

# Conference on Canadian Wetlands Stewardship

*Setting a Course, Together!*

Interim Report  
Synthesis of What You Said

**Report No. 03-1**



*North American Wetlands Conservation Council (Canada)*

Printed 2003  
© Ottawa, Ontario

ISBN: 0-662-34288-7  
Cat. No. CW69-18/1-2003E-IN

Published in partnership with:

- Canadian Wildlife Service, Environment Canada
- Federal Wetlands Forum

Copies of this report are available from the:

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Également disponible en français sous le titre *Conférence sur l'intendance des terres humides du Canada. Traçons le chemin, ensemble. Rapport d'étape : synthèse de ce que vous avez dit.*

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**Conference on Canadian  
Wetlands Stewardship**  
*Setting a Course, Together!*

**Interim Report**  
**Synthesis of What You Said**

**February 3-5, 2003**  
**Ottawa, Ontario**

**Compiled by Liza Campbell  
and Clayton D.A. Rubec**

**Report No. 03-1**  
**North American Wetlands Conservation Council (Canada)**

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## **PREFACE**

Hosted by the North American Wetlands Conservation Council (Canada) and the Federal Wetlands Forum, the Conference on Canadian Wetlands Stewardship was held in Ottawa, February 3-5, 2003. Designed to set new directions for Canadian wetland policy and management for the next 10 years, the event went well beyond its original objectives – a reflection of the passion and dedication of the diverse range of participants with a common interest in wetlands.

It was exciting to see participants enthusiastically outline not only innovative recommendations pertaining to policies, but identifying the tools needed to support and facilitate the policy framework and implementation needs for stewardship of our nation's wetlands. They also sought to identify roles for their particular organization in the "next steps" for a post-conference process, demonstrating their commitment.

We were all reminded of the need to continually broaden the wetland community through communications and education programs (one of our six themes) so that an understanding of the critical economic, ecological and social value of wetlands is integrated into the decision-making process across all sectors and incorporated into our national accounting system.

With a number of major challenges ahead, I believe we now have the building blocks of a decade of change in how we approach, study, manage and document Canada's wetlands. The recommendations outlined in this record of the conference discussions are just the beginning. The next step is to analyze and synthesize the recommendations, creating a "Conference Report: Implementation Strategy" that will be carried out by the individuals and organizations who participated in the conference and potentially, all Canadians.

I assure you that as Chair of the Conference Organizing Committee, and Executive Secretary of the North American Wetlands Conservation Council (Canada), I am committed to working with you to implement the final Conference Report: Implementation Strategy.

Kenneth W. Cox  
Chair, Conference Organizing Committee and  
Executive Secretary,  
North American Wetlands Conservation Council (Canada)

## **ACKNOWLEDGEMENTS**

The Organizing Committee of the Conference on Canadian Wetlands Stewardship, would like to express their sincere thanks to the North American Wetlands Conservation Council (Canada) and the Federal Wetlands Forum for their vision in organizing this conference. It was a great success and a significant “first step” on an exciting road towards making our vision for Canada’s wetlands a reality.

### **Speakers**

We also thank our excellent guest speakers, Mr. Yves Crevier, Canadian Space Agency; Mr. Alan Tonks, Parliamentary Secretary to the Minister of the Environment; Dr. Brian Gray, Ducks Unlimited Canada; Mme. Johanne Gélinas, Commissioner of the Environment and Sustainable Development; Mr. Harvey Mead, Chair, National Round Table on the Environment and the Economy; and, panelists Mr. Mark Spafford, Alberta-Pacific Forest Industries Inc.; Mr. Jean Cinq-Mars, Wildlife Habitat Canada; and, Mr. Greg Sinclair, Iron Ore Company of Canada who gave us an insight into some of the issues and challenges we face in managing our wetlands, and the enormous opportunities that lie ahead.

The hard work of our facilitators, rapporteurs, authors and participants resulted in the list of excellent recommendations that follow and we are all grateful for their efforts.

### **Sponsors and Exhibitors**

We thank our many sponsors and exhibitors for their generous contributions and help in making this event possible.

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## 1. WHERE DO WE GO FROM HERE?

With the national conference now behind us, we have before us the exciting challenge of synthesizing and analyzing the recommendations and, turning them into an action plan, to be called a “Conference Report: Implementation Strategy.”

However, we know that many of our participants would like to have a record of not only the recommendations stemming from their working group, but also from the other sessions. Therefore, we are pleased to present this *Interim Report: Synthesis of What You Said* for your review and comment. We are hoping that you will take the time to read this over and let us know if there are gaps, points of clarification or points you would like included in the final Implementation Strategy. This will be written over the next few months, once your comments are received.

We believe that the Implementation Strategy should be a product of discussions among a number of key organizations and this process, as any, requires resources. For these reasons, options regarding the next steps, the type of mechanism(s) necessary to implement the recommendations and the resources needed, will be discussed at the upcoming meetings of the North American Wetlands Conservation Council (Canada) and the Federal Wetlands Forum.

This report contains a draft record of the input provided by conference participants from the workshop discussions, and as such, includes a synthesis of issues, barriers, vision, opportunities and recommendations. An implementation strategy will be outlined in a second conference document now being drafted.

## **2. SETTING THE STAGE FOR A CANADIAN WETLAND STRATEGY**

The following highlights a number of wetland-related facts, issues, trends and opportunities. *(This section will be significantly expanded in the Conference Report: Implementation Strategy).*

### **2.1 State of Canada's Wetlands**

- There is a continuing decline in wetland quantity and quality in Canada and around the world;
- Canada has more than 1.5 million square kilometres of wetlands or about 16% of Canada's total land area distributed among 15 terrestrial ecozones.

### **2.2 Driving Issues**

- While there has been considerable progress through a number of recent initiatives, Canada, for a host of reasons (e.g. from constitutional barriers, institutional barriers, lack of education and awareness, lack of leadership and political will, to absence of integrated decision-making processes), has not yet been able to develop appropriate policies, mechanisms and tools to deal with ecosystem-based issues such as the conservation and protection of wetlands through an integrated landscape management approach.
- Stressors on wetlands are diverse, direct, indirect, cumulative, short-term and long-term, making it difficult to "take stock" of this resource, measure its health and monitor changes.
- The mix of stressors and influences on wetlands and watersheds is complex and includes: urbanization patterns; agriculture expansion and practices; climate change; population growth; global trade rules, institutions and politics; culture; recreation; industry; socio-economic patterns; and fiscal regimes (i.e. structure of the domestic financial markets and influence of the international markets).

### **2.3 Opportunities Within and Across Themes**

The categories outlined below are consistent with the themes that emerged within each of the six working groups. The following is a very brief synthesis of the opportunities identified in the discussions.

- **Integration:** Foster the design and implementation of an integrated landscape management approach supported by appropriate policies, incentives, partnerships, programs, new or adapted institutions and decision-making structures; and based on accessible science, data and information. Specifically, develop, standardize and implement Integrated Watershed

Management Plans. Promote Best Management Practices across sectors. Weave education and awareness initiatives throughout each of these components, building on successes and targeting specific audiences.

- **Policy Framework:** Examine and alter as necessary, current federal, provincial and territorial policies to ensure consistency and complementarity. Include a diverse array of incentives that are audience-specific. Build on initiatives such as the Agriculture Policy Framework (APF), the National Round Table on the Environment and the Economy's (NRTEE) work on Ecological Fiscal Reform and its Task Force on Natural Capital, and the *Species At Risk Act*. Ensure that the international context and drivers are taken into consideration across all categories.
- **Governance and Institutions:** Create and adapt mechanisms that foster integration both within and across sectors to facilitate wetland conservation and protection. Identify a lead agency to coordinate and facilitate wetland-related mechanisms, and policy and program initiatives (e.g. standardized Integrated Watershed Management plans).
- **Science and Information:** Through a combination of technology, partnerships and increased capacity, enhance scientific research and information-gathering, and make it more accessible to decision-makers at all levels.
- **Tools:** Maximize today's technology and apply it throughout all aspects of wetland conservation and protection, e.g. watershed and wetland mapping; variable manipulation (impact of stressors within a watershed); projections; standardization of data sets; interactive CDs for educational purposes; and mass media.
- **Resources:** Identify creative funding sources (e.g. establish a National Wetland Fund); explore more leveraging opportunities; incentive programs; and a wetland branding initiative to support all of the components integral to wetland conservation and protection.
- **Education and Awareness:** Build on current successful initiatives, science and knowledge to facilitate a broader understanding of the ecological and socio-economic functions and values of wetlands (including the economic, ecological, human health and other associated costs for not protecting and conserving wetlands). Create and implement a National Wetlands Communications Strategy that has audience-specific components and tools, e.g. industry; governments; international community (World Trade Organization, Commission on Environmental Cooperation); schools; universities; and the general public.

### **3. SYNTHESIS OF PARTICIPANTS' INPUT REGARDING KEY ISSUES, VISION, BARRIERS, OPPORTUNITIES AND RECOMMENDATIONS FROM THE WORKING GROUPS**

Please find as follows, a synthesis of participants' input corresponding with the questions posed to each of the six facilitated working groups on their particular theme. The information presented below has been drawn from the workbooks, flip charts and "report-back" to the conference plenary.

An initial set of draft recommendations was offered to each working group as a starting point for discussions. They were taken from the Conference Background Papers, Issues Papers and other sources. That original set was added to, deleted and altered by the respective working groups at the conference itself.

The following are general questions that all working groups were asked to address. To simplify the compilation process, some have been grouped together in the following record of "what was said." Please note that under each question, the participants' input has been organized under the themes of *Integration, Policy Framework, Governance and Institutions, Science and Information, Tools, Resources and Education* as these were the dominant issue areas that emerged. The absence of some of these themes indicates a lack of input on that particular issue.

1. What are the current driving issues under your theme?
2. With respect to your theme, what is your vision of where we should be in 2013?
3. What are the barriers and opportunities towards achieving this vision?
4. What do we need to do to overcome the barriers and take advantage of the opportunities in order to achieve our vision (keeping in mind our broader vision of wetlands)?
5. What are your recommendations?
6. What are your top three recommendations (or less)?
7. How best can we move forward on them?

#### **3.1 WETLANDS IN WORKING LANDSCAPES: AN INTEGRATED APPROACH**

##### **Question # 1. What are the current driving issues under your theme?**

##### **State of Canada's Wetlands**

- The rapid decrease in the quantity and quality of wetlands is having a negative impact across Canada's ecosystems, impacting water quality, habitat and wildlife.

- There is a greater awareness of the correlation between water quality, wetlands and human health creating a greater interest and awareness of wetlands and the role they play from an ecological, social and economic perspective.
- The impact of multiple uses and stressors on water and wetlands (e.g. increased recreational use, seepage of chemicals and nutrients into watersheds, farming of marginal lands, landscape fragmentation, policies and climate change) is becoming better understood, but we still have a long way to go. The externalities need to be internalized.
- The decline in wetland quantity and quality is due, in part, to the absence of effective water pricing tools to address competing uses.
- Population growth and the concentration of this population in urban centres is having a negative impact on wetland ecosystems.
- The difficulty of not being able to differentiate between symptoms versus causes of wetland loss impedes the design and application of effective management approaches; we therefore need to start with a list of causes of the decrease in quality and quantity of wetlands.

### **Integration**

- There is a lack of strategic priority setting for wetland conservation in working landscapes at the development stage (e.g. integrated into economic strategies) and at a watershed scale. Associated with this is the prevalence of a short-term perspective that dominates decision-making and unfair distribution of the costs of wetland preservation.

### **Policy Framework**

- The policy framework needs to be altered and is based on a standardized, but flexible, national approach so that it supports wetland protection and conservation through a range of government policies, legislation and regulations (e.g. Income tax incentives to cover over wetlands versus the *Drainage Act* and rebate program and revised incentive programs). This would include the creation of a national standard for tax incentives. The resultant tools must be flexible.
- Positive driving issues currently provide opportunities for overcoming some of the barriers we currently face (e.g. Agriculture Policy Framework; educational opportunities from recreational use; and increased enforcement of federal *Fisheries Act*).
- The costs of long-term wetland maintenance need to be built into today's programs and priorities.
- The international context must be taken into consideration (e.g. falling commodity prices drive farming of marginal lands).

### **Governance and Institutions**

- Canada lacks an overall national strategy and consistent wetland policy for wetland use and protection that is based on landscape management.

### **Science and Information**

- Canada lacks a comprehensive wetland inventory, one that includes “authoritative” information on type, size and function of wetlands including an economic cost/benefit analysis associated with their alteration and loss.

### **Resources**

- There is a lack of coordination between the number of groups and funding agencies, stakeholders, governments, associations, NGOs, etc. dealing with wetlands and funding their conservation and protection.

### **Education and Awareness**

- There is a continuing ignorance of the value, role and status of wetlands in the environment (watersheds and hydrology), society and the economy. Complicating this are new issues such as the West Nile virus and confusion over the role of wetlands in perpetuating its spread.
- Wetlands have not yet been identified in terms of “stewardship,” nor linked together with that concept.
- Many landowners do not place a high value on wildlife or wetlands (e.g. the forestry industry perceives wetlands as a constraint and cost within their planning framework).

### **Question #2. With respect to your theme, what is your vision of where we should be in 2013?**

#### **State of Canada’s Wetlands**

- The decline in loss of wetland quantity and quality has been reversed and the total healthy, functioning wetland area is higher than 2003 through programs that ensure that a logical and economically viable choice for any landowner is wetland preservation, restoration and maintenance.
- Restoration and reclamation of wetlands by 5% by 2013.

## **Integration**

- Canada has a wetland strategy and tactics that are both vertical and horizontal involving all levels of government, business and industry. This strategy is based on a whole-landscape approach, designed and managed to maintain and enhance ecological, sociological and economic benefits. It embraces Best Management Practices and incorporates restoration efforts that reflect local needs and conditions. The strategy is supported by a strengthened capacity in terms of Canadians having the knowledge, skills and appropriate tools to implement it.
- Society as a whole bears the cost of wetland conservation and understands the benefits of efforts.

## **Policy Framework**

- Canada has a comprehensive national Wetlands Act with provincial and territorial equivalents, complemented by, and in addition to, the use of other tools (e.g. incentives to conserve wetlands). These should be facilitating in nature for voluntary stewardship versus generating more punitive regulatory regimes. A federal Act should address and consolidate federal roles and responsibilities.

## **Science and Information**

- Canada has a comprehensive national inventory of wetlands that includes information on wetland structure, function and trends.

## **Tools**

- Wetlands are seen as an example of a “best management practice.”

## **Education and Awareness**

- More than 51% of the general public, industry, resource sectors and decision-makers are highly conversant as to the ecological, social and economic value and public benefit of wetlands.
- Education and awareness programs are incorporated into junior and high school curricula.

## **Questions #3 and #4. What are the barriers and opportunities towards achieving this vision and how do we overcome them?**

### **Integration**

- The broad application of ecoregional planning tools is needed, where all stakeholders are engaged early in the decision-making and implementation process. They are also supported by a single portal approach for landowners (land managers) to access information and/or funding.
- There is an opportunity to link together the Canadian wetland conservation agenda and Canada's Stewardship Agenda.
- People make the link between water quality and watersheds (e.g. Ducks Unlimited Canada, Environmental Farm Plans and the agricultural community).

### **Policy Framework**

- The Agriculture Policy Framework and other sustainable resource policy strategies provide great opportunities for producers and landowners to become environmental stewards, using these as collaboration vehicles that are results-oriented and driven.
- Since Canada's Constitution clearly defines federal and provincial authorities and could be a barrier to any comprehensive national wetland legislation as in the United States, provinces and territories should be encouraged to establish their own wetland legislation.
- The current environment is conducive to promoting ideas for "branding" across sectors (e.g. certification is a "branding" process) that may help engage landowners who are not receptive to other forms of incentives.
- Redirect perverse subsidies to "enlightened incentives."
- Promote the use of clearly articulated best management practices for landowners and wetland resource users (e.g. industry) through incentive programs. Include tax incentives for marginal farmlands and wetlands.
- Design and implement a wetland trading regime, including definition of "wetland currency" as a "tradable unit" for wetland functions.

### **Governance and Institutions**

- Canada lacks a comprehensive governance structure or lead agency to coordinate and facilitate national strategic priorities and integrated resource management through roundtable discussions involving all stakeholders. The federal government should, therefore, identify one agency or department to address this gap. One option is to expand the Federal Wetlands Forum to facilitate national policy discussions and further the wetland vision.



- A second option is to recharge the mandate and resources allocated to the North American Wetlands Conservation Council (Canada) to pursue its original (1991) mandate for promoting broad national and international wetland policy, science and management objectives by Canadians.

### **Tools**

- Take cross-sectoral jurisdictional experience and expertise in wetlands and build on past successes.
- There is no baseline inventory from which to measure change to wetland functions and values.

### **Resources**

- Lack of financial resources is a key barrier. Federal government funding is needed to support applied wetland research (verifying science and economics supporting wetland conservation).
- Establish a “unified wetland front” where people could access funding through a single portal. Through this mechanism, resources could be available for a broad range of wetland-related initiatives such as Environmental Farm Plans.

### **Education and Awareness**

- Take advantage of policy reviews, recent issues (e.g. water exports) and current public awareness of water quality issues and underscore the key role wetlands have from an economic, social and ecological standpoint. Use this, through a variety of means (e.g. school curricula, to educate and motivate Canadians in both urban and rural settings, as they have a different appreciation of the value of wetlands).

### **Questions #5, #6 and #7. What are your recommendations and how best can we move forward on them?**

#### **Integration**

- Use ecoregional and watershed planning to implement wetland conservation programs in a coordinated manner among jurisdictions.

#### **Policy Framework**

- Develop incentives, subsidies and licensing to encourage adoption of Best Management Practices.
- Establish a market for tradable “units” of wetland function and use a think tank “blue-ribbon panel” to examine comparable carbon trading and forest

industry initiatives as examples. For this to happen, the following must first be in place over the next 10 years (mature state):

- Complete the inventory of wetlands and knowledge of wetland functions with a unit of jurisdiction on a watershed basis;
  - Increase public awareness based on social, ecological and economic value propositions and support for wetlands;
  - Assess the wetland status within watersheds and relative to inventory;
  - Identify land uses and sectors affecting wetland functions to establish a “trading position”;
  - Create a public registry of trading positions to be updated frequently with the inventory;
  - Establish a brokerage to facilitate restoration efforts;
  - Develop a macro evaluation and certification process; and
  - Assign a monetary value for privately owned wetlands (as with carbon) so that landowners can sell wetland units to industry to offset wetland losses from that industry.
- Under the auspices of a lead agency, conduct a review and analysis of existing subsidies and incentives and their interactions.
  - Identify strengths, weaknesses of existing programs and opportunities for improvement.

### **Governance and Institutions**

- Identify or create a lead federal agency to coordinate and ensure maintenance of a (wetland) stewardship information initiative including a web portal in partnership with provincial agencies, that builds on existing programs (e.g. Stewardship Canada web portal, WetKit) and include funding programs, tax incentives, etc.
- Establish one accountable federal agency using the existing infrastructure and processes where possible to be responsible for “federal” wetland legislation, regulation, policy, science formulation, monitoring, evaluation and stewardship programs. This agency would facilitate, through inclusive consensus-building exercises, complementary action at the provincial and territorial level.
- Establish links with Canada’s Stewardship Agenda, the National Forest Strategy, Agriculture Policy Framework and other related initiatives.
- Strike a Task Force of experts to evaluate market development (e.g. a wetland market for tradable wetland units in a pilot province).

### **Science and Information**

- Identify a federal department (specifically, Environment Canada) to lead scientific research on wetland conservation and establish a knowledge database for existing wetland research from published and grey literature by 2005.

## Tools

- Develop clearly articulated Best Management Practices for landowners and other wetland resource users complemented by incentive programs to encourage their use through adaptive management processes. Distribute and communicate approved Best Management Practices through provincial organizations and industry and other sectoral user groups.
- Complete a review of Best Management Practices through a central interjurisdictional/interdisciplinary body (round table) and select most relevant and effective Best Management Practices related to wetlands and associated upland habitat from the review for specific sectors and formulate a coordinated document.
- Provide access to all stewardship programs and information as one-stop shopping and have a “searchable” web site.

## Resources

- Increase federal government funding (and leveraging) to support applied wetland research that supports science and economics of wetland conservation and have other federal funding initiatives dedicate a portion of their funds (e.g. from federal infrastructure money to wetlands).
- Establish a Wetland Research Fund of \$100M over five years in partnership with government and non-government sectors and institutions, with a minimum of 25% to socio-economic research.

## 3.2 WETLANDS, CLEAN WATER AND HEALTHY WATERSHEDS

### Question #1. What are the current driving issues under your theme?

#### State of Canada’s Wetlands

- Intensification of development (agriculture, urban, forestry) across the landscape is affecting water quality, water supply and causing a loss of habitat.
- Climate change over the last 10 years has already impacted wetlands and will continue to do so over the next 10 years.
- Water systems are used for dumping sewage and waste (including industrial and agricultural).

#### Integration

- There is a paradigm shift away from quick, end-of-pipe fixes to a more integrated, holistic approach.

- There is no national watershed management plan with a lead agency contributing to the decline in wetland quality and quantity.

### **Policy Framework**

- Water privatization.
- Pressure from the United States to acquire Canada's water through exports.
- Increased public concern and pressure to change policies and adopt and implement legislation to address water quality issues.

### **Governance and Institutions**

- The institutional and interjurisdictional frameworks, and associated planning processes work against Integrated Watershed Management and the maintenance of wetlands and other watershed features.

### **Science and Information**

- Need for inventory and monitoring; application of wise use principles and management; public reporting of science and information; ecosystem-based research addressing integrated watershed management.
- Stressors include land conversion, urban development and drought.
- Product demand and harvesting technology are current driving issues for the peat horticulture industry.

### **Education and Awareness**

- There is poor communication of good practices for communities to plan local wetland management.
- There is an increasing understanding and desire supporting quality of life, green space and biodiversity protection.

### **Question # 2. With respect to your theme, what is your vision of where we should be in 2013?**

#### **State of Canada's Wetlands**

- An increase in quantity and quality of wetlands where their ecological functions have been maintained within healthy, functioning watersheds.

#### **Integration**

- Through a consensus process, Canada has developed, implemented and legislated Integrated Watershed Management Plans (including appropriate tools) supported and used across Canada as the standard for resource management with all levels of government (and other stakeholders as true

partners), through a federal lead agency. Build on existing models (e.g. Fraser Valley Council, Northern Saskatchewan).

### **Policy Framework**

- The value of wetland ecosystem services is built into policies and the decision-making framework.
- There are nationally consistent guidelines and a consistent approach to setting new guidelines.

### **Governance and Institutions**

- The organizational structure of government has been changed to enhance cooperation between agencies, with integrated watershed management plans implemented across the country.
- The number of politicians with a commitment to conservation and protection, and who are willing to commit funds has increased.
- Have more public involvement and a National Wetland Monitoring Program with protocols.

### **Tools**

- Environmental assessments are used to collect needed baseline data on point and non-point sources and this is stored in an accessible warehouse on-line registry warehouse.
- There is an inventory of wetlands from a quantity and quality perspective.
- A value has been placed on ecosystem services.

### **Resources**

- There are sufficient resources to support Integrated Watershed Management plans.

### **Education and Awareness**

- There is strong public support for Integrated Watershed Management.

### **Questions #3 and #4. What are the barriers and opportunities towards achieving this vision?**

#### **Integration**

- There is an opportunity, through consensus-building processes, to integrate the work of various government departments to achieve common wetland-related goals, such as promotion of Integrated Watershed Management.

- There are good recreational and economic opportunities to engage a public discussion reaching common agreement on what “healthy watersheds, healthy wetlands” mean.

### **Policy Framework**

- Alter and clarify policies (including economic development policies) and legislation to eliminate conflicts in terms of sustainable development and wetland goals. Build in national standards for wetland conservation.
- Create incentives to encourage the establishment of pilot and demonstration projects and garner public support and involvement.
- Use Agreements and Protocols (e.g. Grand River Protocol) that could be signed by partners prior to the development of legislation to build support and move the agenda forward.
- Need to overcome interjurisdictional conflicts and friction by clearly defining and agreeing to roles and responsibilities.
- Build on successes such as the North American Waterfowl Management Plan.

### **Governance and Institutions**

- Explore domestic and transboundary opportunities with groups such as the International Joint Commission, Commission on Environmental Cooperation and Canadian Council of Ministers of the Environment.
- Build stronger communication linkages between the political and senior policy levels so that political decisions are based on the best information available, building on lessons learned through pilots, demonstrations, case studies, experience and scientific information.

### **Science and Information**

- Canada needs coordinated research, ecosystem data and a mechanism (meta data system) through which this information and methodologies can be shared on a continental basis. This knowledge and data could then be used as the basis for indicators and ecological and economic valuation.
- There is a need for a clear definition of a “healthy, functioning watershed”; is it defined by human needs or natural laws? This definition will shape the tools, policies and management practices in watersheds.

### **Tools**

- Encourage, through incentives, new pilot projects and demonstration projects to showcase the importance between society’s values and wetland values (e.g. clean water).

- Develop a consistent and standardized approach to the identification, classification and monitoring of wetlands including the means to measure the net loss of wetlands.
- Address the effectiveness (and lack of) competing economic models through wetland valuation models.

### **Resources**

- There are limited resources for all aspects of wetland conservation and protection, exacerbated by a loss of expertise through attrition. However, an opportunity exists to create mechanisms to enable funding through innovative partnerships under an integrated planning and management approach.

### **Education and Awareness**

- Need to increase awareness and understanding of the social, economic and ecological benefits of wetlands through an outreach strategy.
- Establish landowner contact programs that are grassroots (e.g. Cows and Fish; “Train the Trainer”; Environmental Farm Plans; cottage associations; etc.).
- Need to identify economic champions to promote healthy watersheds (e.g. ecotourism operators).

### **Questions #5, #6 and #7. What are your recommendations and how best can we move forward on them?**

#### **State of Canada’s Wetlands**

- Have a gain in area of 10% in healthy, functioning wetlands across the landscape.

#### **Integration**

- To have standardized Integrated Watershed Management Plans developed and implemented across Canada by 2013, through a comprehensive, multi-resource management planning process involving stakeholders who work cooperatively toward identifying the watershed’s resource issues and concerns, and develop and implement a watershed plan with solutions that are environmentally, socially and economically sustainable.

#### **Policy Framework**

- Develop a national policy/legislative framework that supports Integrated Watershed Management, with wetlands as a key component, implemented through incentives and is enforced.

- As part of a larger review of policies across jurisdictions, hold a multi-stakeholder national policy forum, led by the federal government, to contribute to this review and offer recommendations on changes.

### **Governance and Institutions**

- Establish a partnership model to ensure adequate resources to support Integrated Watershed Management planning and implementation.

### **Science and Information**

- Conduct a national forum to determine the ecological and economic information gaps about wetlands and Integrated Watershed Management.
- Inventory, map and classify wetlands and identify a value for that habitat.
- Bridge science and policy communities to ensure that science provides the information required by policy-makers.
- Reach a point where there is sufficient understanding of the watershed through an Integrated Watershed Management plan to know where to allow and to not allow development before a proposal for a development is made.

### **Tools**

- Develop meaningful indicators of wetland quality and quantity with site-specific application and a complementary monitoring program.
- Ensure environmental assessments are integrated into Integrated Watershed Management plans.

### **Education and Awareness**

- Develop a national wetland communications and education strategy focusing on the benefits of wetlands and healthy watersheds that includes major media by working in conjunction with existing groups and partners. Complement this with direct funding to local and regional education programs.

## **3.3 CANADA'S WETLAND INDUSTRY**

### **Question #1. What are the current driving issues under your theme?**

#### **Policy Framework**

- A policy pertaining to the wetland industry needs to be explored.



## **Governance and Institutions**

- The “wetland industry” needs to incorporate principles of “wise use.”
- There is a need for more clarity on where we draw the line in “using” wetlands; reconcile conservation and development.
- The “industry” currently is not cohesive. There is no “one window” into government and no clearly identified federal lead.

## **Tools**

- To better identify and characterize wetland resources that support wetland industries.

## **Education and Awareness**

- The industry needs better communication with the environment sector and the general public. There is recognition that the “wetland industry” exists (trapping, hunting, rice, cranberries and recreation), but little information about its total national economic importance and what proportion can be clearly attributed to wetlands.
- Need to better identify and characterize the industry and its distinguishing characteristics.
- Lack of information and understanding of the wealth generated by taking wetlands out of commission – issue of tradeoffs.
- Need to identify, profile and quantify the economic values of wetlands.

## **Question #2. With respect to your theme, what is your vision of where we should be in 2013?**

### **Integration**

- The global market place recognizes and supports the benefits derived by the Canadian wetland industry and its responsible and sustainable use of Canadian wetland resources.
- Canada is characterized by a viable, growing sustainable wetland industry, one that is clearly defined and abides by the principle of “wise use.”

### **Policy Framework**

- It has not been determined whether or not a policy is needed for the industry. However, further research may reveal a need for a wetland-industry specific policy.

### **Governance and Industry**

- There is a working forum and secretariat governing the wetland industry.

## **Questions #3 and #4. What are the barriers and opportunities towards achieving this vision and how do we overcome them?**

### **Policy Framework**

- Need to define and apply “wise use” through national standards and/or certification.
- Federal stewardship policies, *Species At Risk Act*, Canadian Stewardship Agenda (CSA) and the Agriculture Policy Framework (APF) all present opportunities for industry to get involved.
- Need to explore international experience in the wetland industry and learn from others’ experiences.
- Need to establish a regulatory body that will integrate policies that will ultimately support wetland industries, as interjurisdictional policies currently hinder industries to operate in a successful manner.
- Incentives for small industries need to be created. This will require education of the financial community.

### **Governance and Institutions**

- Need champions within industries and NGOs to define the role of industry. NGO involvement will help that sector better understand the industry and provide the basis for collaboration.
- Interjurisdictional issues such as a lack of municipal involvement and a need for federal and national level cooperation, impede the industry.
- Need a champion to define and lead the creation of an organizational structure (e.g. a council or secretariat with overall responsibility for the wetlands industry – North American Wetlands Conservation Council (Canada), North American Bird Conservation Initiative (NABCI), Biodiversity Stewardship in Resource Industries (BSRI) could create this structure and/or represent the industry. Different wetland industry sectors may require different national governing bodies in order to make them global and more nationally recognized.

### **Science and Information**

- Gaps in scientific research about the natural value of wetlands.

### **Tools**

- Innovation, technology and science are needed to encourage and promote wetland industries.

## **Education and Awareness**

- Lack of information, education and communication (leading to a number of issues including distrust) about the wetland industry, both among industries involved in wetlands and between the wetland industry and the public.

## **Questions #5, #6 and #7. What are your recommendations and how best can we move forward on them?**

### **Integration**

- Foster greater horizontal collaboration across the wetland industry.

### **Policy Framework**

- Establish globally-oriented marketplace support for the Canadian wetland industry.
- Create an industry organized around wise use and sustainability of wetland resources.
- Develop a conservation strategy for the “wise use” and sustainability of Canada’s wetlands. This should be done through the North American Wetlands Conservation Council (Canada). Key agencies to be involved include federal, provincial, territorial government agencies and industry representatives.

### **Governance and Institutions**

- Develop a cross-jurisdictional National Wetlands Secretariat or “national council” with widely-based representation to work with the wetland industry and the wetland community as a whole (academic, industry, service groups, NGOs and governments) with strong regional and sectoral representation as part of the NAWCC (Canada) or another organization).
- Develop a national wetland industry association – structured similar to the NAWCC (Canada).
- A “Canadian Wise Use Wetland Council” could implement the conservation strategy proposed above. The Council Secretariat would have a clearly defined vision, mission, goals and objectives. Industry players would include:
  - Forest product companies
  - Cranberry Growers
  - Farmers
  - Recreation organizations
  - Peat Harvesters
  - Shellfish Harvesters
  - Kelp/Seaweed Harvesters

- Consultants with expertise in wetland restoration and protection
- NGOs could include: Ducks Unlimited Canada (DUC), Wildlife Habitat Canada (WHC), Nature Conservancy of Canada (NCC), Canadian Nature Federation (CNF), etc.

### **Tools**

- Hold a National Trade Fair and Information Forum.
- Adapt the *Wise Use of Mires* guidebook as a model for developing a similar guidebook for Canada's wise use of wetlands.
- Dedicate a cross-cutting look at Technology Partner Activities to develop wetland technologies.

### **Resources**

- Dedicate a funding stream within Technology Partnerships Canada/ Environment to develop wetland technologies: use the proposed Secretariat to develop the proposal.

### **Education and Awareness**

- Create a focal point in a university-based environmental research initiative for quantifying the social and economic values derived from the wetland industry. Through the focal point, promote networking among components of the wetland industry. Ensure this mechanism takes into account national initiatives (e.g. the Agriculture Policy Framework).
- Create partnerships to raise awareness of wetland issues among municipalities.

## **3.4 INNOVATION AND WETLAND TECHNOLOGIES**

### **Question #1. What are the current driving issues under your theme?**

#### **Integration**

- Canada needs more information on the role of wetlands in the larger landscape.

#### **Policy Framework**

- Lack of federal leadership.
- Standardized guidelines for technology needed.

- Across Canada, Ministry of Environment offices may interpret laws differently/inconsistently and definitions of:
  - “Constructed” versus “natural wetland”;
  - Construction versus restoration;
  - Constructed Wetland for treatment versus aesthetics versus wildlife.
- The federal “clean water agenda” may create opportunities for innovation in wetland technology.

### **Governance and Institutions**

- Need for partnerships under a federal lead.
- Need for a “champion” to drive the agenda.

### **Science and Information**

- Much of the technology that is used today is engineering-based, not science-based.
- There is a need for more research on landscape ecology.

### **Tools**

- There are many opportunities for innovation in the context of treatment technologies.

### **Resources**

- Who pays?
  - For implementing new technologies, research?
  - The public?
  - The farmer/industry?

### **Education**

- There is uncertainty over whether or not engineers who deal with treatment wetlands are learning about natural systems, which leads to questions of competency.

### **Question #2. With respect to your theme, what is your vision of where we should be in 2013?**

#### **State of Canada’s Wetlands**

- Cleaner Water, Healthier Canadians (lower health care costs) and Improved Biodiversity.

## **Integration**

- Using innovation and technology, sustain the ecological integrity and viability of wetlands in Canada through environmental, social and economic actions designed to meet the needs of current and future generations.
- Governments, NGOs, institutions, business, industry and individuals contribute to the maintenance of integrity of Canadian wetland ecosystems and habitats.
- Sustain environmental, economic and cultural values in ways that assure the continued health and integrity of Canadian wetland ecosystems and habitats.

## **Policy Framework**

- There are guidelines in place that enable restoration and construction of wetlands.

## **Science and Information**

- We have more information on our wetlands and their functions across the landscape.

## **Tools**

- Technology will result in a positive net impact to watershed function.
- Technology that enables restoration and construction of wetlands is readily available.
- Environmental indicators will be in place.
- Eco-technology use has a net positive impact on watershed function.

## **Education**

- Wetlands are widely accepted as a tool for a variety of water management purposes.
- Restoring wetlands is seen as economic and social development.
- Wetland treatment is widely accepted as a tool in the water treatment toolbox (natural or constructed) for non-point sources.

## **Questions #3 and #4. What are the barriers and opportunities towards achieving this vision and how do we overcome them?**

### **Policy Framework**

- Revise the policy and regulatory framework, create tax incentives and reduce disincentives.
- Connect the proposed Canadian Wetland Strategy with national and federal sustainable development strategies.

## **Governance and Institutions**

- Over the next 10 years, encourage “green thinkers” into the political process.

## **Tools**

- Have innovation and technology contribute to the mitigation, reduction and eventual elimination of current and future threats.

## **Questions #5, #6 and #7. What are your recommendations and how best can we move forward on them?**

### **Integration**

- Attach, connect and integrate the proposed “Canadian Wetland Strategy” to the sustainable development strategies, (National Sustainable Development Strategy (SDS), provincial, municipal, territorial and First Nations strategies).
- Foster a cross-boundary integrated perspective to management and conservation of wetlands.

### **Policy Framework**

- Establish a friendly policy and regulatory framework, and in doing so, create a climate that will encourage implementation of conservation strategies (create demand), e.g. incentives (tax breaks, grants, etc.) and reduce disincentives (tax, regulatory, economic, etc.).
- Prepare national guidelines on the use of natural wetlands for providing water quality improvement.

## **Governance and Institutions**

- Create and fund national “Centres of Excellence” and a national network for wetland innovation and technology, based on regional representation and focused on science and research.
- Use the Strategy and this Conference Organizing Committee to act as a catalyst to move these recommendations forward (i.e. multi-stakeholder leadership), and report feedback on progress to working groups as soon as possible.
- Linked to item above, establish a National Organization or Forum to shape and advance a Canadian Wetland Strategy.
- Create “one stop shopping” for the public that is provincially-based.

## **Science and Information**

- Create baseline data under the Centre of Excellence.

## Tools

- For treatment wetlands, prepare a database of treatment wetlands in Canada that is accessible to all stakeholders; develop a manual for the design and construction of treatment wetlands to suit Canadian climate conditions – one that is based on Canadian experience and data.
- Develop a document that presents the procedures required to address water quality issues on a watershed basis.

## Resources

- Strengthen the capacity in a wide array of sectors in Canadian society to protect and conserve wetlands.

## Education and Awareness

- Create a centralized, national communications strategy for wetlands and technology by using existing networks (e.g. associations, societies, NGOs).
- Create an environmental communications agency.
- Prepare documentation that will educate regulators, engineers and the public on the value of treatment wetlands.
- Promote public involvement in stewardship, conservation, sustainable use, and equitable sharing of benefits.

## 3.5 WETLANDS INVENTORY AND MONITORING

### Question #1. What are the current driving issues under your theme?

#### Policy Framework

- Lack of legislation to protect and conserve wetlands.
- Standards should be established so that the provincial and regional wetland classification systems can be better “cross-walked.”

#### Governance and Institutions

- Need a lead agency with a clear mandate and legislated responsibility to report on the nation’s wetlands.
- Commit resources, funding and staff to this end.
- National and international accountability are needed.
- Need for partnerships with municipalities.



## Science and Information

- Classification scheme differences need to be addressed.
- Need to address timing issues (e.g. timing of evaluation to capture “wetlands” in dry periods and conversely, short-term, temporary flooded wetlands). This also requires a skilled set of evaluators.
- Need to better define more detailed parameters on what constitutes a “wetland.”

## Education and Awareness

- People do not fully understand the difference between inventory and monitoring.
- There is improper and inefficient use of university resources combined with a lack of government receptivity to university research.
- There is inconsistent interest in wetlands across jurisdictions and scales.

## **Question #2. With respect to your theme, what is your vision of where we should be in 2013?**

### Integration

- The existence of a national, repeatable inventory that covers the extent, rarity, class, form, and type, health status and functional aspects of wetlands, and that is linked to conservation action and adaptive management. It would be available on the web. The subset information would be useable/available for planning and prioritizing wetland protection and conservation. It would be cost effective and accessible to all. To maximize the usefulness of the inventory, wetland function would be linked to societal value (e.g. carbon sinks/Kyoto Protocol issues. Standardized protocols are crucial, as is the need for national coordination by a lead agency).

## **Questions #3 and #4. What are the barriers and opportunities towards achieving this vision and how do we overcome them?**

### Governance and Institutions

- There is no clear leader from a national standpoint.
- The federal government lacks commitment to sustainable development.
- Legislation at all levels of government is inadequate.

### Tools

- Fragmented estimates of wetland extent and type.
- Poor understanding of earth observation capabilities and limits.

- Need to identify a methodology, timeline, protocols, costs and resources associated with developing a national inventory.
- Need to ensure ongoing support for current work on indicators.

### **Resources**

- Lack of resources.

### **Education and Awareness**

- Fragmented mandate.
- Lack of consensus from wide range of end users.
- People do not clearly understand the need and application of an inventory.
- Could learn from other international examples.
- The growing awareness of the linkages between water quality and wetlands as well as their role beyond wildlife habitat are major opportunities.

### **Questions #5, #6 and #7. What are your recommendations and how best can we move forward on them?**

#### **Integration**

- Make data free and accessible to all Canadians by removing impediments to data sharing.
- Integrate with other national earth cover programs (e.g. National Forest Inventory, Weather Data, etc.).
- Consider incorporation of a National Wetland Inventory and Monitoring Program in the Canadian Information System for the Environment (CISE).
- A National Wetland Inventory should be coordinated nationally to ensure national consistency, but delivered regionally where the field expertise exists, and be operationally directed using a team approach.
- Wetland information should be incorporated in the river basin models being used by the provinces and territories for inventory and monitoring (e.g. Canadian Forest Inventory).
- Incorporate flexibility to link wetlands with human health and other socio-economic data and issues and values.
- A strategy for developing a National Wetland Inventory should be reported at the next Ramsar Conference of the Contracting Parties meeting (2005).
- Ensure results of pilot projects are compatible and integrated with the proposed Canadian Land Cover Initiative (CLCI).

## **Policy Framework**

- Canada needs to have wetland legislation that is enforced and made accountable through annual reports that outline the status of this country's wetlands.
- If the regulatory component is associated with need (i.e. all levels of government contribute to a common inventory), the costs could be better distributed.

## **Governance and Institutions**

- The Federal Wetlands Forum should establish a clear mission and compelling rationale, with a program proposal and marketing plan for the a National Wetland Inventory and Monitoring Program that identifies key users, applications, reporting requirements, costs and benefits.
- Establish a legislatively-supported lead department or organization to develop, promote and coordinate delivery of a National Wetland Inventory and Monitoring Program. This agency must have national insight and secure the support of provinces, territories and other stakeholders.
- Establish a multi-stakeholder group (including Ministerial level) to articulate the need behind the inventory and coordinate the initiative (e.g. build the business case) outlining:
  - why, how, when and what;
  - develop stakeholder links/relationships within the next 12 months; and,
  - establish goals and objectives. It needs to have a long-term vision with short-term assessment loop that is responsible for the monitoring. This group would also create and implement an innovative communications and marketing plan.
- Scope the feasibility of preparing a white paper to use to consult with users.
- Enlarge the North American Waterfowl Management Plan management structure to include new partners.
- Form a working group to create a compelling rationale and program proposal and marketing plan.
- Select the best implementation and delivery system (i.e. buying ecosystem services versus developing in-house capabilities).
- A definite timeline for a National Wetland Inventory and Monitoring Program strategy should be developed.

## **Science and Information**

- A monitoring approach would be sample-based with the number of samples dependent on cost, wetland density, expected rates of wetland change and other factors, and include ground-based sampling.

## **Tools**

- Explore space-based remote sensing as a primary tool for inventory and monitoring of wetland resources and continue to assess technological opportunities as they become available; improve understanding of what remote sensing can and cannot do in terms of accuracy of mapping and classification of wetlands; and communicate this to users.
- Establish a multi-resolution approach to meet regional and local needs that reflect variations in average size of wetlands, threat of wetland loss, etc.
- Establish pilot projects to provide a clear demonstration of the function and range of users and end-users.
- Continue and expand pilot projects, formally involving Natural Resources Canada (Canadian Forest Service, Geomatics Canada) Environment Canada, Fisheries and Oceans Canada, and Agriculture and Agri-Food Canada.
- Using the outcomes of the pilot studies, acquire and archive radar data across Canada in 2003 to serve as a baseline library.
- A sample-based change detection is required to illustrate the need for a NWIMP that could provide input to business case.
- Ensure current pilot studies are related to regional needs and that they demonstrate the applicability of the NWIMP to a variety of users.
- Given the size of Canada, need to maintain interest, and the length of time required to complete one sweep of wetland inventory across the country, products must be delivered quickly by targeting initial areas to those regions of high priority (e.g., areas under highest threat of wetland loss).

## **Resources**

- Identify funding sources and ensure that user fees associated with wetland habitat use (e.g., stumpage, hunting tags, etc.) are reinvested in NWIMP and begin using them.
- Develop a cost-sharing system.

## **Education and Awareness**

- Establish new public awareness programs and scientific programs to further the understanding of the need for a National Wetland Inventory and Monitoring Program (stakeholders, federal departments, mass media).
- Improve understanding (develop science and technology) and education on what earth observation can and cannot do, and continue to promote and develop technological opportunities.

## **3.6 WETLAND EDUCATION**

### **Question #1. What are the current driving issues under your theme?**

#### **Integration**

- Lack of education of integration of issues e.g. linkages between water quality, health, use of agricultural products, recreation and wetlands, etc.
- There is a disconnect between social values and the value of nature which is part of the root cause behind many conservation and protection issues.

#### **Policy Framework**

- Need a greater emphasis on environmental economics.
- There needs to be economic incentives for industries to contribute toward wetland education.

#### **Governance and Institutions**

- There is no clarity over who is responsible for wetland-related education (e.g. who are the government leaders?).

#### **Science and Information**

- Lack of knowledge of economic value of wetlands.

#### **Tools**

- Lack of awareness of the importance of monitoring.
- In the context of wetland education as a tool, further research is needed to assess the value of environmental education.
- Need a framework to evaluate wetland literacy of the Canadian public.

#### **Resources**

- Not enough funding, need to build partnerships and have a base of monetary donors to wetland education and conservation, and to eliminate competition between NGOs for funds.

#### **Education and Awareness**

- Need to promote a greater awareness of all aspects of wetlands, their value, role, linkages to Canadian culture, etc. and in a positive manner.
- There is an overload of information.

- Lack of knowledge over current uptake of programs.
- Need to go beyond academics and give kids a chance for ownership, hands-on experience (for urbanites too) (“get out and get wet”).
- Provide university students with more practical field experience.
- Get individuals and the general public interested in wetlands locally, nationally and internationally.
- Need to make information relevant, interesting and audience-specific.
- Teachers need more time and resources to be able to integrate wetlands into their curricula.
- Need to increase degree of penetration of programs and measurements of success.
- Tap into expertise of newly-retired environmental researchers and use partnerships as well as mentorship programs.

**Question #2. With respect to your theme, what is your vision of where we should be in 2013?**

**Integration**

- By 2013, be able to demonstrate, using a pre-established baseline, that ecological literacy prevails. The higher literacy level would be a product of wetland education integrated through curricula, via community involvement in a national wetland inventory, national monitoring programs and wetland education that is cross-disciplinary linking science, economics, culture, arts, etc.
- Youth are empowered.

**Governance and Institutions**

- There is a national coalition of wetland education centres that build on existing structures and have a common vision.

**Tools**

- There is one centralized system that is easy to use on the internet that identifies resources, opportunities that are available for educators, action groups and the general public.
- Establish a “train the trainer” program.

**Education and Awareness**

- Canadians will achieve ecological literacy and knowledge of the socio-economic and ecological values of wetlands, where their local wetland is located.

- There will be a greater understanding of the impact of human activities on wetlands that translates into increased action to protect and conserve wetlands.
- Wetland information will be more directly incorporated into elementary and high school curricula.
- Teachers have a good understanding of wetland functions and values within the landscape and are, therefore, better able to relay this to students.

**Questions #3 and #4. What are the barriers and opportunities towards achieving this vision and how do we overcome them?**

**Integration**

- A combination of issues including apathy, ignorance, perception of wetlands, culture, etc. are barriers.

**Policy Framework**

- Legislation lacks “teeth” and there are few social or economic incentives.

**Governance and Institutions**

- Provincial and federal governments need to implement joint programs.

**Tools**

- Develop an education program through naming wetlands with highway signs and have information on this on a related website.
- A barrier is the current lack of ability to quantify economic benefits of wetlands and communicate that to the public.

**Resources**

- Promote opportunities for funding through sponsorships or donations.

**Education and Awareness**

- People need to be aware of the fact that it is less costly to retain watersheds than to reconstruct them – the benefits of natural versus created or mechanical systems.

**Questions #5, #6 and #7. What are your recommendations and how best can we move forward on them?**

**Integration**

- Develop a national framework (e.g. Framework for Environmental Learning and Sustainability in Canada).

**Governance and Institutions**

- Establish a self-sustained coalition of wetland educators.

**Science and Information**

- Enhance awareness of the ecological value of wetlands.

**Tools**

- Design and implement an Enhanced Education Program.
- Establish a central database.
- Create certification of education programs.

**Resources**

- Promote opportunities to develop partnerships, create sponsorship and donation opportunities.
- Coordinate resources to avoid competition for them.

**Education and Awareness**

- Facilitate communication (e.g. events and centres of excellence).
- Build wetlands into school curricula at all levels (from this will come demand for teacher training, professional development and other support services).
- Create a nationally coordinated marketing/education campaign to convey to the public the ecological, economic and social values of wetlands.



#### **4. OUR CHALLENGE: DESIGNING AN IMPLEMENTATION STRATEGY AND NEXT STEPS**

1. The Conference Organizing Committee has evolved into a Wetlands Task Force, with the mandate to:
  - (a) Lead and coordinate the follow-up process;
  - (b) Write and distribute this Interim Report;
  - (c) Design and distribute a Conference Report: Implementation Strategy around the Conference's recommendations; and,
  - (d) Facilitate the implementation of this Strategy should resources permit.
2. In terms of next steps, the *Interim Report: Synthesis of What you Said* has been sent to all conference participants. Feedback on the Report is welcome and will be built into the final Conference Report: Implementation Strategy.
3. The Task Force is in the process of drafting the Conference Report: Implementation Strategy, which will be distributed to conference participants for their input, and discussed at subsequent meetings of the Federal Wetlands Forum in Ottawa. This document will also be reviewed and discussed by the North American Wetlands Conservation Council (Canada).
4. Once the Conference Report: Implementation Strategy has been finalized, the Task Force will make it available on the NAWCC (Canada) website, as well as on a CD-ROM.
5. The background and issues papers from the February 2003 Conference will be published by the NAWCC (Canada) in English and French as soon as possible.

## **5. CONCLUSIONS**

The North American Wetlands Conservation Council (Canada) and the Federal Wetlands Forum wish to thank everyone who has been involved in the Conference. Significant energy, enthusiasm and dedication was evident in the Working Groups, the discussions and the recommendations that were developed.

We have an exciting path before us and we look forward to working with all of you over the next 10 years!

## **APPENDIX A: CONFERENCE OBJECTIVES**

This conference will facilitate consensus and define new directions for wetland stewardship and management in Canada over the next decade. The event is a forum to:

1. Promote the key relationship of wetlands to clean water and healthy communities through national initiatives.
2. Provide a report card on the ecological status of wetland resources in Canada.
3. Facilitate the establishment of a national wetland inventory and monitoring program through earth observation satellite technology and related initiatives.
4. Facilitate implementation of national wetland stewardship initiatives through technology such as the Stewardship Canada Web Portal and WetKit.
5. Highlight natural resources industry sector innovations in the stewardship of wetlands and the economic opportunities in the sustainable use of Canadian and global wetland resources.
6. Identify opportunities and challenges for wetland conservation and wise use through education.
7. Facilitate further research and collaboration in areas such as wetland assessment, understanding wetland functions and values, and their integration into the policy and decision-making process.
8. Explore and identify performance indicators to measure progress in tracking and fostering the implementation of recommendations emanating from this conference.

## **APPENDIX B: FINAL CONFERENCE AGENDA**

### **MONDAY, FEBRUARY 3, 2003**

13:00–17:00 Exhibits Set-Up

17:00–19:00 Registration

17:00–20:00 Exhibits Hall Open

18:00–20:00 Reception

20:00–21:30 Welcoming Remarks: Ms. Karen Brown, Assistant Deputy Minister, Environment Canada and Conference Chair

Keynote Speaker: Mr. Yves Crevier, Canadian Space Agency

Announcements:

*North American Waterfowl Management Plan (NAWMP)  
Canvasback Award to Natural Resources Canada*

*Launch of Quebec Wetland Atlas Project*

### **TUESDAY, FEBRUARY 4, 2003**

7:30 – 8:30 Registration and Continental Breakfast

7:30–19:00 Exhibits Hall Open

8:30–10:00 Plenary

Ms. Karen Brown, Assistant Deputy Minister, Environment Canada and Conference Chair

Mr. Alan Tonks, Parliamentary Secretary to the Minister of the Environment

Dr. Brian Gray, Ducks Unlimited Canada

10:00–10:20 Break

10:20–10:30 Introduction of Panel. Moderator: Mr. Kenneth W. Cox, Executive Secretary, NAWCC (Canada) and Chair, Federal Wetlands Forum

10:30–11:15 Panel Discussion

- Mr. Mark Spafford, Aquatic Ecologist, Alberta-Pacific Forest Industries Inc.
- Mr. Jean Cinq-Mars, President, Wildlife Habitat Canada
- Mr. Greg Sinclair, General Manager, Environment, Health and Safety, Iron Ore Company of Canada

11:15–11:45 Round Table Discussion, Questions and Answers

11:45–12:00 Summary of Key Issues and Challenges, Directions to Working Groups, Mr. Kenneth W. Cox

12:15–13:15 Buffet Luncheon

Speaker: Mme. Johanne G  linas, Commissioner of the Environment and Sustainable Development

Announcements

13:30–15:00 Working Groups

1. Wetlands in the Working Landscape: An Integrated Approach, Ontario Suite
2. Wetlands, Clean Water and Healthy Watersheds, Alberta Suite
3. Canada's Wetland Industry, New Brunswick Suite
4. Innovation and Wetland Technologies, Newfoundland Suite
5. Wetlands Inventory and Monitoring, Quebec Suite
6. Wetland Education, Nova Scotia Suite

15:00–15:15 Break

15:15–17:00 Working Groups (continued)

18:00–19:00 Cocktails

19:00–21:30 Conference Dinner and Silent Auction, Sponsored by Ducks Unlimited Canada

Introduction by Mr. Tod Wright, Chairman of the Board, Ducks Unlimited Canada

Dinner Speaker: The Honourable Lyle Vanclief, Minister of Agriculture and Agri-Food

*Announcement:*

*Children's Clean Water Education Network, Ducks Unlimited Canada*

**WEDNESDAY, FEBRUARY 5, 2003**

7:30 – 8:30 Continental Breakfast

7:30 –12:00 Exhibits Hall Open

8:30– 10:00 Working Groups, Finalization of Reports

10:00–10:20 Break

10:20–11:30 Plenary: Working Group Reports. Moderator: Mr. Kenneth W. Cox.

11:30–12:00 Announcements:

*WetKit Web Site Launch, Ms. Pauline Lynch-Stewart,  
Lynch-Stewart and Associates*

12:00–12:30 Dr. Harvey Mead, Chair, National Round Table on the Environment  
and the Economy

12:30–12:45 Concluding Remarks: Ms. Karen Brown, Conference Chair