtask/output move the project towards the Environmental Outcome?	Timing	Budget (C\$) (activities)
2.1: Lab training	Six Mexican lab technicians trained per year	In order to have a regional diagnosis for chemicals of mutual concern, it is essential that the methodology used for the treatment and analysis of samples from projects or monitoring programs to identify and quantify POPs must be comparable, standardized and reliable, so it can be integrated into trilateral databases. Mexico's laboratories need to strengthen their analytical capacity, to ensure that results from the three countries are comparable.	December 2011–2012	\$15,000 per year Practical lab training meeting, hands-on training
2.2. Lab validation – human biomonitoring and environmental monitoring:	Five Mexican laboratories participating in one international intercomparison exercise, per year	The establishment of comparable diagnostics of chemicals of mutual concern for the identification and tracking of chemicals in North America, through the establishment of Centers of Excellence in Mexico, needs the continuous improvement of analytical capabilities and the Mexico's participation to international Quality Assurance / Quality Control programs.	December 2011–2012	\$25,000 (2011) \$15,000 (2012) 2011: Practical lab validation exercise plus training; materials, shipping, conference calls 2012: Practical lab validation exercise, materials, shipping, conference calls

2.3. Proname protocol validation	Document with the results of the validation of sampling and analysis protocols post-implementation	Validating the data by improving sampling and analytical activities is key to assuring its representativeness in order to provide available and reliable information for all three countries to use in planning future work. After two years of operations, Proname needs to integrate feedback from its initial activities to adjust its approach, in a program validation effort that will help ensure confidence in its results.	December 2011	\$40,000
Task 3: Integrate Proname into a regional monitoring approach, sharing the information with the US and Canada				
Subtasks	Project outputs	How does the subtask/output move the project towards the Environmental Outcome?	Timing	Budget (C\$) (activities)
3.1. Develop a Proname web microsite for information sharing. Development of web microsite within INE site; Update of microsite created in 2011	A web microsite Update of the web microsite	Sharing information will give the three countries the opportunity to establish comparisons across the region, and better understand POPS evolution. The scientific community of the three countries will have the opportunity to work with the data and the public in general will be informed. Proname will be able not only to inform but also to open its work to peers. This will allow Proname to benefit from expert input and help ensure that it continues to evolve into a regionally compatible	December 2011 December 2012	\$15,000 (2011) \$5,000 (2012)

		monitoring program.		
3.2. Proname results assessment	Report that includes the results from each workshop per year	Sharing information within the public. Making the results available gives the three countries the opportunity to find areas of common interest for carrying out projects that provide information to the three countries as well as detecting strengths to support Proname's activities.	December 2011–December 2012	\$30,000 per year (2011–2012) Meeting
Task 4: Develop a human biomonitoring program in Mexico				
Subtasks	Project outputs	How does the subtask/output move the project towards the Environmental Outcome?	Timing	Budget (C\$) (activities)
4.1. Development of a Human biomonitoring program: establishment of a multi-year work plan for human biomonitoring activities, building on Proname infrastructure and on human blood biomonitoring contaminant project	A multi-year wokplan for the implementation of a human biomonitoring program in the Proname sites, 2011	Human biomonitoring is an essential component of Mexico's Proname in order for it to be of high importance at the decision makers' level. With the completion of a human biomonitoring program, Proname will be able to link environmental data to human exposure and risk at the regional level, showing that Mexico has a national monitoring program that protects human health and the environment.	December 2011	\$20,000 (2011) Meetings, conference calls
Task 5: Develop environmental indicators on a regional level. Utilize the CEC as a forum to collaborate on a North American approach to SAICM indicator work				
Subtasks	Project outputs	How does the subtask/output move the project towards the Environmental Outcome?	Timing	Budget (C\$) (activities)

5.1. Generate North American SAICM report on indicators	SAICM Indicators report	This activity will leverage capacity in Mexico so that comparable information for North American SAICM indicators can be developed.	December 2011	\$30,000 (2011)
5.2. Identify common environmental indicators that could be a contribution to SAICM (and assist in other CEC areas)	SAICM environmental indicators	This project supports the trilateral efforts to develop comparable data and monitoring. The project will analyze current monitoring activities in the three countries and propose indicators trilateral in nature that could be used by the SMOC WG to measure progress of their efforts.	December 2012	\$30,000 (2012)
Task #6) Meeting to assess progress, with follow-up teleconferences				
Subtasks	Project outputs	How does the subtask/output move the project towards the Environmental Outcome?	Timing	Budget (C\$) (activities)
6.1. EMA SC operations: 2011 2012: same, with the addition of a face-to-face biennial meeting	Conference calls, translation, meeting, among others	Because of the many tasks and subtasks that need to be implemented, a budget for the coordination of the project will be necessary.	December 2011 December 2012	\$5,000 (2011) Operational budget for EMA SC operations; conference calls and translation \$30,000 (2012) As above, plus face-to-face biennial meeting

Explain how this project meets the selection criteria adopted by Council in the Strategic Plan (See below)

The goal of all projects funded by the CEC will be to support the efforts of the Parties to conserve, protect and/or enhance the North American environment. The following criteria will guide the Secretariat, Working Groups, Committees, and other appropriate officials of the Parties in considering cooperative activities for Council approval under operational plans. These selection criteria do not apply to activities funded through the NAPECA grant program.

- Does the project contribute to achieving Council's strategic objectives as described within the current Strategic Plan, or as related to other priorities subsequently confirmed by Council? How?

The project contributes directly to S.O.3 "Enhanced Regional Approach to Sound Management of Chemicals." In order to protect, sustain and restore the health of people, communities and ecosystems, comparable descriptive data must be available. Chemicals risk (aka pollution) is one of the main environmental threats. By supporting the monitoring of chemicals in the environment of Mexico, this project will help provide an accurate portrait of levels and trends of chemicals in the North American environment. Beyond the value of having a continental baseline description, regional monitoring will provide information that will assist decision-making (priority-setting and reduction strategies) and support the assessment of ongoing sound management efforts.

In addition to this, the strengthening of the environmental monitoring in Mexico will generate information that can be shared and compared with data from the monitoring programs of United States and Canada. Thus, there will be regional monitoring of toxic substances that will allow planning strategies for prevention, reduction and proper handling of these substances at regional level, contributing to improve the health of ecosystems including humans.

- Are the proposed objectives North American in scope? In other words, how are the proposed results relevant to protecting the environment in North America?

Currently, environmental and biological monitoring in North America is mainly concentrated in Canada and the United States. As a result, the North American portrait is incomplete. The project uses a regional approach to establishing a North American network of monitoring stations in order to provide a continental portrait that will inform trilateral and national efforts.

The environmental monitoring program, Proname, will generate reliable results, that will be shared and included with those obtained from the monitoring networks in the US and Canada, joining regional efforts, which will complement the environmental information about such substances, for their proper handling in the region. With this, Mexico will join the monitoring networks in North America by creating a regional network on toxic substances, producing reliable and comparable data, useful for the design of joint strategies for prevention of risks and impacts to human health and ecosystems.

- Does the project identify specific clear and tangible results that will be achieved and how progress toward each result will be measured over time?

The project identifies the number of sites to be deployed, and specific treatment of the data into a environmental diagnosis that will include trends analysis. It includes the training required to provide reliable data comparable at the continental level.

Each ones of the project activities are scheduled and will generate measurable results, such as strengthening technical capabilities for sampling and analysis of different types of toxic, persistent and bioaccumulative substances, in order to be able to compare the results in the region through the standardization and validation of inter-comparison methodologies and exercises. The dissemination of results will be performed through a microsite to share information between the three countries and design management strategies of these substances. There is a goal of having six sites generating data by 2015 to design strategies and policies for the appropriate management of these substances at national and regional levels.

- Is the CEC the most effective vehicle for the Parties to undertake the project, considering:
 - The value-added of doing it under the CEC cooperative program
 - Any other public, private or social organizations that work on such activities
 - Opportunities to cooperate and/or leverage resources with such organizations

The CEC is the main vehicle to coordinate and facilitate the coming together of experts from the Canada, Mexico and the United States that work to achieve a North American approach to monitoring. In addition to the opportunity to assist the three countries for the benefit of the region and in favor of the environmental protection

- Does the project propose a clear timeline for implementation of the activities, including a target end date for CEC's involvement? Where applicable, describe how the work will continue after CEC involvement ends?

The project proposes specific dates for the proposed activities with tangible results. One of the most valuable benefits of this cooperation is the collaboration between the three countries to address a priority environmental problem over the region, such as the sound management of chemicals aiming on prevention and mitigation of potential risks for ecosystems and humans. This will result in strengthening the environmental monitoring in Mexico to achieve the sustainability of the environmental monitoring program.

- Where applicable, does the project identify with reasonable specificity:
 - Linkages with other relevant CEC projects, past or present, in order to create synergies, capitalize on experience, or avoid duplication?

The project is linked with the Sound Management of Chemicals project subtasks, in that it provides snapshot and trends description of chemical contaminants in North America, which can be used to define and assess the progress of sound management efforts.

- The target audience, as well as its receptivity and capacity to use the information that may be produced as a result of the project?

Reliable monitoring data will be of primary interest to the federal agencies with responsibility for health, environment, agriculture, customs/excise and commerce, as well as academic researchers, private and public laboratories, and any interested community member. The data will be available to all via a website.

- The beneficiaries of capacity building activities that the project may include?

Direct beneficiaries will be government employees, academics and private laboratories in Mexico. The training will benefit the target audience listed above, through its gaining access to reliable data.

- The relevant stakeholders, with particular attention to communities, academia, NGOs and industry, and their involvement and contribution to a successful outcome.

Stakeholders are as the target audience described above. In particular, academics who conduct environmental and human health monitoring are expected to benefit directly from their participation in CEC activities. Also, private laboratories in Mexico will benefit from being able to build capacity to monitor and analyze chemicals that are of concern in North America and globally.

Enhancing Environmental Law Enforcement in North America				Operating Year(s): 2011–2012
Planned Budget: C\$624,000 2011: C\$242,000 2012: C\$382,000				
Strategic Priority/Objective: Healthy Communities and Ecosystems/Strengthening Regional Environmental and Wildlife Law Enforcement				
Project Summary: This project will support the Parties in their efforts to attain the objectives of the North American Agreement on Environmental Cooperation by strengthening cooperation on, and coordination mechanisms for, the development and improvement of environmental laws, regulations, procedures, policies and practices; and by enhancing compliance with, and enforcement of, environmental laws and regulations. Particularly, this project will allow the Parties to improve their understanding of the legal and illegal trade in targeted, environmentally-regulated materials (e-waste, hazardous waste, ozone-layer depleting substances, non-compliant motorcycles) and wildlife species by sharing of information and intelligence and by implementing alternative approaches to improve compliance assurance.				
Environmental Outcome: Enhanced, coordinated and more effective enforcement of and compliance with regional environmental and wildlife laws and regulations in North America				
Components necessary to reach the Environmental Outcome: A) By 2015, the development and implementation of intelligence-led enforcement (ILE) in the region will increase the number of non-compliant targets identified, leading to the interdiction of illegal shipments of environmentally-regulated materials (electronic wastes, ozone-depleting substances, non-compliant small engines and hazardous waste) and vulnerable wildlife in North America B) Collaboratively address common challenges and issues related to environmental and wildlife enforcement will support the reduction of these challenges by 2015				
Component A. By 2015, the development and implementation of intelligence-led enforcement (ILE) in the region will increase the number of non-compliant targets identified, leading to the interdiction of illegal shipments of environmentally-regulated materials (electronic wastes, ozone-depleting substances, non-compliant small engines and hazardous waste) and vulnerable wildlife in North America.				
Tasks	Project outputs	How does the subtask/output move the project towards the Environmental Outcome?	Timing	Budget (C\$) (activities)
1. Develop and implement ILE to identify and interdict illegal shipments of wildlife, e-waste and targeted environmentally regulated materials in/from North America.	A North American strategy for intelligence-led enforcement implemented through collecting, processing, analyzing, disseminating and taking action, such as coordinated operations, against the illegal trade of e-waste and environmentally-regulated materials and wildlife. Note: Contingent on available intelligence analysis capacity	With the implementation of this task, common operating procedures for sharing information will be developed. This strategy will increase the regional capacity to identify and prosecute non-compliers.	December 2012	\$289,000

	and resources			
Subtasks:				
i) Establish and support a trilateral working group of environmental enforcement officials who will examine legal issues related to trilateral information and intelligence exchange.	An ad hoc group of officials and key contacts operating to review legal constraints and opportunities in order to support the exchange of information and intelligence sharing on the trade of environmentally regulated materials falling within the scope of the EWG	This subtask will help the Parties reach a common understanding of the legal and operational constraints and opportunities for exchanging intelligence information on a regular basis.	December 2011	\$25,000
ii) Establish and support a trilateral wildlife enforcement working group focused on identifying common priority species for the region.	An ad hoc group of officials and key contacts operating to more effectively enforce regulations protecting priority wildlife species in North America	This subtask will support the process to identify and support discussions of a key group of officials addressing enforcement of regulations governing wildlife species of priority.	December 2011	\$25,000
iii) Establish trilateral protocols and procedures for sharing information and intelligence among environmental enforcement officials.	A set of agreed protocols and procedures for sharing information and intelligence amongst environmental agencies and relevant enforcement stakeholders in the region.	By having a clear and consistent set of procedures and protocols for sharing information, data and intelligence, the three countries will have improved ability to detect, deter and prosecute non-compliance.	December 2011	\$20,000
iv) Establish a trilateral intelligence-based system for exchanging information related to e-waste.	A trilaterally agreed mechanism to exchange information and intelligence on e-waste and other environmentally regulated materials and products on a regular basis. Assessment of the process to occur every six months. This activity could potentially lead to an integrated regional IM/IT system for sharing data, information and intelligence.	With an intelligence sharing system, the enforcement agencies will be better equipped to conduct complex investigations that increasingly require cross-border and inter-agency cooperation.	Starting June 2011 – three ILE meetings (three before December 2012)	\$125,000
v) Trilateral intelligence products in relation to high-risk, tradable species will be developed to support targeted inspections and investigations.	Intelligence products will be produced and distributed on a regular basis by the Wildlife Intelligence-led Working Group.	The establishment of a regional intelligence-sharing mechanism and regular forum for wildlife officials will enhance our regional ability	Starting June 2011 until December 2012	\$27,000

		to detect, deter, and prosecute non-compliance.		
vi) A bi-monthly trilateral intelligence report on e-waste will be developed and shared with key contacts in each of the three countries.	Bi-monthly intelligence reports will be built on information and data shared between the countries and analyzed by a lead Party. Once the system for information sharing is in place, the countries will assess the possibility of replicating the model for hazardous waste, non-compliant imports, and ozone-layer depleting substances.	The establishment of a regional intelligence-sharing mechanism and regular forum for environment regulators will enhance our regional ability to detect, deter and prosecute non-compliance.	Starting June 2011 until December 2012	\$27,000
vii) A working session for wildlife and environment and enforcement-related officials aimed at enhancing electronic investigative capacities in Canada, Mexico and the US	Establish a trilateral forensics working group, including computer forensics and wildlife science forensics personnel. The working group will guide the development of the electronic investigative training and the wildlife forensics training. This includes completion of a 3–5-day training session for approximately 5–10 officials per country. The training will build on the Canadian ‘National Special Investigations Training model.’	One of the increasingly important intelligence gathering tools is the Internet. By enhancing institutional capacity to undertake electronic investigations, it is expected that more intelligence will be shared between the three countries, resulting in increased detection, identification of offenders, prosecution and deterrence.	March 2012	\$40,000
Component B: Collaboratively addressing common challenges and issues related to environmental and wildlife enforcement will support the reduction of these challenges by 2015.				
Task:	Project outputs	How does the subtask/output move the project towards the Environmental Outcome?	Timing	Budget (C\$) (activities)
1. Collaboratively addressing common challenges and issues related to environmental and wildlife	Activities included in this component	Sharing experiences and best practices in detecting non-compliance with pollution and wildlife	May 2011 until December 2012	\$335,000

enforcement will support the reduction of these challenges by 2015.		regulations at ports of entry will enhance the institutional capacity within the wildlife, environmental and border agencies in the three countries.		
Subtasks				
i) A workshop on the illegal trade of ozone–layer-depleting substances for government officials	A more enhanced understanding of the regulatory and enforcement ODS landscape for North America, share lessons learned, and initiate the intelligence-sharing process in a face-to-face venue. Following the ODS workshop, a regulatory and enforcement landscape document will be developed.	Sharing experiences and best practices in detecting non-compliance with pollution regulations at ports of entry with the goal of enhancing the institutional capacity within the environmental and border agencies in the three countries.	December 2012	\$35,000
ii) Two workshops on detecting non-compliance in motorcycles being imported into North America and the development of supporting materials for government officials.	A shared knowledge of the most common non-compliance issues in imported motorcycles and small engines. The workshops will be useful for engaging customs/border enforcement personnel. A trilateral guidance document, which could include checklists and/or forms, will be developed for environment and border officials for use during coordinated actions.	These knowledge and intelligence sharing workshops will allow the Parties to identify common practices and trends in detecting non-compliance and illegal shipments in environmentally-regulated materials	December 2011 until December 2012	\$40,000
iii). A workshop for government officials on detecting non-compliance in transboundary movements of hazardous wastes.	An increased understanding of the regional landscape for the illegal movement of hazardous waste. Following the workshop, a document focusing on the delineation of the scope of the illegal waste trade in North America will be developed, based on the discussions at the	Improved knowledge- and intelligence-sharing, resulting from the workshop, will allow the Parties to identify common practices and trends in detecting non-compliance and illegal shipments in environmentally regulated materials.	December 2012	\$35,000

	workshop in conjunction with other existing background material.			
iv) A workshop on the exchange of information aimed at detecting illegal shipments of marine protected species	Proceedings of the workshop will be developed and shared among participants.	This activity will increase the knowledge and understanding of the illegal trade of protected marine species in the region.	December 2011	\$35,000
v) Expertise-sharing aimed at enhancing wildlife forensic (i.e., genomic forensic) capacity in Canada, Mexico and the US	A 1- to 2-week training session for wildlife officials from all three countries held at the US Fish and Wildlife Services Forensics Laboratory in Ashland, Oregon – the premier laboratory in the world dedicated to wildlife crime.	By enhancing government forensic capacity for wildlife enforcement in all three countries, it is expected that more wildlife crimes within North America will be successfully prosecuted.	Develop curricula – December 2011 Deliver training session – February 2012 Implement follow-up mechanisms – May 2012	\$15,000
vi) Development of a consistent North American approach to regulating air emissions from motorcycles	Two working sessions for government officials aimed at assisting Mexico in the development and implementation of its recently announced intention to develop air emission regulations for new/imported motorcycles	By having Canada and the US share with Mexico their experiences and lessons learned in relation to developing their air emission standards for motorcycles, a consistent regional standard can be developed that will facilitate trilateral enforcement and compliance actions in relation to imported and non-compliant motorcycles.	December 2012	\$35,000
vii) Dissemination of information on North American efforts to address the illegal trade of wildlife, ODS, hazardous wastes, non-compliant imports (motorcycles) and e-wastes	Parties will release trilateral media statements following every successful prosecution resulting directly from trilateral collaboration.	These efforts will be aimed at informing the North American public and regulated communities; international compliance and enforcement communities about the coordinated work being undertaken on a continental level. These activities will have an overall deterrent	June 2011– December 2012	\$20,000

		effect in relation to the illegal trade of regulated materials and wildlife.		
viii) Showcase the Enforcement Working Group as a model for regional enforcement and compliance cooperation at the 9 th global INECE conference in June 2011, in British Columbia, Canada.	Increased interaction and relevant networking with major players in the enforcement arena through participation at the INECE 9 th global meeting	The North American model for environmental enforcement and compliance cooperation will be featured in a major forum of enforcement experts from around the world who will convene in British Columbia, Canada, on 20-24 June 2011.	June 2011	\$20,000
ix) Translation of CEC-produced materials aimed at promoting compliance in countries outside North America that experience high levels of non-compliance. Existing CEC materials to be translated include online training materials for ozone-depleting substances and hazardous waste	Translation of the CEC training modules and relevant information aimed at improving compliance and deter illegal trade of environmentally regulated materials and wildlife	By making North American regulations accessible to common non-compliant sources, the Parties aim to stop illegal trade at the ports of exit and promote compliance with North American regulations.	Starting June 2011 until December 2012	\$50,000
x) Annual EWG meeting to review/assess 2011–2012 project, task and subtask progress. The meeting also provides an opportunity for the EWG co-chairs to provide feedback and guidance to the trilateral ad-hoc groups implementing the activities.	Review and assessment reports on the implementation of activities germane to the enforcement and compliance by senior enforcement officials from the three countries, and annual meetings of these networks of North American officials on enforcement.	The meetings allow for the co-chairs of the EWG to assess the progress and results of each activity under the 2011–2012 EWG project and to provide guidance going forward.	June 2011 until December 2011	\$40,000
xi) Support annual CEC/NAWEG meetings	Participation at the annual meetings of the North American Wildlife Enforcement Group.	Wildlife-related components will be discussed at these meetings. The Parties will benefit from a sound and timely report and interaction at the operative level by engaging the CEC in these discussions.	May 2011 until May 2012	\$10,000

Explain how this project meets the selection criteria adopted by Council in the Strategic Plan (See below)

The goal of all projects funded by the CEC will be to support the efforts of the Parties to conserve, protect and/or enhance the North American environment. The following criteria will guide the Secretariat, working groups, committees, and other appropriate officials of the Parties in considering cooperative activities for Council approval under operational plans. These selection criteria do not apply to activities funded through the NAPECA grant program.

- Does the project contribute to achieving Council's strategic objectives as described within the current Strategic Plan, or as related to other priorities subsequently confirmed by Council?

The project directly supports Council's Strategic Objective #4, "Strengthening Regional Environmental and Wildlife Law Enforcement," under the Healthy Communities and Ecosystems priority

By undertaking the following, environmental and wildlife enforcement activities the government agencies in the three countries will be more effective at addressing priority issues as a region:

- developing and implementing a trilateral data, information and intelligence system as well as a set of procedures and protocols for sharing data, information and intelligence
 - assessing information that allow the Parties to assess, modify or implement current policies or practices related to environmentally regulated materials and wildlife
 - enhancing tactical and strategic intelligence capacity in all three countries
 - developing and implementing a North American environmental and wildlife enforcement and compliance strategy
- Are the proposed objectives North American in scope? In other words, how are the proposed results relevant to protecting the environment in North America? The scope of activities is North American. The strategies and themes included are in line with the themes included in the Strategic Plan in the above-cited strategic objectives.
 - Does the project identify specific, clear, and tangible results that will be achieved and how progress toward each result will be measured over time? The project identifies and outlines tasks and subtasks to attain the overall objectives.
 - Is the CEC the most effective vehicle for the Parties to undertake the project, considering:
 - The value-added of doing it under the CEC cooperative program. The CEC, as an international governmental agency, is an excellent vehicle to bring the enforcement and compliance officials to interact and share valuable information and intelligence on enforcement and compliance in North America.
 - Any other public, private or social organizations that work on such activities. There is no other regional organization public or private working on this scope of activities.
 - Opportunities to cooperate and/or leverage resources with such organizations. As part of several activities such as the I-led e-waste project, experts will be working with experts from Interpol and INECE and/or drawing on their past and ongoing global work on e-waste.
 - Does the project propose a clear timeline for implementation of the activities, including a target end date for CEC involvement? Where applicable, describe how the work will continue after CEC involvement ends? The project includes a clear timeline.

- Where applicable, does the project identify with reasonable specificity:
 - Linkages with other relevant CEC projects, past or present, in order to create synergies, capitalize on experience, or avoid duplication? Yes
 - The target audience, as well as its receptivity and capacity to use the information that may be produced as a result of the project? Yes
 - The beneficiaries of capacity building activities that the project may include? Yes
 - The relevant stakeholders, with particular attention to communities, academia, NGOs and industry, and their involvement and contribution to a successful outcome? Yes.

Improving Comparability of Emissions Data, Methodologies and Inventories in North America			Operating Year(s): 2011–2012	
Planned Budget: C\$195,000 2011: C\$140,000 2012: C\$55,000				
Strategic Priority/Objective: Climate Change – Low-Carbon Economy/Improved comparability of emissions data, methodologies and inventories among the three North American partners				
Project Summary: The first step in improving the comparability of inventories is to perform a comprehensive review and assessment of relevant inventory elements. The main objective is to identify areas for improvement of comparability within the existing inventories of the three countries and highlight opportunities to strengthen inventory capabilities.				
Environmental Outcome: Gaps and inconsistencies between inventories will be identified based on a list of priority areas/elements and this assessment will form the basis for future trilateral work on national, subnational and black carbon inventories. In addition, this work will enable the Parties to share results and strengthen capacities in the collection and management of data and allow for an improved sharing of information on methodologies and other relevant inventory development processes, while working towards advancing of climate change mitigation objectives.				
Tasks necessary to reach the Environmental Outcome: 1) Assessment of the comparability of greenhouse gas (GHG) inventories at the national and subnational (state, provincial or local) levels in Canada, Mexico, and the United States (US). 2) Assessment of the comparability of black carbon inventories and identification of common methodologies for gathering and analyzing data. 3) Experts discussions on assessment findings, and formulation of recommendations to the CEC Council concerning future cooperative actions, for the period 2012–2015.				
Task 1: Assessment of the comparability of GHG inventories at the national and subnational levels (state, provincial or local) in Canada, Mexico and the US				
Subtask	Project outputs	How does the subtask/output move the project towards the Environmental Outcome?	Timing	Budget (C\$) (activities)
1.1 Review and assessment of the comparability of relevant national GHG Inventory Elements	Analytical assessment and recommendations report identifying key differences between the national GHG inventories	<p>This subtask will identify inventory elements that are already comparable and where there are differences.</p> <p>This work will provide policy neutral options for improving comparability and assist with choosing and carrying out more focused projects during the 2012–2015 time period.</p>	April 2011– August 2011	\$70,000 Contracts, meetings/teleconference support, translations, travel.
1.2 Identification of the completeness and consistency of subnational inventories and	Increased understanding of the status of inventory development at a subnational level	This subtask will provide an overview of the subnational (state, provincial and local) inventories that have been developed and identify inventory	November 2011– March 2012	\$15,000 (2011) \$35,000 (2012) Contracts,

comparison with the UNFCCC requirements	Assessment of comparability and identification of differences between the subnational and relevant national GHG inventory as well as between the UNFCCC requirements	elements that are comparable and that are different from the relevant national inventory. This work will provide policy neutral options for improving comparability and assist with choosing and carrying out more focused projects during the 2012–2015 time period.		meetings/teleconference support, translations.
Task 2: Assessment of the comparability of black carbon inventories and identification of common methodologies for gathering and analyzing data				
Subtask	Project outputs	How does the subtask/output move the project towards the Environmental Outcome?	Timing	Budget (C\$) (activities)
2.1 Review and assess the comparability of black carbon inventories and identify common methodologies for gathering and analyzing data	Identification of black carbon inventories at a national and subnational level (i.e., who is doing what) and assessment of comparability of coverage across emission sources, methods and data sources	This work will improve the comparability of black carbon inventories (i.e., what sectors are considered) and could lead to improved reporting in areas that have the highest mitigation potential (i.e., residential biomass and transportation vs. wildfires).	April 2011–August 2011	\$45,000 Contracts, meetings/teleconference support, translations, travel
Task 3: Experts' discussions on assessment findings and formulation of recommendations to the CEC Council concerning future cooperative actions for the period 2011–2012				
Subtask	Project outputs	How does the subtask/output move the project towards the Environmental Outcome?	Timing	Budget (C\$) (activities)
3.1 Expert review of assessment findings	A work plan to achieve project deliverables in 2012 and beyond	Planning input to subsequent Operational Plans for continued collaboration on improving comparability of emissions data, methodologies and inventories	August 2011–August 2012	\$10,000 (2011) \$20,000 (2012) Meeting support for Experts' workshops

Explain how this project meets the selection criteria adopted by Council in the Strategic Plan (See below)

The goal of all projects funded by the CEC will be to support the efforts of the Parties to conserve, protect and/or enhance the North American environment. The following criteria will guide the Secretariat, Working Groups, Committees, and other appropriate officials of the Parties in considering cooperative activities for Council approval under operational plans. These selection criteria do not apply to activities funded through the NAPECA grant program.

- Does the project contribute to achieving Council's strategic objectives as described within the current Strategic Plan, or as related to other priorities subsequently confirmed by Council? How?

This project responds to the first strategic objective under the Council's Strategic priority of Climate-Change Low-Carbon Economy: Improved comparability of emissions data, methodologies and inventories among the three North American partners. The work proposed under this project will assess the comparability of GHG inventories in North America and assist in identifying areas of future work for improvement during the 2011–2015 period that will enable the Parties to share results and strengthen capacities in the collection and management of data and methodologies, while working towards advancing of climate change mitigation objectives. The work will encompass the GHG emissions inventory systems of Canada, Mexico, and the United States, both at the national and subnational levels.

The first step in improving the comparability of greenhouse gas inventories between Canada, Mexico and the United States (US), is to perform a comprehensive review and assessment of relevant inventory elements; the second step is to identify areas where improvements in comparability and structure can advance North American climate change mitigation objectives, and the third is the formulation of recommendations to the CEC Council concerning future cooperative actions, for the period 2011–2015. As such, the project outputs will support policy-neutral options for improving comparability on foundational elements required to transition to a low-carbon economy, and will supply information and tools that can be used in choosing and carrying out focused mitigation and/or adaptation projects.

- Are the proposed objectives North American in scope? In other words, how are the proposed results relevant to protecting the environment in North America?

Undertaking such initiatives could lead to strategic results for the Parties, including:

- *the key building blocks being in place to allow a more integrated approach for the three countries to address climate change and enable a low-carbon economy, including;*
- *sufficient capacity, infrastructure, and systems for supporting methodologies; and*
- *improved capacity to make comparisons among the three countries.*

- Does the project identify specific clear and tangible results that will be achieved and how progress toward each result will be measured over time?

Yes, the assessment findings will provide a baseline of information across the three Parties inventories. From there, a list of common areas can be identified trilaterally to determine the direction for future work and moving towards improved comparability. The tangible results will be the baseline information and the agreed-to list.

- Is the CEC the most effective vehicle for the Parties to undertake the project, considering:
 - The value-added of doing it under the CEC cooperative program

Yes, the CEC is the only regionally-focused forum for this work. All other fora are international in nature and not focused on the three Parties. The CEC provides a framework that permits the Parties to exchange information and work cooperatively in addressing issues related to Climate Change and the transition to a low-carbon economy. In collaboration with partners at the national and state-province

levels, the CEC is well-placed to bring together the expertise for improving the comparability of GHG inventories across North America in support of regional initiatives.

- Any other public, private or social organizations that work on such activities
- Opportunities to cooperate and/or leverage resources with such organizations

This CEC work compliments inventory reporting and verification efforts currently undertaken for the United Nations Framework Convention on Climate Change (UNFCCC). The quality and credibility of a GHG inventory relies on the integrity of the methodologies used, the completeness of reporting, and the procedures for compilation of data. Canada and the United States are Annex I Parties to the Convention, and are required to submit annual national GHG inventories of anthropogenic emissions by sources and removals by sinks through the use of standardize reporting requirements. Mexico is a non-Annex I Party, and therefore subject to the principle of “common by differentiated responsibilities” and annual submission of a GHG inventory is not required. Performing this work under the CEC cooperative program will allow the Parties to leverage efforts already undertaken under the UNFCCC process to help promote the reporting of credible and consistent GHG information across North America.

- Does the project propose a clear timeline for implementation of the activities, including a target end date for CEC’s involvement? Where applicable, describe how the work will continue after CEC involvement ends?

As this is new work under the CEC, the only envisioned target end date for the CEC’s involvement is at the end of the mandate of the current Strategic Plan, which is 2015. The work identified on the assessment findings and confirmed list of elements will be completed in 2012.

- Where applicable, does the project identify with reasonable specificity:
 - Linkages with other relevant CEC projects, past or present, in order to create synergies, capitalize on experience, or avoid duplication?

As this is new work under the CEC, there is no duplication.

- The target audience, as well as its receptivity and capacity to use the information that may be produced as a result of the project?

There is a keen and confirmed interest from the three Parties as well from several subnational governments to undertake this work and use the results for continued future work. The main beneficiaries of this project are Party climate policy officials and officials responsible for GHG data and inventory systems at the national government and State/provincial government levels. This project will also support the efforts under the Climate Change Low-Carbon Economy Strategic Objective: Engagement of experts and strengthened information-sharing in climate change and low-carbon economy, specifically the North American Interactive Information Collaboration on Climate Change project.

- The beneficiaries of capacity building activities that the project may include?

As a non-Annex I Party, Mexico is required to communicate a national inventory of anthropogenic emissions by sources and removals by sinks of all greenhouse gases not controlled by the Montreal Protocol, to the extent its capacities permit, using comparable methodologies to be promoted and agreed upon by the Conference of the Parties. This CEC work will provide an opportunity for capacity building and sharing of best practices with Mexico which will enable reporting of more complete and robust inventories in the future.

- The relevant stakeholders, with particular attention to communities, academia, NGOs and industry, and their involvement and contribution to a successful outcome.

At this early stage in the work, the main stakeholders are the governments.

Ecosystem Carbon Sources and Storage: Information to Quantify and Manage for Greenhouse Gas Emissions Reductions				Operating Year(s): 2011–2012	
Planned Budget: 2011: C\$250,000 2012: C\$320,000					
Strategic Priority/Objective: Climate Change – Low-Carbon Economy Also addresses Healthy Communities and Ecosystems					
Project Summary This project seeks to assist the Parties by providing and sharing the best information available on landscape-level carbon sources and storage. The project will supply data, information and tools that can be used to monitor and report on the development and implementation of appropriate initiatives for ecosystem carbon management to reduce greenhouse gas (GHG) emissions. The project will also facilitate a broad and readily accessible mechanism to share and disseminate information among North American experts with a focus on scientific and technological best practices.					
Environmental Outcome: Aid in the reduction of GHG emissions associated with forest degradation and land cover change by generating and improving access to better information on land cover change and landscape-level carbon accounting, collaborating with the Parties' experts in exchanging knowledge on best practices for ecosystem carbon management.					
Tasks necessary to reach the Environmental Outcome:					
<ol style="list-style-type: none"> 1. Establish a trilateral, government-led experts' network to develop methods for assessing, monitoring, and conducting pilot use of data generated on land cover changes and landscape-level carbon changes. 2. Develop a trilaterally agreed methodology and assessment protocol to measure and monitor land cover changes and landscape-level carbon changes. 3. Enhance a platform and framework for the collection, management, mapping and dissemination of relevant data on sources of ecosystem carbon sources and storage in collaboration with other experts working on the North American Carbon Atlas, the North American Carbon Program, Carbon Budget Modeling and related programs. 					
Task 1: Establish a trilateral government-led experts' network to develop methods for assessing, monitoring, and conducting pilot use of data generated on land cover changes and landscape-level carbon changes.					
Subtasks	Project outputs	How does the subtask/output move the project towards the Environmental Outcome?	Timing	Budget (C\$) (activities)	
1.1 Expand the network of experts (North American Land Cover Monitoring System group) to strengthen data and information sharing on land cover change.	Scientific guidance and data standards	Develops a consistent framework for measuring land cover change	2011–2012	2011: \$35,000 2012: \$40,000	

1.2 Establish a network of experts on landscape-level carbon change.	Consistent North American data standards, methodologies and datasets on landscape-level carbon sources and stores	Develops a consistent framework for identifying and quantifying ecosystem carbon	2011–2012	2011: \$30,000 2012: \$20,000
Task 2: Develop a trilaterally agreed methodology and assessment protocol to measure and monitor land cover changes and landscape-level carbon changes.				
Subtask	Project outputs	How does the subtask/output move the project towards the Environmental Outcome?	Timing	Budget (C\$) (activities)
2.1 Develop and test a trilateral methodology and assessment protocol to monitor land cover change and landscape-level carbon at various spatial scales.	Trilateral methodology and assessment protocol to track land cover change and consistent and continental methodologies and datasets on landscape-level carbon sources and storage	Provides a North American tool to measure land cover change and ecosystem carbon	2011–2012	2011:\$75,000 2012:\$50,000
Task 3: Enhance a platform and framework for the collection, management, mapping and dissemination of relevant data on sources of ecosystem carbon sources and storage in collaboration with other experts working on the North American Carbon Atlas, the North American Carbon Program, Carbon Budget Modeling and related programs.				
Subtasks	Project outputs	How does the subtask/output move the project towards the Environmental Outcome?	Timing	Budget (C\$) (activities)
3.1 Develop a web-based platform for information management and sharing.	On-line information platform	Develops an information management system to track changes in land cover and ecosystem carbon	2012	2012: \$100,000
3.2 Establish standards and data definitions for trilateral reporting.	Common data standards and operational policies	Develop a consistent framework for identifying, managing and visualizing data and relevant information	2011–2012	2011: \$50,000 2012: \$50,000
3.3 Compile data, maps and other relevant information to populate the platform.	Relevant information for scientific experts and decision-makers	Consistent data for monitoring landscape-level GHG reductions	2011–2012	2011: \$60,000 2012: \$60,000

Explain how this project meets the selection criteria adopted by Council in the Strategic Plan (see below)

The goal of all projects funded by the CEC will be to support the efforts of the Parties to conserve, protect and/or enhance the North American environment. The following criteria will guide the Secretariat, Working Groups, Committees, and other appropriate officials of the Parties in considering cooperative activities for Council approval under operational plans. These selection criteria do not apply to activities funded through the NAPECA grant program.

- Does the project contribute to achieving Council's strategic objectives as described within the current Strategic Plan, or as related to other priorities subsequently confirmed by Council? How?

This project addresses the “Climate Change – Low-Carbon Economy” priority, and the strategic objective #2, “Engagement of experts and strengthened information sharing in climate change and low-carbon economy.” The project also addresses the Healthy Communities and Ecosystems priority.

The project will help build capacity among the three countries for information sharing and data analyses. Specifically, the project focuses on:

- *Collaboration with national experts and networks*
 - *Consistent datasets on land cover, land cover change and ecosystem carbon*
 - *Engagement of experts working on land cover and landscape-level carbon sources and stores*
 - *Strengthened information sharing on carbon sources and storage to improve efforts to address climate change and the transition to a low-carbon economy*
 - *Improved data, information and tools for monitoring and reporting on GHG emission reductions*
 - *Integration of data into monitoring and reporting schemes*
- Are the proposed objectives North American in scope? In other words, how are the proposed results relevant to protecting the environment in North America?

The Parties recognize that the trilateral engagement of experts working on developing consistent data and information-sharing on carbon sources and storage can bring added value as most of North America's ecoregions span across boundaries and would benefit from consistent carbon reporting for respective efforts to address climate change and affect the transition to a low-carbon economy. The project will supply data, information and tools that can be used to monitor and report on the development and implementation of appropriate initiatives to reduce GHG emissions from land use change. The project will also facilitate a broad and readily accessible mechanism for the sharing and dissemination of information among North American experts with a focus on scientific and technological best practices.

- Does the project identify specific clear and tangible results that will be achieved and how progress toward each result will be measured over time?

The project specifies clear and tangible results that will be tracked and measured over time, including the establishment of an online platform and geospatial database with multi-temporal information, as well as a baseline that provides support to the development of national strategies and initiatives to reduce GHG emissions. Measurements of results will include the uptake of data standards, protocols, methodologies and data into carbon accounting models and reporting for the three countries and the dissemination of information to the public on ecosystem carbon sources and stores for North America.

- Is the CEC the most effective vehicle for the Parties to undertake the project, considering:
 - The value-added of doing it under the CEC cooperative program
 - Any other public, private or social organizations that work on such activities
 - Opportunities to cooperate and/or leverage resources with such organizations

The CEC has been supporting the North American Land Cover Monitoring System since 2008 and to this end has been a leader in assisting with the establishment of a continental land cover and land cover change data at the appropriate scale to support North American ecosystem carbon quantification and monitoring. It is well positioned to support the collaboration of the Parties' experts in exchanging knowledge on best practices for ecosystem carbon management.

- Does the project propose a clear timeline for implementation of the activities, including a target end date for CEC's involvement? Where applicable, describe how the work will continue after CEC involvement ends?

While project work is intended for 2011 and 2012, further initiatives could be identified in 2012 for the project's continuation. The tasks will put in place strong continental networks and an online sharing platform. By project end, these activities should be integrated into the regular work programs of the trilateral land cover and carbon monitoring programs already well established at USGS, Natural Resources Canada and Conafor. Outputs will include a geospatial database, web map server, and technical reports. These will allow carbon accounting and REDD initiatives in North America to be monitored. In addition, the project will support the scientific collaboration of experts from each country in producing and sharing this information.

- Where applicable, does the project identify with reasonable specificity:
 - Linkages with other relevant CEC projects, past or present, in order to create synergies, capitalize on experience, or avoiding duplication?
 - The target audience, as well as its receptivity and capacity to use the information that may be produced as a result of the project?
 - The beneficiaries of capacity building activities that the project may include?
 - The relevant stakeholders, with particular attention to communities, academia, NGOs and industry, and their involvement and contribution to a successful outcome.
- *The principal stakeholders are government agencies and some national research institutions working on ecosystem carbon modeling and in particular, Mexico, which is already working on developing REDD initiatives.*
- *The North America Land Cover Monitoring System (NALCMS) group, a collaborative initiative between Canada, Mexico, and the United States, and supported and facilitated by the CEC, monitors land cover and its changes over time.*
- *Other stakeholders will include specifically: Conafor, INEGI, Conabio, NR-Can, CCRS NR-Can, USGS - Core Science Systems, USGS - Climate and Land Use Change, North American Land Cover Monitoring Group, North American Carbon Storage Atlas Group, North American Forest Commission, Global Earth Observation System of Systems (GEOSS), and Global Observation of Forest and Land Cover Dynamics (GOFD-GOLD).*

Specific use of these data has also been identified by country:

***Mexico:** i) REDD monitoring (achievements and impacts); ii) multi-scale system for monitoring carbon; iii) biodiversity monitoring; iv) ecosystem health and condition monitoring; v) fragmentation and connectivity analyses of landscapes; vi) resilience of ecosystem monitoring; vii) biodiversity and biomass linkage monitoring; viii) invasive species migration monitoring; ix) distribution of disease vector analyses; x) analysis of trends in land cover change; xi) evaluation of results and impacts of programs such as the payment for environmental services; xii) input to applications for hydrology and climate modeling; xiii) analysis and evaluation of the relation between land cover change and population; and xiv) indicators related to the capacity for carbon storage on forest ecosystems.*

USA: i) Integration of the NALCMS land cover products into an annual refresh of the 30 m land cover change for the United States; ii) CO₂ and carbon monitoring; iii) land management; iv) environmental assessments; v) ecosystem and adaptive management; vi) ground water monitoring; vii) ecosystem status and trends; viii) wildfire management and monitoring; ix) agricultural monitoring; x) emergency response and hazards monitoring; and xi) essential climate variable analyses.

Canada: i) Complete national land cover of Canada; ii) snow and ice change; iii) ecosystem time series monitoring; iv) NDVI (Normalized Difference Vegetation Index) change for monitoring ecosystem trends; v) essential climate variable analyses; vi) monitoring the extent of lake and river ice; vii) carbon reporting; viii) biofuel-potential mapping; ix) forecasting; and x) advancing the clean energy agenda.

The project links well with the:

- a. *North American Online Interactive Informational Platform on Climate Change*
- b. *Improving comparability of GHG emissions data, methodologies and inventories in North America*
- c. *North American Grasslands: Management Initiatives and Partnerships to Enhance Ecosystem and Community Resilience*

North American On-line, Interactive Informational Platform on Climate Change		Operating Year(s): 2011–2012
Planned Budget: 2011: C\$80,000 2012: C\$180,000		
Strategic Priority/Objective: Climate Change – Low-Carbon Economy/Engagement of experts and strengthened information-sharing in climate change and low-carbon economy		
<p>Project Summary: The project will review current platforms; outline recommendations for a complementary, cutting-edge, interactive, and secure on-line platform, based to the maximum extent on open-source and emerging social media solutions; and incorporating, referencing and/or linking existing information systems and resources in production or under development in the three governments. The recommendations shall be consistent with established and emerging international standards for data exchange, access and expression for this information domain.</p> <p>It is envisioned that the platform will be used primarily by North American government officials for exchanging climate change information of all varieties via direct access on the platform and links to other platforms; informing decisions; communicating in real-time; facilitating comparability among data and analyses; sharing scientific, technical and policy-supporting documentation and reports; posting relevant meetings and events; training and building capacity; and seeking informal and formal peer review of documents. However, civil society scientists and technicians will have an important role in such information exchange and are intended as users, as well. Additionally, the platform will provide outreach to all sectors of society within North America, through making available appropriate information and a forum in which to give input to both government officials and scientists.</p>		
<p>Environmental Outcome: Advancement of the three countries' abilities to achieve climate change mitigation objectives, through improved access to climate change information of all types; increased outreach, communication and capacity building; and acceleration of comparability among North American climate change data, analyses, methodologies, reporting, inventories, etc. In addition, value-added focused projects that deliver North American GHG reductions can be developed and undertaken through both the expert exchanges and the shared information that the platform provides. The environmental outcome would ultimately be reduction of GHGs in each of the three countries.</p>		
<p>Tasks necessary to reach the Environmental Outcome:</p> <p>Task 1. Design and launch interactive informational platform</p> <ol style="list-style-type: none"> 1) Prior to the kick-off meeting in (2), the Steering Committee should facilitate a conference call among its members to discuss additional representation within the Committee from other agencies of each government, which are responsible for climate change-related information management, monitoring, observation systems, technical analyses and policy decisions. 2) Conduct kick-off meeting/video conference with the Steering Committee regarding the vision for the platform, including the individual elements necessary. 3) In accordance with elements listed by the Steering Committee, a contractor will review existing platforms that host information and communication on climate change matters; and assess each viable platform's reach, breadth and depth, innovation, sustained accessibility, prompts to regularly visit and contribute to the site, complementarity with other relevant sites, security, and timeliness of data and updates. 4) Recommend one to three options (accompanied by a design outline) for an innovative, cutting-edge platform(s) that would include the elements listed in the project summary, considering open-source and emerging social media solutions as the primary basis for these recommendations, as well as those agreed upon in the kick-off meeting; and including an operations and management plan; and provide the draft report to the Secretariat and the Steering Committee for review and comments; 5) Respond to comments by Steering Committee members, followed by a meeting with the Steering Committee to discuss and decide on most appropriate option; 		

6) Design agreed-upon option as laid out by the Steering Committee.
 7) Following review by Committee members, launch platform.

Task 2. Engage and sustain user community engagement and platform management

1) Develop and incorporate a readily-accessible mechanism by which to reach out to, engage, facilitate interactivity and sustain engagement by, the user community.
 2) Actively manage site for content and accuracy at least twice weekly, and enhance platform with rapidly evolving software tools as they become available.

Task 1 Design and launch interactive informational platform

Subtasks	Project outputs	How does the subtask/output move the project towards the Environmental Outcome?	Timing	Budget (C\$) (activities)
1. Conduct kick-off meeting to decide vision and elements for platform	Specific guidance to contractor on the elements to address in work related to the platform	Kick-off meeting will shape the eventual platform that will help catalyze environmental outcomes	April 2011	2011-\$15,000.00
2. Review existing platforms that host information and communication on climate change matters, and assess each for the elements above and those decided by the Steering Committee	Assessment of other related platforms from which to recommend complementary, cutting-edge North American platform, and with which to link.	Assessment will help guide the development of the best platform to catalyze GHG reductions, based on complementarity and coordination among related platforms.	August 2011	2011-\$20,000.00
3. Recommend one to three options for, with a design outline of, a secure platform(s) that would include the elements listed in the project summary, as well as those agreed upon in the kick-off meeting, along with an operations and management plan; and provide the draft report to the Secretariat and the Steering Committee for review and comment.	Recommendation(s) and Steering Committee input will provide product with which to decide on platform and design.	Recommendations and input will further guide the actual platform to be designed, as well as the design itself, thus forming the basis for the means by which to share communications, data, etc., and ultimate reduction of GHGs in the three countries	October 2011	2011-\$20,000.00

4. Respond to comments by Steering Committee members, followed by a meeting with Committee to discuss and decide on most appropriate option.	Expert-informed decision on appropriate design for platform.	Decision on platform design will determine the degree of efficiency and effectiveness of platform to address elements, intended to further inform climate change decisions intended to reduce GHGs.	December 2011 January 2012	2011-\$5,000.00 2012-\$5,000.00
5. Design agreed-upon option as laid out by the Committee.	A value-added platform with the elements determined by the expert committee members.	Progress toward a final working platform to further inform climate change decisions intended to reduce GHGs.	March 2012	2012-\$30,000.00
6. Following review by Committee members, launch site.	Availability of site to North American government decision-makers, civil society scientists, technicians, and other sectors.	Will produce mechanism by which data, etc. will be readily accessible to inform accelerated analyses and decisions to reduce GHGs.	April 2012	2012-\$5,000.00
Task 2 Engage and sustain user community engagement and platform management				
1) Develop and implement a mechanism to reach out to the user community and sustain its engagement.	A sustainable, value-added platform, made widely accessible to users.	Long-term, diverse engagement will ensure greater quantity and quality of ideas and information, leading to informed mitigation of GHGs.	October 2011 – Dec 2011 Jan 2012-April 2012	2011-\$20,000 2012-\$40,000.00
2) Continue to populate and actively manage site, for content and accuracy on a weekly basis, and enhance platform with rapidly evolving software tools, as they become available.	Sustainable, current and cutting-edge platform that actively encourages and facilitates sustained engagement by government officials and other users.	Informed climate change-related decisions for GHG reductions, based on the most recent and well vetted information.	March 2012	2012-\$100,000.00 -

Meeting Selection Criteria Adopted by Council in the Strategic Plan

The goal of all projects funded by the CEC will be to support the efforts of the Parties to conserve, protect and/or enhance the North American environment. The following criteria will guide the Secretariat, Working Groups, Committees, and other appropriate officials of the Parties in considering cooperative activities for Council approval under operational plans. These selection criteria do not apply for activities to be funded through the NAPECA grant program.

- Does the project contribute to achieving Council's strategic objectives as described within the current Strategic Plan, or as related to other priorities subsequently confirmed by Council? How?

This project directly responds to the second objective under Climate Change – Low-Carbon Economy, entitled, Engagement of experts and strengthened information-sharing on climate change and low-carbon economy, by conducting the activities necessary to fulfill this objective.

- Are the proposed objectives North American in scope? In other words, how are the proposed results relevant to protecting the environment in North America?

The proposed objectives of the project are geared toward North American government decision-makers, civil society scientists, technicians, and other sectors.. By bringing climate change communication, documents, and other information into one common platform, which is accessible to all of these groups throughout North America, and which complements and links directly to information provided by other climate change platforms, our three countries will share an expanded and deeper basis from which to analyze, develop and implement policies to mitigate climate change and assist in adaptation activities. The North American countries' efforts toward comparability of data, etc. would be further informed and expedited through the output of this project.

- Does the project identify specific clear and tangible results that will be achieved and how progress toward each result will be measured over time?
The project aims to deliver an online interactive informational platform by 2012.

- Is the CEC the most effective vehicle for the Parties to undertake the project, considering:

The CEC is uniquely positioned to support the Council in achieving their domestic and international emission reduction goals, including trilateral efforts to cooperate in improving their ability to greatly expand communication and share critical climate change. The project facilitates the CEC's efforts toward climate change data, methodological, and analysis comparability in North America. The work is intended to complement, not duplicate, efforts that currently exist.

The project in and of itself creates and facilitates linkages with other relevant CEC projects to create synergies, capitalize on experiences, and avoid duplication. As such, it provides these linkages, communication, data, reports, etc. to Council members and their staff, other project managers and steering committee members, the Secretariat as a whole, North American government officials at all levels, academia, NGOs, industry and communities. By its very nature, the project would build capacity through this outreach, communication, accessibility, information exchange and education to a variety of sectors in all three countries.

- Does the project propose a clear timeline for implementation of the activities, including a target end date for CEC's involvement? Where applicable, describe how the work will continue after CEC involvement ends?

The project includes specific timelines, as well as the timing for launching the site. However, sustained management of the site will need to be continued under the CEC, either through a Secretariat employee or a contractor.

- Where applicable, does the project identify with reasonable specificity:

The project itself constitutes a leveraging of resources, not only of each of the governments, but also of those entities that have provided analyses, reports, etc. that would be placed onto the platform.

The project links well with the:

- Improving comparability of GHG emissions data, methodologies and inventories in North America; and*
- Ecosystem Carbon Sources and Storage: Information to Quantify and Manage for Greenhouse Gas Emissions Reductions.*

Improving Conditions for Green Building Construction in North America **Operating Year(s):**
2011–2012

Planned Budget: C\$60,000 for 2011; Project description and budget for 2012 to be agreed pending the outcome of task 1.2.

Strategic Priority/Objective: Greening the Economy in North America/Improved private sector environmental performance

Project Summary

This project will establish a Trilateral Green Building Construction Task Force, building on the work of the Canada-Mexico Partnership and the government counterparts in the United States to foster improved understanding and identify opportunities associated with the construction of green buildings in North America. Initially, the Parties will identify the appropriate officials who will together determine the best way to drive changes needed to better support the construction of green buildings and use of green building materials in North America. The CEC’s *Green Building in North America: Opportunities and Challenges* report can inform the discussion.

Initial meetings of the task force will define a clear path forward and give due consideration to JPAC advice on inclusion of the appropriate stakeholders, such as representative groups of the construction sector as a next step in defining this activity.

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Tasks necessary to reach the Environmental Outcome:

- 1) Establishment of trilateral taskforce to promote green building construction

Task 1: Establishment of trilateral taskforce to promote green building construction				
Subtask	Project outputs	How does the subtask/output move the project towards the Environmental Outcome?	Timing	Budget (C\$) (activities)
1.1 Trilateral Taskforce Development	A taskforce composed of officials from all three countries will be established with the purpose of promoting North American green building construction.	Determine appropriate stakeholders and other key components of improving environmental performance in green building.		\$50,000 + \$10,000 for travel
1.2 Development of a work plan with concrete goals and objectives.	1. Workshop and work plan to be developed by September 2011	Identify and develop a work plan for cooperation in North America to focus on green buildings and green building products markets.		

PRIORITY PROJECTS IDENTIFIED FOR OUTYEAR FUNDING OR FUNDING FROM OTHER SOURCES (potential implementing partners):

Explain how this project meets the selection criteria adopted by Council in the Strategic Plan (see below)

The goal of all projects funded by the CEC will be to support the efforts of the Parties to conserve, protect and/or enhance the North American environment. The following criteria will guide the Secretariat, working groups, committees, and other appropriate officials of the Parties in considering cooperative activities for Council approval under operational plans. These selection criteria do not apply to activities funded through the NAPECA grant program.

- **Does the project contribute to achieving Council's strategic objectives as described within the current Strategic Plan, or as related to other priorities subsequently confirmed by Council? How?**

Yes. The development of a trilateral green building construction task force furthers the Council's 2010–2015 Strategic Plan by improving the environmental performance of the private sector in North America.

- **Are the proposed objectives North American in scope? In other words, how are the proposed results relevant to protecting the environment in North America?**

Yes. The Green Building Construction task force will be composed of representatives from all three countries whose mission will be to develop and convene a workshop as well as further the usage of North American green building products and construction in the region by informing industry of upcoming opportunities, educating government officials and others about the economic and environmental benefits of using these commodities and practices, working with regulators to prevent inadvertent erection of market access barriers, and continuing an outreach program to further understanding of this sector.

- **Does the project identify specific, clear and tangible results that will be achieved and how progress toward each result will be measured over time?**

Yes. The proposal requests funding to cover the responsibilities awarded to a trilateral taskforce, which will be empowered to promote North American construction in the region as well as to address issues facing the adoption and use of these commodities and methodologies.

- **Is the CEC the most effective vehicle for the Parties to undertake the project, considering:**
 - **The value-added of doing it under the CEC cooperative program**
 - **Any other public, private or social organizations that work on such activities**
 - **Opportunities to cooperate and/or leverage resources with such organizations**

Organizations promoting the use of sustainable building materials and green construction are principally national or local. Opportunities for international cooperation are ripe, and collaborative events are becoming more frequent. While a conference could be arranged using a variety of resources, the CEC is particularly suited to fund the tasks and subtasks identified in the table above, due to the inherently North American nature of this event.

Other possibilities for contributing to a broader and global environmental success include:

- **Does the project propose a clear timeline for implementation of the activities, including a target end date for CEC’s involvement? Where applicable, describe how the work will continue after CEC involvement ends?**

The goal of this program is the development of a trilateral taskforce that, going forward, will promote green building products and opportunities. The establishment of this taskforce, as well as its initial work plan, will be done under the auspices of this CEC proposal.

Where applicable, does the project identify with reasonable specificity:

- **Linkages with other relevant CEC projects, past or present, in order to create synergies, capitalize on experience, or avoid duplication?**

A trilateral task force responsible for organizing and promoting use of North American green building construction is novel to the CEC. However, the work undertaken by this group will support many of the CEC’s objectives, particularly those catalogued in the “Green Building in North America: Opportunities and Challenges” report.

- **The target audience, as well as its receptivity and capacity to use the information that may be produced as a result of the project?**

This task force will focus its activities on government actors, industry officials, academics and educators to promote understanding and encourage use of North American green building construction.

- Builders to facilitate information exchange, inform and influence the supply chain, educate manufacturers and develop retail strategies.
- Collaboration will address barriers associated with cost of energy efficiency and renewable energy technologies. Dialogue between APP and CMP initiative builders has indicated strong interest to develop a strategy to overcome cost issues incurred by builders.
- The financial report activity will target builders and financial institutions as a means to facilitate dialogue and develop options for collaboration. A dialogue was held in Canada with four financial institutions and the group concluded more work was required to enhance understanding of financial business models and options to evaluate risk associated with zero emissions housing (ZEH). The Canadian group with US participants indicated this was a key area for collaboration needed to overcome cost issues.
- The subtask will conclude with a workshop to disseminate information as a means to facilitate stakeholder dialogue and cooperation to tackle energy opportunities associated with green building construction. The workshop will have representation from all stakeholder groups—academic, public sector, real estate, financial, builders/developer, insurance and appraisers—in each country.

- **The beneficiaries of capacity building activities that the project may include?**

Capacity building will be contemplated in the next steps of this project.

- **The relevant stakeholders, with particular attention to communities, academia, NGOs and industry, and their involvement and contribution to a successful outcome.**

Though the composition of the task force remains to be determined, its activities will be focused not only on industry, but also on informing the public, government officials and others about North American green building construction.

Improving the Economic and Environmental Performance of the North American Automotive Industry Supply Chain		Operating Year(s): 2011–2012
Planned Budget: 2011 - C\$80,000 2012 - C\$120,000		
Strategic Priority/Objective: Greening the North American Economy/Improved private sector environmental performance in North America		
<p>Project Summary: This project proposes to re-engage key automotive companies for the development and implementation of green supply-chain programs across North America. This builds precisely on the language within the 2010–2015 CEC Strategic Plan: “building on our success in the automotive manufacturing sector through continued efforts to green critical components of supply chains across the continent and support the ongoing recovery of this important sector.”</p> <p>Initiatives for greening the North American auto industry have been supported by the CEC, specifically in the 2009–2010 Operational Plan and Council Resolution 06-06.¹ Past CEC efforts succeeded in stimulating competitiveness to the sector and significantly reducing environmental impacts through the Suppliers' Partnership Organization in the United States. Expansion of automotive supply chain programs into Canada and Mexico was also near completion when it was abruptly severed by the misfortune of the economic downturn.</p> <p>This project proposes now to extend work in greening the automotive supply chain throughout Canada and Mexico to create a "one window" North American program. Continuing the work already started by the CEC in the automotive sector is important to set up a successful cooperative trilateral initiative and achieve a business-driven, self-supported North American partnership that will promote greening of the automotive supply chains in North America.</p> <p>Given the success of the work started within the United States and the strong integration of the auto sector across all three countries, this project will allow both Canada and Mexico to benefit from initial efforts in the United States, level the playing field across North America, and permit trilateral cooperation. These programs can be the foundation for automotive manufacturers and their suppliers to share information and practices that will improve environmental and economic performance within this North American sector supply chain.</p>		
<p>Environmental Outcome: To reduce environmental impacts from the automotive manufacturing industry while enhancing competitiveness by developing and implementing formalized Automotive Green Supply Chain programs in Canada and Mexico in partnership with the United States.</p> <p>Short Term (timeline: spring 2011–spring-summer 2012) The commitment of core automotive manufacturers and suppliers to green their supply chains in Canada and Mexico.</p> <ul style="list-style-type: none"> - Measurability: the number of manufacturers and suppliers in Canada and Mexico committed to the green supply chain program, as well as their respective scale of impact in the sector. <p>Exchange of resources, information, and tools within the sector, to green the supply chain between manufacturers and suppliers.</p> <ul style="list-style-type: none"> - Measurability: list of tools and resources exchanged and performance survey of how useful manufacturers and suppliers found them. <p>Middle Term (timeline: starting summer-fall 2012 and continuing throughout the life of this Green Supply Chain Program) The creation of a business-driven, self-supported supplier partnership in North America (Canada, Mexico and the United States) to green the automotive</p>		

¹ See <http://www.cec.org/Page.asp?PageID=924&ContentID=970>.

supply chain.

- Measurability: membership and numbers of small to medium-size enterprises benefiting from the supplier partnership program in Canada, Mexico, and the United States and the resources (financial and logistical) allotted to sustain the program.

Reduction in environmental impact and improvement in economic capacity through activities adopted by the supplier partnership program.

- Measurability: list of activities adopted, such as best management practices, amount of reduced impact, and improved business results reported by members, including waste reduction, lessened energy and water consumption, and increased profit margins.

Long Term (timeline: over next five years and continuing onwards)

The reduced environmental footprint of the automotive supply chain, along with improved automotive sector competitiveness.

- Measurability: survey to members on environmental measures and profit improvements, such as tonnage of greenhouse gas reductions, end-of-life cycle responsibility, lower toxicity of end products and manufacturing outputs, reduced energy and water consumption, increased profit margin and business growth. Additional measures could include number of stakeholders affected by supply partnership program and an increased overall competitive market of the North American automotive industry.

Tasks necessary to reach the Environmental Outcome:

- 1) Engage Canada and Mexico in developing a green automotive supply chain program
- 2) Unite Canada, Mexico and the United States in a self sustainable North American green supply chain program

Budget: Overall timeline and budget: two years (2011 - \$80,000, 2012 - \$120,000) – a rate of \$10,000 per month for the period of May 2011 to December 2012 for costs and expenses to contractor to carry out project.

Task 1: Engage Canada and Mexico in developing a green automotive supply chain program

Subtask	Project outputs	How does the subtask/output move the project towards the Environmental Outcome?	Timing	Budget (C\$) (activities)
1.1 Engage key stakeholders in Canada and Mexico in a green automotive supply chain program that will work to improve the environmental and economic capacity of the automotive sector.	The commitment of core automotive manufacturers and suppliers in Canada to participate in a green supply chain program	Engaging Canada and Mexico in a green automotive supply chain allows short-term environmental outcomes to be met (see <i>Environmental Outcome</i> section).	Summer 2011– Summer 2012	\$80,000 (activities include meetings with key stakeholders, organizing working groups, designing the green supply chain program for both Canada and Mexico)
1.2 Build understanding of processes to identify environmental issues and work towards developing environmental solutions economic opportunities.	A formation of working groups composed of automotive suppliers and manufacturers that will initiate activities and projects that will improve the environment and the economic opportunities in Canada and Mexico			

Task 2: Unite Canada, Mexico and the United States in a self-sustainable North American green supply chain program				
Subtask	Project outputs	How does the subtask/output move the project towards the Environmental Outcome?	Timing	Budget (C\$) (activities)
2.1 Build a trinational communications gateway to create a "one-window," self-sustainable North American green automotive supply chain program.	A collaborative framework for automotive manufacturers and suppliers to mentor and share information and practices, leading to improved environmental and economic capacity of small and medium-size enterprises in the supply chain	Developing and implementing a supply chain program that is North American in scope and self-sustaining allows for middle-term and long-term environmental outcomes to be reached (see <i>Environmental Outcome</i> section).	2 years	\$120,000 (activities include trinational meetings, conference calls, strengthening working group functionality, surveys, compiling annual CEC reports, forming logistics for self sustainability)
2.2 Collect and share of results-oriented information that highlights progress within the automobile sector.	Annual, web-based CEC North American Automotive Supply Chain Efficiency reports detailing how companies in the automotive supply chain are improving the environment and creating economic opportunity in the manufacturing process			
2.3 Develop and implement a self-sustaining automotive supply chain program across North America that will benefit the environment, trade and the economy, and encourage sustainable consumption, production and trade.	A self-sustained coalition of auto suppliers and manufacturers in Canada, Mexico, and the United States, in partnership with their governments to improve the environment and the economies of their respective countries through greening the automobile supply chain			

Explain how this project meets the selection criteria adopted by Council in the Strategic Plan (See below)

The goal of all projects funded by the CEC will be to support the efforts of the Parties to conserve, protect and/or enhance the North American environment. The following criteria will guide the Secretariat, Working Groups, Committees, and other appropriate officials of the Parties in considering cooperative activities for Council approval under operational plans. These selection criteria do not apply to activities funded through the NAPECA grant program.

- Does the project contribute to achieving Council's strategic objectives as described within the current Strategic Plan, or as related to other priorities subsequently confirmed by Council? How?

In the Strategic Plan, Strategic Objective # 1 under the third Council priority ("Greening the Economy of North America") is "Improved private sector environmental performance in North America.

This project aims to improve private sector environmental performance by forging partnerships between automotive manufacturers and suppliers across North America to 'green the automotive supply chain.' The competitive advantage of the approach is that it aims to simultaneously reduce costs/increase profits while saving the environment, offering a sustainable business model that will reap long-term benefits. In addition, it will provide a self-sustaining forum for continued improvement, innovation and success.

In the "Greening the Economy in North America" priority, there is also emphasis on "Engaging experts and strengthening information and data-sharing to assess and promote private sector environmental performance in North America as a tool to support the Strategic Objective". A Green Supply Chain or Supplier Partnership program initiative creates an environment to carry this out through engaging private sector experts with support of a facilitator to organize, develop and implement green supply chain programs in Canada and Mexico in partnership with automotive manufacturers and key suppliers. Continued efforts in the US will promote forward momentum. In establishing a trilateral platform for partnership and communication, a foundation will be built that will allow suppliers to participate in a "one-window" program. Automotive manufacturers and their suppliers across North America will be able to share information and practices that will improve the environmental and economic performance capacity of small and medium-size enterprises within this sectoral supply chain.

- Are the proposed objectives North American in scope? In other words, how are the proposed results relevant to protecting the environment in North America?

Yes, the automotive supply chain is a vital and integrated component of the economy in Canada, Mexico, and the United States. It is anticipated that the supply chain programs will create a foundation for suppliers across North America to participate on a level playing field, enhancing their capacity in a shared economic and environmental context. It also provides resources to build interest and engage suppliers that are deeper in the supply chain and thus harder to reach (such as tier-3 companies). In expanding communication and interest, the supply partnership will be able to encompass a wider embodiment of the automotive supplier-manufacturer realm across North America.

In its approach, this initiative aims to generate measurable progress on greening the automotive supply chain in Canada and Mexico, and lay the foundation for a sustainable North American automotive supply chain organization in Canada and Mexico. These new organizations will be given the logistical resources to be self-sustainable and fund future activities of their organizations with independent funding of the CEC. They will work collaboratively and supportively with the Suppliers Partnership for the Environment that is now operating with company funding in the United States.

- Does the project identify specific clear and tangible results that will be achieved and how progress toward each result will be measured over time?

Yes, through the development and implementation of green supply chain programs, small and medium-size suppliers will collaborate in sharing information and practices. Important areas for economic and environmental improvements include creating systems to identify and utilize automotive manufacturing environmental technology opportunities to improve the environment and the financial viability of the automobile supply

chain. Furthermore, activities will be undertaken to enhance the automotive industry and its supply chain by reducing energy consumption, addressing solid waste, materials efficiency, chemicals in products and water sustainability issues.

In order to evaluate the success of the supply chain program, two web-based annual CEC North American Automobile Supply Chain Efficiency Reports will be created that will provide detail on how companies in the automobile supply chain are improving the environment and creating economic opportunity in the manufacturing process. Measurable and identifiable results will include much of the following metrics:

Economic Metrics	Energy Metrics	Environment Metrics
<ul style="list-style-type: none"> - number of manufacturers engaged - number of medium-size and small businesses engaged - percentage of small businesses engaged - jobs created - jobs retained - individuals trained - number and value of loans granted - capital dollars invested - hours of counseling provided - total annual potential impact identified - savings identified (environmental, "lean," and other) 	<ul style="list-style-type: none"> - energy conserved - energy intensity per unit of production - carbon reductions - carbon intensity per unit of production 	<ul style="list-style-type: none"> - air emissions reduced - solid waste reduced - material intensity per unit of production - hazardous waste reduced - hazardous materials reduced - water pollution reduced - water used/conserved - water intensity per unit of production

- Is the CEC the most effective vehicle for the Parties to undertake the project, considering:
 - The value-added of doing it under the CEC cooperative program

This project precisely addresses the 2010–2015 CEC Strategic Plan work directive: “Building on our success in the automotive manufacturing sector through continued efforts to green critical components of supply chains across the continent and support the ongoing recovery of this important sector”.

Previous efforts by the CEC have proven the success of reducing environmental impacts by the automotive industry in the United States. In continuing its involvement with greening the automotive supply chain it will allow the momentum to continue and expand into Mexico and Canada, leveling the playing field and allowing the industry to build a trilateral foundation upon which it may continue to flourish. Therefore, this is an excellent opportunity for The CEC to be the catalyst for expanding a supplier partnership across North America.

- Any other public, private or social organizations that work on such activities

In its efforts to date, the CEC has supported the Suppliers Partnership as a vehicle to build partnership with the industry and implement activities within the automotive sector; a direct goal outlined in the [Council Resolution 06-06](#). This organization is unique as it is a group that benefits all automobile suppliers, is member-driven, proactive, and self sustained. It is also the only automobile environmental supply chain entity that directly collaborates with the federal environment agency (US EPA). The principles of this group had been the foundation on building a green automotive supply chain program in both Canada and Mexico in 2008-2009 that had nearly succeeded before the economic crisis hit the sector. In order to successfully carry-out the goals in this project and build partnership with the automotive industry, work will continue to focus on with the principles and foundations of the Suppliers Partnership.

- Opportunities to cooperate and/or leverage resources with such organizations

Opportunities to cooperate and leverage resources exist in continuing previous CEC work with the Suppliers Partnership. This organization has engaged the US Environmental Protection Agency, large OEM's in the North American market, and thousands of medium-size and small suppliers and manufacturers. Furthermore, as the tasks involved in engaging Canada and Mexico, and creating a North American program require delicate and strategic execution, it is recognized that expertise required and available to implement these targets will include a series of unique skills including: knowledge of the automobile industry and the supply chain; relationships with key leaders within the automobile manufacturing industry, the supply chain, and the governmental units represented in the CEC; the ability to facilitate and execute the results of strategic planning activities in Canada and Mexico; the ability to work seamlessly with Canadian, Mexican and United States auto-related supply chain organizations; and the capacity to enable Canada and Mexico the ability to facilitate, create and support work groups activities that will address issues with measurable results that will meet the objectives of the CEC's greening the automotive sector. Through arduous work previously supported by the CEC, the appropriate cooperation and expertise has been established. Given the opportunity to continue with this initiative and the ability to rely on these resources to build upon, a green automotive supply chain can emerge into Canada and Mexico and be achieved across North America.

- Does the project propose a clear timeline for implementation of the activities, including a target end date for CEC's involvement? Where applicable, describe how the work will continue after CEC involvement ends?

Yes there is a clear timeline for implementation of the activities including the target end date for the CEC's involvement. The Supply Chain program development and implementation requires two years. This two-year proposal aims to establish involvement in greening the automotive supply chain within Canada and Mexico and strengthen partnership between Canada, U.S.A. and Mexico to forge a coalition that will take on challenges and sprout solutions for key environmental issues impacting the automobile supply chain in North America. These initiatives will continue on through industry participation and fee structures to be self sustainable.

- Where applicable, does the project identify with reasonable specificity:
 - Linkages with other relevant CEC projects, past or present, in order to create synergies, capitalize on experience, or avoid duplication?

This project builds on previous CEC automotive and small and medium-size "lean and clean" activities that occurred in Mexico. However, the economic downturn brought to a standstill the Green Supply chain activities that had occurred in Mexico, and were beginning in Canada. This is reflected in the language on page 11 of the 2010–2015 Strategic Plan of the CEC: "building on our successes in the automotive manufacturing sector, through continued efforts to green critical components of supply chains across the continent and support the ongoing recovery of this important sector."

In addition, the CEC Roadmap was a key deliverable from the 'Greening the North American Auto Industry' project in the 2009–2010 Operational Plan. This roadmap identified practical insights into the sector's drivers and barriers and innovative elements that would provide competitiveness and environmental sustainability to the automotive supply chain. This project, in continuing to engage Mexico and Canada to create a North American green supply chain organization, will be able to draw from the concepts envisioned in the CEC Roadmap towards competitiveness and improved environmental performance.

On a broader scale and larger timeframe, this project gives CEC the potential to continue to honor the Strategic Priority, "Greening the Economy in North America," by applying a similar project approach to different sectors. The approach outlined in this project will lay the foundation for the auto-sector supply chain to move forward with their own organizations and also then allow the CEC to identify another

business sector to focus resources and strategies. Therefore, it will be possible for CEC to systematically provide resources for different business sectors each of which will focus on ways to green their sector specific supply chains in North America.

- The target audience, as well as its receptivity and capacity to use the information that may be produced as a result of the project?

The automotive manufacturers and the automotive supply chain – the target audience - are receptive to this project in forming partnership to green the automotive supply chain while reducing costs/making money. In 2009, the target audience was receptive to forming a green automotive supply chain program. While activity has since ceased due to the unexpected economic crisis, receptivity has continued. Automotive manufacturers and suppliers have been receptive in recent discussions, expressing interest in the elements of the Roadmap and the dynamics of the Suppliers Partnership formed in the United States to green the automotive supply chain.

Information that may be produced by this project through Working Groups, reports, surveys, and overall knowledge sharing, is intended to be shared and used by the target audience who will directly benefit from it.

- The beneficiaries of capacity building activities that the project may include?

The automotive industry and the small and medium suppliers of the three countries will be direct beneficiaries. Consumers of automotive products and ultimately, all citizens within North America will subsequently benefit from the resulting improvement in the supply chain both by the reduced environmental impact and availability of improved automotive products.

- The relevant stakeholders, with particular attention to communities, academia, NGOs and industry, and their involvement and contribution to a successful outcome.

The relevant stakeholders include:

- the North American automotive manufacturers and the thousands of small and medium-size suppliers within the sector, who may be involved in, or benefit from, the green supply chain program to improve their environmental and economic performance capacity.

- business associations, whose members would benefit from the supply chain programs.

For example: the Canadian Automotive Parts Manufacturers Association, and the Asociación Mexicana de la Industria Automotriz (AMIA).

- environmental government agencies, who will work in partnership with the green supply chain program to provide information, tools and resources.

Environment Canada

Secretaría de Medio Ambiente y Recursos Naturales (Semarnat), Procuraduría Federal de Protección al Ambiente (Profepa)

Environmental Protection Agency (EPA)

- trade associations with common goals in environmental protection and greening the automotive supply chain

(currently in the United States, the Green Suppliers Network and the US Suppliers' Partnership for the Environment).

- *NGOs, green technology providers, and other entities that would benefit from involvement in the supply chain program*
For example: Good Will and Green Tree Products Technologies are active members in the Suppliers Partnership in the United States

It is anticipated that supply chain programs will be fee-structured initiatives once CEC support ends.

Sound Management of Electronic Wastes in North America			Operating Year(s): 2011–2012	
Planned Budget: C\$400,000.00 2011: C\$165,000.00 2012: C\$235,000.00				
Strategic Priority/Objective: Greening the Economy in North America				
Project Summary: This project aims at improving understanding of the transboundary movements (flows) of used and end-of-life computers and monitors in/from North America and enhancing capacities of the e-waste refurbishing and recycling sectors to implement environmentally sound management practices.				
Environmental Outcome: A clearer picture on the transboundary movements (flows) of used and end-of-life computers and monitors in/from North America, and more enhanced capacities of the e-waste refurbishing and recycling sectors to implement environmentally sound management practices.				
Components necessary to reach the environmental outcome:				
Component A. Estimate the amounts of transboundary movement of used and end-of-life computers and monitors within North America and from North America to the rest of the world, based on a set of methodologies developed in an earlier phase (i.e., Phase II) of this analysis.				
Component B. Enhance capacities of the e-waste refurbishing and recycling sectors to implement environmentally sound management practices.				
Component A. Estimate the amounts of transboundary movement of used and end-of-life computers and monitors within North America and from North America to the rest of the world, based on a set of methodologies developed in an earlier phase (i.e., Phase II) of this analysis.				
Task:	Project outputs	How does the subtask/output move the project towards the Environmental Outcome?	Timing	Budget (C\$) (activities)
1. Estimate the amounts of transboundary movement of used and end-of-life computers and monitors within North America and from North America to the rest of the world, based on a set of methodologies developed in an earlier phase (i.e., Phase II) of this analysis.	Final estimates of trade flows for used and end-of-life computer and monitors within/from North America	The trade flow estimates will support decisions of senior policy-makers on e-waste exports/imports.	December 2012	\$200,000 <i>Note - Approval of work under this subtask is contingent upon trilateral approval of the validation, via peer-review, of the methodology developed in Phase II.</i>

Subtasks:				
<p>i) Export Material Flows Analysis (MFA) data – Implement “Export MFA” to estimate data on used and end-of-life computers and monitors exported from Canada, Mexico and the US, based on mass balance-MFA.</p>	<p>Export MFA data on used and end-of-life computer and monitor trade flows from North America</p>	<p>This subtask provides data that will be integrated into the final estimates of used and end-of-life computer and monitor trade flows. Because there is little empirical data available, it is important to integrate the outputs of subtasks i) – v) to increase accuracy of flow estimates.</p>	<p>6 months after contract is signed (2011)</p>	<p>\$65,000 (A bulk of this amount will be allocated to undertaking an Export MFA for the USA, which unlike Canada and Mexico, was not a key focus of work under Phase II. Lesser amounts will be allocated to the topics of Mexico and Canada to identify and integrate supplemental information for their respective Export MFAs.)</p>
<p>ii) Shipment-level Analysis – Analyze shipment-level and other trade data for the limited number of countries that collect reasonably good trade data on used and end-of-life computers and monitors to estimate imports of used computers coming from Canada, Mexico and the US.</p>	<p>Shipment-level data on used and end-of-life computer and monitor trade flows from North America</p>	<p>This subtask provides data that will be integrated into the final estimates of used and end-of-life computer and monitor trade flows.</p>	<p>7 months after contract is signed (2011) (Five months to obtain the data. Two months to process and adequately analyze the data.)</p>	<p>\$20,000</p>
<p>iii) Extrapolation/Regression Analysis – For selected non-North American countries for which no data on imports of used and end-of-life computer and monitor are available, estimate imports (from North America), based on a regression model, fitting countries to demographic/geographic information.</p>	<p>Extrapolation/Regression data on used and end-of-life computer and monitor trade flows from North America</p>	<p>This subtask provides data that will be integrated into the final estimates of used computer trade flows.</p>	<p>8 months after contract is signed (2012)</p>	<p>\$20,000</p>

<p>iv) Import MFA – Implement a partial “import MFA” to estimate imports of used and end-of-life computers and monitors for key, non-North American countries for which trade data are unavailable, such as China and Nigeria.</p>	<p>Import MFA data on used and end-of-life computer and monitor trade flows from North America</p>	<p>This subtask provides data that will be integrated into the final estimates of trade flows.</p>	<p>12 months after contract is signed (2012)</p>	<p>\$50,000</p>
<p>v) Hidden Flows Analysis – Estimate global hidden flows by subtracting trade/uptake estimations of imports from the mass balance-based estimates of total exports of used and end-of-life computers and monitors. Hidden flows are the difference between the MFA-generated total exports and trade statistic-based import estimates.</p>	<p>Hidden flows data on used and end-of-life computer and monitor trade flows from North America</p>	<p>This subtask provides data that will be integrated into the final estimates of used and end-of-life computer and monitor trade flows.</p>	<p>14 months after contract is signed (2012) (Expect to finish the hidden flow analysis two months after subtasks i) -iv) are completed. The two months is to process and adequately analyze the data.)</p>	<p>\$5,000</p>
<p>vi) Uncertainty Analysis – Analyze uncertainties in the methodologies developed in quantitative and qualitative terms and include margins of error for all numeric inputs and outputs used by various models employed by the methodologies. Sensitivity analyses will also be applied to estimate fluctuations in final results. The uncertainty analysis applies to each of the above</p>	<p>Information identifying uncertainties of used and end-of-life computer and monitor trade flow estimates.</p>	<p>Since little empirical data is available, this subtask assesses the uncertainty inherent in the final estimates of used computer trade flows.</p>	<p>14 months after contract is signed (2012)</p>	

components. Time is needed to process and adequately analyze the data.				
vii) Reports on trade flows – integration of the outputs of the various methodologies to estimate trade flows for used and end-of-life computers and monitors. Requires integration, communication and documentation of information from the above components.	Final estimates of used computer trade flows.	The trade flow estimates will support compliance monitoring and enforcement agencies and inform decision -makers on an important international topic, e-waste exports/imports.	Final report (19 months after contract is signed) (2012) (Interim report outline (8 months after contract signed), First complete draft report (15 months after contract signed), Draft final report (17 months after contract signed).)	\$40,000
Component B. Enhance capacities of the e-waste refurbishing and recycling sectors to implement environmentally sound management practices.				
Task:	Project outputs	How does the subtask/output move the project towards the Environmental Outcome?	Timing	Budget (C\$) (activities)
1. Promote the adoption of environmentally-sound management (ESM) practices in small and medium-size enterprises (SMEs), specifically e-waste recyclers and refurbishers, in North America.	1. Development of training courses to promote and incorporate ESM in SMEs. 2. Develop a web-based micro-site to disseminate relevant ESM guidance and training materials.	This task will increase the implementation of environmentally sound approaches, thus reducing mismanagement of e-waste, protecting the health and safety of workers engaged in e-waste recycling and refurbishing, and lessen environmental contamination.	December 2012	\$200,000

Subtasks for B 1:				
<p>i) Conduct a training needs assessment. – Survey SMEs in e-recycling and e-refurbishing sectors in North America to identify specific training needs on ESM, clarify the primary target audience for training, and identify practical options for training delivery in Canada Mexico, and the US. Identify existing ESM guidance, training materials and tools for e-recycling and e-refurbishing and identify potential gaps.</p>	<p>A report assessing ESM training needs for SMEs that recycle and refurbish e-waste. Survey results that will feed into the needs report.</p>	<p>Assesses priority of training needs, leading to training courses that are more likely to increase the environmentally sound recycling and refurbishment among SMEs.</p>	<p>2011</p>	<p>\$15,000</p>
<p>ii) Develop training content for use in training courses that utilizes the information obtained during subtask i). It is anticipated that training content will cover both general management aspects and operational aspects of ESM, including risk prevention and management.</p>	<p>The content and structure for training on the environmentally sound recycling and refurbishment of e-waste geared to SMEs.</p>	<p>SMEs said that the best way to increase environmentally sound recycling and refurbishment is through detailed technical training. The training course content will meet this approach to improving ESM.</p>	<p>2011</p>	<p>\$65,000</p>
<p>iii) Deliver training courses based on ESM training content from subtask iii) to promote uptake of ESM by SMEs that recycle and refurbish e-waste. Deliver two face-to-face training courses for Mexican SMEs. Deliver a web-based training course for Canadian SMEs.</p>	<p>Two face-to-face training courses for Mexican SMEs that recycle and refurbish e-waste</p> <p>Web-based or face-to-face training for Canadian SMEs that recycle and refurbish e-waste.</p>	<p>Will increase environmentally sound recycling and refurbishment among SMEs leading to reduced health and environmental consequences of mismanaged e-waste.</p>	<p>2012</p>	<p>\$100,000</p> <p>(\$30,000 for first face-to-face training in Mexico</p> <p>\$30,000 for second face-to-face training in Mexico</p> <p>\$40,000 for training in Canada)</p>

iv) Develop a website to more widely disseminate ESM materials and training course content, which may include guidelines, presentations, links to relevant websites, and recorded training sessions.	A webpage on the CEC website addressing ESM approaches for recycling and refurbishing e-waste. This activity will include web design, translation services, and HTML markup for training materials.	Will disseminate information pertaining to environmentally sound management to SMEs that recycle and refurbish e-waste, leading to reduced health and environmental consequences of mismanaged e-waste.	2012	\$20,000
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Explain how this project meets the selection criteria adopted by Council in the Strategic Plan (See below)

The goal of all projects funded by the CEC will be to support the efforts of the Parties to conserve, protect and/or enhance the North American environment. The following criteria will guide the Secretariat, working groups, committees, and other appropriate officials of the Parties in considering cooperative activities for Council approval under operational plans. These selection criteria do not apply to activities funded through the NAPECA grant program.

- Does the project contribute to achieving Council's strategic objectives as described within the current Strategic Plan, or as related to other priorities subsequently confirmed by Council?
 - This project is directly related to Strategic Objective #1 under the Greening the Economy in North America priority (addressing gaps in our common knowledge on the movement of used electronics and e-waste and improved private sector environmental performance in North America).
- By undertaking the following activities, government agencies in the three countries will be more effective at addressing priority issues as a region:
 - This project will allow the parties to gain access to information that will allow them to implement or modify current policies on e-waste and to foster the implementation of environmentally sound management of these wastes
- Are the proposed objectives North American in scope? In other words, how are the proposed results relevant to protecting the environment in North America?
 - The scope of activities is North American. The strategies and themes included are in line with the themes included in the Strategic Plan in the above-cited strategic objectives.
- Does the project identify specific, clear, and tangible results that will be achieved and how progress toward each result will be measured over time?

- The project identifies and outlines a task and subtasks to attain the overall objectives.
- Is the CEC the most effective vehicle for the Parties to undertake the project, considering:
 - The value-added of doing it under the CEC cooperative program. The CEC, as a trilateral international governmental agency, is an excellent vehicle to collect and analyze information on the flows of used and end-of-life computers and monitors in North America to the rest of the world and to foster the implementation of environmentally sound management of these wastes in the refurbishing and recycling industry in the region.
 - Any other public, private or social organizations that work on such activities. There is no other regional organization public or private working within the regional scope of activities included in this trilateral project. However, pursuant to advice received from JPAC, project proponents engaged in enhancing capacities of small and medium-size enterprises in e-waste refurbishing and recycling sectors will explore future opportunities for engaging consumers in this work, with a view to increasing awareness of these issues.
 - Opportunities to cooperate and/or leverage resources with such organizations. This project will leverage to efforts being implemented in other regions of the world.
- Does the project propose a clear timeline for implementation of the activities, including a target end date for CEC involvement? Where applicable, describe how the work will continue after CEC involvement ends? The project includes a clear timeline.
- Where applicable, does the project identify with reasonable specificity:
 - Linkages with other relevant CEC projects, past or present, in order to create synergies, capitalize on experience, or avoid duplication? Yes
 - The target audience, as well as its receptivity and capacity to use the information that may be produced as a result of the project? Yes
 - The beneficiaries of capacity building activities that the project may include? Yes
 - The relevant stakeholders, with particular attention to communities, academia, NGOs and industry, and their involvement and contribution to a successful outcome? Yes

***Strategic Plan of the
Commission for Environmental Cooperation
2010–2015***

Our mission

To facilitate cooperation and public participation to foster conservation, protection and enhancement of the North American environment for the benefit of present and future generations, in the context of increasing economic, trade and social links among Canada, Mexico and the United States.

10 November 2010

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1. The North American Agreement on Environmental Cooperation

In North America, more than 425 million people share a rich environmental heritage ranging from tropical rain forests to arctic tundra and including deserts and wetlands, oceans and rivers, prairies and mountains. Together, these natural resources form a complex network of ecosystems that support a unique biodiversity as well as sustain our well-being and livelihoods. Although the three countries in North America have had a rich history of bilateral cooperation on the environment, the North American Agreement on Environmental Cooperation (NAAEC) facilitated collaboration at the trilateral level.

The NAAEC came into force at the same time as the North American Free Trade Agreement (NAFTA). Together, the environmental provisions of both agreements mark the determination of our three countries that economic growth and liberalization of trade would not displace ongoing cooperation and continuous improvement in the environmental performance of each country.

More specifically, the NAAEC emphasizes a collaborative approach to environmental protection that integrates ecological, economic and social factors affecting the North American environment, promotes environmental cooperation in the region and supports the effective enforcement of environmental law. The NAAEC recognizes the interrelationship between a sustainable environment and a sustainable economy and fosters both (see Appendix 1 for the NAAEC objectives).

In addition to reinforcing the national obligations of each country to protect its own environment, the Parties established the Commission for Environmental Cooperation (CEC) through the NAAEC to facilitate effective cooperation on the conservation, protection, and enhancement of the North American environment. Through the unique partnership created by the NAAEC, the governments of Canada, Mexico, and the United States and North American civil society work together to pursue what none of the three countries could achieve on its own.

2. Who we are

The CEC is composed of:

- the *Council*, the governing body of the Commission, is composed of cabinet-level environment officials or their designees. The Council's mandate includes overseeing the implementation of the NAAEC, establishing the CEC's overall direction, approving its budget, reviewing its progress and its projects against their objectives; and overseeing the Secretariat;
- the Secretariat provides administrative, technical and operational support to the Council, its committees and working groups, and other support as the Council may direct. It also has special responsibilities in the Submissions on Enforcement Matters (SEM) Process and the preparation of reports under Article 13; and
- the *Joint Public Advisory Committee* (JPAC), composed of fifteen citizens (five from each country), advises the Council on any matter within the scope of the NAAEC and can serve as a source of information for the Secretariat. The JPAC ensures active public participation and transparency in all NAAEC activities.

Committees and working groups established by Council contribute significantly to the cooperative program under the CEC. The Council will continue to receive advice from government officials, any Council-established groups or committees and others to advance the priorities described in this Strategic Plan.

The CEC Council operates on the basis of consensus, with the exception of specific instances where majority votes are called for, such as in connection with citizen submissions or Article 13 reports.

The CEC budget is US\$9 million a year, contributed equally by the three Parties. The Parties make additional contributions to the CEC through an extensive commitment of staff, time and expertise, under the various activities identified in the CEC Operational Plan. The Parties are committed to ensuring that all CEC bodies work on the principles of, transparency and accountability.

3. Fifteen years of cooperation

The CEC celebrated its fifteenth anniversary in 2009. The Parties took note of the progress we have made in the maturity and extent of our environmental cooperation, in promoting sustainable development in the region, in strengthening environmental enforcement, in addressing the linkages between trade and environment, and in promoting public participation in regional environmental matters. We look forward to continued progress in these areas.

At the Council Session in Puebla, Mexico in 2004, the Parties established a path forward through the Puebla Declaration for 2005–2010. In 2009, at the Denver Council Session, the Parties identified a new vision based on the experience gained from the implementation of the Puebla Declaration. Furthermore, the Council recognized that the environmental challenges faced today are different from those in 2004, and committed to renew, revitalize and refocus the CEC to ensure alignment with the environmental priorities of the countries and strengthening the overall governance of the CEC (see Appendix 2 for the Denver Statement).

4. A vision for the future: new priorities for 2010-2015

In looking to increase the effectiveness and relevance of the cooperative program of the organization, the new policy direction set by Council will ensure the CEC is focused on a select few trilateral environmental priorities of North America in 2010–2015, namely:

1. Healthy Communities and Ecosystems;
2. Climate Change – Low-Carbon Economy; and
3. Greening the Economy in North America.

The Council provided direction for more focused and concerted operational plans in order to ensure a more effective use of the resources of the Commission in order to advance the critical matters on which the CEC can make a real difference. Future work programs will limit projects and programs to the three new priorities and will concentrate on those activities that will provide greater environmental results.

Moreover, to improve on the delivery of the new priorities, Council has endorsed a plan to strengthen the governance of the CEC with a view to enhance accountability, improve transparency of the Secretariat's activities, ensure alignment with Council priorities and direction, and set clear performance goals. Some of these changes focus on streamlining the CEC's cooperative work program, modernizing its citizen submission process, reprioritizing and increasing the transparency of its expenditures, and strengthening the supportive functions of the Secretariat.

Identifying the CEC's priorities is only a first step in implementing the full scope of the Council's vision for the CEC over the next five years. The Parties have defined each priority and established strategic objectives for the next five years. These definitions and strategic objectives will guide the development of operational plans that will achieve more clear and tangible results that support the environmental priorities set by Council.

The cooperative projects that constitute the operational plans will support the collective efforts of the Parties to deliver on the Council's environmental priorities. Criteria have been established to guide the Secretariat, Working Groups, Committees, and other appropriate officials of the Parties in considering cooperative activities for Council approval under biennial operational plans (see Section 6 for more information on the criteria).

The environmental and human health challenges that are the focus of our cooperative work program are both increasingly complex and rapidly evolving. As a result, more attentive and responsive guidance from the Parties, including a long-term, sustained commitment to ensure our joint efforts and resources are being appropriately invested, is required if we are to maximize our results over five years. This also means that the exact nature of the CEC's cooperative work program will evolve and be refined as existing objectives are met and new challenges emerge.

4.1 Healthy Communities and Ecosystems

Canada, Mexico and the United States recognize that our wellbeing in North America—both environmental and economic—is grounded in healthy communities and ecosystems. Therefore, the Parties commit to build on and renew collaborative efforts within the CEC to protect, sustain and restore the health of people, communities and ecosystems using integrated and comprehensive approaches and partnerships.

Four strategic objectives have been identified:

1. Improved environmental health of vulnerable communities in North America;
2. Increased resilience of shared ecosystems at risk;
3. Enhanced regional approach to sound management of chemicals; and
4. Strengthening regional environmental and wildlife law enforcement.

Strategic Objective #1: Improved environmental health of vulnerable communities in North America

Protecting and improving the environmental health of our citizens, particularly children and those in vulnerable communities, is a priority for all three Parties. To this end, we will identify opportunities to work through the CEC to advance existing commitments to support children’s environmental health and to build capacity among our indigenous peoples for the protection of the environment and the health of their communities.

Recognizing that climate change could disproportionately affect some communities, the Parties also intend to strengthen existing initiatives—or create new mechanisms where needed and as appropriate—to enable community-based adaptations that could enhance resilience to impacts from climate change that affect both physical and social environments.

Strategic Objective #2: Increased resilience of shared ecosystems at risk

The Parties intend to develop trilateral capacity to implement an ecosystem approach to conservation and sustainable use and monitor relevant outcomes in our shared ecosystems. The Parties also agree that attention should be given to both terrestrial and marine ecosystems.

The three Parties recognize their successful work through the CEC in supporting biodiversity conservation and sustainable use and could build on previous investments. Therefore, building on national and global activities that are already underway to develop this capacity, the Parties could focus collaborative efforts in the following areas:

In support of Strategic Objective #1, the Parties could undertake the following trilateral initiatives:

- **build capacity of health professionals to address the inter-relation between health and environment**, particularly for children and other communities at risk. Possible approaches could include leveraging existing North American networks of pediatric environmental health units, supporting training and virtual networks, and evaluating best practices; and
- **build the capacity and support community projects in our indigenous and local communities** to design and implement innovative environmental protection and conservation strategies, particularly regarding natural resources (e.g., forests and wildlife), and potable water.

In support of Strategic Objective #2, the Parties could undertake initiatives in the following priority ecosystems:

- **Atlantic Ocean Zone:** strengthen **community-based public education** to increase **public awareness of ocean conservation** challenges
- **Grasslands:** develop a **continental approach** that supports biodiversity and local communities in the grassland region by sharing best management practices to sustain biodiversity and improve economic performance of local

- Build collaboration among multiple agencies and partners for improved management of transboundary landscapes, seascapes and watersheds. Efforts would include assessing resources, quantifying impacts, identifying thresholds, and supporting informed decision-making on a range of issues of common concern, such as sustainable management of watersheds to maximize benefits to human communities and wildlife, protecting species of common conservation concern, promote recreation, wildlife habitat, and ecosystem health, and limit the introduction of invasive species.
- Continue to build on the **list of key species and spaces of common conservation concern** and implement **conservation and management initiatives** in our shared ecosystems;
- Increase **community-level awareness, engagement and capacity** in biodiversity conservation and sustainable use, through the establishment of networks with relevant actors from government, the private sector, and civil society.
- Build upon existing **monitoring systems** to assess the results of conservation and protection initiatives in our shared ecosystems.

By engaging communities in this collaborative work, over the next five years, the Parties expect to expand the number of North American communities acting as partners in conservation efforts.

Achieving and maintaining healthy communities and ecosystems requires sustained and coordinated commitment as well as planning and managing programs that will ensure their protection. We will continue strengthening our collaboration on tracking pollutant releases and transfers in North America, including the analysis of data through the CEC's publication *Taking Stock*. We will continue working together to reduce risks of exposure to toxic chemicals to the public and the environment. Similarly, strengthening the development and enforcement of environmental laws and regulations also serves to promote healthy communities and ecosystems. Thus, the strategic objectives identified below related to addressing chemical risks and collaboration on enforcement matters are also considered as supporting the previous strategic objectives.

Strategic Objective #3: Enhanced regional approach to sound management of chemicals

Addressing risks posed by chemicals to human health and the environment is an important element of healthy communities and ecosystems. Recognizing and building on progress made to date for a North American approach to chemicals management, the Parties could refocus and streamline efforts to deliver stronger North American results in three interrelated core areas of work:

- Establishing **compatible approaches for identifying and tracking chemicals** in commerce in North America, as a priority to establish compatible chemicals inventories in support of more coordinated and effective risk management of substances of mutual concern;
- Implementing **risk reduction strategies** to reduce the exposure of North Americans and their environments to chemicals of mutual concern; and
- Using a **regional monitoring approach** for health and environment to support risk reduction strategies, including identification of priorities, assurance of comparable data and monitoring for results.

Strategic Objective #4: Strengthening regional environmental and wildlife law enforcement

Enforcement is another critical component of ensuring healthy communities and ecosystems. Enforcement agencies of the three Parties intend to collaborate in a manner that should result in fewer projects and greater environmental benefits in the areas of targeted vulnerable species, wildlife parts and derivatives, non-compliant motorcycle engine imports, and the import and export of electronic waste, hazardous waste and ozone-depleting substances. These collaborative enforcement efforts could integrate (1) training relevant officials, (2) enhancing processes for information and intelligence sharing, and (3) developing technology to improve our ability to detect, intercept, and deter illegal trade in North America. The projects developed from these collaborative efforts should enhance enforcement across North America while furthering our respective domestic enforcement priorities.

4.2 Climate Change – Low-Carbon Economy

Canada, Mexico and the United States recognize that incremental trilateral collaboration, consistent with our respective circumstances and capacities, brings added value to our respective efforts to address climate change and transition to a low-carbon economy. Therefore, the Parties could undertake a set of key initiatives to work towards aligning our domestic standards, regulations, and policies over the next five years (2010–2015) to support this transition in a way that is consistent with our respective national plans and priorities. Specifically, two strategic objectives have been identified:

1. Improved comparability¹ of emissions data, methodologies and inventories among the three North American partners; and
2. Strengthened engagement of experts and information-sharing.

Strategic Objective #1: Improved comparability of emissions data, methodologies and inventories among the three North American partners

With a view towards providing policy-neutral options for improving comparability on the key foundational elements required to transition towards a low-carbon economy, the Parties agree to initially focus on the following initiatives, bearing in mind individual country priorities and international negotiations:

- Continued cooperation to **improve comparability of GHG emissions data** to enable the Parties to share results and strengthen capacities in the collection and management of data and methodologies for the Parties;
- An **analytical assessment** of data collected across the three parties, using the 2009 CEC *Comprehensive Assessment of North American Air Emissions Inventories and Ambient Air Monitoring Networks* assessment as a basis, and the identification of options for addressing any gaps and inconsistencies; and
- Exploration of potential common methodologies for **gathering and analyzing black carbon data**.

¹ For purposes of Strategic Outcome #1, the use of the term “comparability” in the North America context refers to data gathering and analysis but not policy decision-making.

Undertaking such initiatives could lead to strategic results for the Parties, including:

- The key building blocks being in place to allow a more integrated approach for the three countries to address climate change and enable a low-carbon economy, including;
 - sufficient capacity, infrastructure, and systems for supporting methodologies; and
 - improved capacity to make comparisons among the three countries.

Strategic Objective #2: Engagement of experts and strengthened information sharing in climate change and low-carbon economy

The Parties could facilitate engagement of experts and information sharing to address climate change and low-carbon economy issues, taking steps to identify partnerships that could contribute to additional progress. Further, the Parties could coordinate with other experts and leverage other networks outside the government.

To facilitate a broad and readily accessible mechanism for the sharing and dissemination of information among North American experts, the Parties could establish an **on-line** information-sharing **platform** focused on science, technologies, policies, and best practices. The system would complement existing North American and international mechanisms for sharing climate change-related information, drawing from those already provided by the three Parties to the UNFCCC, as well as experiences and lessons learned at other levels of government, as well as by academia and civil society.

In support of Strategic Objective #2, initiatives to engage experts could include:

- Learning from past experiences, specifically:
 - national SO₂ and NO_x cap and trade programs;
 - markets and initiatives of other levels of government; and
 - emissions models.
- Working collaboratively to share information on:
 - climate change policy options and national action plans as well as other levels of government;
 - climate change regulatory developments;
 - inventory and forecast methodologies;
 - energy efficiency programs;
 - renewable energy programs;
 - life cycle analysis methodologies for fuels;
 - project financing options; and
 - benchmarking against related international best practices.

Initiatives under this strategic objective could lead to strategic results for the Parties, such as:

- Mechanisms to inform decision-making by gaining expert input on climate change and the transition to a low-carbon economy; and
- An improved ability to accelerate the delivery of trilateral projects and to inform decisions on future projects.

Other groups would also benefit from these initiatives. For example, for other levels of government and civil society, these initiatives would enhance the ability of the public to access relevant information and enable citizens, communities and organizations to take their own actions to transition to a low-carbon economy.

In support of both Strategic objectives, the Parties could collectively undertake value-added focused projects that deliver GHG reductions and ancillary benefits to North America, from the hemispheric to the local level. In line with project selection criteria, the projects would be selected so as to complement, and not duplicate other bilateral and trilateral initiatives.

The on-line information sharing platform could include specific information on key climate change-related initiatives to support the Parties' efforts to advance comparable approaches in North America. For example:

- National programs to minimize environmental impacts of freight transport (SmartWay Transport, Fleet Smart Programs, Transporte Limpio); and
- Climate change mitigation and adaptation action plans of national and other levels of government.

In the short-term, for example, these projects could include:

- anti-idling technologies;
- freight transport, including SmartWay, and Fleet Smart and Transporte Limpio programs;
- clean/low emissions vehicles;
- ultra-low sulfur fuels, both diesel and gasoline, allowing clean vehicles to operate without degradation;
- energy efficiency;
- methane capture;
- community-level modeling of low-carbon paths; and assessment of impacts on urban transportation, land use, and other urban-planning elements; and
- initiatives related to black carbon

4.3 Greening the economy in North America

Canada, Mexico and the United States intend to focus our cooperative work through the CEC on taking positive steps towards building a North American economy that minimizes the potential negative environmental impacts of economic growth, while enhancing the competitiveness of key industrial sectors in North America.

Strategic Objective #1: Improved private sector environmental performance in North America

The Parties intend to focus initially on improving the environmental performance capacity of small and medium-size enterprises by conducting activities that engage key industrial sectors and/or

supply chains in activities that improve their environmental performance. The Parties recognize that successfully achieving this objective requires the active involvement of private

The Parties could consider improving private sector environmental performance through:

- working with priority sectors for the North American economy to share best practices and technologies, promote international exchanges among private companies and cleaner production centers, and help strengthen local capacity in these areas; and/or
- to promote energy, water and materials usage efficiency among companies that have agreed to take part in voluntary or regional clean production agreements.

industry in promoting the adoption of cleaner production practices and technologies, and therefore could carefully consider how to replicate successful private-sector environmental performance improvement initiatives previously conducted in the North American region.

Cleaner production activities could supplement traditional command-and-control regulation by emphasizing community participation, voluntary partnerships, technological innovation, and market-based approaches, as appropriate. The Parties anticipate simultaneously enhancing industrial competitiveness and decreasing environmental impact by increasing the use of less polluting and more efficient technologies, reducing resource consumption and waste, and preventing the generation of contaminants. The Parties could focus on opportunities that receive high-level, private-sector buy-in, serve as models for other enterprises, mobilize additional resources, and establish long-lasting partnerships between North American organizations to share best practices and enable supply-chain linkages.

Engaging experts and strengthening information and data-sharing to assess and promote private sector environmental performance in North America supports the Strategic Objective.

The Parties recognize that balanced, policy-neutral information is required for environmental sustainability. The Parties intend to focus efforts on gathering and sharing information on how to develop environmental performance metrics in an effort to better understand our shared North American environment. The Parties could also consider information exchange on expanding the use of market forces as drivers to achieve environmental improvements and promotion of environmental best practices in key industries where environmental performance and North American competitiveness are mutually beneficial. The Parties could also continue to document, analyze, and attempt to understand the environmental effects of trade liberalization in North America.

The Parties could undertake work in the following key sectors:

- **improving environmental performance of buildings in North America**, through sharing best practices on sustainable building design and benchmarking of efficiency standards to align national approaches;
- **strengthening enforcement and addressing gaps in our common knowledge on the movement of used electronics and E-waste**, including the development of comparable data sets to support the mapping of legal and illegal movements of these products; and
- **building on our successes in the automotive manufacturing sector**, through continued efforts to green critical components of supply chains across the continent and support the ongoing recovery of this important sector.

5. The North American Partnership for Environmental Community Action (NAPECA)

In 2009, the Council set forth an ambitious agenda to change the policy direction for the CEC. Council recognized that addressing environmental problems across North America can only be accomplished by partnering and engaging extensively with stakeholders and the public in all three countries and by promoting a sense of shared responsibility and stewardship for the environment. The Parties intend to encourage innovation and flexibility and promote model environmental initiatives that will help build long-term partnerships to improve environmental conditions at the community, indigenous, local and regional levels. With this in mind, Council has directed the CEC to establish a new grant program, the North American Partnership for Environmental Community Action (NAPECA) to build partnerships at the community level which support healthy communities and ecosystems, encourage climate change activities through the transition to a low carbon economy, and advance innovative projects that could assist in the goal of greening the economies of the three Parties. NAPECA grant selection criteria have been established to ensure these projects deliver results (see Appendix 3).

6. Evaluating progress

The Council has committed to renew, revitalize and refocus the CEC to better serve the environment and citizens of our countries. A fundamental part of this commitment is the establishment of clear performance goals to assess progress in the implementation of this Strategic Plan. Performance goals will be based on the strategic objectives adopted in this Plan and on an appropriately related system of measures or indicators to be in place for Operational Plan 2011.

The Parties recognize that indicators serve the purpose of recording and sharing evidence of progress made through the cooperative activities, of the changes or improvements in institutional capacity, and on the success of the environmental protection that result from these activities, under the CEC. Indicators also serve to:

- Monitor and manage program operations, workload and resources;
- Link investment to substantive results and assess program performance; and
- Enhance accountability and report successes.

For the activities related to the priorities described therein a performance measurement framework would be developed that would utilize output and outcome measures. Outputs are activities, products and services produced by the organization or projects. Outcomes are the results of outputs and are generally divided into two categories: intermediate and final outcome. Intermediate outcomes measure progress towards a final outcome. Final outcome measures the final result that the program is designed to achieve.

A framework will be developed into a system that will provide a key management tool for examining and proving the effectiveness of CEC programs. Such a framework would also contribute to strengthening the relevance and transparency of the organization pursuant to the Council's mandate. A framework would also incorporate measurable targets for each of this Plan's strategic objectives. Furthermore, the Parties have developed criteria for the selection of projects (see Appendix 4).

7. Citizen submission process

The NAAEC Articles 14 and 15 provide procedures allowing any person or nongovernmental organization residing or established in North America to make submissions to the CEC Secretariat asserting “that a Party [to the NAAEC] is failing to effectively enforce its environmental law” (the *citizen submission process*). Should a submission meet admissibility criteria the CEC Secretariat then decides whether to request a response to the assertions from the concerned Party. In light of both a submission and Party response, the Secretariat may recommend to Council the preparation of a factual record. Council can instruct the Secretariat to proceed with its preparation by a two-thirds vote.

Through a unique non-adversarial fact finding process, the citizen submission process can contribute in important ways to furthering NAAEC objectives. The process seeks to ensure transparency, promote a better understanding and foster public discourse that contribute to enhancing compliance with and enforcement of environmental laws, regulations and policies.

The CEC will continue to process citizen submissions in an objective, rigorous and transparent manner, with a view to ensuring timeliness and efficiency. Council has directed the CEC Secretariat to work on modernizing the citizen submission process to ensure its continued success.

8. Public participation

Public participation plays a key role in the activities of the CEC and the JPAC bears the responsibility of ensuring the engagement of various and diverse stakeholders in North America and to ensure they have access to factual, unbiased, and meaningful information on environmental issues of concern.

The Joint Public Advisory Committee will continue to lead the work of the CEC in ensuring active public participation, by providing transparent, open, and substantive forums for public dialogue among citizens concerned with trade and environment issues in North America, and in communicating the results of such dialogue and any subsequent JPAC recommendations to the CEC Council.

Appendix 1. NAAEC Objectives

Article 1: Objectives

The objectives of this Agreement are to:

- (a) foster the protection and improvement of the environment in the territories of the Parties for the well-being of present and future generations;
- (b) promote sustainable development based on cooperation and mutually supportive environmental and economic policies;
- (c) increase cooperation between the Parties to better conserve, protect, and enhance the environment, including wild flora and fauna;
- (d) support the environmental goals and objectives of the NAFTA;
- (e) avoid creating trade distortions or new trade barriers;
- (f) strengthen cooperation on the development and improvement of environmental laws, regulations, procedures, policies and practices;
- (g) enhance compliance with, and enforcement of, environmental laws and regulations;
- (h) promote transparency and public participation in the development of environmental laws, regulations and policies;
- (i) promote economically efficient and effective environmental measures; and
- (j) promote pollution prevention policies and practices.

Appendix 2. Denver Statement

Denver, Colorado, 24 June 2009—We, the environment ministers of Canada, Mexico and the United States, as Council of the Commission for Environmental Cooperation (CEC), met for our annual Regular Session and consulted with our Joint Public Advisory Committee (JPAC) and the public on 24 June 2009.

This Council Session marks the 15th anniversary of the North American Agreement on Environmental Cooperation (NAAEC). We have taken note of the progress we have made in the maturity and extent of our environmental cooperation, in promoting sustainable development in the region, in strengthening environmental enforcement, in addressing the linkages between trade and environment, and in promoting public participation in regional environmental matters. We look forward to continued progress in these areas.

We have also recognized that this 15th anniversary comes in the midst of one of the most serious international economic crises we have faced in decades. The environmental challenges today, our understanding of them, and the tools to deal with them, are not the same as they were fifteen, ten or even five years ago.

Canada, Mexico and the United States reaffirm their commitment to tackle environmental problems across North America. This can only be accomplished by partnering and engaging extensively with stakeholders and the public in all three countries and by promoting a sense of shared responsibility and stewardship for the environment in our region.

To this end, we committed today to renew, revitalize and refocus the CEC to better serve the environment and citizens of our countries. More specifically, we have asked our officials to return in mid-July with a proposal to examine the governance of the CEC with a view to enhance accountability, improve transparency of the Secretariat's activities, ensure alignment with Council priorities, and set clear performance goals.

We agreed on a new policy direction for the CEC to ensure it is focused on the key environmental priorities of North America, in the context of free trade and more integrated economies, and is positioned to deliver clear results.

The CEC's next Strategic Plan, for 2010–2015, will focus on a select few environmental trilateral priorities, namely:

- Healthy Communities and Ecosystems
- Climate Change - Low-Carbon Economy
- Greening the Economy in North America

To improve on the delivery of these priorities, we also agreed to several operational changes to the CEC to ensure it serves as a model of transparency and accountability, and remains an effective and relevant organization in accordance with the NAAEC. These changes will focus on streamlining the CEC's multi-million dollar annual cooperative work program, modernizing its citizen submission process, reprioritizing and increasing the transparency of its expenditures, providing clear direction to future executive directors at the start of their term, and strengthening the supportive functions of the Secretariat.

Over the course of the meeting, we also received updates from the executive director of the CEC Secretariat, Mr. Adrián Vázquez, and various working groups on recent successes of the CEC. These included steps taken to improve cooperation on North American air quality management, significant reductions in risk from mercury, a system to assess ecological conditions of marine protected areas, completion of a seamless North America-wide reporting system on industrial pollutants, more environmentally sound integrated regional

supply chains, and a training program for customs and border officials to aid in combating the illegal distribution of hazardous wastes and ozone-depleting substances.

As always, we had the benefit of the considered input of our Joint Public Advisory Committee, which hosted a public workshop on climate policy coherence in North America. In keeping with our commitment to public engagement, we were also pleased to participate in a public meeting and exchange views with numerous citizens from each of our three countries on environmental issues of their choosing. We look forward to the Committee's ongoing engagement as it serves a critical role to ensure active public participation and success in our endeavor to strengthen this important trilateral organization.

In closing, we would like to thank Mr. Vázquez for his heartfelt dedication to the CEC over the past three years. With his three-year term coming to an end this summer, we will soon be launching a process to select the next executive director.

With this new vision for the CEC, we are confident that Canada, Mexico and the United States will be well positioned to tackle our shared environmental challenges of the next decade.

Appendix 3. Project Selection Criteria for Activities to be funded through the North American Partnership for Environmental Community Action (NAPECA)

Project Description Drafting Guidance

Canada, Mexico and the United States have each made significant investments to engage their citizens in working towards sustainability by involving them in the protection of our natural resources, in the improvement of human health and the environment and in the conservation of our ecosystems across North America. By establishing the North American Partnership for Environmental Community Action (NAPECA), Council recognizes that ecosystems do not follow political boundaries but rather often cross borders between and among states, provinces and countries. Further, Council recognizes that the individual investments made by each country can achieve greater success if we can develop a shared sense of responsibility and stewardship for the environment across North America. Awards are intended to support a flexible and diverse set of project types, that improve access to resources provided by the Parties through the CEC for smaller more hands-on organizations and that build long-term partnerships to improve environmental conditions at the community, indigenous, local and regional levels. These project types can include, but are not limited to: building capacity, demonstrations, transfer of innovative technologies, outreach, education, sharing of best practices, train environmental leaders, reduce risks, and many other non-regulatory efforts.

- Does the project address one or more of the three priorities identified by Council as described in the current Strategic Plan? How?
- Does the submission describe the environmental significance of the project for the community? The North American region? Internationally?
- Does the submission describe a technically or scientifically sound approach that includes goals and measurable objectives? Are clear and tangible results identified? Does it include how progress is to be measured?
- Are the results proposed relevant to protecting the environment in the community? The North American region?
- Does the project propose a clear timeline for implementation of the activities, including a target end date for NAPECA support?
- Who are the partners or linkages in the community? In the North American region? Internationally? At the state, local or indigenous community level?
- If the project builds capacity, who are the beneficiaries of the capacity building activities?

For the Parties to assess:

- Could the project benefit from collaboration with, or contribute to existing Parties projects through CEC, or to existing domestic policies, increasing the potential of the project to produce benefits for the community?

Appendix 4. Project Selection Criteria for the Parties' Cooperative Work Program for the CEC

Project Description Drafting Guidance

The goal of all projects funded by the CEC will be to support the efforts of the Parties to conserve, protect and/or enhance the North American environment. The following criteria will guide the Secretariat, Working Groups, Committees, and other appropriate officials of the Parties in considering cooperative activities for Council approval under operational plans. These selection criteria do not apply for activities to be funded through the NAPECA grant program, which are contained in Appendix 3.

- Does the project contribute to achieving Council's strategic objectives as described within the current Strategic Plan, or as related to other priorities subsequently confirmed by Council? How?
- Are the proposed objectives North American in scope? In other words, how are the proposed results relevant to protecting the environment in North America?
- Does the project identify specific clear and tangible results that will be achieved and how progress toward each result will be measured over time?
- Is the CEC the most effective vehicle for the Parties to undertake the project, considering:
 - The value-added of doing it under the CEC cooperative program
 - Any other public, private or social organizations that work on such activities
 - Opportunities to cooperate and/or leverage resources with such organizations
- Does the project propose a clear timeline for implementation of the activities, including a target end date for CEC's involvement? Where applicable, describe how the work will continue after CEC involvement ends?
- Where applicable, does the project identify with reasonable specificity:
 - Linkages with other relevant CEC projects, past or present, in order to create synergies, capitalize on experience, or avoid duplication?
 - The target audience, as well as its receptivity and capacity to use the information that may be produced as a result of the project?
 - The beneficiaries of capacity building activities that the project may include?
 - The relevant stakeholders, with particular attention to communities, academia, NGOs and industry, and their involvement and contribution to a successful outcome.