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Report of the
**Commissioner of the
Environment and
Sustainable Development**
to the House of Commons

OCTOBER

The Commissioner's Perspective

Chapter 1

Climate Change Plans Under
the Kyoto Protocol Implementation Act

Chapter 2

Assessing Cumulative Environmental Effects
of Oil Sands Projects



Office of the Auditor General of Canada

The October 2011 Report of the Commissioner of the Environment and Sustainable Development comprises The Commissioner's Perspective and two chapters. The main table of contents for the Report is found at the end of this publication.

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Commissioner of the Environment and Sustainable Development of Canada
Commissaire à l'environnement et au développement durable du Canada

Office of the Auditor General of Canada • Bureau du vérificateur général du Canada

To the Honourable Speaker of the House of Commons:

On behalf of the Auditor General of Canada, I have the honour to transmit herewith this October 2011 Report to the House of Commons, which is to be laid before the House in accordance with section 10.1 of the *Kyoto Protocol Implementation Act*.

A handwritten signature in black ink, appearing to read 'Scott Vaughan', with a long, sweeping horizontal stroke extending to the right.

Scott Vaughan
Commissioner of the Environment
and Sustainable Development

OTTAWA, 4 October 2011

To the reader:

I welcome your comments and suggestions on this report and other issues related to the environment and sustainable development. I can be reached at the following address:

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**The Commissioner's
Perspective**

The Commissioner's Perspective



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Scott Vaughan
Commissioner of the Environment
and Sustainable Development

Introduction

Canadians have elected a new Parliament that, like every new Parliament, faces new challenges and opportunities. Members of Parliament will deliberate on national priorities; this responsibility requires proper information to guide timely decisions. Inaction or delay today can limit Canadians' choices in the future—including choices that will affect the quality of our environment, and the availability of Canada's natural resources, such as energy—for years to come.

As Commissioner of the Environment and Sustainable Development, my role is to inform Parliament about how well the federal government is managing its environmental and sustainable development commitments. Through objective audit reports, we provide members of Parliament with the information they need to hold the federal government accountable for its action or its inaction.

In this report, I present the results of our audit work on

- the federal government's assessment of cumulative environmental effects of oil sands projects in northern Alberta, and
- its climate change plans under the *Kyoto Protocol Implementation Act*.

I also provide some perspective on recently completed audit work that I believe will be helpful to members of Parliament, as they conduct a statutory review of the *Canadian Environmental Assessment Act*. And finally, I pay tribute to an important and long-term staff member of the Office.

Understanding Ecosystems

Designing environmental protection approaches that mirror nature makes sense. For example, in addition to safeguarding individual rivers and lakes, it is important to track the broader impact of water and air pollution and climate change on ecosystems. It is also important to track long-term effects on human health that can accumulate over time.

The first step in conserving Canada's ecosystems is to understand them. Environmental monitoring is the basis for managing environmental change, reflecting the saying, "If you can't measure it, you can't manage it."

Assessing cumulative environmental effects of oil sands projects

A key tool for understanding and responding to environmental change is environmental assessment. First developed four decades ago, environmental assessments are performed at an early stage of project development to identify the environmental effects that are most likely to occur. This early look at possible environmental effects is based on the simple notion that it is less costly and more prudent to anticipate and avoid pollution or other damages before they occur. Projects that are subject to federal environmental assessments include building or expanding highways and railways, as well as constructing marine ports and gas and oil pipelines.

In addition to understanding the environmental impact of individual projects, it is also important to understand the broader impact of multiple projects in the same region. It is a requirement of the *Canadian Environmental Assessment Act* that the federal government understand the combined or cumulative effects of numerous projects in the same region. Cumulative environmental assessments can identify and avoid costly domino effects, such as running out of fresh water in a region. These assessments can also help move project planning to a sustainable foundation.

In this audit, we examined what the federal government has done to understand the cumulative effects of oil sands development projects in the lower Athabasca region of northern Alberta. We selected this region because of the high concentration of major projects, operating in or planned for the area, that have significant potential for cumulative effects. These projects have triggered environmental assessments under the *Canadian Environmental Assessment Act*, which requires the federal government to consider cumulative effects.

For over a decade, Environment Canada and Fisheries and Oceans Canada have warned that key environmental information regarding the effects of oil sands projects has been missing. Since 1999, both federal departments have warned that insufficient environmental information makes it impossible to understand the combined impact of projects in the lower Athabasca region and the impact on ecosystems that are farther away, including the wider Mackenzie Basin of the Northwest Territories. In the absence of this information, it is impossible to track environmental changes over time.

During our audit, we found that, despite repeated warnings of gaps in environmental information, little was done for almost a decade to close many of those key information gaps.

There is no doubt that some environmental trends in the region are well understood. For example, the federal government has reported that oil sands projects are among the largest and fastest-growing sources of greenhouse gas emissions in Canada. The federal government has also reported that air pollutants from oil sands projects have more than doubled in the last decade. For the first time, this pollution has led to acid rain, putting at risk freshwater lakes and boreal forests in northern Alberta and Saskatchewan and, perhaps, in the Northwest Territories.

However, uncertainty persists about other environmental trends, because of insufficient or inadequate environmental monitoring systems. Some of the environmental threats causing these trends include airborne toxic substances and their long-term impact on freshwater quality and wildlife, including the potential downstream impact. As a consequence, decisions about oil sands projects have been based on incomplete, poor, or non-existent environmental information that has, in turn, led to poorly informed decisions.

The Oil Sands Advisory Panel's report and the government's response

Last fall, the former federal Minister of the Environment convened a panel of independent experts, which was chaired by Elizabeth Dowdeswell, to take stock of the monitoring systems in the Athabasca region.

The panel was asked to determine whether a “world-class” environmental monitoring system was in place to track the environmental impact of oil sands development in the lower Athabasca region. The panel's answer was “No.” In December 2010, it concluded that the many efforts at environmental monitoring had failed to add up to a coherent, integrated, and credible system.

The federal government responded to the report, as promised and on time, in March 2011. In Phase One of its plan, it acknowledged that fundamental flaws in the current approach existed. These flaws were the result of monitoring systems that were fragmented, inconsistent, poorly calibrated, and lacking in integration and leadership. The government concluded that monitoring activities failed to deliver data of sufficient quantity or quality to detect the effects of oil sands development, and that “strategic decisions for environmental protection (including water

quality) and industry sustainability [could not] be made under such conditions.” (from Environment Canada’s Lower Athabasca Water Quality Monitoring Plan)

In July 2011, the government released Phase Two of its plan, which set out an integrated environmental monitoring system that, once implemented, will monitor the potential environmental impacts on biodiversity, as well as on air and water in Canada’s North.

In my view, the federal government has taken an important step forward by both acknowledging the deficiencies of the current system and setting out a detailed plan to fix them. The federal government’s two-stage plan promises to monitor the environmental impact of the oil sands projects, not only in northern Alberta, but also in neighbouring Saskatchewan and the Mackenzie Basin of the Northwest Territories. The plan is based on an ecosystem approach that tracks freshwater, air quality, migratory species, and biodiversity.

A good first step

If fully implemented, these commitments hold the promise of establishing a credible, robust, and publicly accessible monitoring system for measuring environmental conditions and changes in environmental quality levels, as well as determining the sources of those changes. The system will also be used to analyze the changes to water, air, and biodiversity over time. We look forward to reporting to Parliament on the implementation of the government’s plan.

We will be looking for a plan that has clear objectives, timelines, roles and responsibilities, and performance outcomes to help Parliament track the government’s progress. In particular, we expect the plan and its implementation to be guided by meaningful and enduring partnerships with First Nations communities. I also hope that lessons from the oil sands environmental monitoring commitment will be applied to other regions that the federal government has declared to be “ecological hotspots,” from Canada’s North to the Bay of Fundy and Great Lake regions.

Upcoming review of the *Canadian Environmental Assessment Act*

The House of Commons Standing Committee on the Environment and Sustainable Development will shortly begin its statutory review of the *Canadian Environmental Assessment Act*. This is an important piece of legislation. Its importance was underscored by the government’s response to the Oil Sands Advisory Panel, in which it noted the pivotal

role that environmental assessments play in understanding cumulative environmental effects.

In anticipation of the Standing Committee's review of the *Canadian Environmental Assessment Act*, I have issued a number of audit reports on how well the federal environmental assessment process is working. These include two audit reports tabled in 2009: one that examined the implementation of the *Canadian Environmental Assessment Act* and a second that examined fish habitat protection under the *Fisheries Act*. We have reported a number of serious deficiencies in how assessments are planned, carried out, and followed up on.

Done right, environmental assessments warn us of potential problems and specify ways to fix them before they spiral into economic and environmental costs, both today and for our children in the future. Canada was a world leader in designing environmental assessments decades ago. The upcoming review of the *Canadian Environmental Assessment Act* provides an important opportunity to take stock of current practices, improve on-the-ground implementation that can help communities and investors, and streamline steps that only add layers of bureaucracy.

When conducting its review of the *Canadian Environmental Assessment Act*, the Standing Committee on the Environment and Sustainable Development may wish to

- examine current practices within the context of the founding principles of environmental assessments, including the important principle that assessments are a tool to anticipate and avoid costly human health or environmental effects before they occur;
- identify the kind of projects that warrant significant attention— projects should be selected not only by project scale but also with due regard for fragile ecosystems;
- clarify the ambiguous wording in the current Act;
- explore how the government can make use of strategic partnerships, including with the provinces, in their environmental assessments to improve its understanding of environmental impact; and
- reaffirm the principle of “one project, one assessment,” which means that the combined effects of related projects are examined in a comprehensive manner.

We look forward to supporting the work of the Standing Committee in its review of the *Canadian Environmental Assessment Act*.

Climate Change Plans under the *Kyoto Protocol Implementation Act*

The *Kyoto Protocol Implementation Act* requires that the Minister of the Environment prepare an annual climate change plan that sets out the measures the government will take to meet Canada's obligations under the Kyoto Protocol.

The Act also requires that I audit those plans at least once every two years, up to and including 2012. In addition, I am required to prepare a report that includes an analysis of Canada's progress in implementing the climate change plans and meeting the Kyoto Protocol obligations. I am pleased to present my second audit report mandated under the *Kyoto Protocol Implementation Act*.

At the time of our audit, Environment Canada had published four annual climate change plans (2007–2010). We found that the information in the 2010 plan showed some improvement in completeness and transparency over previous years.

However, we also found that the plans are not in compliance with the *Kyoto Protocol Implementation Act*, because they do not satisfy all of the requirements of section 5(1) of the Act. The measures contained in the plans are not sufficient to achieve the necessary reductions in greenhouse gas emissions that are required to meet Canada's Kyoto Protocol obligations. The 2010 National Inventory Report, which provides information on Canada's levels of greenhouse gas emissions, indicated that Canada's emissions totalled 734 million tonnes in 2008—which is 31 percent more than the Kyoto target of 558.4 million tonnes. Since the first climate change plan in 2007, the government has significantly lowered its target for reducing greenhouse gas emissions. The expected emission reductions have dropped from 282 million tonnes in the government's first plan to 28 million tonnes in 2010, a drop of approximately 90 percent.

In reviewing the plans, we noted that they do not report the total amount of funding that the government has provided for their implementation. Furthermore, financial information for the individual measures is not reported consistently, and some of the measures do not include any financial information. Therefore, we sought to determine the funding allocations associated with each measure in the plans, and found that the federal government had allocated over \$9.2 billion to implement its climate change plans.

I am concerned that, despite the funds that have been allocated to meet Canada's commitments under the Kyoto Protocol, the government has significantly lowered its targets for reducing emissions in its successive plans. A consistent means of linking dollars spent to results achieved across government is essential for parliamentarians to understand exactly what results the substantial spending has achieved toward meeting Canada's international commitment.

Since we finished the audit work for this report (which was to have been tabled in May 2011), the government released its 2011 climate change plan and its 2011 National Inventory Report. We did not include these documents in this audit, but we will examine and report on them in our Spring 2012 Report to Parliament.

The government needs a plan to deliver results

Since the early 1990s, the federal government has made a number of different commitments to tackle climate change. However, the start-and-stop pattern of federal program planning has given inconsistent signals to industry, other levels of government, and Canadians about the consistency and predictability of the federal government's approach to reduce greenhouse gas emissions.

Our audit shows that Canada is not on track to meet its commitments under the Kyoto Protocol to reduce greenhouse gas emissions. This is not new. However, the federal government has made new international and national commitments to reduce greenhouse gas emissions, which include commitments set out under the Copenhagen Accord, the 2010 Federal Sustainable Strategy, and the Cancun action plan. All of these establish a commitment to achieving a 17 percent reduction, from the 2005 levels, in greenhouse gases by 2020.

It is unclear whether the federal government will be able to achieve these new reduction targets until a coherent system is in place that has clear objectives, timelines, interim targets, and expectations with key partners. The government will also need an overall strategy to coordinate efficient and effective spending of billions of dollars.

The contribution of Ronald Thompson

No one would have been more eager to support the important work of Canada's new Parliament than Ronald Thompson, who served as interim Commissioner of the Environment and Sustainable Development from 2006 to 2008—as well as holding a variety of other important positions at the Office of the Auditor General for more than 30 years. For me, Ron exemplified the very best tradition of public service to Canadians and Parliament; he was thorough, objective,

rigorous, and principled. He passed away suddenly and tragically this past summer. He served Parliament with distinction and was a beloved colleague. I dedicate this report to his memory.