

# Environment and Sustainable Resource Development—Alberta Environmental Monitoring, Evaluation and Reporting Agency—Joint Canada–Alberta Plan for Oil Sands Monitoring

## SUMMARY

### Background

The oil sands are an important resource to Albertans and of interest to all Canadians and the international community. Rapid oil sands development in recent years has led to widespread concerns about their environmental impacts and the need to better understand these impacts.

In February 2012 the governments of Alberta and Canada committed to implementing a scientifically rigorous, comprehensive and transparent environmental monitoring program for the oil sands.<sup>1</sup> The program's purpose is to understand the cumulative effects<sup>2</sup> of oil sands development and obtain evidence to determine whether the development is environmentally responsible. Improvements to environmental monitoring in the oil sands will also provide a starting point for implementing Alberta-wide environmental monitoring.<sup>3</sup> The joint plan describes how the two governments will improve monitoring over a three-year period (2012–2015). The two governments agreed that oil sands operators will bear the cost of the enhanced monitoring by providing up to \$50 million annually in the first three years of the program.<sup>4</sup>

The plan describes specific projects<sup>5</sup> the two governments agreed to carry out over the next three years. It also describes their commitments<sup>6</sup> to ensure the program is accountable, credible and transparent. A key commitment is annual reporting to the public on the governments' progress with implementing the plan.

In its approvals, permits and licenses for oil sands projects, the Alberta government specifies various environmental monitoring activities that oil sands operators must comply with and pay for. Operators then fund independent regional organizations<sup>7</sup> to do the monitoring. During the first two years of the joint plan, operators continued to directly pay independent organizations for monitoring done to fulfill

<sup>1</sup> <http://www.ec.gc.ca/pollution/EACB8951-1ED0-4CBB-A6C9-84EE3467B211/Final%20OS%20Plan.pdf>

<sup>2</sup> Cumulative effects are the combined effects of past, present and foreseeable human activities, over time, on the environment, economy and society in a particular place. Currently, the Government of Alberta reviews and approves developments on a case-by-case basis.

<sup>3</sup> <http://esrd.alberta.ca/focus/environmental-monitoring-in-alberta/default.aspx>

<sup>4</sup> Agreement between Canada and Alberta on the Joint Canada–Alberta Implementation Plan for Oil Sands Monitoring states that the average annual allocation of industry funding to the joint oil sands monitoring program, incremental to that already carried out by or on behalf of Canada and Alberta, will not exceed \$50 million. The agreement expires on September 30, 2015.

<sup>5</sup> For example, add water quality monitoring stations or assess the caribou population.

<sup>6</sup> For example, engage stakeholders on the plan's content, incorporate traditional ecological knowledge in monitoring activities and develop and apply standardized quality assurance procedures.

<sup>7</sup> Regional Aquatics Monitoring Program, Alberta Biodiversity Monitoring Institute, Wood Buffalo Environmental Association and Ecological Monitoring Committee for the Lower Athabasca.

regulatory conditions, most of which also supported the new monitoring plan. However, this direct funding relationship left the Department of Environment and Sustainable Resource Development with little control over how these organizations were delivering projects in the joint plan and reporting their results. Operators also paid for monitoring projects the two governments carried out under the joint plan. The projects done by the Government of Alberta were the focus of our audit.

Starting in 2014–2015, the funding relationship between oil sands operators and independent monitoring organizations has changed. The Government of Alberta is now collecting fees from the operators and will use them to pay for all monitoring projects in the joint plan. This new funding model will give the department more direct control over monitoring done by independent organizations. Oil sands operators continue to be responsible for the monitoring their regulatory conditions require.

In fall 2013, the *Protecting Alberta's Environment Act* established a new arm's length organization, the Alberta Environmental Monitoring, Evaluation and Reporting Agency. The Act came into force on April 28, 2014 and made AEMERA responsible for collecting credible scientific data on the condition of the environment in Alberta, and for open and transparent reporting to the public. AEMERA also assumed the department's responsibilities under the joint plan that was in its second year of implementation. By creating AEMERA, with a clear mandate, governance and commitment to scientific monitoring, the Alberta government intended to clearly separate environmental monitoring, evaluation and reporting from regulatory activities,<sup>8</sup> and add legitimacy, credibility and capacity to the program. AEMERA, which is accountable to the Minister of Environment and Sustainable Resource Development, expects to be fully operational in 2015. Therefore, we are making our recommendation to AEMERA.

### What we examined<sup>9</sup>

Our audit objective was to assess the nature and quality of the first annual report (2012–2013) on the joint plan for monitoring oil sands development. We also assessed whether the results the two governments shared in the report were complete and verifiable, based on evidence that was sufficient and appropriate. To assess the quality of that evidence, we looked at the processes the department used in 2012–2013 to manage the projects for which it was responsible.

### What we found

The governments of Alberta and Canada jointly released their first annual report long after the information it contained was current.

The report for 2012–2013 was released in June 2014, 15 months after the March 31, 2013 end of the first year. The 2013–2014 report on the second year of implementation has not yet been released.

The report lacked clarity and key information and contained inaccuracies. The report was not clear on:

- whether overall implementation of the plan was on track
- which of the projects committed to for 2012–2013 were completed, partly completed or not completed
- what remained to be done to implement the governments' key commitments

<sup>8</sup> Policy development and regulation, granting of approvals, permits and licenses, and enforcement activities.

<sup>9</sup> The Office of the Auditor General of Canada tabled its report on the audit of the Government of Canada's implementation of the Joint Canada–Alberta Implementation Plan for Oil Sands Monitoring on October 7, 2014. 2014 Fall Report of the Commissioner of the Environment and Sustainable Development, Chapter 2 – Environmental Monitoring of Oil Sands, [http://www.oag-bvg.gc.ca/internet/English/parl\\_lp\\_e\\_901.html](http://www.oag-bvg.gc.ca/internet/English/parl_lp_e_901.html)

Most projects we tested lacked project plans or had plans without key information such as clearly defined deliverables and timelines. Without clear deliverables, effective monitoring of progress is not possible. We found insufficient evidence that the department regularly monitored progress of most projects we tested. Evidence for the project status stated in the report was also insufficient. Despite committing to do so in the joint plan, neither government monitored the projects the independent monitoring organizations were delivering to ensure they implemented them as required.<sup>10</sup>

The weaknesses in project management during 2012–2013 created risks of improper or delayed implementation of individual projects and, ultimately, the joint plan. Furthermore, the two governments may be unable to meet their commitments by March 31, 2015. AEMERA<sup>11</sup> needs to determine what remains to be completed at the plan’s conclusion and assess further actions.

For the third and final year of the plan, 2014–2015, the department has improved its project planning and monitoring processes. We did not fully examine these processes because they were newly implemented at the conclusion of our audit.

### Why this is important to Albertans

Timely, transparent and verifiable public reporting allows Albertans to know if the Government of Alberta is meeting its commitments and whether the implementation of the enhanced monitoring in the oil sands is on track.

Without effective project management, the joint plan is at risk of not being completed on time and not meeting its objectives. This may jeopardize AEMERA’s ability to monitor the cumulative effects of oil sands development and report to Albertans on the condition of Alberta’s environment in the oil sands and when impacts on the environment exceed accepted limits.

## AUDIT OBJECTIVES AND SCOPE

Our audit objective was to determine whether the first public report on the plan was complete and verifiable, based on evidence that is sufficient and appropriate to support the reported results.

Our audit focused on:

- the 20 projects the department was responsible for delivering in 2012–2013
- the 2012–2013 annual report that the governments of Alberta and Canada issued jointly in June 2014

We conducted our field work from April to August 2014 and substantially completed our audit on August 15, 2014. We conducted our audit in accordance with the *Auditor General Act* and the standards for assurance engagements set by the Chartered Professional Accountants of Canada.

<sup>10</sup> <http://www.ec.gc.ca/pollution/EACB8951-1ED0-4CBB-A6C9-84EE3467B211/Final%20OS%20Plan.pdf>

<sup>11</sup> As of April 2014, the Alberta Environmental Monitoring, Evaluation and Reporting Agency assumed responsibility for implementing the Government of Alberta’s commitments under the joint plan.

## FINDINGS AND RECOMMENDATIONS

### Public reporting

#### RECOMMENDATION 1: ENSURE TIMELY, ACCURATE AND TRANSPARENT PUBLIC REPORTING

We recommend that the Alberta Environmental Monitoring, Evaluation and Reporting Agency work with the Government of Canada to ensure that public reporting on the joint plan is timely, accurate and transparent.

#### Background

The Governments of Canada and Alberta commissioned several reviews to assess Alberta's previous approach to environmental monitoring and provide advice on how to improve it.<sup>12</sup> These reviews emphasize various aspects of monitoring, such as governance and funding, monitoring design, data evaluation, use of traditional ecological knowledge<sup>13</sup> and reporting norms. All of the reviews note that Alberta's approach to environmental effects monitoring was not well coordinated or integrated and would benefit from a more rigorous scientific foundation. They also stress the need to integrate monitoring activities and data across the province, so that the government can use the information to understand and manage cumulative effects.

The results expected from the joint plan are:

- improved data for characterizing the state of the environment in the oil sands area
- enhanced understanding of the cumulative impacts on the environment from oil sands development
- integrated monitoring program that includes water, air, land and biodiversity elements

The joint plan describes the following key commitments by the governments of Alberta and Canada:

- develop a sustainable arrangement to fund monitoring of environmental impacts from oil sands development
- integrate monitoring arrangements into a single, government-led program
- engage industry, scientists, Aboriginal Peoples and other stakeholders on the content of the joint plan and on mechanisms to incorporate their advice on an ongoing basis
- incorporate traditional ecological knowledge and train and involve members of local communities in monitoring activities
- develop and apply standardized quality assurance and quality control procedures and standard operating protocols to ensure consistency and the ability to integrate data
- provide information to the public in a timely, standardized and coordinated manner
- report annually on the status of implementation
- adapt monitoring to reflect experience gained from the initial work and discussions with industry and stakeholders

The plan identifies projects for the enhanced monitoring of air, water, wildlife and biodiversity<sup>14</sup> for each of the three years. In 2012–2013 the department was responsible, solely or jointly with the Canadian government or independent monitoring organizations, for delivering 20 of the 75 projects identified for the plan's first year. The Canadian government and monitoring organizations were to deliver the remaining projects.

<sup>12</sup> Dowdeswell et al. 2010, Royal Society of Canada 2010, Federal Oil Sands Advisory Panel 2010, Alberta Environmental Monitoring Panel 2011, Alberta Environmental Monitoring Working Group 2012.

<sup>13</sup> Traditional ecological knowledge describes aboriginal, indigenous, or other forms of traditional knowledge regarding sustainability of local resources.

<sup>14</sup> In the joint plan, biodiversity also includes projects related to land disturbance monitoring.

Legislation<sup>15</sup> provides the Minister of Environment and Sustainable Resources Development a formula to allocate costs to oil sands operators and the authority to collect fees. The two governments agreed to set operator fees at an annual maximum of \$50 million for the duration of the joint plan.

Information from the department stated that in the first year, operators paid a total of \$35 million for expenses incurred by the department, the Canadian government and monitoring organizations for delivering projects from the joint plan. The department's share of these expenses was \$1 million.

The joint plan identifies the following roles and accountability for the program:

- two government co-chairs, who are accountable for all aspects of the monitoring program
- two co-directors, who are accountable for plan implementation and project management and for providing direction to component leads
- two co-leads each for the air, water, wildlife and biodiversity component areas, to jointly carry out co-director decisions to develop and implement scientifically defensible monitoring plans with their component teams and stakeholders

The two governments committed to reporting annually on their progress in carrying out the plan. In June 2014 the governments released the first public report on their progress during the first year of implementation—March 2012 to March 2013.

#### Criteria: the standards we used for our audit

Public reporting on the joint plan should meet the following principles:

- Focus on key commitments and significant performance information.
- Provide context for the reporting. Link to department and provincial level goals.
- Look forward as well as back. Explain significant variances between planned and actual results; outline lessons learned, intended follow-up actions and strategies.
- Explain key risks and capacity considerations. Discuss factors that affect the team's ability to meet goals and expectations.
- Integrate non-financial information with key related financial information. Explain links between activities, outcomes, results and priority initiatives and relate costs to results achieved.
- Present information that is accurate, complete and balanced.
- Communicate in a concise, understandable, timely and accessible way.
- Identify significant changes from any related prior reporting or cross-reference to other publicly reported material.

#### Our audit findings

##### KEY FINDINGS

- The plan's 2012–2013 annual report was released 15 months after the year ended.
- The report lacked information on overall status of implementation.
- Status of key commitments and individual projects was not clear.
- Key information was missing. Reported information contained inaccuracies and was incomplete.
- Information sharing between the governments was insufficient.

#### First public report not timely

The 2012–2013 report was released in June 2014, 15 months after the March 31, 2013 year end. This was nine months after the department's target date of August 2013. The lack of timeliness made the report less relevant. Key events occurred after the first year ended and before the release of the first

<sup>15</sup> *Oil Sands Environmental Monitoring Program Regulation*, AR 226/2013.

annual report (for example, establishment of AEMERA and withdrawal of key aboriginal groups<sup>16</sup> from the joint plan). Despite the significance of these events to the joint plan implementation and to Albertans, the report did not mention them because it only covered the period that ended on March 31, 2013.

The department stated that complexities in working jointly with the Canadian government contributed to the delay. One of the difficulties was the lack of timely release of data by government scientists.

In February 2014 the two governments issued a protocol requiring that the public release of data:

- not be delayed for any reason other than quality of the data
- always precede the reporting and analysis of results

To provide timelier reporting, the two governments plan to release their second public report in two phases. Reporting on the status of key commitments was scheduled for September 2014 and a separate report on the status of individual projects—based on the scientific data and its analysis—for December 2014.

### First public report not transparent

The report was not clear on whether the implementation was on track overall. It did not clearly identify the status of all projects the joint plan targeted for implementation in 2012–2013.

Some projects were clearly identified as completed. For others, the report described activities carried out but was not always clear on whether the project was completed or not. The department told us that the two governments had insufficient capacity to implement all projects they expected to deliver in 2012–2013. This suggests there likely were projects that were not completed; however, the report did not clearly identify them as incomplete.

Reporting on the status of key commitments was not clear. For example, the section on development of standardized quality control and assurance procedures listed accomplishments but did not clearly state whether implementation was on track and what remained to be done.

The report disclosed the amounts the two governments spent and stated that industry directly funded monitoring by independent organizations. However, it did not report the total amount spent in 2012–2013 by all parties on monitoring that was in addition to that already carried out by or on behalf of Canada and Alberta. The department stated that the 2013–2014 report will include total costs for enhanced monitoring in the second year.

### First public report contained inaccuracies

In a sample of projects the department was delivering in 2012–2013, we found two instances where reported information was inaccurate or incomplete. In one case, a biodiversity monitoring project was supposed to assess three species. We reviewed evidence indicating that the department, working with one of the monitoring organizations, assessed two out of the three species. Further follow up with the department found that they did not assess the third species because they did not have the necessary funding. However, the report simply stated that the project had been completed.

In another case, the report stated that a project to produce air pollutant maps through remote sensing had been completed and that additional work was being done in 2012–2013 to improve air quality maps in the oil sands. However, evidence indicated that this additional work began in May 2013. We also found one instance where the report was misleading on work completed for a project related to

<sup>16</sup> Athabasca Chipewyan First Nation, Mikisew Cree First Nation, Fort McKay First Nation, Chipewyan Prairie Dene First Nation, Fort McMurray First Nation and Fort McKay Metis withdrew from the Joint Oil Sands Monitoring Program before May 2014.

acid-sensitive lakes. It suggested that an inter-comparison of the data sampled from the lakes was done. We found that data was collected but the comparison of data has not been completed.

The department stated that the Canadian government drafted the 2012–2013 report based on input from component leads and monitoring organizations. Alberta director and component leads reviewed the report for accuracy and completeness. Based on the inaccuracies our audit detected, we conclude that this review was ineffective.

#### Insufficient information sharing between the governments

Generally, the department could not comment on the accuracy of information in the report related to projects the Canadian government delivered. This lack of information indicates that regular communication between the two governments on the status of projects was insufficient. It is our view that each government should be aware of the status of projects, including those being delivered by others.

The department stated that it lacked capacity in 2012–2013 to stay current on the status of all projects. Starting in 2014–2015, the department is requiring quarterly updates on projects from the Government of Canada. Our audit did not test this process.

#### Implications and risks if recommendation not implemented

Without timely, accurate and transparent public reporting, Albertans will not know if the government is meeting its commitments under the joint plan and whether the implementation of the enhanced monitoring in the oil sands is on track.

## Planning and monitoring

### RECOMMENDATION 2: IMPROVE PLANNING AND MONITORING

We recommend that the Alberta Environmental Monitoring, Evaluation and Reporting Agency:

- implement effective processes for monitoring project status
- develop and implement work plans, with roles and responsibilities and timelines and deliverables, for implementing all key commitments under the joint plan
- clarify what needs to be done to implement any joint plan projects and commitments remaining after March 2015

#### Background

The Alberta and Canada governments jointly prepared annual work plans detailing projects, entities responsible for them, and budgets. Responsible entities—Government of Alberta, Government of Canada and independent monitoring organizations—agreed to complete more detailed planning documents such as project plans.

In the joint plan the two governments commit to engaging stakeholders, including Aboriginal Peoples, industry, independent scientists and monitoring organizations on the implementation plan and its activities. Starting in 2013, the governments established three processes to obtain and incorporate stakeholder input into work plans:

- stakeholder meetings
- component advisory committees
- transition working group (industry)

**Criteria: the standards for our audit**

The department should have sufficient and appropriate evidence to support its reported results. This evidence should include:

- work plans for implementing its responsibilities, including:
  - identification of roles and responsibilities
  - clear and concrete deliverables, timelines and required resources
  - consideration of input from stakeholders (including industry, scientists, Aboriginal Peoples and provincial stakeholders)
  - consideration of traditional ecological knowledge
  - process to monitor progress and adjust the plans to new information
- work plans for coordinating with other departments, agencies and the federal government to prevent ineffective, inefficient and duplicate efforts in their joint monitoring of the oil sands

**Our audit findings****KEY FINDINGS**

- Most projects we tested lacked project plans or had plans without key information such as clearly defined deliverables and timelines.
- There was insufficient evidence that the department regularly monitored progress of projects.
- There was no monitoring of projects delivered by independent organizations and no review for accuracy and completeness of project information these organizations submitted for inclusion in the annual report.
- There was insufficient evidence to support reported project status.
- There were no detailed work plans for implementing joint plan commitments.
- AEMERA needs to determine what is outstanding from the joint plan at March 2015.

**Projects**

In 2012–2013 the department lacked good project management, which increased the risk of improper or delayed project completion.

We found four projects, which Alberta was solely or jointly responsible for delivering in 2012–2013, that were not included in the work plan for that year. We could not trace several biodiversity projects from the joint plan, delivered by a regional monitoring organization, to the 2012–2013 work plan.

Most projects in our sample either did not have a project plan or had a plan that lacked key information such as deliverables, timelines and resources. Without clearly defined deliverables, it is not clear what needs to be done to complete the project; therefore, monitoring progress is not possible.

We found that evidence for the project status stated in the annual report was often insufficient. One project planned to align the Regional Aquatic Monitoring Program for fish with the joint plan. The department provided meeting minutes indicating that it discussed alignment of fish programs with the Canadian government and Regional Aquatic Monitoring Program as evidence of monitoring. However, there was no evidence that the alignment was completed. The report stated the project was completed. Another project planned to add three monitoring sites, including one on the MacKay River. The project was reported as completed but evidence was insufficient that a station was added to MacKay River during 2012–2013. Neither of these two projects had a project plan.

Component leads told us that they regularly discussed the progress of projects with project managers but did not document these discussions. It is our view that the department should document significant information and decisions about projects, such as when project implementation is not on track or

deviates from the plan. For example, the department should have documented its decision to assess two rather than three species in one of its biodiversity projects.

In the joint plan, the two governments agreed to directly manage all aspects of the monitoring program, including monitoring by independent organizations. However, in 2012–2013 neither government monitored the progress of projects the independent organizations were delivering. Therefore, they did not ensure that the organizations carried out projects as required by the joint plan. Also, there was no review of the accuracy and completeness of the project information these organizations submitted for inclusion in the report. The department stated that it lacked the authority from 2012 through 2014 to monitor projects the independent organizations were delivering because the organizations received funding directly from oil sands operators. Operators paid the organizations for monitoring to fulfill regulatory conditions in their approvals, and permits and licenses, most of which also supported the joint plan.

The department's planning and monitoring processes improved in 2014–2015.<sup>17</sup> The department developed a project plan template—one that requires deliverables, timelines and resources—that all projects must have in place before they receive funding. The department told us that, starting in 2014–2015, component advisory committees are responsible for regular monitoring of progress of all projects against deliverables from project plans. Our audit did not test these new processes.

### Commitments

The annual work plans identified projects and the organizations responsible for their delivery. However, it was not clear whether projects in the work plans were also contributing to implementing joint commitments.<sup>18</sup> The department did not have separate work plans in 2012–2013 and 2013–2014 showing how it would implement these commitments. At the conclusion of our audit the department shared work plans it completed in March 2014 for implementing the commitments. Developing concrete plans at the inception of the program would have increased the likelihood of appropriate and timely implementation.

There is a risk that the two governments will not fully implement all their joint plan projects and commitments by March 31, 2015. It is important that AEMERA determines what remains to be completed from the joint plan at its conclusion and assess further actions.

### Stakeholder input

In the joint plan, the two governments committed to adapting plans and activities to reflect project experience and stakeholder input. A formal mechanism for tracking and considering input from all stakeholders was not in place in 2012–2013. Beginning in 2013–2014, the two governments used semi-annual stakeholder meetings, component advisory committees and regular meetings with industry to obtain stakeholder input. The department told us that AEMERA now has a process to track and respond to input from these meetings. Our audit did not test all these processes. We observed two instances where the department revised its 2014–2015 plans, to incorporate input from the 2013 stakeholder meetings.

<sup>17</sup> As of April 2014, the Alberta Environmental Monitoring, Evaluation and Reporting Agency took over responsibility for implementing the Government of Alberta's commitments under the joint plan.

<sup>18</sup> Page 26 of this report lists the joint plan commitments by the governments of Alberta and Canada.

### **Implications and risks if recommendation not implemented**

Without effective project management, the governments of Alberta and Canada could fail to carry out their plan for monitoring the environmental impacts of oil sands development. This may jeopardize AEMERA's ability to monitor cumulative effects of oil sands development and report to Albertans on the condition of Alberta's environment in the oil sands and when impacts on the environment exceed accepted limits.