Commissioner of the Environment and Sustainable Development

Windsor Essex County Environment Committee
Green Speakers Series

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Kingsville, Ontario

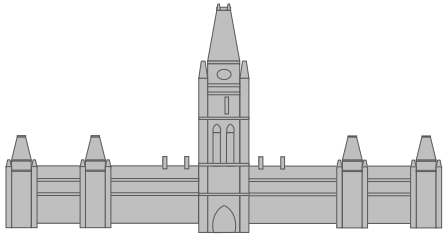
Presentation Outline

- Role of the Commissioner of the Environment and Sustainable Development
- Examples of past and upcoming work
- Findings from recent work
- Concluding remarks

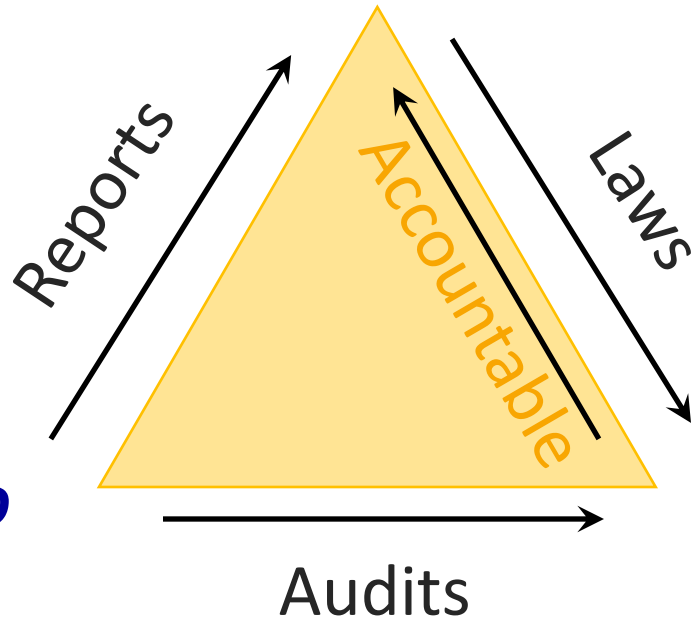
Role, Mandate and Products

- CESD established under the *Auditor General Act* (1995):
  - Examine the performance of federal government programs; review progress on the Federal Sustainable Development Strategy (FSDS) and departmental strategies; manage environmental petitions process.
- Products include:
  - Performance audits of issues of interest to Parliament
  - Non-audit products - studies and guidance on E&SD issues
  - Monitoring of the federal government's sustainable development strategies
  - Annual report on environmental petitions

Relationship with Parliament and the Federal Government



Parliament



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Federal Government

Examples of Past Work (2008-2012)

- Environment and Energy
  - Transportation of dangerous products – pipelines, rail, trucking
  - Spills from ships (oil, chemicals)
  - Cumulative impacts/environmental assessment – oil sands
- Environment and Pollution
  - Contaminated sites
  - Air emissions
- Climate Change
  - Climate change mitigation and adaptation; Canada's 2020 target
  - Severe weather warnings
  - Kyoto Protocol *(Kyoto Protocol Implementation Act)*

Examples of Past Work (2008-2012)

- Implementation of federal legislation
  - Application of the *Canadian Environmental Assessment Act*
  - Enforcement of the *Canadian Environmental Protection Act* and *Fisheries Act*

- Information for decision making
  - Environmental science
  - Monitoring of water resources – quantity and quality
  - Agri-environmental programs
  - Inventory of federal environmental monitoring systems (study)

Upcoming Work (2012-2013)

- Managing environmental risks and impacts offshore oil and gas activities (Atlantic)
- Financial assurances for environmental risks
- Federal support to the fossil fuel sector (study)
- Conserving biodiversity
  - Marine protected areas
  - National Wildlife Areas/Migratory Bird Sanctuaries
  - National parks
  - Species at risk
  - Migratory birds
  - Valuation of ecosystem goods and services
- Federal-provincial Auditors General working group on environment, energy and natural resources (collaborative audits)

Addressing Environmental Problems

- What is needed to effectively manage environmental issues, including water quality (what role can/does the federal government play?)
  - Good information to inform decisions/identify risks
    - Scientific research
    - Monitoring programs
  - Clear and measureable objectives and action plans, combined with risk-based implementation and appropriate follow-up (plan-do-check-improve)
  - Effective enforcement of environmental regulations combined with stewardship and voluntary actions
  - Resources to do the job

Management of Science at Environment Canada

- Science plays an important role in government:
  - Informs policies, program decisions, and the development of regulations, pollution prevention plans, environmental standards, and environmental quality guidelines.
- Environment Canada is a science-based department.
- We examined: how EC ensures quality of its scientific research, how it communicates scientific evidence to decision makers, and strategic planning for science.
  - Environment Canada uses a range of systems and practices to ensure the quality of the science it conducts.
  - The Department uses a variety of methods to communicate scientific evidence to decision makers.
  - 2007 Science Plan not adequately implemented.

Water Monitoring (1)

- Examined as part of audit of the Great Lakes – St. Lawrence Basin (2001)
  - EC was meeting basic requirements of the GLQWA but understanding of changes in water quality was based on a limited number of substances; many not monitored at all.
  - Regarding phosphorous, evidence showed that the gains of the 1970s and 1980s were being reversed. A 1998 workshop concluded that "phosphorus levels are far from under control."
  - Contribution by source was not known with amounts of phosphorus entering Lake Erie by source not estimated since 1994. The IJC noted in 1998 it was impossible to make estimates as recent budget cuts had caused the "wholesale elimination of surveillance and monitoring programs."
  - Conclusion: the federal government, with its partners, needed to do more to understand the risks to water quality so as to focus its efforts more effectively. Other areas requiring effort: remediation of contaminated sediment in areas of concern; and lake-wide management planning.

Water Monitoring (2)

- State of the Great Lakes reports (2005, 2009) highlighted issue of harmful algal blooms.
- Audit on water monitoring quality and quantity (2010)
  - Neither the Fresh Water Quality Monitoring Program nor the National Hydrometric Program were not being managed well enough to adequately monitor and report on the quality and quantity of Canada's surface fresh water resources.
  - Neither program has applied a systematic, risk-based approach to plan, implement, check, and improve its water monitoring activities, and neither program has determined whether it is satisfying client needs or has developed and implemented action plans for program improvement.
  - Consequently, Environment Canada does not know whether the greatest risks to water quality and quantity are being monitored.
  - Lake Winnipeg case study – similar to Lake Erie: algae problem; EC's monitoring not sufficient to inform actions; recent increase in federal investment ($18M) for science and monitoring.

Environmental Enforcement

- Enforcement of *CEPA 99* (2011)
  - **Information for targeting resources**. EC lacks key information on regulated individuals, companies, and government agencies necessary for targeting its enforcement activities toward the highest-risk violators or the highest risks to human health and the environment.
  - **Capacity**. Enforcement actions are limited by gaps in its capacity to enforce CEPA regulations, including lack of training for enforcement officers and lack of adequate laboratory testing to verify compliance.
  - **Follow-up**. Department failed to follow up on half of its enforcement actions during the audit period to verify that violators returned to compliance with CEPA regulations.
- Enforcement of *Fisheries Act* (2009)
  - EC had not clearly identified what it had to do to meet its *Fisheries Act* responsibility for the pollution prevention provisions, nor was it using a risk-based approach to identifying non-compliance with the Act.

Federal SDS

- 1st Federal Sustainable Development Strategy released in October 2010. Some relevant targets:
  - Target 3.1: Complete federal actions to restore beneficial uses in Canadian Areas of Concern in the Great Lakes by 2020.
  - Target 3.6: Achieve a value between 81–100 on each of the Water Quality and Soil Quality Agri-Environmental Performance Indices by March 31, 2030.
  - Target 3.7: Reduce risks associated with wastewater effluent by 2020 in collaboration with provinces and territories. Includes ensuring compliance with performance standards for higher risk wastewater effluents by 2020.
- First substantive progress report to be released shortly by Environment Canada. 2nd FSDS due October 2013.
- Cdn. Environmental Sustainability Indicators (CESI) to be used to measure progress.

Great Lakes Nutrient Initiative

- $16M Initiative announced October 9, 2012
  - Advance the science to understand and address recurrent toxic and nuisance algae in the Great Lakes.
  - Will focus efforts geographically on Lake Erie.
- The Initiative will target five priority areas:
  - Establishing current nutrient loadings from selected Canadian tributaries.
  - Enhancing knowledge of the factors that impact tributary and nearshore water quality, ecosystem health, and algae growth.
  - Establishing binational lake ecosystem objectives, phosphorus objectives, and phosphorous load reduction targets.
  - Developing policy options and strategies to meet phosphorous reduction targets.
  - Developing a binational nearshore assessment and management framework.

Lake Erie Ecosystem Priority (LEEP) Initiative

- Announced by the IJC
  - "In 3 years, we will have measurably reduced DRP (dissolved reactive phosphorus) loads and algae. We will have a better scientific understanding of causes and controls and an adequate monitoring system in place. We will have improved coastal resiliency and governance as well as better public understanding and support…"
  - Public invited to comment.
- Three components
  - Science
  - Social/Economic - A Review Paper on Economic Impact of Excessive Algal Blooms, Costs/Benefits of Solutions and Barriers to/Incentives for Voluntary Actions; A Review Paper on Legislative/Regulatory Framework
  - Stakeholder engagement and outreach

Concluding Remarks

- Addressing environmental issues is complex.
  - Requires good science, monitoring, action and follow-up.
  - Many competing and inter-related problems and priorities (water, habitat, invasive species, air, climate change…).
  - Much has been done; much still to do.
- Great Lakes Nutrient Initiative and LEEP important.
  - Challenge will be acting on new knowledge, especially given multiple jurisdictions and sectors of the economy/society involved.
- Integrating economic and financial aspects important.
  - Who will pay? How will solutions be financed?
- Recent changes to *Fisheries Act, Canadian Environment Assessment Act, Navigatable Waters Protection Act,* and federal budget reduction efforts are important dynamics.
- Follow-up important.

Questions and Coordinates

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