

# Operational Plan of the Commission for Environmental Cooperation

2005-2007

Project Descriptions—July 2005



## CEC Projects in 2005

| APPROVED BUDGET FOR 2005 COOPERATIVE WORK PROGRAM<br>4 April 2005 |                                                                      | CEC Funds<br>(thousands of<br>C\$) |
|-------------------------------------------------------------------|----------------------------------------------------------------------|------------------------------------|
| NEW PROJECTS                                                      |                                                                      | 2005                               |
| Information for Decision Making                                   |                                                                      | 1,012.0                            |
| 1                                                                 | Information Systems Strategy (including Quality Assurance Review)    | 70.0                               |
| 2                                                                 | North American Environmental Atlas                                   | 140.0                              |
| 3                                                                 | North American Air Emissions and Monitoring Information              | 355.0                              |
| 4                                                                 | North American Monitoring and Assessment (SMOC NARAP)                | 112.0                              |
| 5                                                                 | North American Pollutant Release and Transfer Register               | 335.0                              |
| 6                                                                 | North American State of the Environment Information and Indicators   | 0.0                                |
| Capacity Building                                                 |                                                                      | 635.0                              |
| 7                                                                 | Institutional Cooperation and Strengthening for Wildlife Enforcement | 70.0                               |
| 8                                                                 | Partnerships for Integrated Environmental Management                 | 425.0                              |
| 9                                                                 | Local Capacity Building for Integrated Ecosystem Management          | 140.0                              |
| Trade and Environment                                             |                                                                      | 928.0                              |
| 10                                                                | Promotion of a North American Market for Renewable Energy            | 250.0                              |
| 11                                                                | Green Purchasing                                                     | 150.0                              |
| 12                                                                | Promote Better Use of Market-based Approaches                        | -                                  |
| 13                                                                | Trade and Enforcement of Environmental Laws                          | 250.0                              |
| 14                                                                | Invasive Species Prevention and Management Approach                  | 80.0                               |
| 15                                                                | Ongoing Environmental Assessment of NAFTA                            | 198.0                              |
| Total New Projects                                                |                                                                      | 2,575.0                            |
| CURRENT PROJECTS                                                  |                                                                      |                                    |
| 16                                                                | SMOC – NARAPs for Persistent Toxic Substances                        | 290.0                              |
| 17                                                                | Biodiversity-related Activities                                      | 250.0                              |
| 18                                                                | Children's Health and the Environment—Indicators Report              | 150.0                              |
| 19                                                                | Regional Program of Action on DDT                                    | 80.0                               |
| 20                                                                | Disclosure of Environmental Information                              | 10.0                               |
| 21                                                                | Environmentally Sound Management of Hazardous Waste                  | 10.0                               |
| 22                                                                | Successful Water Quality Practices                                   | 5.0                                |
| 23                                                                | Environmental Management Systems                                     | 0.0                                |
| 24                                                                | North American Environmental Law Information System                  | 0.0                                |
| 25                                                                | Mexican NIP                                                          | 0.0                                |
| Total Current Projects                                            |                                                                      | 795.0                              |
| Total Work Program                                                |                                                                      | 3,370.0                            |

|             |                                                                                                                   |               |                                                 |
|-------------|-------------------------------------------------------------------------------------------------------------------|---------------|-------------------------------------------------|
| Project 1   | <b>Information Systems Strategy</b>                                                                               |               |                                                 |
| Prepared by | Prepared by the Secretariat with advice from the Parties' Information and Quality Management Experts.             | Location      | North America-wide                              |
| Start date  | January 2005                                                                                                      | Revision Date | 29 July 2005                                    |
| End date    | December 2009                                                                                                     | Cost          | 2005: <b>C\$70,000</b><br>2006-2007: <b>TBD</b> |
| Comments    | This will be an on-going CEC project as the overarching project for the Information for Decision-making priority. |               |                                                 |

## Purpose

The purpose of this project is to develop an integrated and cohesive strategy for the management and communication of the information resources critical to achieving the goal of the *Information for Decision-Making* priority of the CEC Strategic Plan to provide “*credible, balanced and timely information on the North American Environment ... available and accessible to all interested parties...*” As the overarching project for this priority, the project seeks to establish an end-to-end quality-assured information management system through policies and practices of the Secretariat and Parties to promote the best generation and use of information for environmental protection and the description of environmental conditions in North America. The strategy will seek to establish approaches that will:

- encourage and facilitate the improvement of comparability and compatibility of existing databases and information networks across North America in fields relevant to core CEC programs;

- improve the accessibility and availability of information in forms suitable for decision-making in a continental context; and,
- facilitate public access to information on relevant North American environmental issues.

Information management is to be focused directly on supporting the CEC's program activities in order to better execute the CEC's unique role in presenting a continental view of cross-cutting issues, and to integrate indicator development and state of the environment reporting with thematic programs.

## Background

Since its inception the CEC (with the cooperation of Parties) has made use of the information resources of industry, public agencies and peer-reviewed scientific literature to prepare integrated assessments and analyses of issues of common concern, to inform decision making and to support the preparation of information products to communicate North American environmental conditions and issues to public audiences. The related information management has been organised mainly on the basis of thematic programs or projects, and efforts at improving data comparability and availability were conducted through tri-partite cooperative thematic initiatives such as NABIN (biodiversity), the Baja to Bering project, PRTR, etc. The Puebla Declaration of 2004 recognized the central role of information for decision-making and communication and the need to take a more strategic and integrated approach. While this project responds to the reorientation directed by the CEC Strategic Plan, it also follows from

strategic reviews conducted by the Secretariat including the “Strategic Framework for Information Management” study of 2002, the draft “Information Management Policy” of 2003, and the related prospectus for an “Environmental Information Program”. Some steps towards integration of information management approaches have also been taken including the drafting of Practical Guidelines for implementation (2004), and initiation of a GIS data inventory for the Secretariat. Most important, the successful tri-lateral initiative to develop a digital North American Atlas Framework in 2003-4 provides a key building-block for the strategy to integrate, communicate and visualise information on a continental scale. The “Information Systems Strategy” project therefore represents a logical progression from past initiatives.

## Approach

While strategy development and implementation will be mainly concentrated in the first three years, the project is seen as continuous due to the on-going need to maintain the strategy, adapt implementation processes and procedures to incorporate changing priorities and evolving North American Environmental issues, and to take into account opportunities presented by changing information technology. The main tasks are as follows:

### 1. Defining and establishing an overall strategic framework:

This involves establishing the *principles* upon which the strategy (and associated policies) are to be based, confirming the scope and intent, identifying players and roles, defining the main policy elements, and establishing the continental geo-spatial framework.

### 2. Assessment of situation and needs:

In the short term there is a requirement for an assessment or inventory of current information management activities and major information networks (primary data exchange partners and mechanisms) used by or of potential use to the CEC, and of priorities for improving comparability and accessibility.

In parallel, an operational inventory of datasets controlled by the Secretariat is also required. This task will then conduct, in the longer term, assessments of decision-maker needs, information gaps, and priorities (and approaches) for improving comparability and linkages for each major issue of agreed common concern. The initial topic focus is to be on air quality and related issues.

### 3. Development of Policy Guidance and Implementation:

The two most significant elements are:

- Preparation of Guidelines for project managers, contractors and cooperating agencies in the party countries to achieve the strategy effectively, including guidance on metadata, shared information access mechanisms, application of geo-spatial tools, and associated standards for data exchange and content compatibility.
- Development of Information Management policies and associated practical implementation measures for the CEC Secretariat, including a quality management process.

These two outputs are needed in the first year, after which maintenance and updating are required.

This project incorporates Quality Management development, but more specific projects that apply the information strategy for concrete results and

for fostering improvement in the comparability, suitability and accessibility of information are described separately.

## Communications

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To demonstrate transparency, the Information Systems Strategic Framework and the Quality Management Policy will be communicated as appropriate to CEC partners and the public. Related policy documents and guidelines will be made available for download as they are approved and implemented.

## Information Management

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The adoption of the information systems strategy has a number of implications for the conduct of IT operations in general, including increasing server capacity to support query access, data downloading, map and graphic viewers, and linkages to network resources. Additional application software and services will be needed to support QA and consultative processes – such as, metadata data inventory and archiving services, “web forum” and discussion group services. (See also needs under thematic information projects such as the NA Environmental Atlas).

## Involvement

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*To be developed.*

## Considerations

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This project needs to be viewed in a broad context of all the “information” related activities of the CEC, including consideration of restructuring the CEC Website.

## Task Descriptions

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| Tasks                                                                                        | 2005                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Timing   | Cost<br>C\$ | 2006                                                                                                                                                                                                                                                                                                     | Timing | Cost<br>C\$ | 2007                                                                                                                                                                                                                                                                                                | Timing | Cost<br>C\$ | Total<br>3-Year |
|----------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-------------|-----------------|
| 1. Develop a Conceptual Framework for CEC Information Management.                            | Based on the deliberations of the Information Experts, define scope and intent – especially with regard to the NA perspective of CEC; Guiding Principles for Information Management; and Principal policy elements required.<br><br>Determine role of the NAAF as geo-spatial framework for analysis and presentation.<br><br><b>Outputs:</b><br><br>Information Management Conceptual Framework Document in a form suitable for use to inform policy development and for transparent presentation to all interested parties | June     | \$5,000     | <i>The results of the work conducted in 2005 will form the guiding framework for more specific policy development and implementation measures.</i>                                                                                                                                                       | TBD    | TBD         | NA                                                                                                                                                                                                                                                                                                  | NA     | 0           | TBD             |
| 2. Develop strategies for improved information management networking and data comparability. | Using the Conceptual Framework as guidance, prepare an overview inventory of major North American information sources and networks of relevance to the CEC priorities.<br><br><b>Outputs:</b><br><br>A categorized inventory of the major databases and information management networks in North America relevant to the programs of the CEC, identifying for each: the existing primary data                                                                                                                                | Sept-Oct | \$25,000    | Assess decision-maker needs, information gaps and priorities for air related information management; develop a strategy for improved networking and information comparability.<br><br><b>Outputs:</b><br><br>Strategy for improved networking and information comparability for air related information. | TBD    | TBD         | Assess decision-maker needs, information gaps and priorities for a selected sector of relevant information management; develop a strategy for improved networking and information comparability.<br><br><b>Outputs:</b><br><br>Strategy for improved networking and information comparability for a | TBD    | TBD         | TBD             |

| Tasks                                                                                                                                                 | 2005                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Timing   | Cost<br>C\$ | 2006                                                                                                                                                                                       | Timing | Cost<br>C\$ | 2007                                                                                                                                                                                                                                                                                                              | Timing | Cost<br>C\$ | Total<br>3-Year |
|-------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-------------|-----------------|
|                                                                                                                                                       | exchange partners and exchange mechanisms; the existing metadata management approaches or standards; quality management practices and standards; and barriers to harmonisation to achieve comparable and compatible information.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |          |             |                                                                                                                                                                                            |        |             | second priority sector.                                                                                                                                                                                                                                                                                           |        |             |                 |
| 3. Develop Guidelines for Information Management in CEC (in the context of the Conceptual Framework and the current situation as outlined in Task 2). | <b>Outputs:</b><br>A reference document for CEC projects, workgroups and contractor and partner organization work programs, with minimum contents as follows:<br>- a strategy for jointly creating, managing shared information utilities/databases with recommendations on appropriate standards;<br>- a strategy for compilation and management of metadata with recommendations on applicable metadata standards, indexing vocabulary and reference authority archives;<br>- policy and practical guidelines for applying geospatial tools necessary for data to be correctly integrated with the NAAF;<br>- recommendations on standards for data and availability on the Internet in a “services” format for other | Sept-Dec | \$25,000    | Update policy manuals and guidance materials and begin implementating procedures.<br><br><b>Ouputs:</b><br>Updated documents and improved information management procedures and practices. | TBD    | TBD         | Update policy manuals and continue implementation of procedures.<br><br>Integrate information management policies more closely with financial and administrative policies.<br><br><b>Ouputs:</b><br>Improved information management procedures and practices, and improved ability to monitor cost-effectiveness. | TBD    | TBD         | TBD             |

| Tasks                                                                | 2005                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Timing                 | Cost<br>C\$ | 2006 | Timing | Cost<br>C\$ | 2007 | Timing | Cost<br>C\$ | Total<br>3-Year |
|----------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|-------------|------|--------|-------------|------|--------|-------------|-----------------|
|                                                                      | types of display in addition to geo-spatial;<br>- guidance materials for participating members that will improve the comparability and compatibility of information throughout North America.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                        |             |      |        |             |      |        |             |                 |
| 4. Develop and implement a Quality Management Framework for the CEC. | <p>Develop the Quality Management Framework, deriving from the work of the Quality Assurance Expert Group (integrated with the Conceptual Framework and the Guidelines for information management).</p> <p><b>Outputs:</b></p> <p>Summary review of current CEC Quality assurance practices and procedures.</p> <p>Quality Management Framework document consisting of a suite of concrete recommendations on policies and procedures to ensure a transparent process by which information and data of known quality is defined for technical analysis and public dissemination including:</p> <ul style="list-style-type: none"> <li>- quality assurance policies that cover each step of a project's lifecycle</li> <li>- policy for review by scientific peers to ensure that</li> </ul> | <p>May</p> <p>June</p> | \$10,000    | NA   | NA     | 0           | NA   | NA     | 0           | <b>\$10,000</b> |



| Tasks                                                         | 2005                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Timing                                                       | Cost<br>C\$ | 2006                                                                                                                                                                                                                | Timing      | Cost<br>C\$ | 2007                                                                                                                                                                                                                | Timing      | Cost<br>C\$ | Total<br>3-Year |
|---------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-------------|-----------------|
|                                                               | <p>appropriate information and analysis has been used in scientific, technical products and publications</p> <p>- adherence to international standards and practices in similar scientific and information fields.</p> <p>- organizational components that can support these policies and scientific procedures.</p>                                                                                                                                                                                                                                                                                                                                     |                                                              |             |                                                                                                                                                                                                                     |             |             |                                                                                                                                                                                                                     |             |             |                 |
| 5. Implement Quality Management Framework in the Secretariat. | <p>Begin implementing procedures and other measures in the Secretariat's operations for all information products.</p> <p><b>Outputs:</b></p> <p>- Suite of Secretariat operational policies and procedures.</p> <p>- Classification of information products with identified levels of quality scrutiny.</p> <p>- Peer review guidelines and procedures.</p> <p>- Review and formalisation of existing independent review measures (working groups, expert panels, reference institutions, rosters of experts).</p> <p>- CEC Secretariat Quality Policy Manual.</p> <p>- Computer assisted procedural tracking system for quality processes and sign-</p> | <p>May</p> <p>August</p> <p>Nov.</p> <p>Dec.</p> <p>Dec.</p> | \$5,000     | <p>Continue implementing the Quality Management framework.</p> <p><b>Outputs:</b></p> <p>Greater transparency in the quality assurance standards, procedures and practices applied to CEC information products.</p> | Contin-uing | 0           | <p>Continue implementing the Quality Management framework.</p> <p><b>Outputs:</b></p> <p>Greater transparency in the quality assurance standards, procedures and practices applied to CEC information products.</p> | Contin-uing | 0           | <b>\$5,000</b>  |

| Tasks | 2005  | Timing | Cost<br>C\$       | 2006 | Timing | Cost<br>C\$ | 2007 | Timing | Cost<br>C\$ | Total<br>3-Year |
|-------|-------|--------|-------------------|------|--------|-------------|------|--------|-------------|-----------------|
|       | offs. |        |                   |      |        |             |      |        |             |                 |
|       |       |        | Total<br>\$70,000 |      |        |             |      |        |             | Total<br>TBD    |

|             |                                                                                |               |                                                   |
|-------------|--------------------------------------------------------------------------------|---------------|---------------------------------------------------|
| Project 2   | <b>North American Environmental Atlas</b>                                      |               |                                                   |
| Prepared by | Prepared by the Secretariat with advice from the Parties' Information Experts. | Location      | North America-wide, with regional thematic pilots |
| Start date  | January 2005                                                                   | Revision Date | 29 July 2005                                      |
| End date    | December 2009                                                                  | Cost          | 2005: <b>C\$140,000</b><br>2006-2007: <b>TBD</b>  |
| Comments    | This will be an on-going project.                                              |               |                                                   |

## Purpose

This project supports cooperative initiatives and decision making to address North American issues of common concern, and to improve the accessibility of information on North American environmental issues and resources by citizens and the governments of the three Parties. The purpose is to establish a consistent geographic base for presenting and analyzing CEC information from a continental North American perspective. This will be accomplished through the evolution of the existing North American Atlas Framework into a digital *North American Environmental Atlas*, correctly and seamlessly integrated across the three countries.

The Atlas framework is a key component of the CEC information management strategy to develop an integrated and cohesive approach to the management and communication of information resources critical to achieving the goal of the *Information for Decision-Making* priority of the CEC Strategic Plan; that is, to provide “*credible, balanced and timely information on the North American Environment ... available and accessible to all interested parties...*”.

The Atlas Framework will assist decision makers by providing:

- the ability to look at issues from a North American perspective
- information to address issues of common concern at a continental scale
- a view of cross-cutting issue, cause-and-effect relationships

- connection of policy legislative framework to the environmental reality (states and provinces to watersheds, ecoregions, corridors)

Development of the Atlas is also expected, over time, to make a substantial contribution to the ongoing strengthening of regional information systems and knowledge.

The Atlas will be developed gradually with support from the CEC, and will result in the release of a small number of selected thematic datasets over the next five years. The quality managed thematic datasets will reflect issues or topics falling within the priorities of the CEC Council, or that serve the purposes of other CEC initiatives such as the SOE or *Taking Stock* reports. Additional base maps of fundamental environmental coverage will be generated through the resources of the three countries' Atlas programs.

It is also expected that a multitude of other users will begin contributing to the growing Atlas by utilizing its underlying standard digital mapping platform for their own applications. Eventually, the CEC's role will evolve from one of champion of the Atlas, to that of being one user among many. Supporting this project will be a substantial and continuing effort to compile, harmonize, synthesize and analyze high quality information on an ongoing basis through related CEC projects. The CEC will continue as well, to facilitate the efforts of partners in the three countries in improving the technology and processes for managing, mapping and integrating North American environmental information.

## Background

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Work has been proceeding for five years on developing a common approach to visualizing North American environmental issues and resources, taking advantage of new electronic mapping technologies.

Over the past two years the CEC and the National Atlas programs in Canada, the United States and Mexico, partnered to compile a number of base map layers into the North American Atlas Framework (NAAF) in both hard copy and as a digital “platform”. This involved compiling information for six map themes from various national sources:

- Populated places
- Water (lakes, rivers, coastline)
- Transportation (road/rail networks)
- Administrative boundaries (national and sub-national)
- Bathymetry
- Glaciers and sea ice

The themes were then integrated and corrected to be geographically seamless, and the three countries’ information attributes harmonized (e.g., common methodology for population reporting, water designation, transportation classification, etc.). The NAAF base map data are now available free-of-charge for download from ‘mirror’ servers in each of the three countries and can be viewed via standard protocols over the internet.

## Approach

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Development of the North American Atlas Framework (NAAF) into a digital North American Environmental Atlas will continue over the next five years. The approach comprises four main areas of work designed to:

- continue strengthening the already excellent collaboration amongst the Atlas programs of the three countries, by means of the CEC’s coordinating and convening abilities, so as to promote the identification of issues of common interest, and to foster ever improving exchange of and access to regional environmental information.

Each country is responsible for its own quality control and on-going maintenance of the information. The CEC’s role thus far has been to convene the three countries’ experts and facilitate their cooperative efforts.

As part of their on-going mandates, the countries’ Atlas programs will continue to integrate and visualize additional base maps of key socio-economic, physiographic and environmental information. For example, MOUs are now being drafted between the three mapping agencies that will continue their partnerships to develop a harmonized framework of North American watersheds. This digital framework is an ideal base for reporting on the characteristics associated with cross-border North American watersheds, for example, at the World Water Forum (Mexico, 2006).

For its part, the CEC will continue to support and facilitate development the North American Atlas Framework into a continental scale North American Environmental Atlas—drawing both upon mapping resources and data bases of the three countries, and upon the CEC’s own information resources — by depicting an increasing number of environmental issues, resources and management practices. In the course of its own work over the past 10 years, the CEC has been collating substantial amounts of information and has begun generating map displays for selected data sets, and through this project will consolidate on using the NAAF as the standard framework for presenting and releasing information.

- advance opportunities for supporting the development of standards and protocols that facilitate the harmonization of North American data sets generally. This will be accomplished by strengthening partnerships among regional and international environmental information initiatives.
- “populate” the digital mapping platform with relevant environmental information and produce and disseminate a limited number of new maps every year. This information will be drawn from the CEC’s own work on identified priority issues (such as air emissions and monitoring,

PRTR, marine ecosystems, North American scale indicators and SOE, and other initiatives); and will emphasize cross-cutting relationships between policy, trade and environmental status.

- continue strengthening the CEC's internal capacity to identify, quality manage, and inventory information assets, provide effective means to protect them, share them, and harvest their use to maximum benefit – with a particular emphasis on integrated geo-referenced or “GIS-based” information.

Work in the first year will begin with the formulation of the Information

## Communications

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The results of this project-new basemaps and thematic datasets-provide an opportunity for broad-based communications on environmental issues in North America. The most substantial and compelling opportunity will arise when a “package” of new maps and facilities to download are available. It is anticipated that as new data layers are added there will be periodic reprints and distribution of the North American base maps or thematic variants

Systems Strategy (described separately as Project 1) and establishment of the NAAF as the standard reference base for all geo-referenced information. It will also entail the development of a more specific plan that will inventory the current situation and engage all partners in prioritizing work to be done in subsequent years. A limited number of maps utilizing CEC generated information will be produced, and Secretariat capacity will be strengthened. Work in subsequent years will concentrate on the generation of additional maps, as well as activities aimed at enhancing coordination and cooperation among the three countries.

(30,000 copies of the original base map were produced in 04). This opportunity will be assessed late in 2005. Establishing a capacity to access the digital, on-line, North American Atlas directly from the CEC's web site will enhance communications. The Atlas is currently accessible only via the web sites of the participating atlas agencies in each country.

## Information Management

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Part of this project requires strengthening of the GIS capacity of the Secretariat. This will include the continuation and addition of software licences for GIS processing, map viewers and “publishers”, as well as increasing the capacity of servers. Details to follow a needs analysis and acquisition plan integrated with plans to revise the CEC Website.

CEC staff will also be trained in the use of the mapping software tools to improve internal capacity for effectively presenting environmental information in the North American Atlas.

## Involvement

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This project will involve Government and non-Government experts in North America engaged in collecting, compiling and presenting relevant North American environmental information. As in-house expertise for this project is somewhat limited at the CEC, expert consultants in the field will be engaged as necessary.

## Considerations

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There is an initial risk that the North American Environmental Atlas may be slow in developing due to information gaps among the three countries relevant to key environmental indicators or priority areas. The CEC plans to address this initially by focusing on a set of data on issues for which the CEC has done work and which can be linked to the consultative process for selecting North American environmental indicators.

## Task Descriptions

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*See table below.*

| Tasks                                                                                   | 2005                                                                                                                                                                                                                                                                                                                                                                                                  | Timing   | Cost<br>C\$ | 2006 | Timing | Cost<br>C\$ | 2007 | Timing | Cost<br>C\$ | Total<br>3-Year |
|-----------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-------------|------|--------|-------------|------|--------|-------------|-----------------|
| 1. Develop a Strategic Plan for the North American Environmental Atlas                  | Develop a strategic plan for overall long-term development and evolution of the North American Environmental Atlas.<br><br><b>Outputs:</b><br>Strategic plan, including priorities for additional base maps and thematic applications                                                                                                                                                                 | June-Oct | \$15,000    | NA   | NA     | 0           | NA   | NA     | 0           | <b>\$15,000</b> |
| 2. Strengthen and facilitate North American collaboration on Atlas development and use. | Identify needs and priorities for the development of additional base map layers and coordinate and assist the collaborative process of the three national atlas programs and other key mapping agencies.<br><br><b>Outputs:</b><br>Identification of issues and regions of common interest in NA<br><br>Addition of base maps by cooperating agencies, such as for watersheds and improved population | Apr-Dec  | \$20,000    | TBD  | TBD    | TBD         | TBD  | TBD    | TBD         | <b>TBD</b>      |

| Tasks                                                                                | 2005                                                                                                                                                                                                                                                                                                                                                                                              | Timing    | Cost<br>C\$ | 2006                                                                                                                                                                                                                                   | Timing | Cost<br>C\$ | 2007                                                                                                                                                                        | Timing | Cost<br>C\$ | Total<br>3-Year |
|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-------------|-----------------|
|                                                                                      | information<br><b>Outcomes:</b><br>Increased cooperation among the Atlas programs                                                                                                                                                                                                                                                                                                                 |           |             |                                                                                                                                                                                                                                        |        |             |                                                                                                                                                                             |        |             |                 |
| 3. Review and document the status of datasets from past projects managed by the CEC. | <b>Outputs:</b><br>An on-line catalogue and metadatabase of CEC managed datasets.                                                                                                                                                                                                                                                                                                                 | Jul-Nov   | \$5,000     | NA                                                                                                                                                                                                                                     | NA     | 0           | NA                                                                                                                                                                          | NA     | 0           | <b>\$5,000</b>  |
| 4. Make existing and new key datasets compatible with the NAAF.                      | Each relevant data set to undergo a logical sequence of documented steps including identification and documentation of sources; quality review, checking and verification; conversion to NAAF compatibility and verification; archiving; and publishing.<br><b>Outputs:</b><br>Small number of selected datasets quality reviewed, converted and made available. Priorities:<br>- Power plant air | July-Dec. | \$30,000    | Further integrate selected key datasets in priority areas work into North American Environmental Atlas.<br><b>Outcomes:</b><br>A more complete atlas with relevant environmental information drawn from key indicators/priority areas. | TBD    | \$50,000    | Continue integrating selected key data sets.<br><b>Outcomes:</b><br>A more complete atlas with relevant environmental information drawn from key indicators/priority areas. | TBD    | TBD         | <b>TBD</b>      |



| Tasks                                                                                                              | 2005                                                                                                                                                                                                                                                                                                                                                                                       | Timing    | Cost<br>C\$ | 2006                                                                                                                                                                                                                                                                                                  | Timing    | Cost<br>C\$ | 2007                                                                                                                                                                                          | Timing    | Cost<br>C\$ | Total<br>3-Year  |
|--------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-------------|------------------|
|                                                                                                                    | emissions<br>- Marine air emissions<br>- B2B priority areas and marine protected areas<br>- Renewable Energy Database<br>- Ecoregions of North America (levels 1 and 2)<br>- Marine Ecoregions of North America<br>- Marine and terrestrial SCCC range maps (selected species)                                                                                                             |           |             |                                                                                                                                                                                                                                                                                                       |           |             |                                                                                                                                                                                               |           |             |                  |
| 5. Develop thematic applications based on the CEC work programme in priority areas, e.g. related to air pollution. | Identify information needs and sources; resolve comparability issues; and make data accessible in Atlas format.<br><b>Outputs:</b><br>A small number of selected thematic geo-spatial applications developed and made available in NAAF format. Candidate applications to be explored in 2005:<br>- Air monitoring trends in key North American cities.<br>- Mapping of the North American | July-Dec. | \$40,000    | Identify selected North American indicators and core SOE data resulting from the Indicator/SOE review study and geo-reference in form that is compatible with the NAAF.<br><b>Outcomes:</b><br>A more complete atlas with relevant environmental information drawn from key indicators/priority areas | Jan.-Dec. | \$40,000    | Continue mapping of key indicators and priority thematic areas.<br><b>Outcomes:</b><br>A more complete atlas with relevant environmental information drawn from key indicators/priority areas | Jan.-Dec. | \$50,000    | <b>\$130,000</b> |

| Tasks                                                                         | 2005                                                                                                                                                                                                                                                     | Timing    | Cost<br>C\$ | 2006                                                                                                                                                                                                                                                                                                                           | Timing | Cost<br>C\$ | 2007 | Timing | Cost<br>C\$ | Total<br>3-Year |
|-------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-------------|------|--------|-------------|-----------------|
|                                                                               | mercury wet-deposition monitoring network (with addition of new sites in Mexico).<br><br>- Renewable energy capacity and future potential in North America.                                                                                              |           |             |                                                                                                                                                                                                                                                                                                                                |        |             |      |        |             |                 |
| 6. Integrate PRTR/Taking Stock with NAAF feasibility study.                   | Conduct feasibility study.<br><b>Outputs:</b><br>Feasibility study report with sample output maps<br><br>Costed plan and proposal to publish and make available for access and query the Taking Stock data as a North American Atlas information service | July-Dec. | \$10,000    | Implement other elements of Design Plan aimed at enhancing coordination and cooperation among stakeholders [could include promoting greater use of the Atlas, activities for accelerating the ability to map shared data sets, promoting greater collaboration amongst the Atlas programs, etc.]<br><br><b>Outputs:</b><br>TBD | TBD    | \$50,000    | NA   | NA     | 0           | <b>\$60,000</b> |
| 7. Develop Secretariat capacity to support North American Environmental Atlas | Eablish institutional capacity within CEC to support the North American Environmental Atlas, including:<br><b>Outputs:</b><br>- GIS capacity                                                                                                             | Jan.-Dec. | \$20,000    | NA                                                                                                                                                                                                                                                                                                                             | NA     | 0           | NA   | NA     | 0           | <b>\$20,000</b> |

| Tasks | 2005                                                                                                                                                            | Timing | Cost<br>C\$                | 2006 | Timing | Cost<br>C\$          | 2007 | Timing | Cost<br>C\$          | Total<br>3-Year      |
|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|----------------------------|------|--------|----------------------|------|--------|----------------------|----------------------|
|       | strengthening plan<br>(including needs<br>analysis)<br><br>- costed acquisition<br>plan capacity<br>increased with<br>installed hardware,<br>software, systems. |        |                            |      |        |                      |      |        |                      |                      |
|       |                                                                                                                                                                 |        | <b>Total<br/>\$140,000</b> |      |        | <b>Total<br/>TBD</b> |      |        | <b>Total<br/>TBD</b> | <b>Total<br/>TBD</b> |

|             |                                                                                                  |               |                         |
|-------------|--------------------------------------------------------------------------------------------------|---------------|-------------------------|
| Project 3   | <b>North American Air Emissions and Monitoring Information</b>                                   |               |                         |
| Prepared by | Prepared by the Secretariat with the advice of the Parties' Information Experts and NAAWG staff. | Location      | North America - wide    |
| Start date  | January 2005                                                                                     | Revision Date | 29 July 2005            |
| End date    | December 2007                                                                                    | Cost:         | 2005: <b>C\$355,000</b> |
| Comments    | Initial theme for Information Pillar.                                                            |               | 2006-2007: TBD          |

## Purpose

This project supports the objectives of the “Information for Decision Making” priority of the CEC Strategic Plan to identify, establish and maintain the information needed to describe the state of the North American environment, to identify emerging trends and issues, and to guide decisions relevant to the shared environmental interests of the Parties. Upon the advice of the Parties' Information experts, the Council chose air quality as the initial principal theme for the Information priority. The air theme is an appropriate place to demonstrate the early potential of the Information priority because of the strong base of work that the CEC has been building in air emissions inventories and air monitoring information. These constitute the information foundation underlying many air quality public information

and decision making needs. As this is a “proof of concept” project, project tasks for 2006 and beyond will need to be designed in light of the success achieved in meeting the goals and objectives of the Information for Decision Making priority in 2005. Evaluation criteria will include the degree to which activities undertaken in this project can be linked with other CEC projects through the North American Atlas (Project 2). Overall success will be measured in terms of the progress made in developing North American information resources that provide tri-national context to the public and decision makers. Ultimately this project will contribute to improving air quality in the North American context.

## Background

Two building blocks are fundamental to the provision of information useful for decision making in the field of air quality management. These are *monitoring* of ambient air quality, and *quantifying* air pollutants emitted from air pollution sources (emissions inventories).

Air quality monitoring information provides decision makers and the public with knowledge of current air quality as well as the ability to track trends in air quality over time. It also helps air quality planners verify the ability of air quality models to reproduce observed air pollutant levels reasonably, and thus provide confidence in models used for informing emissions control

decisions.

Air emissions inventory information is fundamental to identifying and estimating the air pollution contribution from key source sectors to local, regional and global air quality, thus helping decision makers prioritize control strategy options. Coupled with air quality modeling, emission inventories help identify important source regions that affect air quality in downwind and cross border locations. They also provide the public with basic information on the environmental performance of air pollution sources located in their communities.

As the CEC's past work on air quality is integral to this project, that work is described under the "Approach" section below.

## Approach

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This project advances opportunities for improving the quality, comparability and public accessibility of North American air monitoring and air emissions inventory data sets by building upon the base of work previously undertaken by the CEC. The suite of air activities below will continue the CEC's work by linking several previous activities with new complementary activities that are woven into the broader North American context under the Information priority.

For air monitoring, all the 2005 CEC activities rest upon the existence or development of a comparable air monitoring data set for North America. In 2004, the Secretariat supported the initial planning phase of a national air quality monitoring strategy in Mexico that will serve as the basis for enhancing Mexico's current network while pursuing additional sources of funding for further improvements to the network. It also provides a linking point under the 2005 air monitoring activities for assessing North American air monitoring infrastructure, data comparability, air quality trends in key cities, and air monitoring in "clean areas." Air quality monitoring has natural linkages to the CEC NARAP on monitoring and assessment (Project 4), and will provide an important layer of local, regional and North American air quality data within the North American Atlas (Project 2), thus promoting use of the Atlas by an interested community outside the CEC. The CEC will work with air monitoring experts in each country to identify air monitoring data gaps, assess data comparability, evaluate existing infrastructure, and identify planning needs and next steps within the scope of each particular activity.

In 2001 under Resolution 01-05, the CEC Council agreed to work towards promoting comparability of air emissions inventory information in North America. Since then, the CEC has pursued two goals in this regard; 1) facilitating the development of comparable air emissions data for use in transborder air quality planning, and 2) enhancing the public availability of air emissions information in North America.

The CEC has done extensive work in promoting the development of North

American air emissions inventories through support for Mexico's first national air emissions inventory that meet Mexico's planning needs as well as having direct applications to transborder air quality planning. The CEC has also provided a North American context for air emissions from the electricity sector, investigated the feasibility of electronically linking North American air emissions databases and begun including comparable air information from all three countries into *Taking Stock*. Much work remains to be done. In the set of linked air inventory activities, the CEC will advance its on-going efforts in Mexico through activities to increase data management and reporting infrastructure for Mexico's new inventory, and enhance the accessibility of the information to the rest of North America through *Taking Stock*.

Emissions inventories are also continually evolving through improved methodologies and newly identified or improved sources of data. A key decision making need is filling the current information gap on North American marine emissions inventories. About 90% of the world's commerce moves on water, and commercial marine vessels typically burn a heavy fuel oil 2,000 times dirtier than the US 2007 highway diesel limits. Because of their international character, commercial marine vessels are difficult to control as a source of air pollution sources using domestic regulations. A number of major port cities in North America expect marine vessels to become the largest source of air pollution in their region over the next 20 to 30 years. With this emerging trend, there is a need to develop a comprehensive comparable marine air emissions inventory for North America that can help support a coordinated effort among the countries to address this important air pollution sector. The CEC will support technical work to improve estimates of North American marine emissions through targeted work where needed to fill data gaps. In doing this, the Secretariat will leverage its resources to supplement on-going efforts in compiling a North American marine air emissions inventory and supporting data layers for the North American Atlas.

The long-term goal of the air activities is to provide a more complete North

American picture of air quality and air emissions that will support decision making on air quality management, supplement public outreach efforts, and provide important basic information layers for the North American Atlas. An indicator of success for this will be progress towards providing needed air data sets or planning frameworks that address information needs for air control strategies, public outreach efforts, and air quality trend assessments. A second performance indicator will be the successful creation of data sets for applications in the North American Atlas that garner public attention for its use by others outside the Secretariat. A third performance indicator will be the degree to which layers from the air quality data sets are cross-linked to data sets from other Secretariat projects using the NA Atlas. There are

## Communications

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The results of this project, for most components, require communication to key audiences and the public. As content warrants, results and milestones need to be shared (for example, concerning completion of Mexico's National Air Inventory and NA cities data and trends). To the extent they are relevant, North American data sets will be presented as applications of the North

## Information Management

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A principal goal of the air theme is to provide information products in conjunction with the North American Atlas. The marine air emissions inventory project will obtain, through an outside consultant, several data sets that will support the development of a North American marine air emissions inventory. The CEC will place the data sets into the North American Atlas and make them available for potential cross-linkages to other public users and CEC projects. Examples include a data set containing international ship routes entering, leaving and traveling along North American coastal waters and a data layer with air pollution estimates from marine shipping lanes. This will be a static dataset for the year 2002 to be maintained at the CEC.

The project on air quality trends in key North American cities will provide a time series of air quality trends in cities across North America that will be plotted in the North American Atlas. The CEC will collect available monitoring data from sites located in key cities and archive it. The data

numerous opportunities for others to use this information.

Comparable information compiled from each country will also support future *Taking Stock* reports (see Project 5) and "populate" the North American Atlas with relevant environmental information to display spatial locations and overlays of measured air pollutant levels and air pollution sources across North America. These map layers will build upon the atlas foundation for displaying large North American datasets in a consistent manner, and exploring cross linkages with mapping information from other CEC initiatives, such as the Baja to Bering project.

American Atlas for public display. Future editions of *Taking Stock* will benefit from the incorporation of comparable information on criteria air contaminant emissions, and in the long term for greenhouse gases.

could be made publicly accessible through the North American Atlas. Tracking trends over future years could be a possible as on-going internal task of the CEC if staff resources permit. The information sets are relatively small, so such a long-term tracking function, possibly associated with indicators reporting, would be a relatively low burden task once the CEC compiles the initial data sets.

A third data set to be obtained through an outside consultant will be air monitoring data for "clean" or background regions. These data are intended to provide a regional context of background air pollution that can help inform decisions on the role of air pollution transport and air quality trends outside of urban areas. These will be static data sets obtained from public monitoring data bases. The data sets will be formatted for use in the North American Atlas.

## Involvement

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This project will involve experts identified by the three member countries of NAAWG having relevant expertise in the air quality programs. It will also involve other experts and stakeholders in and outside government having an interest or relevant expertise in the air monitoring and air emissions inventory activities.

## Considerations

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There are differences in circumstances regarding available resources and capacity to monitor air quality or collect air emissions information in each country that can hinder a fuller picture of the North American context in these two areas. There is, however, the advantage of a common recognition among the countries that these are the two areas having the highest priority

for cooperative work on NA air quality issues. Therefore, there is strong momentum for developing common methods and techniques for monitoring air quality and estimating air emissions, and for managing the collected information in a manner that facilitates its availability to interested Parties and the public.

## Task Descriptions

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As this is a “proof of concept” project, future tasks in 2006 and beyond will need to be evaluated in light of the success these tasks have in meeting the objectives and goals of the Information for Decision Making priority of the CEC Strategic Plan. One important criterion will be demonstrated success at providing, (or have the potential of providing through data collection, planning efforts and leveraging of outside funding), data sets that present the North American context

for air quality. This can be measured by successful applications of the NA Atlas using data sets generated in 2005 under these tasks. Another metric will be how well underlying data sets, such as marine shipping lanes, can be cross-linked to other Secretariat projects, such as the Baja to Bering work involving marine protected areas. The evaluation will cover the two main areas: *North American air monitoring networks* and *North American air emissions inventories*.

(See table below.)

| Tasks                                                                                              | 2005                                                                                                                                                                                                                                                                                                                                                     | Timing  | Cost<br>C\$ | 2006                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Timing | Cost<br>C\$ | 2007 | Timing | Cost<br>C\$ | Total<br>3-Year |
|----------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-------------|------|--------|-------------|-----------------|
| 1. Develop and implement a sustainable infrastructure plan for emissions inventories and reporting | Refine and implement a flexible data management system and reporting program that will enable Mexico to maintain and update the Mexican National Emissions Inventory.<br><br><b>Outputs:</b><br>Phased plan and next steps for the design and implementation of a data management system and reporting program for Mexico's National Emissions Inventory | May-Dec | \$80,000    | TBD<br><br>Next steps could be pursued to further refine and update Mexico's national air emissions inventory according to needs identified during the 2005 planning process.<br><br>Also, depending on the results of the planning efforts of Task 1 and the data compilations of Tasks 2, 4 and 5, further work could address existing or emerging air emissions data gaps for key North American emission sources (e.g., mapping of forest fire emissions), similar to the work in 2005 on the marine air emissions inventories (Task 1). This could provide potential applications for the North American Atlas. | TBD    | TBD         | TBD  | TBD    | TBD         | <b>TBD</b>      |
| 2. Compile air emissions information for marine vessels                                            | Compile available and comparable air emissions information for marine vessels transiting the North American coasts, and develop new information where additional data are needed.<br><br><b>Outputs:</b><br>Comparable set of marine air emissions data spatially distributed along North American coasts.                                               | May-Dec | \$80,000    | TBD<br><br>Further work could be pursued to refine the marine emissions inventories.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | TBD    | TBD         | TBD  | TBD    | TBD         | <b>TBD</b>      |



| Tasks                                                                                                       | 2005                                                                                                                                                                                                                                                                                                                                | Timing  | Cost<br>C\$ | 2006                                                                                                                                                    | Timing | Cost<br>C\$ | 2007              | Timing | Cost<br>C\$ | Total<br>3-Year |
|-------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-------------|-------------------|--------|-------------|-----------------|
| 3. Integrate criteria air contaminant and greenhouse gas emissions information into <i>Taking Stock</i>     | <b>Outputs:</b><br>Inclusion of publicly reported criteria air and greenhouse gas emissions information into <i>Taking Stock</i> 2003                                                                                                                                                                                               | May-Dec | \$10,000    | The incorporation of criteria air emissions information into <i>Taking Stock</i> is expected to become a continuing activity.                           | TBD    | \$10,000    | <i>Continuing</i> | TBD    | \$10,000    | <b>\$30,000</b> |
| 4. Facilitate the development of a distributed/shared database of air emissions from the electricity sector | Using cached data approach, create the shared database of air emissions from the electricity sector, taking advantage of online access where available and building upon previous CEC-supported work.<br><b>Outputs:</b><br>Shared North American power plant air emissions inventory database.                                     | May-Dec | \$35,000    | NA                                                                                                                                                      | NA     | 0           | NA                | NA     | 0           | <b>\$35,000</b> |
| 5. Produce a summary report on air quality trends in key North American cities.                             | Prepare a brief overview report on air quality status and trends in key North American cities using comparable dataset from existing air quality monitoring, with application for the North American Atlas.<br><b>Outputs:</b><br>Summary Report.<br>Dependent on success, this information could support North American indicators | May-Dec | \$50,000    | TBD<br><br>Activities could be developed to address data comparability and accessibility issues that may be identified from the work conducted in 2005. | TBD    | TBD         | TBD               | TBD    | TBD         | <b>TBD</b>      |

| Tasks                                                                                                                    | 2005                                                                                                                                                                                                                                                                                                                                                                                                                              | Timing  | Cost<br>C\$ | 2006                                                                                                                                                                                                                                                                                                                                                    | Timing | Cost<br>C\$ | 2007 | Timing | Cost<br>C\$ | Total<br>3-Year |
|--------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-------------|------|--------|-------------|-----------------|
|                                                                                                                          | reporting.                                                                                                                                                                                                                                                                                                                                                                                                                        |         |             |                                                                                                                                                                                                                                                                                                                                                         |        |             |      |        |             |                 |
| 6. Promote the implementation of a national air quality monitoring and public information infrastructure plan for Mexico | <p>Pursue a phased implementation plan for harmonizing and linking existing air quality monitoring in Mexico, extending monitoring efforts to other areas in Mexico, and linking a national air monitoring network to a public notification system using Mexico's air quality index, the IMECA.</p> <p><b>Outputs:</b></p> <p>Phased implementation plan and next steps for national air quality monitoring network in Mexico</p> | May-Dec | \$60,000    | <p>TBD</p> <p>Next steps could be pursued to further Mexico's national air monitoring network and public notification system according to needs identified in the 2005 planning process.</p> <p>Depending on the results of the planning conducted in 2005, activities could also be developed to further air monitoring capacity in North America.</p> | TBD    | TBD         | TBD  | TBD    | TBD         | <b>TBD</b>      |
| 7. Develop a report on monitoring data.                                                                                  | <p>Design and prepare a brief report comparing the monitoring requirements and available monitoring data for "clean areas" in the three countries, along with a data set from "background" monitoring locations for the North American Atlas.</p> <p><b>Outputs:</b></p> <p>Assessment of air quality monitoring activity in "clean" areas of North America that can provide</p>                                                  | May-Dec | \$30,000    | <p>TBD</p> <p>Further activities could be developed to address data comparability and accessibility issues identified from activities in 2005 related to monitoring in "clean areas".</p>                                                                                                                                                               | TBD    | TBD         | TBD  | TBD    | TBD         | <b>TBD</b>      |

| Tasks                                           | 2005                                                                                                                               | Timing  | Cost<br>C\$                | 2006 | Timing | Cost<br>C\$          | 2007 | Timing | Cost<br>C\$          | Total<br>3-Year      |
|-------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|---------|----------------------------|------|--------|----------------------|------|--------|----------------------|----------------------|
|                                                 | an indicator of regional and hemispheric transport of air pollution, with application for the North American Atlas                 |         |                            |      |        |                      |      |        |                      |                      |
| 8. Support the North American Air Working Group | Facilitate meetings and teleconferencing of the NAAWG.<br><br><b>Outputs:</b><br>NAAWG meets twice and provides advice to Council. | Jan-Dec | \$10,000                   | TBD  | TBD    | TBD                  | TBD  | TBD    | TBD                  | <b>TBD</b>           |
|                                                 |                                                                                                                                    |         | <b>Total<br/>\$355,000</b> |      |        | <b>Total<br/>TBD</b> |      |        | <b>Total<br/>TBD</b> | <b>Total<br/>TBD</b> |

|             |                                                                                                                                                                                                                                   |               |                                           |
|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-------------------------------------------|
| Project 4   | <b>North American Monitoring and Assessment of Persistent, Bioaccumulative and Toxic Substances</b>                                                                                                                               |               |                                           |
| Prepared by | This project was developed by the Secretariat in consultation with the North American Standing Committee on Monitoring and Assessment under the Council Resolution 02-08 NARAP concerning Environmental Monitoring and Assessment | Location      | Tri-national                              |
| Start date  | January 2005                                                                                                                                                                                                                      | Revision Date | 29 July 2005                              |
| End date    | Ongoing                                                                                                                                                                                                                           | Cost          | 2005: <b>C\$112,000</b><br>2006–2007: TBD |
| Comments    | The activities under the project Sound Management of Chemicals are intrinsically linked to the activities under this project.                                                                                                     |               |                                           |

## Purpose

The North American Regional Action Plan (NARAP) on Environmental Monitoring and Assessment (EM&A) was developed to assist the Working Group for the Sound Management of Chemicals (SMOC) and its Implementation Task Forces in meeting the monitoring and assessment obligations identified and implied under Council Resolution 95-05, as well as in substance-specific NARAPs developed pursuant to that Resolution.

More generally, the NARAP on Environmental Monitoring and Assessment was intended to provide Canada, Mexico and the United States with an agreed-upon course of action to increase the comparability, reliability, relevance and availability of data and information on persistent toxic substances in the North American environment. The EM&A NARAP provides an overall strategic framework to assist in achieving this purpose and the North American Standing Committee on Monitoring and Assessment, established under this action plan serves as the primary forum for advancing the implementation of this plan. The project aims to foster and encourage cooperation and collective action in planning, conducting and reporting of baseline surveys and monitoring, modeling and research programs on the status, trends and effects of persistent and toxic substances.

Capacity building and international cooperation are both priorities, with a particular emphasis placed on increasing the capacity of Mexican scientists to measure, monitor and assess persistent and toxic substances in Mexico.

The EM&A NARAP is now incorporated into the Information for Decision Making priority of the CEC Strategic Plan as one of its critical components. Thus, the value of its activities, outputs and products will be extended to support the CEC's overall objectives for information for decision making in combination with its companion projects – primarily the North American Atlas and State of the Environment reporting.

## Background

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The CEC Council (of Ministers) adopted Resolution 95-05 on the Sound Management of Chemicals (SMOC) on October 13<sup>th</sup>, 1995, at its second regular meeting held in Oaxaca, Mexico. The Resolution adopted, as a priority, the development of North American Regional Action Plans (NARAPs) for certain persistent and toxic substances. It also established a SMOC Working Group composed of two senior officials selected by each Party whose duties pertain to the regulation or management of toxic substances and who were tasked to work with the Commission for Environmental Cooperation (CEC) to implement the decisions and commitments set out in the Resolution.

The SMOC Working Group recognizes the importance of having and maintaining effective monitoring, modeling and research programs to guide the CEC's SMOC initiative and to help in assessing its progress. Following development of a concept paper and subsequent meetings of experts and the Working Group, the Council approved Council Resolution 99-02, which directs that a North American Regional Action Plan on environmental monitoring and assessment be developed. Subsequently, in Council Resolution 00-10, the Council directed that the Sound Management of Chemicals ensure a strong children's health focus in development of the draft NARAP on environmental monitoring and assessment. The Council approved (Resolution 02-08) the NARAP on Environmental Monitoring and Assessment on the 19<sup>th</sup> of June 2002.

The substance-specific NARAPs developed under the Sound Management of

Chemicals initiative all have monitoring requirements. The NARAP on Mercury specifically includes obligations related to the monitoring, research, modeling and assessment of mercury in the environment and its implications for human health and the environment. The EM&A NARAP provides an important means of helping to address these obligations. This project incorporates the EM&A NARAP. It will continue to involve extensive consultation and collaboration with the Task Forces established to oversee the substance-specific NARAPs. Future work under this project will include: measuring for success, North American consistency and comparability of quality assured scientific data, and alerting the Parties to impending environmental and human health concerns related to Persistent, Bioaccumulative and Toxic Substances (PBTS) and other substances that may have a deleterious impact on human health and the environment.

The EM&A NARAP – now this project – is supported by the EM&A Standing Committee. The committee consists of one recognized expert from each country. These national experts co-chair the committee and seek advice and input from the other NARAP Implementation Task Force chairpersons. The NARAP experts work collaboratively with the EM&A Standing Committee, as well as with leaders of three subgroups within the Standing Committee, focused on the areas of environmental media, data management, and policy assessments, to implement monitoring and assessment actions of their respective NARAPs and this project.

## Approach

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This project includes an extensive list of action items and represents an ambitious plan to implement the Sound Management of Chemicals initiative. It receives broad support among its many stakeholders, which includes the Parties, members of the general public and experts involved in monitoring and research on PBTS. Consultations with industry, academia, indigenous, health and environmentally concerned representatives will continue to be integral to the implementation of the project.

The main focus of this project is the development and implementation of an integrated (bio)monitoring program in the three countries to support priority identification, establish baselines and measure the success of SMOC's initiatives. Data generated will be applicable to mapping in the North American Atlas as well as ideal for integration into the North American State of the Environment Report. The project will be supported by the members of the SMOC Working Group, EM&A Standing Committee and NARAP Task Force Chairs. The group faces a major challenge to guarantee resources

available to implement a intricate project of this nature on a tri-national scale. The success of this project depends highly upon successful leveraging of outside funding. Seed money from the CEC will be required in order to catalyze much larger contributions from outside funding agencies.

The successful results of pilot projects already undertaken speak to the merits of the overall project. Initiatives successfully undertaken include:

- Ambient air monitoring of mercury in Mexico, with samplers and experts contributed by Canada;
- Soil and sediment sampling and analysis for POPs and toxic metals in Zacatecas, Mexico;
- Public communications on risks associated with mercury exposure in artisanal artefacts; and
- Training of technical experts in dioxin analysis and assessment.

Projects underway and that will be completed include:

- Wet deposition monitoring of mercury in Mexico, augmenting the North American network;
- Air monitoring of dioxins and furans in Mexico, augmenting the North American network;
- Soil and sediment sampling and analysis for dioxins and furans in Mexico; and
- Preliminary maternal blood monitoring for POPs and toxic metals in North America.

As the focus moves away from a few projects being funded solely with CEC resources, the EM&A Standing Committee will concentrate its efforts on the development of an integrated, tri-national monitoring program and attempt to secure outside funding for implementation on a larger and more effective scale. The Secretariat will provide both scientific oversight and act as the executing agency for disbursement of funds, and maintain its role in facilitating communication as well as coordination of program implementation for the three Parties. The Parties will work together during

development and implementation to ensure the activities under the tri-national monitoring program are aligned with their national priorities to ensure that internal mechanisms for implementation exist.

Principal tasks to be undertaken include:

- The design, of an integrated tri-national (bio)monitoring program through development of a proposed Strategy for Catalyzing Cooperation. This key activity would recognize and incorporate compatible (bio) monitoring efforts in the countries (e.g., the National Health and Nutrition Examination Survey (NHANES), fish tissue survey, Mussel Watch, Gull Herring, etc.) and use these for developing a core (bio)monitoring program that would be consistently implemented (sampling and analysis procedures) to provide a common “knowledge base related to contaminants” in the North American region.
- Two workshops are to be held in Mexico to undertake a comprehensive assessment of the current state of both environmental and health monitoring and make recommendations for the establishment of the tri-national monitoring and assessment initiative through application to outside funding agencies.
- Undertaking an assessment of previously implemented action plans and of the feasibility of accessing “gray” and other potentially valuable academic literature to establish whether such information might be a valuable and untapped source of data on environmental and human health concerns and issues. “Gray” literature includes Masters, Doctoral and Post Doctoral theses and studies generally archived in university and institutional libraries.
- Capacity building opportunities will also be exploited to take advantage of training programs and knowledge development through expertise and personnel exchanges.

Communications

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Ultimately, the success of this unique North American project will depend on developing and maintaining strong public support and continuing support from the monitoring and science communities. Public communication, through the release and dissemination of educational material, progress reports and contribution to other reports, will be one means of encouraging this support. Public consultation events, sponsored by the Standing

Committee, the Working Group for the Sound Management of Chemicals, and the Council and the Joint Public Advisory Committee of the Commission for Environmental Cooperation, will provide other means of being accountable to the public.

Information Management

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As the information may be of a technical nature and require manipulation through statistical analysis and trends development, it is anticipated that there will be a need to provide electronic storage and retrieval mechanisms. A great deal of the data will be amenable to mapping and thus comparability and compatibility will be of paramount importance. Presentation of the data in a North American context will be of particular interest to the North

American Atlas initiative.

Since there is a proposal to access outside funding for the extension of this program, information may have to be shared with agencies such as the World Bank, PAHO, and GEF in order to fulfill contractual partnership agreements.

Involvement

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The Secretariat will act to promote, facilitate and monitor the implementation of the M&A project actions decided upon by the three Parties. The Secretariat supports the EM&A Standing Committee and the NARAP Task Forces, working with the Task Forces, by providing them with services and consultants to work with the Parties to complete agreed-upon trilateral projects and actions. Implementation of many projects under the EM&A

NARAP necessitates collaboration with non-governmental organizations; business and industry; indigenous peoples; provincial, state and municipal governments; academia; and technical and policy experts. The Secretariat provides a critical monitoring and auditing function by ensuring follow-up initiatives are acted upon in a collaborative and consistent manner.

Task Descriptions

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*See table below.*

| Tasks                                                                                                                            | 2005                                                                                                                                                                                                                              | Timing                      | Cost<br>C\$                          | 2006                                                                                                                                             | Timin<br>g                 | Cost<br>C\$              | 2007                                                                                                                             | Timing    | Cost<br>C\$ | 3-Year<br>Estimate                     |
|----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|--------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|--------------------------|----------------------------------------------------------------------------------------------------------------------------------|-----------|-------------|----------------------------------------|
| 1. Provide support to the Mercury Deposition Network by assisting Mexico with sample analysis contracts and data interpretation. | <b>Outputs:</b><br>Delivery of data on Hg levels in wet deposition samples in two locations in Mexico, to add to the NA picture. Mexico will be encouraged to assume responsibilities for continuation after this period.         | Sept - Dec                  | \$7,000                              | Seed money provided by CEC to continue operation in 2006 is intended to catalyze contributions from other agencies and interests                 | Jan - Dec                  | \$5,000                  | Seed money provided by CEC to continue operation in 2007 is intended to catalyze contributions from other agencies and interests |           | \$5,000     | <b>\$17,000</b>                        |
| 2. Assessment of Assessments                                                                                                     | <b>Outputs:</b><br>Development of a synthesis and assessment report regarding the status and trends of the NARAP chemicals in North America.                                                                                      | Sept – Dec                  | \$20,000                             | Finalization of the synthesis and assessment report regarding the status and trends of remaining NARAP chemicals in North America.               | Jan - Dec                  | \$50,000                 |                                                                                                                                  |           |             | <b>\$70,000</b>                        |
| 3. Implement an audit and compliance mechanism for closed NARAPs                                                                 | <b>Outputs:</b><br>A mechanism for auditing and evaluating the progress of outstanding items of closed NARAP's and ensuring trends of risk reduction are maintained.<br><br>Initiation of a survey of "Grey literature" in Mexico | Mar – Dec<br><br>Sept – Dec | \$25,000                             | Audit and compliance reports to Council<br><br>Completion and assessment of "Grey literature" applicability to assessment of chemicals in Mexico | Jan – Dec<br><br>Jan - Dec | \$25,000<br><br>\$20,000 | Ongoing audit and compliance for reporting to Council in 2008                                                                    | Jan - Dec | \$20,000    | <b>\$70,000</b><br><br><b>\$20,000</b> |
| 4. Develop and undertake a program for Dioxin and Furan Air Monitoring in Mexico                                                 | Promote and develop capacities for monitoring and assessment of dioxins and furans in air, in Mexico.<br><br><b>Outputs:</b><br>Start up of 6 NDAMN sites in                                                                      | Sept - Dec                  | \$20,000<br>(C\$24,999 for samplers) | Provide seed money to catalyze contributions from other agencies and interests                                                                   | Jan - Dec                  | \$20,000                 | Provide seed money to catalyze contributions from other agencies and interests                                                   | Jan - Dec | \$20,000    | <b>\$60,000</b>                        |



| Tasks                                                                                            | 2005                                                                                                                                                                                                                                             | Timing    | Cost<br>C\$                    | 2006                                                                                                                                                                                                                                              | Timing    | Cost<br>C\$ | 2007                                                                                                                                                                                                      | Timing    | Cost<br>C\$ | 3-Year<br>Estimate |
|--------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|--------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-------------|--------------------|
|                                                                                                  | Mexico to augment the established network in Canada and the USA.                                                                                                                                                                                 |           |                                |                                                                                                                                                                                                                                                   |           |             |                                                                                                                                                                                                           |           |             |                    |
| 5. Continue and finalize the program for Dioxin and Furan Soil and Sediment Monitoring in Mexico | <b>Outputs:</b><br>A report will be developed highlighting historical dioxin and furan deposition by sediment core sampling and analysis in 2 remote Mexican Lakes. Samples may be preserved for analysis of other contaminants such as mercury. | Mar - Dec | \$10,000                       | Provide seed money to catalyze contributions from others to support analysis of other contaminants to help in establishing baseline data and for extending D/F analysis to other areas                                                            | Jan - Dec | \$20,000    | Provide seed money to catalyze contributions from others to support analysis of other contaminants to help in establishing baseline data and for extending D/F analysis to other areas                    | Jan - Dec | \$20,000    | <b>\$50,000</b>    |
| 6. Provide support to Maternal Blood Monitoring Project                                          | <b>Outputs:</b><br>A report and scientific paper will be developed to detail first birth mother exposure to persistent organic pollutants (POPs) and toxic metals at the tri-national level.                                                     | Jan - Dec | \$6,000<br>(\$100K US from WB) | Interpret and present data, to Council, in peer reviewed scientific journals and in international fora                                                                                                                                            | Jan - Dec | \$10,000    | Present data to expert and international fora                                                                                                                                                             | Jan - Dec | \$10,000    | <b>\$26,000</b>    |
| 7. Conduct a NA Environmental Monitoring Workshop                                                | <b>Outputs:</b><br>Develop a proposal of NA environmental monitoring needs to present to an outside funding source.                                                                                                                              | Dec       | \$24,000                       | Provide support for development of the final proposal to the outside funding source.                                                                                                                                                              | Jan - Dec | \$30,000    |                                                                                                                                                                                                           |           |             | <b>\$54,000</b>    |
|                                                                                                  |                                                                                                                                                                                                                                                  |           |                                | As the SMOC Working Group and its Task Forces develop implementation plans and strategies for catalyzing cooperation, proposals for monitoring activities for 2006 will be presented to the EM&A Standing Committee for consideration. Estimate 4 |           | \$80,000    | As the SMOC Working Group and its Task Forces develop implementation plans and strategies for catalyzing cooperation, proposals for monitoring activities for 2007 will be presented to the EM&A Standing |           | \$80,000    | <b>\$160,000</b>   |

| Tasks | 2005 | Timing | Cost<br>C\$                          | 2006                        | Timin<br>g | Cost<br>C\$                          | 2007                                                                | Timing | Cost<br>C\$                          | 3-Year<br>Estimate          |
|-------|------|--------|--------------------------------------|-----------------------------|------------|--------------------------------------|---------------------------------------------------------------------|--------|--------------------------------------|-----------------------------|
|       |      |        |                                      | new projects at \$20K each. |            |                                      | Committee for consideration. Estimate 4 new projects at \$20K each. |        |                                      |                             |
|       |      |        | <b>Total<br/>2005:<br/>\$112,000</b> |                             |            | <b>Total<br/>2006:<br/>\$260,000</b> |                                                                     |        | <b>Total<br/>2007:<br/>\$155,000</b> | <b>Total:<br/>\$427,000</b> |

|             |                                                                |
|-------------|----------------------------------------------------------------|
| Project 5   | <b>North American Pollutant Release and Transfer Registers</b> |
| Prepared by | The Secretariat                                                |
| Start date  | 1995                                                           |
| End date    | Ongoing                                                        |
| Comments    | None                                                           |

|               |                                                  |
|---------------|--------------------------------------------------|
| Location      | North America - wide                             |
| Revision Date | 29 July 2005                                     |
| Cost          | 2005: <b>C\$335,000</b><br>2006-2007: C\$680,000 |

## Purpose

The primary goal of the project is to stimulate reductions in pollutant releases and transfers from industrial activities by tracking and publishing information on the amounts, sources and handling of toxic chemicals of common concern. The project also seeks to enhance the comparability among the national PRTRs and to increase access to, and use of, PRTR data by the public and interested groups to promote environmental improvements.

Releases of toxic chemicals occur across North America on a daily basis. Governments are putting programs in place that require mandatory reporting

of releases by facilities. Canada and U.S. have such a program (NPRI, TRI) in place. Mexico has recently passed regulations and their program will be in place shortly.

This project will also contribute information to the NA State of the Environment report, the NA Annual Indicators report and to the NA Environmental Atlas.

## Background

Since 1995, the CEC has been producing its annual *Taking Stock* report. *Taking Stock* has developed a consistently growing audience for the information it presents. This project provides for producing, publishing and continuing the process for improving *Taking Stock* for the foreseeable future.

The CEC's North American Pollutant Release and Transfer Register (PRTR) project tracks and publishes information on the amounts, sources and handling of toxic chemicals from industrial activities in North America since the early days of NAFTA. Each year the CEC publishes the *Taking Stock* report and web site, which provide a unique regional picture of pollutant data in North America, based on available data from the national PRTR systems. The project also seeks to facilitate collaboration among the national PRTR

programs to enhance the comparability among the three reporting systems, with a view to gaining a sharper picture of the sources and trends in pollutant releases and transfers across the continent. Advancing the public's right to know and involving stakeholders and interested groups is another important aspect of the project. At a global level, the CEC collaborates with other international entities (e.g., the Organization for Economic Cooperation and Development—OECD, the Intergovernmental Forum on Chemical Safety—IFCS, United Nations Economic Commission for Europe—UNECE) in order to share experiences and contribute to the development and use of PRTRs worldwide.

The ninth edition and most recent publication of *Taking Stock* ( reporting

*data from 2002*) was released in May 2005. Since the inception of the report, the presentation of the analyses of trends in the generation and management of toxic pollutants has become increasingly straightforward.

## Approach

The *Taking Stock* reports present an overview and analysis of data on pollutant releases and transfers from industrial facilities in North America, based on information collected through the national PRTR programs. Since 2001, the CEC has also provided access to North American PRTR data through the *Taking Stock On-Line* web site, which provides users with direct access to the matched data sets used in the *Taking Stock* reports through a flexible 'query builder' function.

To compare data from national PRTRs with different reporting requirements, the CEC relies on selecting the elements they have in common to create a matched data set. This matched North American data set is the basis for the information and analyses provided in the *Taking Stock* reports and on the web site. Up through 2004, *Taking Stock* included data from Canada and the United States only, since comparable data from all three countries were not yet available. In the most recent edition, published in 2005, a matched set of criteria air contaminants from Canada, the US and Mexico were included. With the implementation of the Mexican RETC, it is anticipated that the larger set of Mexican data can be incorporated into *Taking Stock* for publication in 2007. In the meantime, the CEC will continue its annual analysis of data and will review and integrate comparable data for criteria air contaminants and greenhouse gas emissions from all three countries. Since the start of the PRTR project, there has been a 50 percent increase, generally speaking, in the amount of data that are comparable between the Canadian and US PRTRs.

Special feature chapters focusing on specific chemicals or industries are included in *Taking Stock*. These special features are identified through

An important element of this work is to support the further development and implementation of the mandatory and publicly accessible RETC system in Mexico.

meetings of a consultative group consisting of multi-stakeholders, brought together annually to give advice to the CEC and help guide our work. Lead was the focus of the 2005 publication and the cement industry will be the focus for 2006. In addition, a special feature report on toxic chemicals and children's health is being completed using matched PRTR data from 2002 (the most recent data set).

*Taking Stock* data can be displayed graphically and a new opportunity for doing so will be examined in the North American Atlas. *Taking Stock* data are also amenable to being reported in the CEC's future SOE reports.

Mexico is in the final stages of putting their RETC in place. Since reporting of this nature will be new to industries in Mexico, the CEC will be able to support capacity building and training workshops between companies in Canada, the United States and Mexico to facilitate the reporting process.

In developing the *Taking Stock* reports, the CEC uses an extensive consultative process that includes circulation of a discussion document, a public meeting of the trinational multi-stakeholder Consultative Group, receipt of written comments, and the preparation of a response-to-comments document. PRTR Officials from the three governments play a critical role in this process. The CEC PRTR project has benefited greatly from the input and suggestions obtained through this consultative process.

## Communications

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Communications of the CEC's annual *Taking Stock* are well established. A number of changes have occurred and more are contemplated to improve public and stakeholder understanding of the PRTR initiative and *Taking Stock's* role: care has been taken to avoid confusion between the *publication volume date* and the *data-year* under analysis; as new data allow, Mexican information will be presented and analyzed, as it becomes available, in a

North American context; and finally, consideration will be given to a greater reliance upon outreach and stakeholder briefings to ensure the most thorough and informed consideration of the CEC's PRTR project and annual *Taking Stock* reports. .

## Information Management

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Currently, *Taking Stock* appears in two forms. One is an annual publication of over 250 pages, comprised of text tables and figures, that compares comparable release and transfer data any number of different ways, e.g. by country, state or province, by chemical, by media (air, water, land). The second form is through an electronic web-based 'query builder' from the CEC web site which enables users to analyze the data through a searchable format. Future work includes steps to ensure the operational continuity of this on-line searchable data set (currently provided and maintained by a contractor).

While these approaches meet the need of getting information out to the public, there are additional ways of displaying the data, e.g. GIS, North American Atlas, etc. The national PRTR data currently include lat/long data. Therefore there is ample opportunity to apply new tools to make this data even more meaningful to interested publics. Some work is needed to bridge the current data into a format(s) that would allow it to be layered on to the NA Atlas.

## Involvement

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The PRTR project will be led and managed by the Secretariat, but will require significant liaison with, and input and support from the trinational, multi-stakeholder Consultative Group, composed of a broad range of interested groups and individuals from the three countries. This group has helped to guide the development of the annual *Taking Stock* report and other aspects of the CEC's PRTR program. The Consultative Group currently numbers more than 200 people from all three countries, including industry

representatives, academics, environmental and public health advocates, community activists, government representatives at the federal, state/provincial and local levels, researchers, policy analysts, and interested citizens. A number of these individuals and groups have also become directly involved in implementation of project activities, e.g. through the "ad hoc PRTR group".

## Considerations

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An important focus of the PRTR program is to promote comparability of data across the three countries, as reflected in the “Action Plan to Enhance the Comparability of Pollutant Releases and Transfer Registers in North America.” This effort is consistent with the CEC Strategic Plan and the goals of the Information priority. Although the countries have made good progress in this area, significant work is still needed. This is particularly

relevant as Mexico implements the RETC and begins to make data publicly available. Strengthening the underlying compatibility and reliability of PRTRs in all three countries will provide an effective means for tracking chemicals throughout the continent on a multi-media basis.

## Task Descriptions

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*See table below.*

| Tasks                                                                                                                                                                                                                                                    | 2005                                                                                                                                                                                                                                                                                                                                                                                   | Timing | Cost<br>C\$                 | 2006                                                                                                                                                                                                                                                                                                                                                                                                                             | Timing | Cost<br>C\$                 | 2007                                                                                                                                                                                                                                                                                                                                                                                  | Timing | Cost<br>C\$                 | Total<br>3-Year                          |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-----------------------------|------------------------------------------|
| 1. Publish Taking Stock Reports.                                                                                                                                                                                                                         | Complete Taking Stock 2002.<br><br><b>Outputs:</b><br>Report printed and released May 24 along with significant communications support to ensure wide distribution to the public.                                                                                                                                                                                                      | May    | \$115,000                   | Complete and publish Taking Stock 2003.<br><br><b>Outputs:</b><br>Data that have been pulled together and assessed from the TRI and NPRI sets will be analyzed and published in 2006. Special efforts will be made to advance the release schedule to an earlier date than previous years.                                                                                                                                       | Apr.   | \$110,000                   | Complete and publish Taking Stock 2004.<br><br><b>Outputs:</b><br>Continue to accelerate the pace of analyzing and publishing Taking Stock earlier than previous years, to ensure relevancy to the public and decision-makers. Incorporate data from the RETC.                                                                                                                        | March  | \$110,000                   | <b>\$335,000</b>                         |
| 2. Undertake data collection and interpretation for Taking Stock (includes contracts for phase II of TS).<br><br>2a) Incorporate data into the Taking Stock Online "Query Builder" to support electronic access and customized searches of the database. | Undertake data collection and analysis for Taking Stock 2003<br><br><b>Outputs:</b><br>2003 data to be received from the Parties by May 2005, after which analysis will begin. Will integrate and review available criteria air contaminant and greenhouse gas emission data that is comparable. A special feature on the cement industry will also be completed and included with the | Dec.   | \$115,000<br><br>a.\$15,000 | Undertake data collection and analysis for Taking Stock 2004<br><br>a) Incorporate data into the Taking Stock Online "Query Builder" to support electronic access and customized searches of the database.<br><br><b>Outputs:</b><br>As the parties release their TRI and NPRI data earlier, the CEC should do the same. Therefore special attention will be given to accelerating the analysis and publication of Taking Stock. | Dec.   | \$115,000<br><br>a.\$15,000 | Undertake data collection and analysis for Taking Stock 2005.<br><br>a) Incorporate data into the Taking Stock Online "Query Builder" to support electronic access and customized searches of the database.<br><br><b>Outputs:</b><br>Ensure that data are received from the parties in a timely manner so they can be analyzed and prepared for release earlier than previous years. | Dec.   | \$115,000<br><br>a.\$15,000 | <b>\$345,000</b><br><br><b>a\$45,000</b> |

| Tasks                                                                                 | 2005                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Timing   | Cost<br>C\$                     | 2006                                                                                                                                                                                                                                                                                                                                                                                                                                        | Timing  | Cost<br>C\$ | 2007                                                                                                                                                                                                                                                                                 | Timing  | Cost<br>C\$ | Total<br>3-Year                     |
|---------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------------|-------------------------------------|
|                                                                                       | 2003 data.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |          |                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                             |         |             |                                                                                                                                                                                                                                                                                      |         |             |                                     |
| 3. Undertake stakeholder consultations                                                | <p>Convene the consultative group meeting (with special emphasis on engaging industry for implementation of the RETC) and to get multi-stakeholder input on future analyses for Taking Stock.</p> <p><b>Outputs:</b></p> <p>This is the first year for mandatory reporting of 104 chemicals in Mexico. Therefore, this year's CG meeting will focus on training for Mexican facilities and facilitating mentoring between Canadian US companies and their Mexican counterparts to reduce concern about the reporting process and improve data quality.</p> | Oct      | \$35,000 + \$35,000 from Task 6 | <p>Undertake stakeholder consultation to identify areas of study and analysis for Taking Stock 2004.</p> <p><b>Outputs:</b></p> <p>The consultations of 2005 will determine what special issues/needs should be addressed for the CG of 2006. As Mexico releases more data from their RETC, it is anticipated that special focus will need to be placed in that area to help improve data quality and public understanding of the data.</p> | Oct.    | \$50,000    | <p>Undertake Stakeholder consultation to identify areas of study and analysis for Taking Stock 2005.</p> <p><b>Outputs:</b></p> <p>Continue to focus on areas of activity that support Mexico's implementation of RETC and facilitate public understanding of Taking Stock data.</p> | Oct     | \$50,000    | <b>\$135,000</b><br><b>\$35,000</b> |
| 3a) Prepare for and coordinate follow-up to the Consultative Group meetings (includes | 3a) Prepare discussion papers and proposals for Taking Stock 2004 incorporating                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Aug-Dec. | \$35,000                        | Prepare discussion papers and proposals for Taking Stock 2005 incorporating conclusions from the                                                                                                                                                                                                                                                                                                                                            | Aug-Dec | \$35,000    | Prepare discussion papers and proposals for Taking Stock 2006 incorporating conclusions from the                                                                                                                                                                                     | Aug-Dec | \$35,000    | <b>\$105,000</b>                    |



| Tasks                                                                                                          | 2005                                                                                                                                                                                                                                          | Timing | Cost<br>C\$ | 2006                                                                                                                                                                                                                                     | Timing  | Cost<br>C\$ | 2007                                                                                                                                                                                                                     | Timing   | Cost<br>C\$ | Total<br>3-Year |
|----------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-------------|-----------------|
| contracts for phase I of TS)                                                                                   | conclusions from the Consultative meeting and from meetings with the PRTR Officials.<br><br><b>Outputs:</b><br>Discussion papers, summary of the CG meeting, "Response to Comment" documents, and priority-setting for Taking Stock analysis. |        |             | Consultative meeting and from meetings with the PRTR Officials.<br><br><b>Outputs:</b><br>Discussion papers, summary of the CG meeting, "Response to Comment" documents, and priority-setting for Taking Stock analysis.                 |         |             | Consultative meeting and from meetings with the PRTR Officials.<br><br><b>Outputs:</b><br>Discussion papers, summary of the CG meeting, "Response to Comment" documents, and priority-setting for Taking Stock analysis. |          |             |                 |
| 4. Complete and publish Special Feature report on Children and Toxic Substances.                               | <b>Outputs:</b><br>The draft report will be reviewed by the parties and outside experts, finalized and released in the fall of 2005.                                                                                                          | Sept   | \$60,000    | NA                                                                                                                                                                                                                                       | NA      | 0           | NA                                                                                                                                                                                                                       | NA       | 0           | <b>\$60,000</b> |
| 5. Facilitate increased comparability in PRTRs to ensure consistency of reporting methodologies and chemicals. | The Action Plan will be updated and priorities set as to which areas of comparability are most important to work on.<br><br><b>Outputs:</b><br>Updated Action Plan.                                                                           | Oct    | \$10,000    | Continue to identify and address issues of compatibility between the national PRTRs with special emphasis on RETC data sets so that a more fulsome North American picture of releases can emerge in Taking Stock.<br><br><b>Outputs:</b> | Ongoing | \$5,000     | Facilitate actions at comparability in PRTRs.<br><br><b>Outputs:</b><br>Continue to work on comparability issues with a view to having more matched chemicals in the Taking Stock report.                                | On-going | \$5,000     | <b>\$20,000</b> |

| Tasks                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 2005                                                                                                                                                                                                                                                                                                                               | Timing    | Cost<br>C\$                                                              | 2006                                                                                                                                                                                                                                                                                                                        | Timing   | Cost<br>C\$ | 2007 | Timing | Cost<br>C\$ | Total<br>3-Year                                |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|--------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-------------|------|--------|-------------|------------------------------------------------|
| <p>6. Provide capacity building support to Mexico as they put in place a list of chemicals for their RETC program including:</p> <p>a. scientific support to justify chemicals for the mandatory reporting list;</p> <p>b. training of industry in proper reporting techniques, building stakeholder understanding and support for the initiative);and</p> <p>c. Support training and awareness building for stakeholders in Mexico in understanding PRTR data.</p> | <p><b>Outputs:</b></p> <p>A contractor will be hired to work with SEMARNAT officials to prepare the list.</p> <p>A training session will be held as part of this fall's CG meeting with the end objective of having better quality data submitted to RETC and a better appreciation of what the data mean by all stakeholders.</p> | Sep - Dec | <p>\$70,000</p> <p>a. \$20,000</p> <p>b. \$35,000</p> <p>c. \$15,000</p> | <p>Complete capacity building support to Mexico as they put in place a list of chemicals for their RETC program.</p> <p><b>Outputs:</b></p> <p>Mexico intends to expand their list of chemicals over time. The Secretariat will work to assist Mexico with a view to ensuring comparability between RETC, TRI and NPRI.</p> | Jan-July | \$10,000    | NA   | NA     | 0           | <p><b>\$80,000</b></p> <p><b>-\$35,000</b></p> |
| 7. Promote uptake of Spanish language PRTR portal as a contribution to the                                                                                                                                                                                                                                                                                                                                                                                          | The Secretariat will support the IOMC work by providing North American PRTR information in                                                                                                                                                                                                                                         | On-going  | \$5,000                                                                  | NA                                                                                                                                                                                                                                                                                                                          | NA       | 0           | NA   | NA     | 0           | <b>\$5,000</b>                                 |

| Tasks                                                                                                                                                            | 2005                                                                                                                                                                                                                                                                 | Timing | Cost<br>C\$                | 2006                                                                                                                                                                                                                                    | Timing | Cost<br>C\$                | 2007                                                                                                                                                                                                                              | Timing | Cost<br>C\$                | Total<br>3-Year              |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|----------------------------|------------------------------|
| International Organization for the Management of Chemicals (IOMC) global effort on PRTRs; contribute to OECD and other international efforts at expanding PRTRs. | three languages for use by IOMC and others. The Secretariat will participate in OECD PRTR work as it is relevant to and advances PRTRs in NA.<br><br><b>Outcomes:</b><br>Sharing of experience; exchange of information; understanding of data comparability issues. |        |                            |                                                                                                                                                                                                                                         |        |                            |                                                                                                                                                                                                                                   |        |                            |                              |
| 8. Provide CEC input into international efforts (OECD, IOMC) to advance PRTRs.                                                                                   | NA                                                                                                                                                                                                                                                                   | NA     | 0                          | Continue to support the work of the successor organization of IOMC to facilitate the adoption of PRTRs globally.<br><br><b>Outcomes:</b><br>Sharing of experience; exchange of information; understanding of data comparability issues. | March  | \$5,000                    | Continue to support international work as it relates to advancing the use of PRTRs globally (OECD, UNECE).<br><br><b>Outcomes:</b><br>Sharing of experience; exchange of information; understanding of data comparability issues. | TBD    | \$5,000                    | <b>\$10,000</b>              |
|                                                                                                                                                                  |                                                                                                                                                                                                                                                                      |        | <b>Total<br/>\$460,000</b> |                                                                                                                                                                                                                                         |        | <b>Total<br/>\$345,000</b> |                                                                                                                                                                                                                                   |        | <b>Total<br/>\$335,000</b> | <b>Total<br/>\$1,140,000</b> |

|             |                                                                                                                                                                                                                                     |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Project 7   | <b>Institutional Cooperation and Strengthening for Wildlife Enforcement</b>                                                                                                                                                         |
| Prepared by | Secretariat in consultation with the Parties' wildlife enforcement representatives at the X Meeting of the Canada/Mexico/US Trilateral Committee for Wildlife & Ecosystem Conservation and Management (Zacatecas, May 23-27, 2005). |
| Start date  | May 2005                                                                                                                                                                                                                            |
| End date    | December 2010                                                                                                                                                                                                                       |
| Comments    |                                                                                                                                                                                                                                     |

|              |                                                                   |
|--------------|-------------------------------------------------------------------|
| Location     | Mexico                                                            |
| Date         | 29 July 2005                                                      |
| Overall cost | 2005: <b>C\$70,000</b><br>2006-2007: C\$200,000<br>2008-2010: TBD |

## Purpose

Wildlife enforcement is a key element in the governments' efforts to implement a wide range of international and national laws that aim to conserve, protect and enhance wildlife. In applying these laws, governments rely on inspectors and agents responsible for monitoring and compliance who are well trained to anticipate, identify and combat illegal activities associated with the trade of wildlife.

This project supports the Parties' efforts to strengthen their wildlife enforcement capacities. It strives to enhance regional capabilities for enforcing national laws and for implementing international wildlife obligations, particularly the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

Wildlife management requires effective enforcement of restrictions and controls on the trade of species protected under international agreements. It is also the case that exchanges of information and expertise among enforcement agencies increase their effectiveness supporting the

Parties' wildlife protection efforts. Accordingly, this project entails work to be conducted during the next five years to:

- provide a forum for the Parties to discuss and address common wildlife enforcement problems, to strengthen partnerships among the Parties' wildlife enforcement agencies, and to coordinate a North American approach to wildlife enforcement;
- facilitate cooperation among the Parties on initiating and conducting joint capacity building initiatives in areas such as wildlife forensic, investigative and analysis techniques to support wildlife enforcement and intelligence, and to develop training programs for wildlife enforcement officers; and to
- enhance the exchange of expertise through regional seminars and workshops on wildlife inspection, investigation and identification techniques.

## Background

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Since 1996, the CEC has served as an effective forum for regional cooperation, exchange of expertise, and capacity building on wildlife enforcement. The CEC's former Environmental Enforcement Cooperation Program (EECP) provided guidance to the Parties in identifying priorities for regional cooperation in environmental and wildlife enforcement. The EECP responded directly to the Parties' NAAEC Article 5 obligation concerning effective enforcement and the Council's NAAEC Article 10 (4) obligation to foster technical cooperation towards this end.

In the context of capacity building for wildlife enforcement, the following activities were developed as part of the EEPC:

- Six regional training programs were conducted for enforcement officials on critical areas of trade in and identification of endangered species of bird, furbearing mammals, reptiles, coral and marine invertebrates, hunting trophies and game farming species, and protected plants and tropical woods.
- Two regional seminars were held on wildlife forensics techniques, crime scene investigation and necropsy issues.

## Approach

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The project has three main components. The first will serve the CEC and the Parties' wildlife enforcement agencies as a forum to identify and discuss the implementation of specific initiatives on capacity building. The second will address training needs of the three countries. The third will support Mexico's efforts to institutionalize a capacity building program for wildlife enforcement. Work under these components will be conducted over the next five years as follows:

### **Component A. Develop strategies and proposals for regional cooperative wildlife enforcement activities.**

The CEC will facilitate a forum for the North American wildlife enforcement agencies to discuss needs and proposals for regional cooperative activities on capacity building. This will allow wildlife enforcement officers to exchange information needed for regional

- One regional training seminar was held on intelligence gathering and analysis to support wildlife enforcement activities.
- Support was provided for training exchanges of enforcement officials from the three countries to facilitate the sharing of training information and techniques among the North American wildlife enforcement agencies.
- Different publications were produced, aimed at strengthening wildlife inspection activities in North America
- This work proved to be successful in bringing the North American wildlife enforcement agencies together to provide training to their inspectors and to exchange expertise in topics of common concern.
- Building upon this experience, the project will enable the CEC to work closely with the Parties to continue identifying and implementing regional cooperative initiatives to strengthen their wildlife enforcement capacities and to improve compliance with their wildlife laws.

priority-setting and to advance the planning and design for implementing steps for identified initiatives.

The following outlines probable areas of work:

- Exchange of Investigative and Intelligence Information: Within the trilateral context : There is already a strong legal framework for sharing information among the Parties. However developing procedures to clarify the requirements for the information that can be exchanged, the circumstances and the means, will expedite the flow of information and data needed to support wildlife enforcement activities.
- Wildlife Forensics: CEC's previous work in this field allowed the North American countries to share information on DNA

identification analysis and crime scene techniques, and to compile information on forensic laboratories. Further discussions in this area can identify approaches towards building trilateral capacity to improve knowledge and application of forensics techniques; to compile and share information concerning existing wildlife forensic centers in North America; and to identify long term strategies to improve North America's wildlife forensics capacity.

- **Invasive Species Legal Framework and Best Practices:** The wildlife enforcement initiative can support the CEC's activities to protect North America's marine, fresh water and terrestrial ecosystems from the harmful effects of alien invasive species, by identifying successful enforcement practices in North America for the protection of native species and ecosystems, and by developing strategies for transboundary cooperation on the enforcement of regulations for the protection of native species.
- **Repatriation of Seized Wildlife:** The forum could be used to discuss and develop general guidelines and procedures for the efficient and timely return of seized specimens of wildlife.
- **Migratory Bird Industrial Hazard Awareness:** Building upon previous CEC work on bird conservation, the forum can discuss work proposals to enhance the knowledge and awareness of wildlife managers, enforcement officers, and industrial representatives on the unintentional mortality in migratory birds due to industrial practices and procedures ((e.g., wind power generators, open oil pits, mining leach ponds, power line electrocutions).
- **Training Exchange Courses:** To support a long term strategy for training exchange, the forum can be used to analyze training needs, to inventory existing courses, and to coordinate training exchange within the 3 countries in order of taking advantage from mutual learning opportunities.
- **Scoping discussions on these areas of work will define initiatives to be carried out in the coming years as part of this project.** Opportunities will be identified to make use of strategic alliances established over time with forums such as Interpol, CITES, the World Trade Organization, universities, scientific and non-government organizations, and with the private sector.

## **Component B. Develop and deliver regional training seminars and information-training materials for the benefit of wildlife enforcement officials in North America.**

Previous work supported by the CEC enabled the North America wildlife enforcement agencies to develop a series of training seminars and workshops on wildlife inspection, investigation and identification techniques. The three countries will build upon this experience and will use existing collaboration among wildlife enforcement officers at the North American borders to identify innovative ways and new options for further regional training and exchange of expertise in wildlife enforcement.

By facilitating a dialogue among training experts from the wildlife enforcement agencies, the Parties will be able to exchange information on domestic training materials and courses and identify best training practices, regional training needs and opportunities for training exchange. The CEC will then coordinate and work with the appropriate government agencies to develop initiatives that address the Parties' common training needs.

Illegal trade in wildlife *via* the Internet has already been identified by the parties as a priority topic for which the exchange of information and expertise among wildlife enforcement officers would help determine the extent of the problem, enrich the regional capabilities, and develop strategies to combat this illegal activity. In this regard, as part of the project's activities in 2005 and based on previous work on intelligence, and on information gathering and analysis techniques for identifying illegal activities in wildlife trade, the CEC will conduct a regional training seminar to address the needs and provide the tools to equip wildlife enforcement officers in combating illegal wildlife trade over the Internet.

Other topics for regional training in the coming years will be defined based on the needs and priorities identified by the wildlife enforcement agencies. Since travel constraints can hinder the participation of a significant number of wildlife enforcement officers at seminars and workshops, alternative approaches such as the use of satellite and Internet conferencing will be considered to reach a larger number of trainees. As well, to ensure that wildlife enforcement officers receive the most from the training, careful attention will be placed on identifying the best methodology for delivering the training and for evaluating and

documenting each event to identify improvements for future training exercises.

Aspecial effort will be made to gather training materials from both domestic and regional courses, and to disseminate them to the wildlife enforcement community through the CEC's website.

**Component C. Strengthen Mexico's institutional capacities for wildlife enforcement.**

Building on the experience gathered from collaboration and participation in the EECP's capacity building initiatives, including several courses and workshops on the identification of the illegal traffic of skins, birds, corals, protected plants, and on forensic analysis, the Mexican government has expressed interest in institutionalizing this type of training through a domestic capacity building program for wildlife enforcement officials.

The CEC will support Mexico's efforts in this regard by participating in a needs evaluation exercise, to be conducted by the Mexican government, and by assisting in the development and implementation of a two year work plan that will address the most critical elements of a capacity building program.

Collaboration with their counterparts through the CEC would assist Mexico's goals of: identifying priority needs, constraints and opportunities for strengthening and ensuring continuing governmental capacity to offer training; developing and improving training plans within local and federal environmental agencies; developing training materials; identifying and designing domestic training courses and seminars; and designing and initiating mentoring programs.

## Communications

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It is essential to communicate project results to enforcement partners and practitioners as well as the general public. CEC.org can be utilized to provide more descriptive information concerning wildlife enforcement on the part of the CEC's government and other partners, and to deliver background and training materials to the wildlife community. Other

means of disseminating pertinent information concerning the project's objectives and outcomes will be developed. In this regard, it is important to build public awareness and support for the project by communicating both general project progress as well as highlighting specific topic areas.

## Information Management

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Support may be needed to redesign and update the present content of the CEC/NAWEG Web-page. The new version of the page is to accommodate more descriptive information of the CEC's activities and to post background and training materials for dissemination to the wildlife community.

## Task Descriptions

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Tasks for the years 2006-2007 may be revised as priorities are better defined during the planning meetings described in Component A.

*See table below.*



| Tasks                                                                                                         | 2005                                                                                                                                                                                                                                | Timing  | Cost<br>C\$ | 2006                                                                                                                                                                                                                 | Timing  | Cost<br>C\$ | 2007                                                                                                                                                                           | Timing  | Cost<br>C\$ | Total<br>3-Year |
|---------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------------|-----------------|
| <b>Component A: Develop strategies and proposals for regional cooperative wildlife enforcement activities</b> |                                                                                                                                                                                                                                     |         |             |                                                                                                                                                                                                                      |         |             |                                                                                                                                                                                |         |             |                 |
| 1. Facilitate information exchange and cooperation among the North American wildlife enforcement agencies.    | Organize and conduct planning meetings for agency representative<br><b>Outputs/Outcomes:</b><br>Interagency exchange of information and regional priority setting and strategy for enhancing regional wildlife enforcement capacity | Jan-Dec | \$3,000     | Continue...<br><b>Outputs/Outcomes:</b><br>Interagency exchange of information and regional priority setting and strategy for enhancing regional wildlife enforcement capacity                                       | Jan-Dec | \$3,000     | Continue...<br><b>Outputs/Outcomes:</b><br>Interagency exchange of information and regional priority setting and strategy for enhancing regional wildlife enforcement capacity | Jan-Dec | \$3,000     | <b>\$9,000</b>  |
| 2. Review and update the CEC-NAWEG publication North American Wildlife Forensic Laboratories.                 | Gather information concerning existing wildlife forensic centers in North America.<br><b>Outputs/Outcomes:</b><br>Information needed to create a directory of existing wildlife forensic centers in North America                   | Sep-Dec | \$0         | Register information into a directory format and disseminate to the wildlife enforcement community.<br><b>Outputs/Outcomes:</b><br>Updated directory of existing wildlife forensic centers in North America          | Jan-May | 0           | NA                                                                                                                                                                             | NA      | 0           | <b>\$0</b>      |
| 3. Facilitate the development of guidelines for the repatriation of seized shipments of wildlife species.     | Develop draft procedures for the efficient and timely return of confiscated wildlife species in North America<br><b>Outputs/Outcomes:</b><br>Draft guidelines to be reviewed and approved by the Parties.                           | Sep-Dec | \$0         | Develop final procedures for the efficient and timely return of confiscated wildlife species in North America<br><b>Outputs/Outcomes:</b><br>Guidelines for the repatriation of seized shipments of wildlife species | Jan-May | \$0         | NA                                                                                                                                                                             | NA      | NA          | <b>\$0</b>      |

| Tasks                                                                                                                                                                    | 2005                                                                                                                                                                                                                                                  | Timing  | Cost<br>C\$ | 2006                                                                                                                                                                                                                                                 | Timing  | Cost<br>C\$ | 2007                                                                                                                                                                                                                                                    | Timing  | Cost<br>C\$ | Total<br>3-Year |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------------|-----------------|
| 4. Facilitate discussion on procedures for the exchange of investigative and intelligence information.                                                                   | Develop a draft protocol for the exchange of investigative and intelligence information among the North American wildlife enforcement agencies.<br><b>Outputs/Outcomes:</b><br>Draft protocol to be reviewed and approved by the Parties.             | Jan-Dec | \$0         | Develop final protocol for the exchange of investigative and intelligence information among the North American wildlife enforcement agencies<br><b>Outputs/Outcomes:</b><br>Protocol for the exchange of investigative and intelligence information. | Jan-May | \$0         | NA                                                                                                                                                                                                                                                      | NA      | NA          | \$0             |
| <b>Component B: Develop and deliver regional training seminars and information-training materials for the benefit of wildlife enforcement officials in North America</b> |                                                                                                                                                                                                                                                       |         |             |                                                                                                                                                                                                                                                      |         |             |                                                                                                                                                                                                                                                         |         |             |                 |
| 1. Facilitate sharing of information on domestic training courses and materials among the wildlife enforcement agencies                                                  | Develop a 2005 list of training courses and materials on wildlife enforcement in North America.<br><b>Outputs/Outcomes:</b><br>List developed and distributed to countries.                                                                           | Jan-Dec | \$1,000     | Update list for 2006.<br><b>Outputs/Outcomes:</b><br>List developed and distributed to countries.                                                                                                                                                    | Jan-Dec | \$1,000     | Update list for 2007.<br><b>Outputs/Outcomes:</b><br>List developed and distributed to countries.                                                                                                                                                       | Jan-Dec | \$1,000     | \$3,000         |
| 2. Support organization of a regional training                                                                                                                           | Sponsor and facilitate organization of a regional training seminar on illegal trafficking of wildlife via the Internet<br><b>Outputs/Outcomes:</b><br>Enhanced knowledge of wildlife enforcement officers in North America to combat illegal internet | Jan-Dec | \$62,000    | Sponsor and support a regional training initiative that addresses the needs and priorities of the wildlife enforcement agencies.<br><b>Outputs/Outcomes:</b><br>Enhanced knowledge of wildlife enforcement officers in North America to combat the   | Jan-Dec | \$70,000    | Sponsor and support a regional training initiative that addresses the needs and priorities of the wildlife enforcement agencies. <b>Outputs/Outcomes:</b><br>Enhanced knowledge of wildlife enforcement officers in North America to combat the illegal | Jan-Dec | \$70,000    | \$202,000       |

| Tasks                                                                                                                          | 2005                                                                                                                                                                                                                                                                                          | Timing  | Cost<br>C\$       | 2006                                                                                                                                                                                                                                                        | Timing  | Cost<br>C\$        | 2007                                                                                                                                                                                                        | Timing  | Cost<br>C\$        | Total<br>3-Year    |
|--------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|--------------------|--------------------|
|                                                                                                                                | trafficking                                                                                                                                                                                                                                                                                   |         |                   | illegal trade of wildlife                                                                                                                                                                                                                                   |         |                    | trade of wildlife                                                                                                                                                                                           |         |                    |                    |
| 3. Disseminate training materials to the wildlife enforcement community                                                        | Post training material gathered from the three countries on the CEC web site.<br><b>Outputs/Outcomes:</b><br>Dissemination of wildlife enforcement training material and other related information.                                                                                           | Jan-Dec | \$1,000           | Update the CEC web page with new training material gathered from the three countries<br><b>Outputs/Outcomes:</b><br>Dissemination of wildlife enforcement training materials and other related information.                                                 | Jan-Dec | \$1,000            | Update the CEC web page with new training material gathered from the three countries<br><b>Outputs/Outcomes:</b><br>Dissemination of wildlife enforcement training materials and other related information. | Jan-Dec | \$1,000            | <b>\$3,000</b>     |
| <b>Component C: Strengthen Mexico's institutional capacities for wildlife enforcement</b>                                      |                                                                                                                                                                                                                                                                                               |         |                   |                                                                                                                                                                                                                                                             |         |                    |                                                                                                                                                                                                             |         |                    |                    |
| 1. Develop plan to support Mexico's efforts to institutionalize a capacity building program for wildlife enforcement officials | Identify Mexico's priority needs, constraints and opportunities for strengthening and ensuring continuing government agency capacity to provide training on wildlife enforcement<br><b>Outputs/Outcomes:</b><br>Plan to support Mexico's efforts on capacity building on wildlife enforcement | Sep-Dec | \$3,000           | Support the development of a two-year work plan to address the most critical elements of a capacity building program in Mexico for wildlife enforcement<br><b>Outputs/Outcomes:</b><br>Plan developed and endorsed by Mexico's wildlife enforcement agency. | Jan-Dec | \$25,000           | Support the implementation of the two-year work plan by Mexico's wildlife enforcement agency<br><b>Outputs/Outcomes:</b><br>Enhanced wildlife enforcement capabilities in Mexico                            | Jan-Dec | \$25,000           | <b>\$53,000</b>    |
|                                                                                                                                |                                                                                                                                                                                                                                                                                               |         | Total<br>\$70,000 |                                                                                                                                                                                                                                                             |         | Total<br>\$100,000 |                                                                                                                                                                                                             |         | Total<br>\$100,000 | Total<br>\$270,000 |

|             |                                                             |              |                                           |
|-------------|-------------------------------------------------------------|--------------|-------------------------------------------|
| Project 8   | <b>Partnerships for Integrated Environmental Management</b> |              |                                           |
| Prepared by | Secretariat                                                 | Location     | North America with emphasis in Mexico     |
| Start date  | January 2005                                                | Date         | 29 July 2005                              |
| End date    | 2008                                                        | Overall Cost | 2005: <b>C\$425,000</b><br>2006-2007: TBD |
| Comments    |                                                             |              |                                           |

## Purpose

The primary purpose of this project is to assist Mexico in developing approaches and capacities for improving private sector environmental performance—and thereby competitiveness—through various features of “integrated environmental management”. The project engages Mexican government agencies, principal companies and SMEs in a series of cooperative activities designed to develop approaches and mechanisms that can be applied elsewhere in Mexico, and that will contribute to North American learning. The principal outcomes are anticipated to be:

- A voluntary market-based model of tri-national cooperation to reach specific environmental performance goals in North American industry.

- A voluntary market-based model of integrated environmental management in a selected industry supply chain with demonstrable improvement in environmental compliance and competitiveness.
- Improved government/private sector capacity to design and implement cooperative integrated environmental management initiatives in the Mexican State of Querétaro and the municipality of El Marqués.
- Innovative mechanisms to provide financial assistance for environmental compliance, pollution prevention and environmental management

## Background

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In the Mexican context, there is need for practical means to increase compliance with national environmental protection requirements by enhancing the ability of the federal and local governments to work cooperatively with federal/state counterparts, companies, NGO's, communities and others in effecting improved environmental management. The critical role of industry in increasing environmental performance, in concert with the fair and consistent enforcement of environmental laws and other requirements by governments, is widely acknowledged. In fact, there are many examples of successful initiatives taken by companies on their own, and by governments in collaboration with industries. Experience also shows that successful "working models" of integrated environmental management and government/private sector cooperation have a powerful effect in stimulating similar initiatives in other places.

Thus, this 5-year project will test and demonstrate ways of enhancing government/private sector interaction to achieve environmental protection objectives, while increasing productivity and improving competitiveness.

While the project is situated primarily in Mexico, it aims to contribute to the experience of governments and companies in all three countries. The project builds on a solid base of other CEC sponsored work in Mexico and North America such as the Fund for Pollution Prevention<sup>1</sup> (*Fondo de Prevención de la Contaminación—Fiprev*), the Mexican pollution prevention roundtables, and the North American Pollution Prevention Partnership (NAP3), by reformulating relevant existing activities against the new forward-looking purpose defined above.

While other potential partners are also important (technical assistance centers, universities, citizen environmental councils, financial institutions, State and Federal governments, and ENGOs), the focus here is on engaging the private sector. This effort will take advantage of a Memorandum of Understanding (MOU) signed by the US Council for International Business

(USCIB), the Canadian Council for International Business (CCIB) and Concamin to heighten interest and involvement in the project.

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<sup>1</sup> Fiprev is a successful financial mechanism designed to enhance the competitiveness of small and medium sized enterprises by means of technological modernization and pollution prevention projects already in place in Mexico.

## Approach

The project has four complementary components that operate at different geographic scales with different mixes of participants. The first involves a private/government partnership at a North American level. The second is principally a company-to-company partnership situated in Mexico. The third is centred on Mexican local government. A fourth component involves application of a “financial mechanism” to support the first three components. Parallel with increasing the capabilities of environmental authorities to deal with environmental problems, the project also aims to foster private sector partnerships and voluntary mechanisms to help improve performance and reduce environmental compliance pressures.

The four project components are:

### **Component A. Clean Electronics Pollution Prevention Partnership (CEP3)**

This component builds on previous experiences in North America in exploring a trilateral cooperation mechanism to facilitate the transition of the electronics industry to meet new global environmental requirements. It aims to help improve competitiveness, access to global markets and environmental performance while advancing pollution prevention strategies in North America.

This initiative is designed to provide resources, technical assistance, and promote voluntary efforts to eliminate or significantly reduce the uses of electronic products manufactured or imported in the North American market that contain a variety of hazardous and toxic constituents. It challenges all companies either manufacturing or importing electrical and electronic equipment into North America to commit voluntarily to eliminating the use of lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls (PBBs), and polybrominated diphenyl ethers (PBDEs). The project could include implementation of best management practices for supply chains promotion of compliance assistance tools for national or regional pollution prevention programs, and cleaner production technologies.

The CEP3 partnership will promote a coordinated effort among state, provincial, and federal governments in all three countries to align the goals of

the partnership, recognizing the need for program flexibility and effective communication, to provide participants with the ability to leverage available resources to help achieve voluntary compliance throughout North America.

A CEP3 steering committee will be established with balanced representation from industry, government, academia, and nongovernmental organizations from all three countries, including one representative from each of the NAP3 pollution prevention roundtables. NAP3/CEC will support the program activities of the steering committee, and report publicly on its activities and results. Support to other NAP3 activities will continue.

### **Component B. Greening supply chains in Estado de Mexico**

This component profiles the potential for larger companies to influence and mentor their “supply chain” companies to improve business and environmental performance through such measures as pollution prevention, improved on-site chemicals management, implementation of waste exchange schemes, adoption of best practices, reducing the use of toxic and/or non-renewable materials, enhancing energy efficiency, and promoting consistent work practices and procedures to reduce environmental impacts. One or more large companies will be approached to work with and lead their suppliers in effecting such changes. Potential benefits for SMEs include lower transaction costs, better ability to react to changes in the market, decreased product obsolescence, reduction of inventory, improved business relationships and improved management of environmental risks. It is expected that some SMEs may decide to be “Industria Limpia certified” at the conclusion of the project. Results will be measured in terms of raw material, water and energy savings, as well as emissions reductions. Lessons learned will be used to improve the process adopted so that it can be applied to other supply chains.

### **Component C. Capacity building in the Mexican State of Querétaro and the municipality of El Marqués**

This component will strengthen existing institutional environmental management capacities, and build new ones in the *Secretaria de Desarrollo Sustentable* of Querétaro State. It involves engaging the cooperation of the

private sector, the local government and stakeholders in identifying capacity building needs in terms of the current institutional framework; targeted training; information gathering and management; communication and interaction with stakeholders; and awareness-raising and outreach activities. The work will be discussed early on with the State, Semarnat and local industry associations, to bring them on board and to design the elements of the initiative in detail. Specific activities that might be launched include assisting and supporting a State government in developing its own voluntary environmental audit system and harmonizing that system with that of the federal government. The expected outcome is stronger and more efficient environmental management in that State. The work will also be undertaken to assist the municipality of El Marqués (in the State of Querétaro) to develop a multi-year financial plan for environmental infrastructure (i.e. sewer system and water management). The city currently has no waste-water treatment facility and is interested in borrowing money to finance such a scheme. Prior to any borrowing, however, it will be important for the municipality to establish its credit-worthiness and identify investment priorities – precisely the two major objectives of multi-year investment planning: creation of a multi-year financial plan and a list of priority investments based on an analysis of constituent needs.

Both segments of this component will be undertaken in close cooperation with PROFEPA (which has signed MOU's with the State of Querétaro). Assistance will also be sought from Canadian and US states and/or municipalities who might be interested in setting up a "twinning"

## Communications

Successful implementation of this project will require strong and consistent communications efforts for all components. The CEP3 will need tri-national coverage inviting North American electronics industry to participate, as well as to report annually on progress. Acknowledgement of firms participating in the CEP3 and supply chain components of the project will be critical. The financial assistance component will similarly require good communication and outreach, particularly to SMEs, both to promote this mechanism and to publicise results. Specific communication activities are foreseen for:

- CEP3: public launching challenging North American electronics

arrangement with Querétaro and/or El Marqués.

Finally, regarding the municipal component, it will benefit from the experience of the OECD Environment Directorate's Task Force on carrying out similar work in central and eastern Europe.

### Component D. Financing mechanism

The sustainability of environmental initiatives involving partners often demands significant initial investments, and following that, stable and self-sustaining means of financing. This component of the project will be geared to securing the resources needed at the outset of components A, B and C above, and establishing and initiating on-going financial mechanisms. Involvement of the Mexican Ministry of Economy, Fiprev and other financial institutions will be pursued to provide competitive and attractive funding for pollution prevention, technology advancement and sound environmental management projects. SMEs will be coached on accessing available financing mechanisms and financial resources. Training will be provided to key personnel at financial institutions to improve their ability to evaluate environmental projects and applications for financial support. The potential for instituting actual financing mechanisms, perhaps modeled on the Fiprev example, will be examined and, if feasible, will be put in place for each of the components A, B and C. The expected outcome is that companies pursuing better environmental performance and sustainability in Mexico, and particularly those participating in this project, find appropriate financial resources to do so.

industry to reduce or avoid the use of certain toxic substances; annual progress reporting; acknowledgment of participating companies; release of the final report

- Supply chain: project launching; progress reports
- Acknowledgment of participating companies
- Mexican State capacity building: launch and progress reports
- Financial assistance components: outreach, particularly to SMEs

## Information Management

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*To be completed.*

## Involvement

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Large companies and their suppliers, environmental authorities, technical and financial assistance providers, key green supply chains programs in US and Canada, and industry associations, all need to be involved.

### **Component A. Clean Electronics Pollution Prevention Partnership**

This requires a significant number of companies in (or the associations for) the electronics industry to be involved, as well as National governments in the US, Canada and Mexico through the North American Pollution Prevention Partnership (NAP3). Electronics industry associations such as The Electronics Industries Alliance (EIA), The National Electrical Manufacturers Association (NEMA), The IPC – the Association Connecting Electronic Industries (IPC), Canieti (Camara Nacional de la Industria de Informática, Electrónicas y telecomunicaciones) and Electronics Product Stewardship (ESP) Canada, are expected to participate in the project.

### **Component B. Green and competitive supply chains in Estado de Mexico**

Building and expanding upon the World Environment Center's (WEC) "Supply Chain Management Program" in Mexico, a first step involves identification of large companies willing to participate, which might be facilitated by the industry associations such as Concamin and its member sectorial associations. The suppliers of these companies will be involved, as well as technical and financial assistance providers. Involvement of the US EPA Green Suppliers Network (GSN) program will be pursued to help design the initiative. Consideration will be given to engaging the

participation of the Mexican Secretary of Economy in order to explore potential for synergies with their existing SME programs. Finally, Profepa could be involved in a parallel process by which SMEs participating in the project have the opportunity to seek "Industria Limpia" certification.

### **Component C. Capacity building in the Mexican State of Querétaro and the municipality of El Marqués**

This component will engage the Mexican State of Querétaro and the Municipality of El Marqués intimately in different aspects of the project. These local governments and Semarnat will be involved in those activities related to environmental regulations and tools which require coordination among different levels of government (e.g. environmental auditing). Local industry associations and industry in general will be involved during design and implementation, as well as relevant ENGOs. Some programs in the US and Canada will also be considered for involvement such as Clean Texas or Enviroclub in developing elements of the initiative (environmental auditing in this case).

### **Component D. Financing mechanism**

This component requires the involvement of Fiprev. Involvement of some other financial institutions such as Nafin and the Mexican Ministry of Economy will be pursued to take advantage of already existing SME support programs that may well fit with this initiative.



### Considerations

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Critical to the project will be the effective involvement and commitment of key governments’ agencies and large companies, for which top management commitment must be secured.

### Task Descriptions

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*See table below.*

| Tasks                                                                                                                          | 2005                                                                                                                                | Timing    | Cost<br>C\$ | 2006                                                                                   | Timing | Cost<br>C\$ | 2007                                                                      | Timing | Cost<br>C\$ | Total<br>3-Year |
|--------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|-----------|-------------|----------------------------------------------------------------------------------------|--------|-------------|---------------------------------------------------------------------------|--------|-------------|-----------------|
| <b>Component A: Clean Electronics Pollution Prevention Partnership (CEP3)</b>                                                  |                                                                                                                                     |           |             |                                                                                        |        |             |                                                                           |        |             |                 |
| 1. Design the multi-year project for improving environmental performance in North American electronics industry supply chains. | Prepare a design plan for the project.                                                                                              | Jan – Oct |             | NA                                                                                     | NA     | 0           | NA                                                                        | NA     | 0           | <b>\$75,000</b> |
|                                                                                                                                | Liaise with NAP3.                                                                                                                   |           | 2,500       |                                                                                        |        |             |                                                                           |        |             |                 |
|                                                                                                                                | Establish and support CEP3 Steering Committee                                                                                       | Jun-Dec   | 22,500      |                                                                                        |        |             |                                                                           |        |             |                 |
|                                                                                                                                | Conduct e-industry scoping study and design project elements                                                                        | Jul-Sep   | 25,000      |                                                                                        |        |             |                                                                           |        |             |                 |
|                                                                                                                                | Conduct stakeholder workshop to solicit feedback                                                                                    | Oct       | 25,000      |                                                                                        |        |             |                                                                           |        |             |                 |
|                                                                                                                                | <b>Outputs/Outcomes:</b><br>CEP3 steering committee established and operating<br>Agreed project design and partnership arrangements |           |             |                                                                                        |        |             |                                                                           |        |             |                 |
| 2. Implement the project activities                                                                                            | Develop partnership arrangements.                                                                                                   | Oct-Nov   | 10,000      | <i>Activities for 2006 to be defined in 2005.</i>                                      | TBD    | TBD         | <i>Continue Implementation</i>                                            | TBD    | TBD         | <b>TBD</b>      |
|                                                                                                                                | Conduct CEP3 meetings and conference calls.                                                                                         | Oct – Dec | 15,000      | <i>Continuation and initiation of activities as defined in 2005.</i>                   |        |             | <i>Continuation of activities as defined in 2005.</i>                     |        |             |                 |
|                                                                                                                                | Initiation of a series of projects as defined in Task 1.<br><b>Outputs:</b>                                                         | Dec       | 56,250      | <b>Outputs:</b><br>A number of enterprises manufacturing and / or importing electronic |        |             | <b>Outputs:</b><br>Increased number of enterprises manufacturing and / or |        |             |                 |

| Tasks                                                                                                                                           | 2005                                                                                                                                                      | Timing                 | Cost<br>C\$                             | 2006                                                                                                                                                                     | Timing | Cost<br>C\$                       | 2007                                                                                                                                                                                         | Timing | Cost<br>C\$                       | Total<br>3-Year |
|-------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-----------------------------------|-----------------|
|                                                                                                                                                 | Agreed upon series of projects initiated.                                                                                                                 |                        |                                         | equipment in North America adhered to the project<br><br>Reduction of XXX amount of toxic substances released in North America                                           |        |                                   | importing electronic equipment in North America adhered to the project<br><br>Increased reduction of XXX amount of toxic substances released in North America                                |        |                                   |                 |
| 3. Evaluate results                                                                                                                             | NA                                                                                                                                                        | NA                     | 0                                       | NA                                                                                                                                                                       | NA     | 0                                 | Review and evaluate project effectiveness and efficiency.<br><br><b>Outputs:</b><br><br>Assessment to support decisions on extension or replication of the project in other industry sectors | TBD    | TBD                               | <b>TBD</b>      |
|                                                                                                                                                 |                                                                                                                                                           |                        | <b>Total Component A:<br/>\$156,250</b> |                                                                                                                                                                          |        | <b>Total Component A:<br/>TBD</b> |                                                                                                                                                                                              |        | <b>Total Component A:<br/>TBD</b> | <b>TBD</b>      |
| <b>Component B: Greening supply chains in Estado de Mexico</b>                                                                                  |                                                                                                                                                           |                        |                                         |                                                                                                                                                                          |        |                                   |                                                                                                                                                                                              |        |                                   |                 |
| 1. Design and initiate a multi-year project to improve environmental performance in the supply chains of large companies, in a selected sector. | Consult with stakeholders: GEMI, CONCAMIN, CESPEDS.<br><br>Secure private sector/company involvement.<br><br>Design project and launch initial activities | May-Jun<br><br>Jun-Sep |                                         | Continue implementing supply chain action plan activities<br><br><b>Outputs/Outcomes:</b><br><br>40-50 projects implemented in SMEs<br><br>New industry sectors involved | TBD    | TBD                               | Conduct overall project evaluation<br><br><b>Outputs/Outcomes:</b><br><br>Evaluation of a voluntary market-based model of integrated environmental management in                             | TBD    | TBD                               | <b>TBD</b>      |

| Tasks                          | 2005                                                                                                                                                                                                                                                           | Timing                        | Cost<br>C\$                | 2006                                                                                                                                                                                                            | Timing | Cost<br>C\$ | 2007                                                                                                                               | Timing | Cost<br>C\$ | Total<br>3-Year |
|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-------------|------------------------------------------------------------------------------------------------------------------------------------|--------|-------------|-----------------|
|                                | including:<br>Develop technical training program;<br>Develop on-line course;<br>Technical assistance<br><b>Outputs/Outcomes:</b><br>Agreed project design.<br>Stakeholder engagement and commitment.<br>Initiation of activities for 20-25 projects into SMEs. | Jun-Dec<br>Jun-Dec<br>Aug-Dec | 21,500<br>26,000<br>94,500 | Tier 2 suppliers involved                                                                                                                                                                                       |        |             | industry supply chains.<br>Identification of project elements that may be improved, as well as the means to do so                  |        |             |                 |
| 2. Communicate project results | Design a recognition program for participating companies<br><br>Design a communications strategy.                                                                                                                                                              | Aug-Dec                       | 20,000                     | Implement company recognition program.<br><br>Communicate interim results to government and other stakeholders<br><b>Outputs/Outcomes:</b><br>Recognition of 1or 2 large companies and certification of 20 SMEs | TBD    | TBD         | NA                                                                                                                                 | NA     | 0           | <b>TBD</b>      |
| 3. Evaluate results            | NA                                                                                                                                                                                                                                                             | NA                            | 0                          | Conduct interim project evaluation<br><b>Outputs/Outcomes:</b><br>Interim project evaluation report including recommendations for                                                                               | TBD    | TBD         | Conduct final evaluation of project effectiveness and costs.<br><br>Refine project plan for completion of project in 2008 or 2009. | TBD    | TBD         | <b>TBD</b>      |

| Tasks                                                                                                        | 2005                                                                                                     | Timing  | Cost<br>C\$                             | 2006        | Timing | Cost<br>C\$                       | 2007                                                                                                                                                                         | Timing | Cost<br>C\$                       | Total<br>3-Year |
|--------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|---------|-----------------------------------------|-------------|--------|-----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-----------------------------------|-----------------|
|                                                                                                              |                                                                                                          |         |                                         | improvement |        |                                   | <b>Outputs/Outcomes:</b><br>Assessment to support completion of project in 2008, and decisions on possible extension or replication of the project in other industry sectors |        |                                   |                 |
|                                                                                                              |                                                                                                          |         | <b>Total Component B:<br/>\$162,000</b> |             |        | <b>Total Component B:<br/>TBD</b> |                                                                                                                                                                              |        | <b>Total Component B:<br/>TBD</b> | <b>TBD</b>      |
| <b>Component C: Capacity building for the Mexican State of Querétaro and the Municipality of El Marqués.</b> |                                                                                                          |         |                                         |             |        |                                   |                                                                                                                                                                              |        |                                   |                 |
| 1. Design overall project.                                                                                   | Secure cooperation with the Mexican State of Querétaro and the Municipality of El Marqués                | Jun-Jul |                                         | NA          | NA     | 0                                 | NA                                                                                                                                                                           | NA     | 0                                 | <b>\$38,750</b> |
|                                                                                                              | Conduct capacity needs assessment, and identify environmental infrastructure needs and financing sources | Sep-Oct | 18,750                                  |             |        |                                   |                                                                                                                                                                              |        |                                   |                 |
|                                                                                                              | Design project elements                                                                                  | Oct-Nov | 10,000                                  |             |        |                                   |                                                                                                                                                                              |        |                                   |                 |
|                                                                                                              | Consult with stakeholders                                                                                | Nov-Dec | 10,000                                  |             |        |                                   |                                                                                                                                                                              |        |                                   |                 |
|                                                                                                              | <b>Outputs/Outcomes:</b><br>Capacity building needs identified; agreed overall project design            |         |                                         |             |        |                                   |                                                                                                                                                                              |        |                                   |                 |

| Tasks                                                                                                  | 2005                                                                                                                                                                                                                                                                  | Timing  | Cost<br>C\$               | 2006                                                                                                                                                                                                                                                        | Timing                 | Cost<br>C\$               | 2007                                                                                                                                                                                                                 | Timing  | Cost<br>C\$               | Total<br>3-Year |
|--------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------------------------|-----------------|
|                                                                                                        | State and Stakeholder engagement and commitment<br>Initiation of activities                                                                                                                                                                                           |         |                           |                                                                                                                                                                                                                                                             |                        |                           |                                                                                                                                                                                                                      |         |                           |                 |
| 2. Develop work plans for specific projects to strengthen existing capacities and to develop new ones. | Develop work plans for specific projects identified above<br><b>Outputs/Outcomes:</b><br>Detailed work plans for projects in which the CEC may play a critical role by, for example, contributing expertise or leveraging resources.                                  | Nov-Dec | 26,500                    | Begin implementing projects<br><b>Outputs/Outcomes:</b><br>Projects strengthening existing capacities for sound environmental management in Querétaro and to develop new ones.                                                                              | TBD                    | TBD                       | TBD                                                                                                                                                                                                                  | TBD     | TBD                       | <b>TBD</b>      |
| 3. Promote environmental compliance, pollution prevention and EMS in Querétaro and industry            | Conduct study on National Environmental Auditing program decentralisation with focus on Querétaro State<br><b>Outputs/Outcomes:</b><br>Assessment and evaluation of mechanisms for coordination between federal and state authorities related to environmental audits | Aug-Dec | 31,000                    | Conduct training workshops<br>Conduct pilot project on joint State-federation environmental audits<br><b>Outputs/Outcomes:</b><br>Improved enforcement capacities in a selected State through better qualified staff, and a new environmental audit program | Jan-Mar<br><br>Apr-Dec | TBD                       | Conduct local environmental enforcement and audit program evaluation and review<br><b>Outputs/Outcomes:</b><br>Identification of elements of the program that may be improved to replicate the project successfully. | Jan-Aug | TBD                       | <b>TBD</b>      |
|                                                                                                        |                                                                                                                                                                                                                                                                       |         | <b>Total Component C:</b> |                                                                                                                                                                                                                                                             |                        | <b>Total Component C:</b> |                                                                                                                                                                                                                      |         | <b>Total Component C:</b> | <b>TBD</b>      |

| Tasks                                                                                                                            | 2005                                                                                                                                                                                                                                                                                                                                                                                                | Timing  | Cost<br>C\$             | 2006                                                                                                                                                                                                               | Timing  | Cost<br>C\$ | 2007                                                                                                                                                                                                                                  | Timing  | Cost<br>C\$ | Total<br>3-Year |
|----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------------|-----------------|
|                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                     |         | <b>\$96,250</b>         |                                                                                                                                                                                                                    |         | <b>TBD</b>  |                                                                                                                                                                                                                                       |         | <b>TBD</b>  |                 |
| <b>Component D: Financing mechanism</b>                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                     |         |                         |                                                                                                                                                                                                                    |         |             |                                                                                                                                                                                                                                       |         |             |                 |
| 1. Key financial institutions involvement and engagement to find and implement mechanisms promoting pollution prevention in SMEs | Identify and consult with key financial institutions and project stakeholders to solve financial needs in SMEs for pollution prevention investments<br><br>Explore innovative financial mechanisms fostering better environmental performance in SMEs<br><br><b>Outputs/Outcomes:</b><br><br>Stakeholder engagement and commitment to explore and implement innovative financial mechanism for SMEs | Jun-Dec | <i>(external funds)</i> | NA                                                                                                                                                                                                                 | NA      | 0           | NA                                                                                                                                                                                                                                    | NA      | 0           |                 |
| 2. Promote SME awareness of available financing mechanisms.                                                                      | Seminars and workshops on available financing mechanisms<br><br><b>Outputs/Outcomes:</b><br><br>SMEs are aware of and begin seeking financial resources to improve environmental performance.                                                                                                                                                                                                       | Aug-Dec | 6,000                   | Continue conducting seminars and workshops on available financing mechanisms.<br><br><b>Outputs/Outcomes:</b><br><br>SMEs are aware of and begin seeking financial resources to improve environmental performance. | Jan-Dec | TBD         | Continue conducting (and possibly conclude in 2007) seminars and workshops on available financing mechanisms.<br><br><b>Outputs/Outcomes:</b><br><br>SMEs are aware of and begin seeking financial resources to improve environmental | Jan-Dec | TBD         | <b>TBD</b>      |

| Tasks                                                                                             | 2005                                                                                                                                                                                                                                                                                                                                   | Timing  | Cost<br>C\$                            | 2006                                                                                                                                                                                                                                                                       | Timing                 | Cost<br>C\$                       | 2007                                                                                                                                    | Timing  | Cost<br>C\$                       | Total<br>3-Year |
|---------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|---------|-----------------------------------|-----------------|
|                                                                                                   |                                                                                                                                                                                                                                                                                                                                        |         |                                        |                                                                                                                                                                                                                                                                            |                        |                                   | performance.                                                                                                                            |         |                                   |                 |
| 3. Design and conduct training program for key personnel at financial institutions on the project | Conduct seminars and workshops on financial evaluation of environmental projects<br><br><b>Outputs/Outcomes:</b><br>Financial institutions trained to evaluate environmental projects                                                                                                                                                  | Aug-Dec | 4,500                                  | NA                                                                                                                                                                                                                                                                         | NA                     | 0                                 | NA                                                                                                                                      | NA      | 0                                 | <b>\$4,500</b>  |
| 4. Design and institute financing mechanisms to support components A, B and C above               | Identify available financial sources to support components A, B and C<br><br>Design and implement appropriate mechanisms to link available financial sources with demand for components A, B and C<br><br><b>Outputs/Outcomes:</b><br>Sustainable financing mechanism(s) designed and begin operating to support components A, B and C | Jun-Dec |                                        | Continue establishing operating financing mechanism in all components of the project<br><br>Conduct mid-project evaluation<br><br><b>Outputs/Outcomes:</b><br>40-60 loans granted to SMEs<br><br>Evaluation of project and refinement/sdjustment of activities as required | Jan-Dec<br><br>Oct-Dec | TBD                               | Continue operating financing mechanism in all components of the project<br><br><b>Outputs/Outcomes:</b><br>80-120 loans granted to SMEs | Jan-Dec | TBD                               | TBD             |
|                                                                                                   |                                                                                                                                                                                                                                                                                                                                        |         | <b>Total Component D:<br/>\$10,500</b> |                                                                                                                                                                                                                                                                            |                        | <b>Total Component D:<br/>TBD</b> |                                                                                                                                         |         | <b>Total Component D:<br/>TBD</b> | <b>TBD</b>      |
|                                                                                                   |                                                                                                                                                                                                                                                                                                                                        |         | <b>Total</b>                           |                                                                                                                                                                                                                                                                            |                        | <b>Total</b>                      |                                                                                                                                         |         | <b>Total</b>                      | <b>Total</b>    |



| Tasks | 2005 | Timing | Cost<br>C\$                | 2006 | Timing | Cost<br>C\$          | 2007 | Timing | Cost<br>C\$          | Total<br>3-Year |
|-------|------|--------|----------------------------|------|--------|----------------------|------|--------|----------------------|-----------------|
|       |      |        | <b>2005:<br/>\$425,000</b> |      |        | <b>2006:<br/>TBD</b> |      |        | <b>2007:<br/>TBD</b> | <b>TBD</b>      |

|             |                                                                    |
|-------------|--------------------------------------------------------------------|
| Project 9   | <b>Building Local Capacity for Integrated Ecosystem Management</b> |
| Prepared by | Secretariat                                                        |
| Start date  | July 2005                                                          |
| End date    | December 2010                                                      |
| Comments    |                                                                    |

|          |                                                          |
|----------|----------------------------------------------------------|
| Location | Mexico's priority conservation areas                     |
| Date     | 29 July 2005                                             |
| Cost     | 2005: <b>C\$140,000</b><br>2006: C\$560,000<br>2007: TBD |

## Purpose

The purpose of this project is to put in place a process to strengthen the capacities of diverse players working at the local level to enhance the protection of migratory species and their habitat in a specific geographic area. The project will demonstrate practical methods and processes through a multi-year model project. It is intended that the experience gained will be applied to other locations and circumstances. The project constitutes real-world application of the *Strategic Plan for North American Cooperation for the Conservation of Biodiversity (Biodiversity Strategy)*.<sup>1</sup> Attention will be granted in particular to those elements of the Biodiversity Strategy aimed at strengthening local capacity for integrated ecosystem management, and at the use of economic incentives and financial instruments in priority conservation sites. In accord with CEC's Strategic Plan, the project will be conducted in Mexico, though it shall involve and, its benefits will extend to, all three countries.

Specific objectives are to:

- Activate a "bottom-up" process with local stakeholders— including local authorities—to develop consensus on a shared vision for the project, and on potential conservation mechanisms to address habitat degradation and species decline.
- Strengthen the capacity of a select community and local authorities to manage, conserve, and monitor the status of critical habitats and species.
- Foster improved local decision-making, facilitate information exchange and help increase public awareness, related to integrated ecosystem management in the project area.
- Enhance local capacity to apply market-based mechanisms, such as the development of "green goods and services", as a way to eliminate threats to biodiversity.
- Promote the project experience as a model that can be applied in other ecologically significant areas in North America.

<sup>1</sup> Strategic Plan for North American Cooperation in the Conservation of Biodiversity, 2003. CEC  
[http://cec.org/pubs\\_docs/documents/index.cfm?varlan=english&ID=1088](http://cec.org/pubs_docs/documents/index.cfm?varlan=english&ID=1088)

## Background

The Parties recognized the CEC's potential for helping strengthen capacities for environmental conservation when they endorsed the *Biodiversity Strategy* in 2003. Capacity building and training in support of conservation and maintenance of ecologically significant North American regions and species is one of the Biodiversity Strategy's six goals. Moreover, to advance the Strategy's implementation in general, numerous governmental and NGO participants from Canada, Mexico and the United States have, over the past four years and through the CEC, jointly developed a framework of priority conservation areas in the Pacific coast and in the grasslands of North America, as well as six *North American Conservation Action Plans* for marine and terrestrial species of common continental concern. It is within this context that the CEC will undertake an intense multi-year "model project" to show how conservation can be effected more rapidly, sustainably and with greater impact, through integrated activities that capitalize on the capacities of and partnerships with all stakeholders—including government—to achieve concrete conservation results.

There is much invaluable experience on which to build. Pilot projects carried out through the CEC in the Gulf of Maine and the Bight of the Californias<sup>2</sup>, demonstrate how an international framework—like the Global Programme of Action (GPA)<sup>3</sup>—can be implemented in a specific region, involve local stakeholders, develop a shared agenda, implement it, and then share their lessons learned with other regions, as it was done with the Gulf of Mexico EPA-GPA initiative.

This project will benefit greatly as well from linkages with the CEC's projects on green purchasing and market-based instruments under the Trade and Environment priority of the CEC Strategic Plan, in which experience will be developed on how to approach biodiversity threats, particularly bird habitat loss, through the use of market mechanisms. CEC's past work on "shade coffee" addressed similar objectives. That project began by determining interest on the part of consumers and the importers/roasters for bird-friendly coffee in North America. Biodiversity "hot spots" coinciding with shade coffee growing areas were then identified and the involvement of local producers was sought. It was found that local communities, many organized in coffee cooperatives, were eager to develop their market while protecting the biodiversity on their lands. The project demonstrated how, through local involvement, capacity building and the use of a market mechanism, conservation objectives can be achieved. Major coffee retailers, like *Starbucks*, *President's Choice* and others are now offering shade coffee as one of their *niche* brands.

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<sup>2</sup> CEC. 2000. Cooperation in the protection of Marine and Coastal Ecosystems: The Gulf of Maine and the Bight of the Californias. Lessons Learned

<sup>3</sup> [http://cec.org/pubs\\_docs/documents/index.cfm?varlan=english&ID=348](http://cec.org/pubs_docs/documents/index.cfm?varlan=english&ID=348)

## Approach

During the first year, the site for the model project will be selected, key stakeholders will be identified, and an analysis of the critical problems will be produced. It is intended that the site selection take into account the conservation priorities previously identified at the North American level for shared species, and for ecologically significant landscapes and seascapes.

The implementation phase makes the development of local stakeholder capacity the main target, while striving to improve the local government's ability to achieve conservation objectives by working with stakeholders. The identification of, and capacity to use market approaches (green goods and services) by local users will be a cornerstone of the project's approach.

During the past 10 years the CEC has addressed a diversity of challenges and opportunities inherent in working with multiple stakeholders: in aligning their objectives and interests, and in facilitating the design of on-the-ground actions they can do together. This has been the case in developing a shared vision among the three Parties, coordinating their actions, and eventually helping them institutionalise ongoing efforts, in conducting the North American Bird Conservation Initiative (NABCI) and the North American Marine Protected Areas Network (NAMPAN), among other initiatives.

The design for this project reflects CEC's prior experience. It has four principal components: A) a **Scoping and Design** phase, aimed at identifying project areas, assessing local needs and developing a local shared approach by and with stakeholders; B) **Project Implementation** phase, aimed at strengthening local capacity to achieve conservation objectives and to use innovative market mechanisms to support those conservation actions; C) an **Information Tracking and Evaluation** phase, to facilitate data and information sharing, use of relevant indicators, tracking the implementation of conservation actions, and evaluating the effectiveness of the project; and D) a **Follow-up** phase, in which the lessons learned from the project will be promoted for application in other areas of North America.

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### Component A: Scoping and design

One or two areas of high conservation value will be selected. CEC's work for the last four years has focused on identifying conservation priorities and developing a solid framework for two North American regions (B2B: marine, and Grasslands: terrestrial). Based on that framework, the project areas could be selected for their continental ecological significance, threats to their biodiversity values, opportunities for conservation (such as the potential to engage local players), as well as the feasibility within the project time-frame, among other criteria.

An assessment will then be conducted to determine the conservation problems and thematic areas that need to be addressed and improved upon, through the following steps:

- Identification of capacity building needs for more effective local and regional community action to conserve shared species and protect critical habitat;
- Assessment and prioritization of conservation constraints in pilot area;
- Identification of stakeholders and evaluation of their capacity to address key stressors and threats to priority species and critical habitat; and
- Production of a comprehensive report comprising short, medium and long term capacity building needs, priorities and opportunities, to strengthen local governments and other stakeholders, to manage, conserve, and monitor the status of critical habitats and species in Model Project Area.

Based on the needs assessment, and through consultation and in close collaboration with the identified stakeholders, a "bottom-up" process will be facilitated to develop a shared conservation vision. The Action Plan developed by this process will include the identification of on-the-ground conservation activities, key actors and their responsibilities, and

targets and indicators to measure the effectiveness of the actions to be undertaken.

### **Component B: Implementation**

Although it is too early to define the precise elements, the project will have three “ingredients”:

*Capacity development:* The project will foster conditions and develop skills that allow for concerted and complementary actions among local stakeholders including local authorities, and increased public awareness of biodiversity issues.

Among the activities envisioned are those aimed at 1) building local and regional capacity to support voluntary compliance to protect species and habitat; 2) increasing the skills & knowledge of current practitioners responsible for wildlife conservation, management, and enforcement; and 3) developing a hands-on network of stakeholders involved in the protection of shared species and critical habitat to share lessons learned, best practices, new technologies and management strategies, to help implement integrated ecosystem management approaches in the pilot areas. Similarly, project activities will be aligned to the capacity building and information elements of the North American Conservation Action Plans, for those species whose critical habitat lies within the pilot areas.

*Local conservation actions:* On the ground activities will be carried out by local stakeholders. The actual implementation will be guided by the shared Action Plan aimed at protecting critical habitats, and species. This will be pursued through kick-start resources, technical assistance and the promotion of voluntary compliance actions, strengthened local enforcement and collaborative trinational efforts.

*Financing and economic mechanisms:* To be effective and long lasting, conservation actions in the pilot areas will address the symptoms of ecological stress and their root causes. This model project will apply appropriate lessons-learned and mechanisms developed through the CEC’s work on green goods and services and market-based mechanisms. Expected outcomes include appropriation of effective

market mechanisms by local stakeholders (land-users or resource leasers), a reduction of the stressor, and enhanced local capacity to address –on a sustained basis– biodiversity protection, poverty alleviation and local economic development.

### **Component C: Information, tracking and evaluation**

This component will facilitate data and information sharing and promote integrated monitoring to increase understanding of the status of biodiversity, its threats and the effectiveness of conservation actions, as follows:

- Develop and/or improve information that is relevant to address threats to the area, and create the tools to make it available and useful to key stakeholders and the general public;
- Fill capacity gaps (skills and infrastructure) to assess the state of critical habitat, species, and stressors on a long-term monitoring and assessment basis using key shared indicators;
- Periodically evaluate the effectiveness of the project, and
- Produce better and opportune information for decision makers, scientists, managers and other stakeholders to conserve critical habitat and species in the pilot areas.

### **Component D: Follow-up -Promoting broader application**

In the latter part of the project, this component will document the approaches followed, the lessons learned and produce communications materials, as follows:

- Develop publications that will present scientific findings, policy briefs, fact sheets for the general public, and handbooks to facilitate use by others of methods used and of information and experience developed.
- Disseminate the results of the project through an ‘end-of-project’ conference/seminar/workshop.

## Communications

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In addition to sharing results and information with partners, public education and information is essential to build support for conservation action:

- Semarnat and CEC, with partners to announce local projects upon commencement
- Locally-focused communications throughout the project
- Project fact sheets, media materials
- CEC/Semarnat web site content
- Local radio features
- Depending on the strength of pilot project content, there is potential for broader-based interest (in Mexico and the rest of NA)
- Emphasize links with other CEC program elements: i.e., Trade and Environment, green purchasing, enforcement capacity building
- Audience includes conservation partners, government, local communities, media and public.

## Involvement

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To be defined.

## Information Management

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To be defined.

## Task Descriptions

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*See table below.*

| Tasks                                                                                                                | 2005                                                                                                           | Timing  | Cost<br>C\$ | 2006 | Timing | Cost<br>C\$ | 2007 | Timing | Cost<br>C\$ | Total<br>3-Year |
|----------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|---------|-------------|------|--------|-------------|------|--------|-------------|-----------------|
| <b>Component A: Scoping &amp; Design</b>                                                                             |                                                                                                                |         |             |      |        |             |      |        |             |                 |
| 1. Convene key decision makers to select project areas                                                               | <b>Outputs/Outcomes:-</b><br>- Steering Committee established and operating<br>- Stakeholder group established | Sep-Oct | \$10,000    | NA   | NA     | 0           | NA   | NA     | 0           | <b>\$10,000</b> |
| 2. Apply ecological-threat-opportunity criteria to identify one marine and one terrestrial demonstration areas       | - Pilot sites selected                                                                                         | Nov     | \$50,000    | NA   | NA     | 0           | NA   | NA     | 0           | <b>\$50,000</b> |
| 3. Assess and rank conservation constraints in pilot sites                                                           | - Baseline report on the state of biodiversity, conservation threats in pilot areas                            | Nov-Dec | \$30,000    | NA   | NA     | 0           | NA   | NA     | 0           | <b>\$30,000</b> |
| 4. Identify key stakeholders on selected areas and develop shared Integrated Ecosystem Management (IEM) Action Plans | - Published Action Plan developed by network of stakeholders                                                   | TBD     | \$38,000    | NA   | NA     | 0           | NA   | NA     | 0           | <b>\$38,000</b> |
| 5. Conduct local needs assessment to support Action Plan implementation: technical                                   | - Diagnosis on Capacity building needs, priorities, financial assistance, and recommendation of actions        | TBD     | \$12,000    | NA   | NA     | 0           | NA   | NA     | 0           | <b>\$12,000</b> |

| Tasks                                                                                     | 2005 | Timing | Cost<br>C\$                         | 2006                                                                                                                                                                | Timing | Cost<br>C\$                 | 2007                                                                                                                                                                                                         | Timing | Cost<br>C\$                 | Total<br>3-Year                     |
|-------------------------------------------------------------------------------------------|------|--------|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-----------------------------|-------------------------------------|
| assistance, training and capacity building                                                |      |        |                                     |                                                                                                                                                                     |        |                             |                                                                                                                                                                                                              |        |                             |                                     |
|                                                                                           |      |        | <b>Total Component A: \$140,000</b> |                                                                                                                                                                     |        | <b>Total Component A: 0</b> |                                                                                                                                                                                                              |        | <b>Total Component A: 0</b> | <b>Total Component A: \$140,000</b> |
| <b>Component B: Project Implementation</b>                                                |      |        |                                     |                                                                                                                                                                     |        |                             |                                                                                                                                                                                                              |        |                             |                                     |
| 1. Provide training to project participants                                               | NA   | NA     | <b>0</b>                            | Conduct training workshop according to priorities established in the project areas<br><b>Outputs/Outcomes:</b><br>Training workshop for pilot area                  | TBD    | \$65,000                    | Implement training workshop according to priority topics that apply to both areas<br><b>Outputs/Outcomes:</b><br><i>Training workshop on market based approaches</i>                                         |        | \$100,000                   | <b>\$165,000</b>                    |
| 2. Facilitate implementation of conservation actions of the 2006 Action Plan              | NA   | NA     | <b>0</b>                            | Initiate, facilitate and oversee Action Plan Activities<br><b>Outputs/Outcomes:</b><br>Implementation of integrated activities for species and habitat conservation | TBD    | \$180,000                   | Continue facilitating implementation of conservation actions of the Action Plan<br><b>Outputs/Outcomes:</b><br>Continued implementation of activities for species and habitat conservation in both locations |        | \$250,000                   | <b>\$430,000</b>                    |
| 3. Identify market mechanisms that support the conservation objectives on the pilot areas | NA   | NA     | <b>0</b>                            | Survey market-based mechanisms for potential application in the project areas.<br><b>Outputs/Outcomes:</b><br>Report that scopes the potential for using            | TBD    | \$30,000                    | NA                                                                                                                                                                                                           | NA     | 0                           | <b>\$30,000</b>                     |



| Tasks                                                                            | 2005 | Timing | Cost<br>C\$                     | 2006                                                                                                                                                                                                                                                                                                                                                    | Timing | Cost<br>C\$                             | 2007                                                                                                                                                                               | Timing | Cost<br>C\$                             | Total<br>3-Year                         |
|----------------------------------------------------------------------------------|------|--------|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-----------------------------------------|-----------------------------------------|
|                                                                                  |      |        |                                 | market-based mechanisms in the pilot area                                                                                                                                                                                                                                                                                                               |        |                                         |                                                                                                                                                                                    |        |                                         |                                         |
| 4. Assess market based mechanisms                                                | NA   | NA     | 0                               | Evaluate and identify the market based mechanisms best suited to address the conservation objectives: potential NA market, consumer interest poll, market survey, environmental assessment.<br><b>Outputs/Outcomes:</b><br>Report(s) on selected "green good/services": Potential NA market, consumer interest, market survey, environmental assessment | TBD    | \$80,000                                | Applying feasible market mechanisms to support conservation objectives in one pilot area<br><b>Outputs/Outcomes:</b><br>Green good/services pilot implemented for one project area |        | \$50,000                                | <b>\$130,000</b>                        |
| 5. Establish partnerships to apply market based mechanism(s) in one of the areas | NA   | NA     | 0                               | Identify and consult with possible partners.<br><b>Outputs/Outcomes:</b><br>Key partners agree to engage in project and to take on responsibility for future implementation                                                                                                                                                                             | TBD    | \$20,000                                | Transfer implementation responsibility to partners as appropriate.<br><b>Outputs/Outcomes:</b><br>Ongoing implementation assured by partners.                                      |        | \$50,000                                | <b>\$70,000</b>                         |
|                                                                                  |      |        | <b>Total Component B:<br/>0</b> |                                                                                                                                                                                                                                                                                                                                                         |        | <b>Total Component B:<br/>\$375,000</b> |                                                                                                                                                                                    |        | <b>Total Component B:<br/>\$450,000</b> | <b>Total Component B:<br/>\$825,000</b> |

| Tasks                                                                                                                   | 2005 | Timing | Cost<br>C\$ | 2006                                                                                                                                                                                                                                                                          | Timing | Cost<br>C\$              | 2007                                                                                                                                                                          | Timing | Cost<br>C\$ | Total<br>3-Year |
|-------------------------------------------------------------------------------------------------------------------------|------|--------|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-------------|-----------------|
| <b>Component C. Information Tracking &amp; Evaluation:</b>                                                              |      |        |             |                                                                                                                                                                                                                                                                               |        |                          |                                                                                                                                                                               |        |             |                 |
| 1. Develop project indicators                                                                                           | NA   | NA     | 0           | Define a set of key shared indicators for assessing the state of critical habitat, species and stressors for pilot area<br><b>Outputs/Outcomes:</b><br>- Framework & biodiversity indicators for pilot area<br>- Populate indicators databases                                | TBD    | \$25,000<br><br>\$60,000 | Disseminate the baseline report on the state of species, habitat and stressors for one pilot area<br><b>Outputs/Outcomes:</b><br>Published indicators report for 1 pilot area |        |             | <b>\$85,000</b> |
| 2. Produce and disseminate fact sheets                                                                                  | NA   | NA     | 0           | Develop and publish first set of fact sheets on threat assessment, explanation of conservation activities in pilot areas, and the use of market based mechanisms<br><b>Outputs/Outcomes:</b><br>Increased awareness of key audiences by use of first set of topic fact sheets | TBD    | \$50,000                 | TBD<br>Need for additional fact sheets to be defined                                                                                                                          | TBD    | TBD         | <b>TBD</b>      |
| 3. Develop an online information system that integrates, displays and makes data and information available for analysis | NA   | NA     | 0           | Design and test an online information clearinghouse for the pilot area<br><b>Outputs/Outcomes:</b><br>Initial development and population of an online information clearinghouse                                                                                               | TBD    | \$50,000                 | TBD                                                                                                                                                                           | TBD    | TBD         | <b>TBD</b>      |

| Tasks                                                                             | 2005 | Timing | Cost<br>C\$                              | 2006 | Timing | Cost<br>C\$                                      | 2007 | Timing | Cost<br>C\$                                | Total<br>3-Year                            |
|-----------------------------------------------------------------------------------|------|--------|------------------------------------------|------|--------|--------------------------------------------------|------|--------|--------------------------------------------|--------------------------------------------|
|                                                                                   |      |        | <b>Total<br/>Compon<br/>ent C:<br/>0</b> |      |        | <b>Total<br/>Compone<br/>nt C:<br/>\$185,000</b> |      |        | <b>Total<br/>Compo<br/>nent C:<br/>TBD</b> | <b>Total<br/>Compon<br/>ent C:<br/>TBD</b> |
| <b>Component D. Follow-up - Promoting broader application (Occurring in 2008)</b> |      |        |                                          |      |        |                                                  |      |        |                                            |                                            |
| <i>Follow-up activities to be defined in late 2007 for initiation in 2008.</i>    |      |        |                                          |      |        |                                                  |      |        |                                            |                                            |
|                                                                                   |      |        | <b>Total<br/>2005:<br/>\$140,000</b>     |      |        | <b>Total<br/>2006:<br/>\$560,000</b>             |      |        | <b>Total<br/>2007:<br/>TBD</b>             | <b>Total:<br/>TBD</b>                      |

|             |                                                                             |
|-------------|-----------------------------------------------------------------------------|
| Project 10  | <b>Promoting the North American Renewable Energy Market</b>                 |
| Prepared by | 10(6) Working Group with the Secretariat                                    |
| Start date  | 2005                                                                        |
| End date    | 2007                                                                        |
| Comments    | Project initiated in 2000; to be evaluated in 2007 to determine future work |

|               |                                           |
|---------------|-------------------------------------------|
| Location      | North America                             |
| Revision Date | 29 July 2005                              |
| Cost          | <b>2005: C\$250,000</b><br>2006-2007: TBD |

## Purpose

This project is identified as a key initiative under the Trade and Environment priority of the CEC Strategic Plan. It supports, primarily, the first objective under that priority. Its purpose is to enhance the development of the North American renewable energy market to attain the environmental, social and energy benefits that renewable energy provides. These benefits include: the

increased reliability of the electric grid; diversification of energy resources to alleviate concerns about security of supply and recent increases in oil and natural gas prices; and environmental improvement through reductions in air pollutants and greenhouse gas emissions.

## Background

The North American renewable energy market faces a number of obstacles to its continued growth. For example, while in some locations renewable energy is cost-competitive with traditional resources, renewable energy typically has a higher initial cost. The local, state/provincial, and national governments of the Parties to the NAAEC have different renewable energy purchasing requirements. Furthermore, state/provincial and national environmental regulators currently lack, but are working toward, standardized methods for estimating the environmental benefits of renewable energy policies.

The Parties and the CEC will need to address some of the informational and transactional barriers that add to the cost of renewable energy, and in turn more actively assist policymakers as they attempt to implement policies to promote renewable energy. The CEC has been active in sharing information and collecting data on renewable energy for the past four years.

This work has led to the identification of options for expanding the use of renewable energy. Many of these options were identified in the Article 13 Report, *Environmental Challenges and Opportunities of the Evolving North American Electricity Market*, initiated in 2000 and published in 2002.

To date, the CEC has:

- catalogued various North American definitions of renewable energy and green power and renewable energy portfolios;
- hosted workshops on green power marketing in Canada and Mexico;
- developed papers on market, policy, and financial mechanisms to expand the use of renewables;
- conducted initial work to document the status of green certificates and the harmonization of their standards, tracking, and definitions across North America;

- developed papers on methods to and hosted workshops on calculating the environmental benefits (air emissions reductions) of renewable energy;
- developed a paper and produced a database on the existing and planned renewable energy capacity in North America. The CEC has assessed the wind energy potential of the Yucatan Peninsula in Mexico; and
- identified types of biomass resources that could be used for low-impact renewable power generation, ethanol or hydrogen production, space heating and use as raw materials for industrial products, or for other uses, such as soil improvement (in collaboration with NRCan and the National Research Council of Canada).

In addition, the North American Energy Working Group (NAEWG), created in April 2001, has been active in promoting regional cooperation on energy issues. This project considers opportunities for collaboration between the NAEWG and the CEC.

By supporting the increased production and trade in renewable energy across North America, the project responds to the objectives of the NAAEC to promote sustainable development, and to support the environmental goals and objectives of the NAFTA. Moreover, renewable energy has number of environmental benefits including reduced air pollutant and greenhouse gas emissions. A functioning market for renewable energy systems can address the key challenges of sustainable development, promote energy diversification and security, and most notably by foster economic development whilst reducing the environmental impact of energy consumption and production.

All three national governments, state/provincial and local governments, NGOs, and private industry are working to develop renewable energy resources. For example, the US EPA Clean Energy Programs help consumers improve their knowledge about their Clean Energy options by providing objective information, creating networks between the public and private sector and providing technical assistance. US EPA also developed a Green Power Partnership program that provides assistance and recognition to organizations that demonstrate environmental leadership by choosing green power. In addition, the United States' National Renewable Energy Laboratory (NREL) has documented most existing, planned, and potential sources of renewable energy in the United States. The US has a database containing most of the state laws and policies related to renewable energy. This project would leverage all of this work.

In Canada, the 2005 federal budget confirmed the Government's commitment to expanding renewable energy development. Measures announced include: expansion of the Wind Power Production Incentive target to 4000 MW; the development of a Renewable Power Production Incentive to stimulate the installation of up to 1500 MW of new renewable energy electricity from sources such as small hydro, biomass and landfill gas; and the development of a Sustainable Energy Science and Technology Strategy. In addition, the NGO community has been increasingly active in promoting emerging renewable energy sources. For example, Pollution Probe (with support from the CEC) recently coordinated a national green power workshop series to review existing challenges and opportunities for green power development in Canada. This workshop series included active participation from industry, NGOs, provincial and territorial governments, and the federal government. Over the last year the Federal Government has been engaged on the international front to promote renewable energy development. On March 26, 2005, Canada's Environment Minister and Minister of Natural Resources Canada announced at the G8 Energy and Environment Ministerial Roundtable that Canada has joined the Renewable Energy and Energy Efficiency Partnership (REEEP). Environment Canada and Natural Resources Canada are involved in the International Energy Agency's (IEA) new work program on Renewable Energy and Technology Development (RETD) Implementing Agreement.

In Mexico, the Federal government through the National Development Plan, the Energy Program and the Environment and Natural Resources Program 2001-2006, has established a goal to install an additional 1000 MW of renewable energy. The private sector also has projects for the development of renewable energy: 1200 MW from wind, 160 MW from hydro, 40 MW from biogas of landfills and 14 MW from manure biogas.

Mexico is developing renewable energy by:

- Establishing a Green Fund for the large scale development of renewable energy (World Bank – GEF, USD\$70M)
- Undertaking an Action Plan to overcome barriers for wind generation projects in Mexico (GEF/UNDP/Energy Ministry and the Institute of Electric Research)
- Developing a National Program for rural electrification
- Supporting projects within the Clean Development Mechanism
- Enacting a law to foster renewable energy and cogeneration

- Developing economic instruments in the Treasury Ministry to foster renewable energy

The Mexican government is working with international organizations to foster the development of renewable energy, including signing an Agreement with the Renewable Energy and Energy Efficiency Partnership (REEEP) in April 2005.

## Approach

The project will enhance North American trade in renewable energy as a “green product,” improve regional and national coordination and promote policy coherence on renewable energy issues.

The project’s tasks are mutually supporting. The Experts Committee created in Task 1 will provide technical expert advice to Council and the Secretariat as they implement the other tasks. Task 2 will help the Parties identify areas where renewable energy development is possible, and will help ensure that developers, investors, decision makers, and others have easy access to information regarding potential sources of renewable energy. Task 3 will provide, to the same audience, an overview of the best methods for financing small-scale renewable energy projects. Task 4 will build on Task 2 by pairing information on existing and planned renewable energy resources with the renewable energy laws and policies in the jurisdictions where those resources are located. This will help policy makers in all three countries

## Involvement

The Council, advised by the Renewable Energy Experts Committee, will oversee implementation of the project. The Secretariat will facilitate implementation by, among other things, engaging consultants; identifying experts to participate on the Renewable Energy Experts Committee; coordinating teleconferences and meetings of the Experts Committee; providing technical advice to the Parties; translating and publishing any materials and documents as necessary; and maintaining data-bases. The non-government members of the Experts Committee will be key players in the implementation of the Projects. The Parties, along with the Secretariat, will

## Communications

The Joint Public Advisory Committee (JPAC), in Advice to Council No. 04-05, urged the CEC Council to promote aggressively the use of renewable energy to achieve its objectives for environmental protection and improved human health and the well-being of citizens of North America. The project responds to this advice.

better understand the linkages between laws and policies, and the development of renewable energy resources. Task 5 will help the Parties understand opportunities and obstacles associated with existing programs that foster green power markets. It will ensure that the Parties share information and build capacity on voluntary mechanisms including renewable energy certificates programs and renewable portfolio standards (RPS). Task 6 will provide common, accepted methods for calculating the environmental benefits of renewable energy. This will help all segments of the North American society justify further development of renewable energy resources.

This project supplements work that the CEC is undertaking through the North American Green Purchasing Initiative (NAGPI) (Project 11) to foster institutional purchases of renewable energy.

consult with the JPAC and stakeholders on an ongoing basis throughout the project’s implementation. As in the past, the Parties’ environmental and energy agencies, industry, the utilities, certification agencies, renewable energy associations, NGOs and others researching these issues in North America, will be consulted and/or be involved. Linkages to the North American Energy Working Group (NAEWG) will also be made as opportunities arise.

Effective communication is integral to the success of this project. Specifically it will be necessary to describe in simple terms the steps envisaged to enhance the development of the North American market for renewable energy, to share best practices on developing renewables, and to take actions that foster the trade of renewable energy by promoting the transfer of renewable energy certificates and other market based approaches across international boundaries. Various materials, including information about potential renewable energy resources in North America, a lessons

learned document concerning the effectiveness of existing policies and market and financial mechanisms, and an inventory of differing government and corporate renewable energy purchasing requirements, are planned for distribution to partners, key audiences and interested individuals. This topic area also supports various cross-marketing initiatives related to the NA Atlas and Green Purchasing projects.

Information Management

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Mapping of renewable energy resources (under Project 2) requires specific expertise and software. For these reasons, CEC has called on external firms in the past to do such work. Additional mapping will thus require the same type of outside contracts. Furthermore, identification of capabilities and methodologies required for resource mapping will call for the same level of expertise and perhaps come capacity building in Mexico.

To supplement the CEC’s database on the existing and planned renewable energy capacity in North America, skills in ACCESS are required. As for building an interactive map, GIS capabilities are required and CEC’s will thus have to hire a consultant specialized in that area to complete this project. This project involves website work to make the different reports and documents available to the public.

Task Descriptions

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(See table below.)

| Tasks                                           | 2005                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Timing  | Cost<br>C\$ | 2006                                                                                                                                         | Timing    | Cost<br>C\$ | 2007                                                                                                                                          | Timing  | Cost<br>C\$ | Total<br>3-Year |
|-------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------------|----------------------------------------------------------------------------------------------------------------------------------------------|-----------|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------|---------|-------------|-----------------|
| 1. Create a Renewable Energy Experts Committee. | <p>Create a Renewable Energy Experts Committee:</p> <ul style="list-style-type: none"> <li>- Identify possible experts to participate on the Experts Committee.</li> <li>- Invite experts to participate on the Experts Committee.</li> <li>- Convene the first Experts Committee Meeting.</li> <li>- Hold two Experts Committee conference calls.</li> </ul> <p><b>Outputs:</b><br/>The Committee shall be comprised of 2-3 experts from each federal government as well as a few additional independent experts and provincial/territorial and state representatives. The Experts Committee should strive to meet four times per year – three by conference call and once in person.</p> | TBD     | \$23,000    | <p>Continue supporting the Experts Committee.</p> <p><b>Outputs:</b><br/>Experts Committee Annual Meeting and Quarterly Conference Calls</p> | Oct.-Dec. | \$20,000    | <p>Continue supporting the Experts Committee.</p> <p><b>Outputs:</b><br/>Experts Committee annual meeting and quarterly conference calls.</p> | Jan-Dec | \$25,000    | <b>\$68,000</b> |
| 2. Map renewable energy resources               | - Review capabilities and methodologies                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Jan-Dec | \$75,000    | - Capacity building on methodologies required for                                                                                            | Jan-Oct.  | \$127,000   | Continue mapping per advice from the Experts                                                                                                  | Jan-Dec | TBD         | <b>TBD</b>      |



| Tasks                                                                         | 2005                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Timing  | Cost<br>C\$ | 2006                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Timing  | Cost<br>C\$ | 2007                                                                   | Timing | Cost<br>C\$ | Total<br>3-Year |
|-------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------------|------------------------------------------------------------------------|--------|-------------|-----------------|
|                                                                               | <p>required for mapping.</p> <ul style="list-style-type: none"> <li>- Prepare an assessment of current mapping initiatives in North America with respect to geographic areas and map resolution.</li> <li>- Identify geographic gaps</li> </ul> <p><b>Outputs:</b><br/>A document that assesses existing mapping, identifies geographic areas where there are gaps in information on renewable energy resources, and outlines capabilities and methodologies required for resource mapping.</p> |         |             | <p>resource mapping.</p> <ul style="list-style-type: none"> <li>- Map one to three areas that the Experts Committee agrees are of the highest priority. Resource mapping in a geographic area may include, but may not be limited to, (a) documenting existing and planned renewable energy capacity in that area, (b) identifying types of sources of renewable energy that potentially could be developed in the area; (c) identifying existing and planned transmission lines in the area; and (d) noting possible obstacles to accessing transmission lines or the power grid in general.</li> </ul> <p><b>Outputs:</b><br/>Mapping of one to three areas identified by the Experts Committee.</p> |         |             | <p>Committee.</p> <p><b>Outputs:</b><br/>Additional maps produced.</p> |        |             |                 |
| 3.Document best practices in financing small-scale renewable energy projects. | Undertake a literature review of best practices in financing small-scale renewable energy projects, with a focus on non-residential projects in various regulatory environments. The Experts Committee should be consulted on defining “small-scale                                                                                                                                                                                                                                             | Jan-Oct | \$12,000    | Encourage, through a variety of means, implementation of best practices to finance small-scale renewable energy projects.<br><br><b>Outputs:</b><br>TBD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Jan-Dec | TBD         | TBD                                                                    | TBD    | TBD         | <b>TBD</b>      |

| Tasks                                                                                                                                                            | 2005                                                                                                                                                                                                                                                                                                                                                                        | Timing   | Cost<br>C\$ | 2006                                                                                                                   | Timing  | Cost<br>C\$ | 2007                                       | Timing | Cost<br>C\$ | Total<br>3-Year |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-------------|------------------------------------------------------------------------------------------------------------------------|---------|-------------|--------------------------------------------|--------|-------------|-----------------|
|                                                                                                                                                                  | renewable energy projects” such as by providing guidance on the megawatt size of small-scale renewable energy projects.<br><b>Outputs:</b><br>A document that describes best practices in financing small-scale renewable energy projects and potential value-added of reorienting best practices studies for North America. Information will be posted on the CEC website. |          |             |                                                                                                                        |         |             |                                            |        |             |                 |
| 4. Supplement the map of existing and planned renewable energy resources with existing laws and policies in each state and province related to renewable energy. | - Building on the DSIRE database in the US, add information concerning renewable energy policies and laws in place in all provinces and states to the map of existing and planned renewable energy resources in NA. A short description of each policy/law will be included to provide context. Continue to update provincial and state RPSs and the definitions of what    | Jan-Dec. | \$30,000    | Maintain the map of existing and planned renewable energy resources and laws and policies related to renewable energy. | Jan-Dec | \$5,000     | Continue to maintain the database and map. | TBD    | TBD         | <b>TBD</b>      |

| Tasks                                                  | 2005                                                                                                                                                                                                                                                                                                                                                                                                                                      | Timing  | Cost<br>C\$ | 2006                                                                                                                                                                                                                                                                                                             | Timing  | Cost<br>C\$ | 2007 | Timing | Cost<br>C\$ | Total<br>3-Year  |
|--------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------------|------|--------|-------------|------------------|
|                                                        | <p>qualifies as renewable energy in each jurisdiction. Updating refers to all renewable energy policies and laws, including renewable portfolio standards.</p> <p><b>Outputs:</b><br/>A time-stamped database and interactive map that contains information on (1) existing renewable energy laws and policies in each state and province in North America and (2) existing and planned sources of renewable energy in North America.</p> |         |             |                                                                                                                                                                                                                                                                                                                  |         |             |      |        |             |                  |
| 5. Document programs for fostering green power markets | <p>Develop a white paper that documents RPS and voluntary programs such as renewable energy certificates throughout North America.</p> <p><b>Outputs:</b><br/>- White paper documenting RPS and voluntary programs such as renewable energy certificates in North America and</p>                                                                                                                                                         | Jan-Dec | \$65,000    | <p>- Explore the potential of using the Renewable Certificates System to encourage renewable energy development in Mexico.</p> <p>- Depending upon the outcome of the baseline assessments, encourage development of voluntary governmental programs across North America for fostering green power markets.</p> | Jan-Dec | \$50,000    | NA   | NA     | 0           | <b>\$115,000</b> |

| Tasks                                                                            | 2005                                                                                                                                                                                                                                                                                                                                                                                                                                           | Timing  | Cost<br>C\$ | 2006                                                                                                                                                                                                                                                                                                                                                              | Timing   | Cost<br>C\$ | 2007 | Timing | Cost<br>C\$ | Total<br>3-Year  |
|----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-------------|------|--------|-------------|------------------|
|                                                                                  | <p>identifying future areas of work regarding green power market capacity building.</p> <p>- The Parties have improved understanding of current opportunities and obstacles associated with a North American green power market.</p> <p>- The identification of obstacles will also help guide further work on requirements for capacity building, in particular accounting of green certificates and other infrastructure-related issues.</p> |         |             | <p><b>Outputs:</b></p> <p>TBD</p>                                                                                                                                                                                                                                                                                                                                 |          |             |      |        |             |                  |
| 6. Develop capacity to calculate the environmental benefits of renewable energy. | Complete development of a set of tools/methods for calculating the environmental benefits of (1) renewable energy for various common uses, with the ultimate goal of providing simple, objective guidance to policy makers, industry, and NGOs, and (2) for production                                                                                                                                                                         | Feb-Dec | \$45,000    | <p>Validate the selected methods for calculating environmental benefits of renewable energy and promote their use. Possibly undertake a study on ways to include this information in conventional energy pricing. Provide a user-friendly web-based tool to calculate the environmental benefits of renewables for different projects.</p> <p><b>Outputs:</b></p> | Jan-Sept | \$115,000   | NA   | NA     | 0           | <b>\$160,000</b> |

| Tasks                                                                      | 2005                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Timing | Cost<br>C\$ | 2006                                                                                                                                                                                               | Timing    | Cost<br>C\$ | 2007                                                                                                                                                                   | Timing  | Cost<br>C\$ | Total<br>3-Year |
|----------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------------|-----------------|
|                                                                            | and use of biofuels, in particular ethanol. Calculating benefits takes into consideration the environmental costs avoided from using renewable energy versus conventional energy, and will also ensure that common terminology for renewable energy sources is developed and applied.<br><b>Outputs:</b><br>Two separate documents providing simple, objective guidance on calculating the environmental benefits of 1) renewable energy; and 2) for biofuels. |        |             | Validated methods for calculating the environmental benefits of renewable energy.                                                                                                                  |           |             |                                                                                                                                                                        |         |             |                 |
| 7. Facilitate the integration of renewable energy resources into the grid. | NA                                                                                                                                                                                                                                                                                                                                                                                                                                                             | NA     | 0           | Document best practices for integrating intermittent renewable energy resources into the grid with special attention paid to identifying innovative approaches to transmission access and funding. | Jan – Dec | TBD         | Encourage adoption of the best practices.<br><b>Outcomes:</b><br>Enhance the use of available information about potential renewable energy resources in North America. | TBD     | TBD         | <b>TBD</b>      |
| 8. Evaluate project results and                                            | NA                                                                                                                                                                                                                                                                                                                                                                                                                                                             | NA     | 0           | NA                                                                                                                                                                                                 | NA        | 0           | Conduct an evaluation of the project to confirm                                                                                                                        | Nov-Dec | \$25,000    | <b>\$25,000</b> |

| Tasks          | 2005 | Timing | Cost<br>C\$                | 2006 | Timing | Cost<br>C\$          | 2007                                                                                                                                                                         | Timing | Cost<br>C\$          | Total<br>3-Year      |
|----------------|------|--------|----------------------------|------|--------|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|----------------------|----------------------|
| effectiveness. |      |        |                            |      |        |                      | achievement of objectives and results, and to assess cost-effectiveness.<br><b>Outputs:</b><br>Project evaluation to inform decision on project extension and/or refinement. |        |                      |                      |
|                |      |        | <b>Total<br/>\$250,000</b> |      |        | <b>Total<br/>TBD</b> |                                                                                                                                                                              |        | <b>Total<br/>TBD</b> | <b>Total<br/>TBD</b> |

|             |                                                                                     |               |                                                  |
|-------------|-------------------------------------------------------------------------------------|---------------|--------------------------------------------------|
| Project 11  | <b>Green Purchasing</b>                                                             |               |                                                  |
| Prepared by | 10(6) Working Group and Secretariat                                                 | Location      | North America                                    |
| Start date  | 2002                                                                                | Revision Date | 29 July 2005                                     |
| End date    | Ongoing                                                                             | Cost          | 2005: <b>C\$150,000</b><br>2006-2007: C\$176,000 |
| Comments    | This priority area continues the work of the NAGPI group led by the CEC Secretariat |               |                                                  |

## Purpose

The project is identified as a key initiative under the Trade and Environment priority of the CEC Strategic Plan. It supports the first objective of that priority by developing information, tools and practical approaches for use by institutions including governments at all levels, universities, hospitals, and private companies, to help increase the proportion of “green products and services” in their procurement decisions and thus reduce their impact on the environment and human health. The project supports the third objective by promoting the improvement of regional and national coordination and greater

policy coherence concerning the purchase of green office supplies, energy from renewable resources, and green cleaning supplies. As the project will help build the capacity of all three countries to promote green purchasing, it thus also contributes to the Capacity Building priority of the Strategic Plan. The project in its entirety addresses the sustainable development and the environmental conservation and protection objectives of the NAAEC and the NAFTA.

## Background

“Green products and services” are defined as those having beneficial environmental and energy attributes, that are made from recycled materials, that are derived from energy-efficient production processes, or that contain little or no hazardous or toxic constituents. Applying environmental criteria to procurement decisions for even a fraction of the one trillion dollar annual North American procurement market would stimulate the demand for green products and services and produce significant environmental benefits. Governmental agencies at all levels, corporations, universities, and non-profit organizations are buying green products in increasingly larger proportions in accordance with their mandates, corporate policies, and as a result of their awareness of the energy and environmental benefits to be gained from the

use of these products in place of “non-green” alternatives.

The Parties to the NAAEC attach strong importance to the enhancement of North American markets for green products and services. They are committed to increasing their own procurement and use of such products and services, and to encouraging other government agencies and non-government entities to do the same.

Currently, Canada, the United States, and Mexico participate in the CEC’s North American Green Purchasing Initiative (NAGPI). NAGPI is comprised of representatives of the three parties, state and local governments, third-party certification organizations, non-profit organizations, and academia working on green purchasing issues in North America. NAGPI’s mission is

“to improve, promote, and facilitate the development of green purchasing tools and activities across North America to create markets for environmentally preferable products and services from sustainably managed companies, thereby producing tangible economic, social, and environmental benefits.”

The work that the CEC will undertake in this project builds on and supports NAGPI’s work. To date, the CEC, through NAGPI, has secured the commitment and consistent participation from the three countries, compiled a set of case studies and green purchasing policies, developed a database of supporting tools and procurement policies across North America, developed a green purchasing self-assessment tool for organizations, and received support from the environmental ministers.

NAGPI has a variety of governmental and non-governmental members who have identified the three product areas targeted by this project for increased research, information sharing, and development of metrics and environmental assessment tools. In addition, NAGPI’s steering group is open to all green purchasing programs across North America and has consistently integrated new organizations as interest arises.

Beyond the CEC’s efforts, governments, nongovernmental organizations and other institutions across North America are themselves involved in encouraging and assisting institutions in purchasing green products and services. For example, the U.S. Environmental Protection Agency has an Environmentally Preferable Purchasing program. The primary purpose of

this program is to help Executive agencies in the United States government prevent waste and pollution by considering environmental impacts along with price and performance and other traditional factors when deciding what to buy. As part of this effort, U.S. EPA has created an Environmentally Preferable Purchasing Database, which contains environmental information on over 600 products. For its part, the Canadian Federal government has made a commitment to implement a Green Procurement Policy by 2006. It has long supported green purchasing through its Environmental Choice program. Since 2001, Natural Resources Canada has administered the Energy Star initiative in Canada. PWGSC has developed a number of tools, including the Green Procurement Network, to assist Federal employees with making green purchases. Mexico’s SEMARNAT began a project to research markets for green office supplies and equipment in Mexico toward the end of increasing purchasing of these products.

Outside of government, the Center for the New American Dream operates an Institutional Purchasing Program to help institutions incorporate environmental and human health considerations into their purchasing decisions. This program has, among other things, developed training workshops on how to develop an environmental purchasing policy, create useful contract language, review proposals, and use eco-labels effectively. The Center also produced a report for the CEC titled “Environmental Purchasing Policies 101,” which summarizes common elements found in current environmental purchasing policies and provides sample policy language.

## Approach

The project will be carried out under the guidance of the *North American Green Purchasing Initiative* (NAGPI) Steering Committee. In conformance with the CEC Strategic Plan, the Secretariat has been working with the Parties and NAGPI to develop a green purchasing strategy, consistent with the Parties, international obligations, including those international obligations under NAFTA Chapter 10.

The project will build on the past and current work of other organizations by focusing on three specific types of products: electricity from renewable resources, green office supplies, and green cleaning supplies. The CEC will harness lessons learned from its own and others’ past and ongoing efforts to

develop action plans that, when implemented, will help ensure that institutions purchase more of these types of green products and services. The action plans will also serve as a model for the development of future plans related to fostering institutional purchases of other types of green products and services. In addition, a database and self-assessment tool will help businesses and institutions across North America improve their green purchasing practices.

The action plans will be developed during the first two years of the project. They will aim at increasing the institutional purchasing of “green alternatives” within each of the three product categories of green office



supplies, green cleaning supplies, and energy from renewable resources. The three action plans will be consolidated into a “master plan” that will be implemented during the latter part of the second year and into the third year. It is envisioned that the implementation process will involve a pilot project in Mexico in the form of capacity building and sharing experience from Canada and the United States. The pilot project is expected to lead to the development of a model approach for the CEC to use in addressing other types of green products and services in the future. Thus, in the latter part of the third year, the Parties expect to develop the rationale for broadening

## Communications

The project’s success hinges on effective awareness-raising and information dissemination. The primary target audiences for the action plans (Task 1-3) are institutional purchasers of the three selected product areas. The target audience for the self-assessment tool (Task 4) is broader and includes large and small businesses, institutions, and individuals. The CEC’s communications related to both projects will include government audiences

## Involvement

The Council, advised by the NAGPI Committee, will oversee implementation of the project. The Secretariat will facilitate project implementation by, among other things, engaging consultants, as necessary, to help develop some of the action plans; coordinate NAGPI teleconferences and meetings; provide technical advice to the parties related to the projects; translate and publish materials and documents as necessary; and maintain data-bases. The non-government members of NAGPI will be key players in the design and implementation of the action plans and self-assessment tool. NAGPI is an open structure in which groups, institutions and agencies are

## Information Management

All green purchasing projects involve website work to make the different reports and documents available to the public. Additionally, finalizing the self-assessment and information sharing tools involves database management skills, as information will be updated regularly. Further programming skills will be required to allow users of the ECO-SAT tool to compare their

implementation of the master plan to other product categories.

The project will also focus on operationalizing the ECO-SAT self-assessment tool that the CEC is developing. This tool will allow users to compare their green-purchasing programs to best practices. Project activities center on maintaining a database of best green-purchasing practices.

The project will take advantage of market-based approaches to promote environmental protection and sustainability, as appropriate.

and key media in general. Tactics include the launch of an Eco S.A.T website; development and dissemination of project specific information, including brochures and fact sheets about each product; press releases on each product area strategy (trade, environment and general media), and *milestone* news and updates (number of participants, products and potential outcomes).

engaged in the promotion, research or buying of green products and services in North America. Canada, the United States, and Mexico can share information, give support to each other’s projects, and regionalize their actions at the North American level in order to encourage greener trade in North America. Purchasers, producers, NGOs, researchers and certification bodies can also participate and help identify capacity development needs. The Council, or its designees or representatives, along with the Secretariat, will consult with the JPAC and stakeholders on an ongoing basis throughout implementation of these projects.

performance against best-practices. Similar capacities will also be required to develop a web-based training program. Activities under Task 1 over the next two years will be oriented toward the promotion of available information. Many listserves, fact sheets, and other means of communicating to various audiences will be used.

Task Descriptions

See table below.

| Tasks                                                                                                                                                   | 2005                                                                                                                                                                                                                                                                                                                                                                            | Timing     | Cost<br>C\$                | 2006 | Timing | Cost<br>C\$ | 2007 | Timing | Cost<br>C\$ | Total<br>3-Year |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|----------------------------|------|--------|-------------|------|--------|-------------|-----------------|
| 1. Develop action plans to foster institutional purchasing of electricity from renewable resources, green cleaning supplies, and green office supplies. | Prepare draft action plans for each category, including a list of purchasers for these products, of best means for buying these products and of groups focusing on various segments of the institutional market. Action plans will also include outreach plans describing an efficient, effective method for promoting institutional purchasing of these products and services. | Jan-Mar    | \$0<br>(Secretariat staff) | NA   | NA     | 0           | NA   | NA     | 0           | \$0             |
|                                                                                                                                                         | Convene a NAGPI meeting in Santa Monica, CA, to review, revise and agree on the action plans, and to consolidate them into one master implementation plan.                                                                                                                                                                                                                      | Mar 31     | \$20,000                   | NA   | NA     | 0           | NA   | NA     | 0           | \$20,000        |
|                                                                                                                                                         | Finalize, edit and translate the consolidated master plan and present it to Council for approval and authorization of subsequent activities.                                                                                                                                                                                                                                    | April-July | \$10,000                   | NA   | NA     | 0           | NA   | NA     | 0           | \$10,000        |
|                                                                                                                                                         | <b>Outputs:</b><br>Approved master plan                                                                                                                                                                                                                                                                                                                                         |            |                            |      |        |             |      |        |             |                 |

| Tasks                                                                                    | 2005                                                                                                                                                                                                                                                                           | Timing     | Cost<br>C\$                       | 2006                                                                                                                                                                                                                                                                                                                                        | Timing  | Cost<br>C\$                | 2007                                                                                                                                                                                                                                                             | Timing  | Cost<br>C\$                | Total<br>3-Year            |
|------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|-----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|----------------------------|----------------------------|
|                                                                                          | for the three green product categories.                                                                                                                                                                                                                                        |            |                                   |                                                                                                                                                                                                                                                                                                                                             |         |                            |                                                                                                                                                                                                                                                                  |         |                            |                            |
|                                                                                          |                                                                                                                                                                                                                                                                                |            | <b>Total Task 1:<br/>\$30,000</b> |                                                                                                                                                                                                                                                                                                                                             |         | <b>Total Task 1:<br/>0</b> |                                                                                                                                                                                                                                                                  |         | <b>Total Task 1:<br/>0</b> | <b>Total:<br/>\$30,000</b> |
| 2. Initiate and facilitate implementation of the master plan as approved by the Parties. | Facilitate implementation of the plan through monthly NAGPI conference calls.                                                                                                                                                                                                  | Jan – Dec  | \$12,000                          | Continue facilitating implementation through monthly NAGPI conference calls.                                                                                                                                                                                                                                                                | Jan-Dec | \$12,000                   | Conduct monthly NAGPI conference calls to compile a list of additional product categories to focus on in the future.                                                                                                                                             | Jan-Dec | \$12,000                   | <b>\$36,000</b>            |
|                                                                                          | Hold the annual Fall NAGPI meeting to review accomplishments and to define activities for 2006.                                                                                                                                                                                |            | \$10,000                          | Hold the annual Fall NAGPI meeting to review accomplishments and to define activities for 2007.                                                                                                                                                                                                                                             |         | \$10,000                   | Hold the annual Fall NAGPI meeting to review accomplishments, to define goals for upcoming years, and to develop and present to the Parties a rationale for the application of tools, methods, and lessons learned concerning the additional product categories. |         | \$10,000                   | <b>\$30,000</b>            |
|                                                                                          | Design and implement a pilot project with Mexico regarding the purchase of office supplies and/or cleaning products<br><b>Outputs:</b><br>Effective/efficient implementation of master plan.<br>Specific results and deliverables for pilot project in Mexico to be developed. | July - Dec | \$75,000                          | Continue implementing Mexican pilot project and the training it involves; conduct outreach.<br><b>Outputs:</b><br>Effective/efficient implementation of the master plan. Outreach and training materials distributed and presented to selected audiences, in partnership with key NA players.<br>Training is provided to purchasing agents. |         | \$80,000                   |                                                                                                                                                                                                                                                                  |         |                            | <b>\$155,000</b>           |
|                                                                                          |                                                                                                                                                                                                                                                                                |            | <b>Total</b>                      |                                                                                                                                                                                                                                                                                                                                             |         | <b>Total</b>               |                                                                                                                                                                                                                                                                  |         | <b>Total</b>               | <b>Total:</b>              |

| Tasks                                                                                                                   | 2005                                                                                                                     | Timing    | Cost<br>C\$                  | 2006                                                                                                                                                                                | Timing    | Cost<br>C\$                       | 2007                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Timing                 | Cost<br>C\$                       | Total<br>3-Year                        |
|-------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|-----------|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|-----------------------------------|----------------------------------------|
|                                                                                                                         |                                                                                                                          |           | <b>Task 2:<br/>\$97,000</b>  |                                                                                                                                                                                     |           | <b>Task 2:<br/>\$102,000</b>      |                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                        | <b>Task 2:<br/>\$22,000</b>       | <b>\$221,000</b>                       |
| 3. Develop a method to measure environmental and economic impacts of the (increased) procurement of the three products. | NA                                                                                                                       | NA        | 0                            | Develop a method to measure environmental and economic impacts of the (increased) procurement of the three products.<br><br><b>Outputs:</b><br>Method developed to measure impacts. | March-Dec | \$20,000                          | Assess the accomplishments and results of the project, and needs for following up and for continuation.<br><br>Present results to the Parties along with lessons learned.<br><br><b>Outputs:</b><br>Parties informed on results of project and next steps determined.<br><br>Rationale for future work presented to Parties for approval.<br><br>Documentation on the degree of success in meeting project objectives and level of awareness raised. | Jan-June<br><br>Summer | \$6,000<br><br>\$20,000           | <b>\$26,000</b><br><br><b>\$20,000</b> |
|                                                                                                                         |                                                                                                                          |           | <b>Total Task 3:<br/>\$0</b> |                                                                                                                                                                                     |           | <b>Total Task 3:<br/>\$20,000</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                        | <b>Total Task 3:<br/>\$26,000</b> | <b>Total:<br/>\$46,000</b>             |
| 4. Improve self-assessment and information sharing tools                                                                | Maintain and improve assessment and information sharing tools by: a) maintaining the database of best practices in green | July-Dec. | \$5,000 data base            | Maintain a database of best practices in green procurement.                                                                                                                         |           | \$6,000 database                  | NA                                                                                                                                                                                                                                                                                                                                                                                                                                                   | NA                     | 0                                 | <b>\$11,000</b>                        |

| Tasks | 2005                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Timing | Cost<br>C\$                             | 2006 | Timing | Cost<br>C\$                            | 2007 | Timing | Cost<br>C\$                           | Total<br>3-Year                  |
|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-----------------------------------------|------|--------|----------------------------------------|------|--------|---------------------------------------|----------------------------------|
|       | procurement that accompany the ECO-SAT self-assessment tool; and b) operationalizing the ECO-SAT self-assessment tool, which allows users to compare their performance against best-practices; [c) Developing a web-based training program for the self-assessment tool that allows users to add their suggestions concerning best practices.]<br><br><b>Outputs:</b><br>Sharing of information on opportunities, database and self-assessment tool made operational.<br>[Web-based training program operational.] |        | \$18,000<br>(training program)          |      |        |                                        |      |        |                                       | <b>\$18,000</b>                  |
|       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |        | <b>Total Task 4:</b><br><b>\$23,000</b> |      |        | <b>Total Task 4:</b><br><b>\$6,000</b> |      |        | <b>Total Task 4:</b><br><b>\$0</b>    | <b>Total:</b><br><b>\$29,000</b> |
|       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |        | <b>Total 2005:</b><br><b>\$150,000</b>  |      |        | <b>Total 2006:</b><br><b>\$128,000</b> |      |        | <b>Total 2007:</b><br><b>\$48,000</b> | <b>Total</b><br><b>\$326,000</b> |

|             |                                                                  |               |                         |
|-------------|------------------------------------------------------------------|---------------|-------------------------|
| Project 13  | <b>Trade and Enforcement of Environmental Laws</b>               |               |                         |
| Prepared by | 10(6) Working Group and Secretariat                              | Location      | North America           |
| Start date  | January 2005                                                     | Revision Date | 29 July 2005            |
| End date    | December 2009                                                    | Cost          | 2005: <b>C\$250,000</b> |
| Comments    | The project will be implemented over the next two to five years. |               | 2006-2007: TBD          |

## Purpose

This project is identified as a key initiative under the Trade and Environment priority of the CEC Strategic Plan. It supports, primarily, the second objective of that priority. Its purpose is threefold:

- To expedite and facilitate the movement of legal materials across borders;
- To stop, at borders, illegal shipments of hazardous waste and materials, ozone depleting substances, protected species and wildlife and other illegal materials that could threaten human health or the environment in the territories of the NAFTA parties; and
- To improve enforcement capacity to ensure that persons or entities that ship or attempt to ship such illegal materials are appropriately penalized.

The NAAEC, in Article 1(d), expressly directs the Parties to support the environmental goals and objectives of the NAFTA. Express goals and objectives of the NAFTA include creating an expanded and secure market for goods and services produced in the territories of its parties in a manner consistent with environmental protection and conservation, promoting sustainable development, and strengthening the development and enforcement of environmental laws and regulations. Ensuring that customs, environmental, and law enforcement officials are informed of environmental laws affecting trade, ensuring that exporters and others have easy access to export requirements for environmentally sensitive materials, and training customs and other law enforcement officials to be better able to expedite

legal shipments across borders, will all facilitate trade expansion in a manner consistent with environmental protection.

The project will also remove from commerce and allow for the appropriate management of materials that could harm human health and the environment, while helping ensure enforcement of laws prohibiting trade in such materials. The project will also help create “a level playing” field for business across all three countries by helping to ensure successful prosecution of violations of environmental laws generally, thereby deterring violations of such laws. The project will eliminate potential unfair advantages from lack of effective enforcement of environmental laws.

The project has three principal components:

### **Component A. Improve electronic and other information exchange on North American environmentally related trade data, laws, and policies.**

This component will help ensure that exporters, importers and other members of the regulated community are educated and informed of customs requirements for these types of materials, so as to expedite their trans-border movement. It will also help ensure that each Party’s customs (including port and border inspectors), environmental, and law enforcement officials are informed of the other countries’ laws and policies related to trade in materials that are potentially harmful to human health and the environment.

### **Component B. Provide training to customs and other law enforcement officials (including border and port inspectors)**

This component will help ensure safe, expeditious, and compliant trade in environmentally regulated materials that can legally cross borders. It will also help prevent illegal trade in such materials and in other environmentally regulated materials that are not legally allowed to cross borders. This will be accomplished by training each party's customs and other law enforcement officials to detect, identify, analyze, and enforce against illegal shipments of hazardous waste and materials, ozone depleting substances, protected species and wildlife and other illegal substances that could threaten human health or the environment. The training will help officials quickly determine whether a shipment is legal, or whether it is potentially illegal such that it requires further investigation.

## Background

Since 1996, the CEC has identified the need for improved capacity to track and enforce laws regulating the trans-border movement of hazardous wastes and ozone depleting substances (ODS), and for cooperative approaches concerning the enforcement of domestic laws that implement the *Convention on International Trade in Endangered Species of Wild Fauna and Flora*. In this vein, the CEC has been supporting a number of capacity building and information exchange programs for environment and customs officials in the areas of: CFC smuggling, wildlife protection and improving cooperation on the tracking and management of transboundary hazardous waste shipments (see [www.cec.org/ewg](http://www.cec.org/ewg)). The CEC also assisted the World Conservation Union, Pace University, the Judicial Institute and other sponsors in hosting an international symposium comparing judicial practices across North America and in selected nations abroad. This project is designed to continue that work in a more concerted way.

The project will ensure that the parties share existing laws and policies related to trade in environmentally sensitive materials. It will expand the existing hazardous waste focused U.S.-Mexico Border Compliance Assistance Center to a North American Center that provides import/export information to importers and exporters on the range of environmentally regulated goods and materials. Providing the regulated community with the information, resources and services they need can help them meet and exceed

## Component C. Build capacity in legal and judicial systems to support effective enforcement of environmental laws.

This component will provide support for the domestic implementation of law enforcement activities beyond the actual point of entry of illegal substances. It aims to inform judges and prosecutors generally of environmental laws, and specifically of laws related to trade in materials that could harm human health or the environment. It will also provide prosecutors with the skills needed for enforcing effectively against persons who attempt to trade illegally in such materials. The training will help ensure that persons in all three countries who consider trading illegally have the same expectations of being prosecuted against and penalized.

environmental compliance. In developing the training material and modules, the CEC will leverage work done by, among others, the United Nations Environment Program under its Green Customs Initiative, the World Conservation Union, Pace University, the Judicial Institute. As a first step, the Parties plan to assemble and review existing training materials to determine their appropriateness for use in the project. The Parties also plan to identify stakeholders to help develop the training materials. When completed, the training materials will be transportable; officials from each of the three Parties, the CEC Secretariat, academia, industry, NGOs, and others will be able to use them to provide the training. The Parties envision handing off the project to others by 2007. The project also will contribute to the capacity building pillar by providing training for customs officials, judges, prosecutors, and other law enforcement officials in all three countries.

The project overall responds to a variety of stakeholders: government agencies, trade associations, transporters and non-governmental organizations who are interested in strengthening cooperation on the development and improvement of environmental laws, regulations, procedures, policies and practices and who are working to enhance compliance with, and enforcement of, environmental laws and regulations.



## Approach

Component A will lead to mutual benefits for the environment, trade, and the economy by improving regional coordination of import/export policies and by providing border inspectors with better access to information. This improved coordination and access will expedite and enhance trade in legal materials, increase the capacity of the three countries to identify and address traded-related environmental concerns, and promote policy coherence across the region by broadening understanding of trade and environmental linkages.

Component B will promote both trade and environmental goals by providing the CEC, its Parties, and others with tools to expedite trade in legal goods and to stop trade in illegal goods. It will also increase the capacity of the three countries to identify and address trade-related environmental concerns and improve collaboration among the three countries.

Component C will provide support for the domestic implementation of law enforcement activities beyond the actual point of entry of illegal substances. Trained prosecutors will have the skills necessary to enforce effectively against persons who attempt to trade illegally in such substances. Trained judges will be better equipped to preside over cases involving environmental crimes. Thus, this project component will benefit the environment by

helping ensure that persons who violate environmental laws are penalized appropriately; it will benefit trade by deterring violation of such laws and thereby helping to “level the playing field” for businesses and exporters in all three countries. Additionally, the work will by its very nature, increase the capacity of the three countries to identify and address trade-related environmental concerns.

For each component, activities in the first six months will consist mainly of design work in which the key tasks will be fleshed out, key topics for training and information exchange will be defined, and private sector and non-governmental partners will be identified. During and after the design phase, the options will be developed for improving the exchange of information (including information related to tracking trans-border hazardous waste shipments and other information identified in the design phase). Component B will focus on developing training modules for the priority topics identified in the design phase. For Component C, follow up material to the 2003 and 2004 judicial training and trans-border enforcement courses will be developed with a view to supporting legal and judicial systems in their enforcement of environmental laws.

## Communications

The project has extensive communications elements embodied throughout, including providing a better understanding of the issues inherent in the safe and efficient movement of goods and materials across our borders, and the importance to our economic, health and environmental well-being.

Providing information to trade and border officials, partners and the private sector in a credible and transparent manner is expected to lead to improved compliance with the relevant environmental laws.

## Information Management

Component A: in support of an UN/CEFACT project to develop a suite of messages that would support a completely electronic process of notification and tracking, under national and international law, associated with the import and export of environmentally controlled substances, technical advice will be required in describing, modeling and possibly re-engineering the business process in which the data exchange currently occurs for the transboundary

shipments of hazardous waste in North America.

Component B: technical advice will be needed in the development of an e-learning tool that can be adapted and use by the North American governments in the training of their environmental enforcement officials and customs inspectors on environmentally controlled substances.

Involvement

The Council, advised by the North American Working Group on Environmental Enforcement and Compliance Cooperation (EWG), will oversee implementation of this project. The Secretariat will facilitate implementation by, among other things, engaging consultants as necessary; coordinating teleconferences and meetings; providing technical advice related to development and implementation of the project; and ensuring any necessary translation and publication of written products that result. The Parties, along with the Secretariat, will consult with the JPAC and stakeholders on an ongoing basis regarding the design and implementation of

the project.  
The Parties will coordinate with other government agencies, stakeholders, and their indigenous groups and will work in close coordination with other CEC working groups, as appropriate. For hazardous waste tracking, the Parties recognize the need to work through UNCEFACT to establish common data elements from hazardous waste manifests and other reporting mechanisms that are critical to the exchange of information between the three countries. These data elements become the “currency” for tracking hazardous waste shipments between countries.

Task Descriptions

*See table below.*

| Tasks                                                                                                                                          | 2005                                                                                                                                                                                                                                                                                                                                                                                                                                      | Timing       | Cost<br>C\$ | 2006                                                                                                                                                                                                                                                                                                              | Timing    | Cost<br>C\$ | 2007                                                                                                                                                                                                                                                                               | Timing    | Cost<br>C\$ | Total<br>3-Year |
|------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-------------|-----------------|
| <b>Component A: Improve electronic and other information exchange on North American environmentally related trade data, laws, and policies</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                           |              |             |                                                                                                                                                                                                                                                                                                                   |           |             |                                                                                                                                                                                                                                                                                    |           |             |                 |
| 1. Assess current information tracking methods and practices.                                                                                  | Examine the methods and practices that exporters now use to file manifests, notices, and other forms or documents that are required to ship environmentally-regulated materials across borders.<br><br><b>Outputs/Outcomes:</b><br>A review of the methods and practices that will help facilitate cooperation between the NAFTA countries in improving current reporting processes for import/export of environmentally regulated goods. | March-August | \$ 25,000   | Continue implementing activities related to improving electronic and other information exchange on environmentally related trade data, laws, and policies and laws including exploring the feasibility of pilot projects<br><br><b>Outputs/Outcomes:</b><br>A final assessment and plan for future tracking work. | Jan.-Oct. | TBD         | Finalize on-going compliance assistance, information sharing, and networking efforts and develop recommendations for next steps.<br><br><b>Outputs/Outcomes:</b><br>An assessment of the accomplishments and results of the project, and needs for follow up and for continuation. | Jan.-Dec. | TBD         | TBD             |
| 2. Develop options for improvement                                                                                                             | Define options for improving existing methods and practices, including single window applications<br><br><b>Outputs /Outcomes:</b><br>A paper that presents options for improving existing methods and practices for consideration by governments in the context of their                                                                                                                                                                 | Sept-Dec.    | \$5,000     | <i>Incorporated into Task 1</i>                                                                                                                                                                                                                                                                                   | NA        | 0           | NA                                                                                                                                                                                                                                                                                 | NA        | 0           | <b>\$5,000</b>  |

| Tasks                                                                                                                                      | 2005                                                                                                                                                                                                                                                                                                                | Timing    | Cost<br>C\$                            | 2006                                                                                                                                                                                                                     | Timing  | Cost<br>C\$ | 2007                                                                                                                                                                                                                                                                                                  | Timing  | Cost<br>C\$ | Total<br>3-Year |
|--------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------------|-----------------|
|                                                                                                                                            | domestic programs, and for incorporation into Task 1 activities in 2006..                                                                                                                                                                                                                                           |           |                                        |                                                                                                                                                                                                                          |         |             |                                                                                                                                                                                                                                                                                                       |         |             |                 |
| 3. Educate and inform industry about North American import and export laws to expedite legal trans-border movement of goods and materials. | Develop options for expansion of border center into other areas<br><br><b>Outputs/Outcomes:</b><br>An updated Mexico portion of <a href="http://www.bordercenter.org">www.bordercenter.org</a> on hazardous waste and expansion of the compliance assistance center into additional areas agreed to by the Parties. | March-Dec | \$35,000                               | Implement options for expansion of border center into other areas<br><br><b>Outputs/Outcomes:</b><br>An integrated North American compliance assistance centre for transboundary shipments in identified priority areas. | Jan-Dec | TBD         | Conduct outreach activities with the industry to promote the North American compliance assistance center<br><br><b>Outputs/Outcomes:</b><br>Industry will be better educated and informed about North American import and export laws to expedite legal trans-border movement of goods and materials. | Jan-Dec | TBD         | TBD             |
|                                                                                                                                            |                                                                                                                                                                                                                                                                                                                     |           | <b>Total Component A:<br/>\$65,000</b> |                                                                                                                                                                                                                          |         |             |                                                                                                                                                                                                                                                                                                       |         |             |                 |
| <b>Component B: Provide training to customs and other law enforcement officials</b>                                                        |                                                                                                                                                                                                                                                                                                                     |           |                                        |                                                                                                                                                                                                                          |         |             |                                                                                                                                                                                                                                                                                                       |         |             |                 |
| 1. Assemble and review existing training materials                                                                                         | Collect and evaluate existing training materials used by Canada, Mexico and the United States)<br><br><b>Outputs/Outcomes:</b><br>An inventory and assessment of the                                                                                                                                                | March-Dec | \$20,000                               | NA                                                                                                                                                                                                                       | NA      | 0           | NA                                                                                                                                                                                                                                                                                                    | NA      | 0           | <b>\$25,000</b> |

| Tasks                             | 2005                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Timing     | Cost<br>C\$ | 2006                                                                                                                                                                                                                         | Timing  | Cost<br>C\$ | 2007                                                                                                                                                                                                                                                                                                                                       | Timing   | Cost<br>C\$ | Total<br>3-Year |
|-----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-------------|-----------------|
|                                   | existing training materials<br><br>Identification of partners who will help develop the needed training materials and modules.                                                                                                                                                                                                                                                                                                                                                         |            |             |                                                                                                                                                                                                                              |         |             |                                                                                                                                                                                                                                                                                                                                            |          |             |                 |
| 2. Develop new training materials | Identify audience for training<br><br>Define scope and content of training materials,<br><br>Prepare a new/comprehensive set of training materials<br><br>Solicit stakeholder comment on the project, including on training materials and delivery options; perhaps request JPAC to facilitate the comment process.<br><br>Develop and implement evaluation and feedback mechanism<br><br><b>Outputs/Outcomes:</b><br><br>A complete set of training materials and delivery mechanism. | March-Dec. | \$\$65,000  | Implement training program for border, port and other inspectors.<br><br><b>Outputs/Outcomes:</b><br><br>Outreach and training material distributed and presented to selected audiences, in partnership with key NA players. | Jan-Dec | TBD         | Finalize materials based upon input submitted during 2006 in both written and Internet form. Assess progress to date with a review of training and information gaps and recommendations on how best to fill those gaps.<br><br><b>Outputs/Outcomes:</b><br><br>Final materials and training presented with recommendations for next steps. | Jan.-Dec | TBD         | TBD             |

| Tasks                                                                                                                    | 2005                                                                                                                                                                                                                                                                                                                                    | Timing   | Cost<br>C\$                        | 2006                                                                                                                                                                                                              | Timing    | Cost<br>C\$                   | 2007                                                                                                       | Timing    | Cost<br>C\$                   | Total<br>3-Year               |
|--------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-------------------------------|------------------------------------------------------------------------------------------------------------|-----------|-------------------------------|-------------------------------|
|                                                                                                                          | A feedback mechanism to guide refinement of approaches and materials                                                                                                                                                                                                                                                                    |          |                                    |                                                                                                                                                                                                                   |           |                               |                                                                                                            |           |                               |                               |
|                                                                                                                          |                                                                                                                                                                                                                                                                                                                                         |          | <b>Total Component B: \$85,000</b> |                                                                                                                                                                                                                   |           | <b>Total Component B: TBD</b> |                                                                                                            |           | <b>Total Component B: TBD</b> | <b>Total Component B: TBD</b> |
| <b>Component C: Build capacity in legal and judicial systems to support effective enforcement of environmental laws.</b> |                                                                                                                                                                                                                                                                                                                                         |          |                                    |                                                                                                                                                                                                                   |           |                               |                                                                                                            |           |                               |                               |
| 1. Develop training plan to support effective enforcement of environmental laws.                                         | Review and finalize the proceedings of the January 2003 CEC Transboundary Law Enforcement Workshop and develop appropriate training in 2005 and, if appropriate, e-training follow up.<br><br><b>Outputs/Outcomes:</b><br>Final material and training for law enforcement training on intelligence sharing and enforcement cooperation. | Mar-Dec. | \$60,000                           | Continue overseeing training activities. Identify partners to take on responsibility for delivery.<br><br><b>Outputs/Outcomes:</b><br>Outreach and training materials. Ongoing reporting transferred to partners. | Jan-Dec   | TBD                           | NA                                                                                                         | NA        | 0                             | <b>TBD</b>                    |
| 2. Develop training plan on environmental law and the judiciary.                                                         | Assist appropriate partners in the development of materials and modules for use in training judges and prosecutors in Mexico                                                                                                                                                                                                            | Mar-Dec. | \$40,000                           | Continue overseeing training activities. Identify partners to take on responsibility for delivery.<br><br><b>Outputs/Outcomes:</b>                                                                                | Jan.-Dec. | TBD                           | Assist partners in assuming responsibility for training activities with an emphasis on partners in Mexico. | Jan.-Dec. | TBD                           | <b>TBD</b>                    |

| Tasks | 2005                                                                                                                                                                                                                                                                                                                   | Timing | Cost<br>C\$                             | 2006                                                                        | Timing | Cost<br>C\$                       | 2007                                                                                                    | Timing | Cost<br>C\$                       | Total<br>3-Year                   |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-----------------------------------------|-----------------------------------------------------------------------------|--------|-----------------------------------|---------------------------------------------------------------------------------------------------------|--------|-----------------------------------|-----------------------------------|
|       | Develop training for Mexico on the North American judiciary and the environment as a follow up to the course provided by the World Conservation Union, Pace University, the Judicial Institute and the CEC<br><br><b>Outputs/Outcomes:</b><br>International Symposium on the Judiciary and Environmental Law in Mexico |        |                                         | Outreach and training materials. Ongoing reporting transferred to partners. |        |                                   | <b>Outputs/Outcomes:</b><br>Outreach and training materials. Ongoing reporting transferred to partners. |        |                                   |                                   |
|       |                                                                                                                                                                                                                                                                                                                        |        | <b>Total Component C:<br/>\$100,000</b> |                                                                             |        | <b>Total Component C:<br/>TBD</b> |                                                                                                         |        | <b>Total Component C:<br/>TBD</b> | <b>Total Component C:<br/>TBD</b> |
|       |                                                                                                                                                                                                                                                                                                                        |        | <b>Total 2005:<br/>\$250,000</b>        |                                                                             |        | <b>Total 2006:<br/>TBD</b>        |                                                                                                         |        | <b>Total 2007:<br/>TBD</b>        | <b>Total<br/>TBD</b>              |

|             |                                                                                          |
|-------------|------------------------------------------------------------------------------------------|
| Project 14  | <b>Guidelines for Risk Assessment of Invasive Alien Species (IAS) and Their Pathways</b> |
| Prepared by | 10(6 ) Working Group and Secretariat                                                     |
| Start date  | May 2005                                                                                 |
| End date    | December 2007                                                                            |
| Comments    |                                                                                          |

|               |                                         |
|---------------|-----------------------------------------|
| Location      | North America                           |
| Revision Date | 29 July 2005                            |
| Cost          | 2005: <b>\$80,000</b><br>2006-2007: TBD |

## Purpose

In support of the second objective under the Trade and Environment priority of the CEC Strategic Plan, this project seeks to protect North America's marine, freshwater and terrestrial ecosystems from the harmful effects of invasive alien species (IAS) by developing a common, science-based, approach to prevention through the development of risk assessment guidelines applicable to both, pathways of introduction and high risk species. The goal is to develop a tri-national approach for selected IAS and related trade pathways that satisfy the North American Free Trade Agreement (NAFTA) requirements for risk assessment, as outlined in Section B-Sanitary and Phytosanitary (SPS) Measures, Chapter Seven of NAFTA. This project will also enable all three countries to develop mutually supportive legal and policy frameworks.

During implementation, the CEC will consult with the NAFTA SPS Committee to ensure that the approach satisfies these requirements. The CEC also will consult with the North American Plant Protection

Organization (NAPPO) as appropriate to help avoid overlap and ensure consistency in trilateral IAS work.

This project will be accomplished by:

- Developing common risk assessment guidelines to be tested using one common pathway and species;
- Sharing existing information and information management systems related to risk assessment and strategies for managing risks from IAS; and
- Building capacity through the mutual exchange of scientific and technical expertise and knowledge.

The issue of IAS is both terrestrial and aquatic. The first year of this project focuses on aquatic IAS as the immediate priority. Terrestrial species will be addressed in the second and third year.

## Background

The impacts of IAS can be severe, devastating healthy ecosystems and undermining the local economies they support. Once established, aquatic IAS can displace important native species, drive rare species to extinction, decimate biodiversity and trophic structure of coastal ecosystems, compromise the ecological integrity of marine protected areas, destroy commercial and recreational fisheries, impede traditional cultural uses of

coastal resources, and damage infrastructure (e.g. Zebra mussels clogging pipes). The societal costs of biological invasions can be staggering. Similar concerns exist for terrestrial IAS.

The recent increase in trade within North America raises the risk of expanded transboundary introductions of alien species among the neighbouring



NAFTA countries of Canada, Mexico and the United States. Consequently, this project is specifically designed to focus on trade-related pathways of introduction in North America. A single localized invasion in one country can represent a significant international threat across North America, as can pathways that routinely move alien species from one country to another. The prevention and management of IAS thus requires comprehensive, integrated and sustained international collaboration.

The CEC has undertaken or planned a significant amount of work on IAS issues. For example, the CEC partnered with CONABIO to develop the Mexican Information System on Aquatic Invasive Species. This database includes taxonomic information, geographic distributions, and other scientific information. The CEC has developed a directory of projects, institutions and experts working on aquatic IAS in Canada, Mexico and the United States. Also, the CEC developed a resource guide aimed at providing participants in CEC's activities and member countries with background information to: 1) understand the cause and consequences, as well as status and trends, of biological invasion in North America's aquatic and marine systems; 2) understand the need for bi- and tri-lateral cooperation to prevent and manage introductions of IAS; 3) identify opportunities for such cooperation; and 4) contribute to and support well-informed policy decisions that will help minimize the spread of IAS into and within North America, which received the highest ranking value of the 29 Priority Areas for Action set forth in the CEC's Biodiversity Strategic Plan.

As part of the work funded in 2004, the CEC identified capacity building needs related to specific pathways and destinations that are of common North American concern. Some of the resulting recommendations from this work

## Approach

The project will provide basic information for decision makers in North America to help them face one of the major causes of biodiversity loss worldwide. The issue of IAS is given priority in the CEC Strategic Plan and in the CEC's Biodiversity Strategic Plan. It is also an issue that cuts across all three CEC priorities: information for decision making, capacity building and trade and environment.

The CEC is well positioned to foster a trilateral, risk-based approach—one that considers the likelihood of new IAS becoming established, their potential spread, and the degree of harm they may cause. Diverse tools,

will serve to guide future cooperative actions. The CEC will continue its work to raise the capacity of its country members to gather, systematize, and analyze information on aquatic IAS, by addressing two key priorities, information exchange and increased capability to prevent and control aquatic IAS.

The Parties have long regulatory and non-regulatory histories related to protecting against IAS. Recent experience, however, has shown that many IAS affect multiple sectors of the economy and environment. Often different sectors and/or pathways are regulated by different federal and state/provincial entities across the three governments. Given the cooperative nature of its work, the CEC could help identify gaps in the overall IAS coverage and ensure more effective communication and information sharing related to technologies and methodologies against IAS. This project promotes such information sharing and it builds upon the United States' Aquatic Nuisance Species Task Force Generic Nonindigenous Aquatic Organisms Risk Analysis Review Process, which has been in place for 10 years, and applies it tri-nationally.

Lastly, the project responds to stakeholder concerns. Last year, the Joint Public Advisory Committee (JPAC) expressly advised the Council to focus cooperative work on IAS issues including "Directing the Secretariat to focus trilateral efforts on developing the appropriate tools to determine acceptable levels of risk and scientific uncertainty...".

methods, and cooperative bi- and trilateral arrangements are needed to prevent IAS from becoming established in North America. The CEC's work on IAS will complement, and build upon, work underway in all three countries, as well as through other international organizations.

The CEC will continue its work to raise the capacity of its member countries to gather, systematize and analyze information on aquatic and terrestrial IAS, by addressing two key priorities: 1) information exchange and 2) increased capability to prevent and manage aquatic IAS.

With regard to increased capability to prevent aquatic IAS introductions, the CEC is preparing a common set of guidelines for North American risk assessment for both pathways of introduction and aquatic IAS. Representatives from Canada, the US and Mexico met February 22, 2005 in Washington D.C. to review and suggest revisions to the original US document “Generic Nonindigenous Aquatic Organisms Risk Analysis Review Process” for the purposes of this project, and to discuss criteria to identify species and pathway of common concern as well as the approach for field-testing a North American guideline for risk assessment. Participants at the meeting were asked to be members of an *ad hoc* task group to review and comment on the products developed from the current project. The project will proceed with the development of criteria and selection of one pathway for invasion (either accidental or intentional) and one aquatic IAS that is of concern to two or more countries.

The “single species” and “single pathway” approach will make best use of CEC’s limited resources, and will also provide an opportunity to field test at a North American scale a risk assessment process for alien species previously tested at a national scale (e.g., the US Aquatic Nuisance Species Task Force’s risk analysis process).

The aquatic IAS test case will:

- highlight the importance of the regional approach to aquatic IAS management;
- share and utilize existing databases of aquatic IAS of major concern in North America, documenting causes of introduction, spread, movements, invasiveness indices, etc;
- assess tools used in risk assessment to measure the social, economic and environmental impacts of one pathway and one IAS;
- identify biodiversity components at risk due to aquatic IAS of common concern; and
- share the lessons learned to best deal with aquatic IAS.

The overall results of this approach shall provide CEC’s member countries with the required information to develop better collaborative action plans to prevent and manage aquatic IAS. The final product of this effort will be a risk assessment process for aquatic alien species that has been field tested, on one species and one pathway, on a North American scale.

In 2006-2007, the project will begin to scope potential projects, for consideration by Council, related to terrestrial invasive alien animals and/or wildlife disease and trade-related pathways for their introduction.

## Communications

Expected products include CEC’s Guidelines for conducting a Risk Assessment of aquatic IAS and their pathways. There is an obligation to communicate these and other results, together with project milestones to

partners and relevant audiences. To the extent public, educational objectives are identified, a broader reach and strategy will be required to disseminate results and information.

## Information Management

*To be completed.*

## Involvement

The Council will oversee implementation of the projects, advised by “Country Leads” and the IAS experts from each of the Federal governments who have participated in the CEC’s *ad hoc* task force on aquatic IAS. The Country Leads will coordinate with their counterparts on the 10(6) Working Group and the Biodiversity Conservation Working Group. The Country

Leads will also consult with NAPPO and the NAFTA SPS Committee. The Secretariat will facilitate implementation of the project by, among other things, engaging consultants to help review, modify, test and evaluate the Aquatic Nuisance Species Task Force’s risk analysis process; coordinate teleconferences and meetings of the IAS experts; providing technical advice

to the parties related to the project; translate and publish any materials and documents; and maintain data-bases. The Secretariat will work closely with the Country Leads and with the 10(6) Working Group and the Biodiversity

Conservation Working Group in undertaking these activities. The Council, or its designees or representatives, along with the Secretariat, will consult with the JPAC and stakeholders on an ongoing basis.

Task Descriptions

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*See table below.*

[illegible]

| Tasks                                                                                                                                  | 2005                                                        | Timing | Cost<br>C\$ | 2006                                                                                                                                                                                                                                                                                                                                                                                                                                      | Timing | Cost<br>C\$ | 2007 | Timing | Cost<br>C\$ | Total<br>3-Year |
|----------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|--------|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-------------|------|--------|-------------|-----------------|
|                                                                                                                                        | Nominated aquatic IAS is tested and results are documented. |        |             |                                                                                                                                                                                                                                                                                                                                                                                                                                           |        |             |      |        |             |                 |
| 4. Develop a Distributed Information System.                                                                                           | NA                                                          | NA     | NA          | <b>Outputs/Outcomes:</b><br>Identify and provide access to existing distributed information systems to share information related to this test case.                                                                                                                                                                                                                                                                                       | TBD    | TBD         | TBD  | TBD    | TBD         | TBD             |
| 5. Establish CEC Ad hoc task group on terrestrial invasive alien animals, wildlife disease and trade-related pathways of introduction. | NA                                                          | NA     | NA          | <b>Outputs/Outcomes:</b><br>Criteria developed for selecting a trade-related pathway of introduction and an IAS or wildlife disease of concern to two or more countries.                                                                                                                                                                                                                                                                  | TBD    | \$10,000    | TBD  | TBD    | TBD         | TBD             |
| 6. Conduct risk assessment on one terrestrial invasive alien animals and/or wildlife disease and one pathway of introduction.          | NA                                                          | NA     | NA          | Identify a list of terrestrial invasive alien animal and/or wildlife disease – primarily focused on pathway of introduction.<br><br>Select a terrestrial invasive alien animal or wildlife disease and a trade-related pathway of introduction.<br><br>Conduct test risk assessments on one pathway and one species.<br><br><b>Outputs/Outcomes:</b><br>- List of invasive alien terrestrial animal species, wildlife diseases and trade- | June   | \$250,000   | TBD  | TBD    | TBD         | TBD             |

| Tasks                                                                                                                                                                                 | 2005 | Timing | Cost<br>C\$ | 2006                                                                                                                                                                                             | Timing | Cost<br>C\$ | 2007                                                                                                                                                                                                                                                                                                                                                    | Timing | Cost<br>C\$ | Total<br>3-Year |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-------------|-----------------|
|                                                                                                                                                                                       |      |        |             | related pathways of concern to two or more countries.<br>- A chosen wildlife disease or invasive alien animal species.<br>- A chosen trade-related pathway of introduction.                      |        |             |                                                                                                                                                                                                                                                                                                                                                         |        |             |                 |
| 7. Finalise the North American risk assessment (voluntary) guidelines for trade-related pathways terrestrial invasive alien animals and/or wildlife disease (based on test case work) | NA   | NA     | NA          | Translate and distribute the NA risk analysis guidelines for and the results of the test case into French and Spanish.<br><b>Outputs:</b><br>Finalized North American risk assessment guidelines | Mar    | \$20,000    | TBD                                                                                                                                                                                                                                                                                                                                                     | TBD    | TBD         | TBD             |
| 8. Develop a Management Plan focused on a specific organism within a trade related pathway.                                                                                           | NA   | NA     | NA          | NA                                                                                                                                                                                               | NA     | NA          | Facilitate the development of a cooperative management plan to prevent/control the impact of an IAS of common concern on a trade related pathway<br><b>Outputs:</b><br>Establishment of <i>ad hoc</i> Task Group to develop a joint management plan.<br>The development of the first collaborative plan, based on the identified species and pathway of | June   | TBD         | TBD             |

| Tasks | 2005 | Timing | Cost<br>C\$                         | 2006 | Timing | Cost<br>C\$                    | 2007                                                                                          | Timing | Cost<br>C\$                    | Total<br>3-Year      |
|-------|------|--------|-------------------------------------|------|--------|--------------------------------|-----------------------------------------------------------------------------------------------|--------|--------------------------------|----------------------|
|       |      |        |                                     |      |        |                                | common concern.<br>Priorities identified for<br>capacity building and<br>information sharing. |        |                                |                      |
|       |      |        | <b>Total<br/>2005:<br/>\$80,000</b> |      |        | <b>Total<br/>2006:<br/>TBD</b> |                                                                                               |        | <b>Total<br/>2007:<br/>TBD</b> | <b>Total<br/>TBD</b> |

|             |                                                                                       |
|-------------|---------------------------------------------------------------------------------------|
| Project 15  | <b>Ongoing Assessment of the North American Environment</b>                           |
| Prepared by | 10(6) Working Group and Secretariat                                                   |
| Start date  | 1994                                                                                  |
| End date    | Ongoing                                                                               |
| Comments    | Information exchange on environmental reviews of NAFTA will occur between the Parties |

|               |                                           |
|---------------|-------------------------------------------|
| Location      | North America                             |
| Revision Date | 29 July 2005                              |
| Cost          | 2005: <b>C\$188,000</b><br>2006-2007: TBD |

## Purpose

The third objective under the Trade and Environment priority of the CEC Strategic Plan drives this initiative. That objective is to “broaden understanding of trade and environment linkages and thereby promote policy coherence, both at the domestic and regional levels in North America.” The project also strongly supports the second and fourth objectives: to “increase the capacity of the three countries to identify and address trade-related environmental concerns ...”, and to “improve regional and national coordination, including coordination between the CEC and NAFTA Free Trade Commission through ongoing collaboration of trade and environment officials”. The project has two components..

Article 10(6)d of the NAAEC commits the Parties to consider, on an ongoing basis, the environmental effects of NAFTA. Work under the first objective continues the CEC’s efforts to document the environmental effects of trade liberalization in North America. The resulting reviews and assessments are utilized by trade and environment officials, non-governmental organizations and the public to inform both trade and environmental policies in the three Parties. A decade of experience shows that the environmental effects of NAFTA are difficult to isolate from those stemming from global trends toward trade liberalization and economic growth. Thus the focus of ongoing work is on trade liberalization in North America instead of on NAFTA effects alone.

The second objective is supported by informal exchanges among the NAAEC Parties on environmental assessment of trade. It addresses the Parties’ commitment under 10(6)d, to share information, methodologies, and experiences in conducting environmental reviews of trade agreements, with a view to assessing the environmental effects of NAFTA and other agreements more effectively.

Through this project, the Parties and the Secretariat will bring a sharper focus to the CEC’s environmental assessment work by monitoring emerging trends in the state of the environment in North America, sharing methodologies and best practices, promoting partnerships with other organizations, and promoting transparency and stakeholder involvement. The project will also provide the CEC and the Parties to the NAAEC with improved tools to conduct assessments on the effects of NAFTA on the North American environment.

The projected outcomes under both objectives are a better understanding of trade and environment linkages; improved and informed environmental reviews of future trade agreements by the Parties; improved environmental assessments of NAFTA by the CEC and the Parties; and greater policy coherence both at the domestic and regional levels in North America.

The results of this work, including the CEC’s biennial symposia on trade and



environment, are intended to help the Parties make better policy choices concerning trade and environment issues, and will help the CEC direct future work toward the concerns that most require attention. As such, this project directly promotes policies and actions that provide mutual benefits for trade,

the environment and the economy

## Background

The CEC's activities thus far have fostered greater understanding of the environmental effects of the NAFTA and of trade and economic development. Its impact has been to the support and influence assessment work undertaken by governments and international organizations.

The symposia and work on assessment data will build on previous symposia and the environmental assessment framework developed by the CEC over the past ten years. The experience and work of outside experts will be accessed through their participation in the symposia and by engaging them as authors of symposia papers.

Article 10 (6) of the NAAEC notes that the Council shall promote and facilitate cooperation between the Parties with respect to environmental matters. Sharing of methodologies and practices for environmental assessment among the Parties responds to this mandate and enables the

Parties to build on each other's work.

The CEC has always conducted its work in this area in an inclusive and transparent manner by engaging a broad and balanced spectrum of civil society stakeholders, mainly through the symposia. Stakeholder groups have continually called for improved communication between trade and environment officials in the context of the CEC's work. Greater involvement by the Parties (particularly the 10(6) working group) in shaping the symposia, responds to stakeholders' calls for collaborative work that addresses current trade and environment issues. In addition, the symposia seek to involve stakeholders directly in the work of the CEC; the symposia are attended by stakeholders from all three countries, and the authors presenting at the symposium often represent a number of stakeholder groups from the three countries.

## Approach

As in past, sectoral theme analyses will be the subject of biennial North American Symposia on "Understanding the Linkages between Trade and Environment". Each symposium involves selecting one or more themes, creating an Advisory Group to develop Terms of Reference for papers, placing a call for papers from experts, and having the Advisory group select the best of those received for presentation at the symposium.

Based on the results of previous CEC symposia, and according to the environmental priorities set by the Council, future work will be oriented to analyzing the commercial flows of goods and services having the most significant impacts on the environment and on biodiversity. Research will be directed to projects promoting information exchange, evaluation methodologies and identification of better environmental practices, in

selected sectors, in order to contribute to sustainable development in North America. The project also will explore how work in other CEC programs can inform work on environmental assessment of NAFTA.

For component B, the 10(6) working group will develop a methodology to carry out the activities.

The CEC will carry out the project in collaboration with the Parties, OECD, UNEP, UNCTAD, WTO/CTE, North American universities, and various NGOs. The work will draw upon lessons learned from both the *ex post* and *ex ante* environmental assessments of trade liberalization and changes in trade flows associated with NAFTA.

## Communications

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Communications on this project in 2005 will focus on preparing for the third North American symposium on assessing the environmental impacts of trade to be held in Montreal 30 Nov – 1 Dec. 2005. Topics and papers for presentation are now being publicized *via* mailed invitations, and by

promotional materials and information (print and web site). Proceedings of the symposium will be published as soon as possible in 2006. Primary audiences for such materials include policy makers, academics and NGOs.

## Information Management

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For Component A, the information concerning the symposia will be distributed in printed version and published on the CEC web site. For Component B, information exchange on environmental reviews of NAFTA

will occur between the Parties. No specific information technologies will be needed.

## Involvement

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The Council will oversee implementation of this project with the advice of the 10(6) staff level working group. The Secretariat will facilitate implementation by, among other things, organizing the symposia and ensuring that the proceedings are translated, published, and widely distributed.

The Council and the 10(6) Working Group, along with the Secretariat, will continue to consult with the JPAC on an ongoing basis throughout implementation of this project, and continue to involve citizens and civil

society organizations (including at the community level) in the three countries.

Governments, the public, NGOs and academia are also involved in the CEC's NAFTA assessment work through biennial symposia held by the Secretariat. The Parties, in particular the 10(6) Working Group, has and will continue to involve citizens and civil society organizations (including at the community level) in the three countries.

## Considerations

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This project is mandated by the NAAEC.

## Task Descriptions

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*See table below.*

| Tasks                                                                                                       | 2005                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Timing   | Cost<br>C\$      | 2006                                                                                                                           | Timing | Cost<br>C\$ | 2007                                                                                                                          | Timing  | Cost<br>C\$ | Total<br>3-Year                        |
|-------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|------------------|--------------------------------------------------------------------------------------------------------------------------------|--------|-------------|-------------------------------------------------------------------------------------------------------------------------------|---------|-------------|----------------------------------------|
| <b>Component A: Environmental Assessment of NAFTA</b>                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |          |                  |                                                                                                                                |        |             |                                                                                                                               |         |             |                                        |
| 1. Organise and conduct high-level North American Symposia on Assessing the Environmental Impacts of Trade. | Publish proceedings from the <i>Second</i> (2003) Symposium                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Apr-Sept | \$15,000         | Publish and distribute the proceedings of the 2005 symposium                                                                   | Spring | \$20,000    | Prepare for the Fourth Symposium by selecting sector/theme advisers, drafting terms of reference and issuing call for papers. | Jan-dec | [\$150,000] | <b>\$208,000</b><br><b>[\$358,000]</b> |
|                                                                                                             | For the <i>Third</i> (2005) public Symposium on trade and investment and decoupling economic growth from environmental impacts: invite upon keynote speaker(s); finalize contracts with accepted authors and organize travel; seek partners with the Canadian government for a venue and dates; and promote and host the Symposium<br><br><b>Outputs:</b><br>Improved understanding of the linkages between international trade and environment.<br><br>Preparations and hosting of the Third Symposium.<br><br>Direct participation of the North American governmental, environmental, academic, and NGO communities in | Jan-Nov  | <b>\$173,000</b> | <b>Outputs:</b><br>Proceedings for the Third Symposium published.<br><br>Transparency and effective dissemination of findings. | Summer | \$0         | Begin utilizing data identified and developing strategies to fill any information gaps identified in 2006                     |         |             |                                        |

| Tasks                                                                          | 2005                                                                                                         | Timing | Cost<br>C\$ | 2006                                                                                                                                                                                                                                                                                                    | Timing  | Cost<br>C\$ | 2007                                                                                                                                                       | Timing  | Cost<br>C\$ | Total<br>3-Year |
|--------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|--------|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------------|-----------------|
|                                                                                | sharing practices and conducting analyses to foster better understanding of trade and environmental linkages |        |             |                                                                                                                                                                                                                                                                                                         |         |             |                                                                                                                                                            |         |             |                 |
| 1. Conduct monitoring, identify emerging trends and conduct sectoral analyses. | NA                                                                                                           | NA     | 0           | Building on the third Symposium, the 10 (6) working group and the Secretariat, with input from JPAC, select sectors and/or themes for analysis for the Fourth (2009) symposium<br><br><b>Outputs:</b><br><br>Themes and sectors selected for the Fourth Symposium.                                      | Ongoing | \$25,000    | NA                                                                                                                                                         | NA      | NA          | <b>\$25,000</b> |
| 2. Explore mechanisms to assess the environmental effects of NAFTA.            | NA                                                                                                           | NA     | \$0         | This may involve analyzing data available through other CEC programs to identify data links, gaps, and future needs related to the environmental assessment of NAFTA<br><br><b>Outputs:</b><br><br>Improved CEC assessment framework based on lessons learned from and by the Parties, past experience, | Ongoing | \$55,000    | Review CEC framework to integrate better information and approaches into sectoral analysis<br><br><b>Outputs:</b><br><br>Improved CEC assessment framework | Ongoing | \$0         | <b>\$55,000</b> |

| Tasks                                                                                                                                                                           | 2005                                                                                                                                                                                                                                                                                                                                                  | Timing  | Cost<br>C\$      | 2006                                                                                                                                                                                                                                                                             | Timing  | Cost<br>C\$      | 2007                                                                                                                                                                                                                                                                             | Timing  | Cost<br>C\$      | Total<br>3-Year      |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|------------------|----------------------|
|                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                       |         |                  | and CEC collaborators.                                                                                                                                                                                                                                                           |         |                  |                                                                                                                                                                                                                                                                                  |         |                  |                      |
| 4. Build partnerships with other organizations.                                                                                                                                 | Continue to build synergies and share information with other international organizations with a view to further developing the CEC framework for assessing the environmental impacts of trade.<br><br><b>Outputs:</b><br>Continued synergies with other groups and organizations to avoid duplication of efforts and improve our collective knowledge | Jan-Dec | \$0              | Continue to build synergies and share information<br><br><b>Outputs</b><br>Increased ability to build on each other's work and improve our methodologies                                                                                                                         | Jan-Dec | \$20,000         | Continue to build synergies and share information<br><br><b>Outputs</b><br>Increased ability to build on each other's work and improve our methodologies                                                                                                                         | Jan-Dec | [\$0]            | <b>\$20,000</b>      |
| <b>Component B: Support information sharing between Canada and the United States and with Mexico on methodologies for conducting environmental reviews of trade agreements.</b> |                                                                                                                                                                                                                                                                                                                                                       |         |                  |                                                                                                                                                                                                                                                                                  |         |                  |                                                                                                                                                                                                                                                                                  |         |                  |                      |
| 1. Share experiences between Canada and USA and with Mexico as appropriate.                                                                                                     | Canada and USA share their experiences on domestic approaches to environmental reviews/assessments of trade and/or trade agreements with each other and with Mexico as appropriate.<br><br><b>Outputs:</b><br>Informal exchanges help inform domestic                                                                                                 | Jan-Dec | \$0<br>(parties) | Canada and US continue to share with each other and with Mexico as appropriate.<br><br><b>Outputs:</b><br>Informal exchanges help inform domestic reviews underway in the U.S. and Canada, and work underway internationally in other fora. These exchanges also help inform the | Jan-Dec | \$0<br>(parties) | Canada and US continue to share with each other and with Mexico as appropriate.<br><br><b>Outputs:</b><br>Informal exchanges help inform domestic reviews underway in the U.S. and Canada, and work underway internationally in other fora. These exchanges also help inform the | Jan-Dec | \$0<br>(parties) | <b>\$0 (parties)</b> |

| Tasks                                                                                                                | 2005                                                                                                                                                                                                                                                                                                                                                       | Timing  | Cost<br>C\$                          | 2006                                                                                                                                                                                                                                                                                                                                                                   | Timing  | Cost<br>C\$                         | 2007                                                                                                                                                                                                                                                                             | Timing  | Cost<br>C\$                            | Total<br>3-Year                            |
|----------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|--------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|----------------------------------------|--------------------------------------------|
|                                                                                                                      | reviews underway in the U.S. and Canada, and work underway internationally in other fora. These exchanges also help inform the CEC's ongoing environmental assessment work.                                                                                                                                                                                |         |                                      | CEC's ongoing environmental assessment work.                                                                                                                                                                                                                                                                                                                           |         |                                     | CEC's ongoing environmental assessment work.                                                                                                                                                                                                                                     |         |                                        |                                            |
| 2. Parties develop a viable approach to share information with and from the Secretariat on environmental assessment. | Hold discussions on best ways to achieve this task. Discussion items might include: economic analysis; environmental assessment training methods; and public participation.<br><br><b>Outputs:</b><br>Improved environmental assessments of NAFTA by the CEC and the Parties.<br><br>Better informed trade and environmental policies in the three Parties | Jan-Dec | \$0                                  | Continue to share information among the NAAEC Parties and with other international organizations re: Canada and US' efforts to conduct and use the results of environmental assessments<br><br><b>Outputs:</b><br>Improved environmental assessments of NAFTA by the CEC and the Parties.<br><br>Better informed trade and environmental policies in the three Parties | Jan-Dec | \$0                                 | Continue to share information among the NAAEC Parties and with other international organizations.<br><br><b>Outputs:</b><br>Improved environmental assessments of NAFTA by the CEC and the Parties.<br><br>Better informed trade and environmental policies in the three Parties | Jan-Dec | \$0                                    | \$0                                        |
|                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                            |         | <b>Total<br/>2005:<br/>\$188,000</b> |                                                                                                                                                                                                                                                                                                                                                                        |         | <b>Total<br/>2006:<br/>\$95,000</b> |                                                                                                                                                                                                                                                                                  |         | <b>Total<br/>2007:<br/>[\$150,000]</b> | <b>Total<br/>\$283,000<br/>[\$433,000]</b> |