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SUBMISSIONS TO THE OIL SANDS PANEL ON PHASE II PROPOSED OPTIONS FOR STRATEIGES AND ACTIONS FOR OIL SANDS DEVELOPMENT IN ALBERTA

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I. Introduction

The Environmental Law Centre (the “ELC”) is a charitable organization, incorporated in 1982, to provide Albertans with an objective source of information on environmental law and natural resources law. The ELC provides services in legal education, assistance, research and law reform to achieve its mission to ensure that laws, policies and legal processes protect the environment.

The ELC has been involved in providing assistance to the public and submissions to government on energy related issues since 1982. We provided written and oral submissions to the Oil Sands Panel (the “Panel”) on a vision and principles for oil sands development in September 2006.¹ Accordingly, we have prepared submissions to assist the Panel in choosing strategies and actions to guide the long-term development of the oil sands.

This submission will primarily focus on land-use planning, a moratorium on development, cumulative effects management, establishing protected areas, and regulating greenhouse gas (“GHG”) emissions (Vision 3, Strategies 1-5 and 7). The ELC will also be making submissions to the Panel in Bonnyville, Peace River and Calgary on strategies and actions relating to water issues, reclamation, and the role of government and “directly affected” status.

For ease of reference, we have appended a chart which summarizes our positions on the strategies and actions outlined in this submission. As instructed by the Multi-Stakeholder Committee (the “MSC”), this chart summarizes which actions we agree with, what we do not agree with, and any gaps, additions or alternatives we have proposed.

II. Vision 3, Strategy 1: Use planning and regulatory instruments to encourage sound environmental practices

Effective planning is the keystone for ensuring the long term economic, social and environmental sustainability of the oil sands. The current pace and scale of oil sands development has revealed the failings in the incremental, case-by-case approach to energy development. The major failing of this approach is its inability to address the problem of cumulative impacts. When stresses on public infrastructure and regional ecosystems are caused by the combined impacts of multiple projects, simply ensuring that each project complies with regulatory requirements is no longer sufficient to guarantee acceptable outcomes.

It is the ELC's position that the most pro-active and effective way to manage cumulative impacts is through the use of integrated landscape management (Action 1.8), which is implemented through provincial and regional scale planning initiatives (Action 1.3). The need for regional planning objectives based on cumulative impacts was also recently acknowledged in the provincial government's Oil Sands Ministerial Strategy Committee Report (the "Radke report").²

Although the MSC agreed that we need to "create a comprehensive plan" to manage the environmental effects in the oil sands (Action 1.1), this general direction is too vague to be useful. If "the plan" is not structured properly, it will not address cumulative impacts and incremental decision-making. The only effective way to deal with cumulative effects is by creating a plan based upon integrated landscape management which is carried out at a provincial and regional scale.

To be clear, integrated landscape management is used here to describe a holistic approach to land and resource management.³ Integrated landscape management is sometimes used interchangeably with terms such as "ecosystem management," "integrated resource management" or "watershed management." The common factor in all these approaches is that they all encourage a more integrated, whole system approach to planning, conservation and management. Integrated landscape management is not simply a process of coordinating activities in order to reduce industrial footprints on the landscape (as indicated in Action 1.8),⁴ it is a planning strategy that is based upon setting and prioritizing landscape-scale objectives.

Before outlining what an integrated landscape management planning approach to oil sands development would look like, the ELC will first outline reasons why this approach makes sense to adopt. There are at least three compelling reasons why a proactive, planning-based approach to oil sands development is necessary.⁵ First, this approach will provide regulators with the landscape objectives and regulatory tools that they need in order to address cumulative impacts that are not caught by the project-specific environmental assessment process. Second, this approach will address incremental, project-by-project decision-making and fragmentation by ensuring that a full range of activities on the landscape are regulated in a manner that is consistent with an overarching framework. Third, this approach will establish a forum for defining planning goals and regional thresholds relating to land and resource use.

Integrated landscape management in relation to oil sands activities must occur at all stages of the energy decision-making continuum. The key elements to enable the successful application of integrated landscape management in Alberta are:⁶

- 1) **A legal and policy framework** – the emphasis here is on identifying overarching objectives and priorities for the provincial land base that can provide direction to decision-makers. The framework must not simply be based on the “multiple use” of landscapes; it must be an agreement on values, objectives and priorities. This approach will require an institutional champion, with defined roles and responsibilities, so that other regulatory agencies and government departments know what to do when they encounter regionally significant landscape issues.
- 2) **Land-use planning** – planning provides the legal mechanism to translate broad directions in the framework into specific decisions for specific regional landscapes. Decisions at this stage should set clear parameters for land and resource use in the area covered by the plan. Specific planning tools include:⁷
 - setting ecological objectives and limits of acceptable ecological impacts;
 - setting limits on the extent and characteristics of development footprints;
 - setting limits on the intensity of activities;
 - land-use zoning; and
 - phasing development.

Preferably, land-use planning would be based upon identifying ecological thresholds and limits. Ecological thresholds would specify maximum levels of activity for a given area, as well as maximum levels of effective habitat loss through alteration, removal and fragmentation of the landscape. These thresholds would provide the yardstick by which proponents, the public and decision-makers should assess proposed development and evaluate the potential impacts on the region.⁸

- 3) **Rights dispositions** – this is the stage where the specific legal rights are acquired for oil sands development to occur. This includes the sale of mineral rights (or “mineral tenure”) and the issuance of water rights. These decisions must be incorporated into the overall land-use planning process, which requires these decisions to be made with explicit and transparent consideration of landscape level objectives and ecological thresholds. In particular, mineral tenure is the critical decision point in directing the timing, location and intensity of oil sands development; it is also the basis on which significant investments are made. Currently, Alberta’s mineral rights are sold to the highest bidders, and these mineral tenure decisions are made with little or no integration across sectors, without thorough environmental reviews, or direct public involvement.⁹ This process needs to be reformed.

- 4) **Project review** – at this stage, project applications should be measured against ecological thresholds to determine whether they are within the limits of acceptable ecological impacts and can be approved. Currently, decisions at the project approval stage are being made in a policy vacuum because there is no overarching planning framework in place and there are no ecological thresholds against which to measure current project applications.

As outlined in further detail later on in our submission, this approach to planning also incorporates the need to:

- assemble environmental baseline data for the oil sands area (Vision 3, Strategy 3, Action 3.1);
- continue to focus research and put forward environmental management frameworks for ecosystem components (Vision 3, Strategy 3, Action 3.2);
- enhance knowledge and science capacity to more effectively manage environmental and resource information at multiple scales (Vision 3, Strategy 3, Action 3.4);
- recognize limits on the amount of land that can be disturbed at one time and a maximum level of disturbance within each area (Vision 3, Strategy 7, Action 7.1); and
- establish protected areas in the oil sands (Vision 3, Strategy 7, Actions 7.3 and 7.5).

In order to properly implement any type of planning approach to the oil sands, it is necessary to suspend the issuance of further mineral leases and project approvals until such time as the planning process has had a chance to “catch up” to the pace of development. A pause in development is needed in order to ensure that we have the planning tools in place (such as ecological thresholds, and integrated planning at the mineral tenure stage) in order to achieve the MSC’s vision of “ensuring a healthy environment.” This will also serve to create the impetus for work to be done to implement the components for responsible planning. Accordingly, the ELC supports the use of a moratorium on new mineral leases and project approvals until environmental limits have been adequately identified in the planning process (Vision 9, Strategy 1, Action 1.18).

As noted above, the ELC generally agrees with the use of regional scale planning (Action 1.3) because cumulative impacts often occur across broad landscapes and a regional approach is needed in order to set appropriate landscape objectives. However, the ELC cautions about the sole reliance on “regional environmental impact assessments” (Action 1.8) as the answer to addressing cumulative impacts. In the absence of an overarching planning framework, these regional approaches can be undermined by policy decisions made elsewhere, such as at the mineral tenure stage. The pace and intensity of development may be difficult to control at the regional level when control over key decisions, such as mineral tenure, are not included in the regional assessment process.

III. Vision 3, Strategy 2: Use economic instruments to encourage sound environmental practices

The ELC is strongly opposed to further tax or royalty reductions in the oil sands in order to meet minimum environmental requirements (Action 2.3). Sound environmental practices should be part of the cost of doing business, not an extra that is subsidized by the government and Alberta taxpayers. If royalty incentives continue to be offered, we believe that this money should go towards encouraging innovation which exceeds environmental regulatory requirements (Action 2.4).

The ELC strongly believes that Alberta's future prosperity depends on forward-looking policies that integrate social and environmental costs into market prices. The ELC believes that a variety of economic instruments could be used to achieve environmental policy goals. For example, the ELC supports the use of market instruments, in the form of full cost accounting, as a way to improve water consumption patterns (Action 2.6). In recognition of private companies' use of public resources, such as water, the pricing schemes should reflect the full cost of consuming and using this public resource.

The ELC also supports conducting a natural capital assessment of the oil sands area (Action 2.5). The Alberta Energy and Utilities Board (EUB) and Joint Review Panels use a cost/benefit analysis to determine whether a project is in the public interest, weighing the economic benefits to all Albertans against the localized social and environmental costs or risks of the project. For better or for worse, this is a quantitative calculation. Trade-offs may be better assessed if we can identify the economic value of ecological goods and services provided by the boreal forest, peatlands, wetlands and water resources to insert into this equation. The ELC views this as one potential method to protect non-economic values in a political climate which favours market-driven approaches. Work has already begun on calculating natural capital in the boreal region and this work needs to be enhanced and better incorporated into decision-making approaches.¹⁰

IV. Vision 3, Strategy 3: Improve cumulative effects management process for oil sands

As mentioned under Strategy 1, the ELC views integrated landscape management as the key to effectively managing cumulative impacts in the oil sands. Identifying and assessing the cumulative impacts is arguably the essence of land-use planning. While the ELC agrees with Actions 3.1-3.4, we note that they are very general in nature and do not provide enough guidance to manage cumulative effects in a meaningful way. To improve these actions, the ELC recommends the following two modifications.

First, the ELC recommends that the provincial government make it a top priority to identify and set ecological thresholds, and to establish management frameworks for the oil sands by a set timeframe (e.g. by 2010). While we agree that environmental baseline data for the oil sands area needs to be assembled (Action 3.1), we need to enhance our knowledge and science capacity (Action 3.4), and management frameworks for ecosystems need to be put forward (Action 3.2), these actions have failed to be completed under the current process. In 1999, the Alberta government created the Regional Sustainable Development Strategy (RSDS) for the Athabasca Oil Sands Region. A key component of the RSDS was to collect scientific data to identify

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environmental thresholds that would limit impacts in order to protect the region's ecosystems and would guide decision-makers in issuing oil sands project approvals. Eight years have passed and these thresholds have not yet been established. In the interim, mega oil sands projects continued to be approved. In order to address this failing, the government needs to make it a priority to set ecological thresholds in the oil sands region. As mentioned earlier in our submission, a moratorium on further oil sands development would create the necessary incentive for this work to be done (Vision 9, Strategy 1, Action 1.18).

Second, the actions put forward must address who will complete this work. The ELC recommends that the role of the Cumulative Effects Management Association (CEMA) be clarified and reformed so that it can complete this work in a timely manner (Vision 9, Strategy 2, Actions 2.1-2.4). It has been noted in the Radke report and in oil sands decisions that CEMA has not been effective in its current form and has missed its deadlines in completing management frameworks for the oil sands.¹¹

Again, the ELC cautions that cumulative impacts should be viewed as a general issue for land-use planning rather than simply as an add-on to environmental assessment (Actions 3.5 and 3.6). Although the use of regional environmental impact assessments may be slightly better than the current approach, this is a band-aid solution; it will not address the underlying problems that are creating cumulative impacts. These project reviews cannot serve as a surrogate for the planning framework. Identifying and managing cumulative effects requires, by definition, a focus on the total ecological impact of human activities across a specified landscape.¹² Specifically, using regional environmental impact assessments will not solve the need for baseline criteria for assessing the significance of cumulative impacts or resolving the issuance of mineral tenure without consideration of the pace of development or the impact on social and ecological infrastructure.

V. Vision 3, Strategy 4: Develop and implement limits and standards to protect human and ecosystem health

As outlined in our previous submission to the Panel on vision and principles for oil sands development in September 2006, the ELC strongly supports the use of the precautionary principle in setting environmental limits (Action 4.1). Oil sands decisions are either largely or completely irreversible in the short-term with respect to their environmental effects and result in significant long-term environmental impacts. Once public land is allocated to these uses, there are often significant economic, technical and ecological obstacles to returning the affected areas back to their natural state or to an equivalent land capability.¹³ These land use decisions cannot easily be undone if they are later found to be based on faulty assumptions or incomplete information.¹⁴ The range of options available to future generations will also be significantly affected or irrevocably narrowed by our current choices and chosen limits. For these reasons, environmental limits must be precautionary in nature (Action 4.1); when the environmental limits are established they must be based on proven science (Action 4.8).

The ELC notes that there are two different actions with respect to benchmarking Alberta's environmental standards (Actions 4.5 and 4.6). The ELC's position is that "benchmarking" is the process used to evaluate processes in relation to the best practice¹⁵ so it seems logical that Alberta's environmental standards should be benchmarked against the most stringent relevant

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standards whether that be United Nations standards or otherwise. Alberta's standards must be tested against standards of excellence.

The issue of establishing caps for air emissions will be addressed in the next section.

VI. Vision 3, Strategy 5: Become a leader in reducing greenhouse gas emissions

To begin, the ELC supports the strategy that states that Alberta should become a leader in reducing greenhouse gas emissions (GHGs), rather than a laggard in reducing GHGs. The alternative strategy is premised upon "balancing" reductions in GHGs with economic development. This is another way of advocating for intensity-based emission targets. The ELC is opposed to intensity-based emission targets (Action 5.4). Intensity-based emission targets will not result in real emission reductions and will not assist Canada in meeting its international commitments under the Kyoto Protocol.

The ELC supports GHG targets that will cap emissions for industry and that will lead to reductions consistent with Canada's international obligations under the Kyoto Protocol (Action 5.5). To date, the federal government has failed to regulate the release of GHGs; this failure to regulate has not relieved Canada from meeting its international obligations. It is the ELC's position that the Alberta government's proposed legislative scheme to require a 12% intensity-based emissions target for "established" large final emitters (those operating before the year 2000) will be totally ineffective in reducing total GHG emissions, which is currently the best solution to climate change.¹⁶ Therefore, at this time, the ELC cannot support oil sands industries meeting GHG targets set by the federal and provincial governments (Action 5.7) because these targets are either non-existent or totally inadequate as compared with Canada's international obligations and the actions needed to avoid dangerous climate change impacts.

Both the Pembina Institute and the David Suzuki Foundation have demonstrated that if Canada is to fulfill its global responsibilities to prevent the adverse effects of climate change, it must reduce its annual GHG emissions to 25% below 1990 by 2020 and to reduce emissions to 80% below the 1990 level by 2050.¹⁷ This will require deep emission reductions. However, to date Canada's and, more specifically, Alberta's energy strategies have supported the rapid expansion of highly GHG intensive activities such as oil sands production. These strategies are contrary to a responsible climate change policy that is consistent with the need for deep, long-term GHG reductions.

Oil sands producers have an opportunity to become a leader in showing that they can become a part of deep GHG emissions. The Pembina Institute has published a report that sets out how the oil sands can become carbon neutral by the year 2020 through a combination of actual reductions and genuine emission offsets.¹⁸ The ELC agrees that this is an action that should be adopted with respect to oil sands development (Action 5.5).

VII. Vision 3, Strategy 7: Minimize the impact of oil sands development on boreal forests and biodiversity

In order to maintain biodiversity in the oil sands region in the face of widespread oil sands development, parts of the landscape will have to be set aside as protected areas. The ELC agrees
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that there should be new protected areas established in the oil sands as part of the land use planning process (Action 7.5).

There are several reasons why the establishment of protected areas is critically important. First, the establishment of a protected area represents a “conservation off-set measure” which is an action taken to off-set ecological losses resulting from intensive industrial activity in other areas.¹⁹ This is a method of establishing a limit on the amount of land that can be disturbed in the oil sands areas (Action 7.1). Second, protected areas play a vital role in serving as ecological benchmarks.²⁰ Monitoring within these areas provides important baseline information that can be used to assess ecological changes in the industrial landscape and to establish maximum levels of disturbance within other areas (Action 7.1). They can also serve as benchmarks for ongoing reclamation of oil sands areas. Third, protected areas serve as important sites for traditional and recreational uses. Finally, the preservation of wilderness is needed to maintain the full complement of biodiversity, which is, of itself, a high priority for the public.²¹

In order to be consistent with the above reasoning, these protected areas must meet the following criteria. First, the sites must consist of an interconnected network of protected areas within the oil sands regions, including the McClelland Lake Wetland (Action 7.3) and other sites that provide full representation of Alberta’s boreal ecosystem. The ELC will refer the Panel to work that has been done identifying priority areas for protection in the boreal region.²² Second, the sites must be large enough to support viable populations of native species and to maintain natural ecological processes. As other authors have pointed out, “this implies a size of several thousand square kilometers – sufficient to withstand the large fire events that are a key driver of ecological function in the boreal forest.”²³ Third, the sites must be fully protected from industrial use, including both energy development and forestry. It is suggested that the designation of these sites take the form of a hybrid designation incorporating aspects of both:

- wilderness areas under the *Wilderness Areas, Ecological Reserves, Natural Areas and Heritage Rangelands Act*, which are protected from industrial development, logging and motorized access. This is the highest level of protection currently available in Alberta, but it prohibits all human activity with the exception of foot access;²⁴ and
- wildland provincial parks established under regulations pursuant to the *Provincial Parks Act*, which prohibits new industrial development, roads and new commercial tourism facilities. However, this designation permits logging and industrial development on pre-existing leases.²⁵

In other words, the protected areas in the oil sands should allow for traditional uses but prevent industrial activities including activities associated with pre-existing leases.

Since the oil sands are situated largely on public lands, the responsibility for the establishment of new protected areas lies largely with the provincial government. As noted by other authors, since the end of the Special Places 2000 program, there has been no formal process in place to establish new protected areas in Alberta.²⁶ We see this as a gap in the current regime that needs to be addressed. Accordingly, the ELC recommends as an additional action that a formal process be developed and implemented for designating protected areas in the province.

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VIII. Conclusion

The ELC's submission is based upon the premise that oil sands development should occur in an orderly and deliberate manner, and at a pace and scale that recognizes that the natural environment may be irreparably harmed when development exceeds thresholds of ecological health. Fulfillment of the vision and principles set out by the MSC requires strategies and actions that:

- direct a moratorium on the issuance of further mineral leases and project approvals in the oil sands until an appropriate planning framework is in place that addresses cumulative impacts and includes the establishment of protected areas, and
- secure a commitment to reduce GHGs to a level that is consistent with Canada's international commitments.

Oil sands decisions are either largely or completely irreversible in the short-term with respect to their environmental effects. It is thus imperative that we direct our thinking towards the long-term effects of oil sands development in order to make the correct decisions now so as not to adversely affect future generations.

Thank-you for the opportunity to provide these submissions to the Panel.

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¹ Jodie Hierlmeier & Dean Watt, *Submissions to the Oil Sands Panel On Developing A Framework For Oil Sands Development in Alberta* (Edmonton, Environmental Law Centre, 2006), online: Environmental Law Centre <<http://www.elc.ab.ca/ims/client/upload/Submissions%20to%20Oil%20Sands%20Panel%20-%20Sept%2026.pdf>>.

² Doug Radke *et al.*, *Investing In Our Future: Responding To the Rapid Growth of Oil Sands Development* (Edmonton: Government of Alberta, 2006) at 119, 134 (recommendation 13) [Radke report].

³ The ELC generally supports the approach set out by Kennett in Steven A. Kennett, *Integrated Landscape Management in Canada: Getting from Here to There*, Occasional paper #17 (Calgary: Canadian Institute of Resources Law, 2006) [Kennett, paper #17].

⁴ This appears to be the definition of integrated landscape management advocated by the Alberta Chamber of Resources, online: <<http://www.acr-alberta.com/ilm.htm>>.

⁵ Steven A. Kennett, *Towards a New Paradigm for Cumulative Effects Management*, Occasional paper #8 (Calgary, Canadian Institute of Resources Law, 1999) at 30 [Kennett, paper #8].

⁶ Kennett, paper #17, *supra* note 3 at 6-18.

⁷ *Ibid.* at 11.

⁸ Kennett, paper #8, *supra* note 5 at 37-42.

⁹ The only review that occurs prior to tenure allocation is by the multi-departmental Crown Mineral Disposition Review Committee, which is expected to highlight any environmental restrictions associated with individual land parcels. This process is closed to the public and does not solicit stakeholder input, see Michael M. Wenig & Michael S. Quinn, "Integrating the Alberta Oil and Gas Tenure Regime with Landscape Objectives: One Step Toward Management of Cumulative Effects" in Henry Epp, ed., *Access Management: Policy to Practice. Proceedings of a Conference Presented by the Alberta Society of Professional Biologists in Calgary, March 18-19, 2003* (Calgary: Alberta Society of Professional Biologists, 2004).

¹⁰ See e.g. Mark Anielski & Sarah Wilson, *Counting Canada's Natural Capital: Assessing the Real Value of Canada's Boreal Ecosystems* (Drayton Valley: The Pembina Institute, 2005).

¹¹ *Supra* note 2 at 134 (recommendation 12); see e.g. *Application for an Oil Sands Mine and Bitumen Processing Facility (Kearl Oil Sands Project) in the Fort McMurray Area* (27 February 2007), Decision 2007-013, Joint Panel Application 1414891 at 92-93.

¹² Kennett, paper #8, *supra* note 5 at 21.

¹³ Steven A. Kennett, *New Directions for Public Land Law*, Occasional paper #4 (Calgary: Canadian Institute of Resources Law, 1998) at 8.

¹⁴ *Ibid.*

¹⁵ See wikipedia online: <<http://en.wikipedia.org/wiki/Benchmark>>.

¹⁶ Alberta, Bill 3, *Climate Change and Emissions Management Amendment Act, 2007*, 3rd Sess., 26th Leg., Alberta, 2007 (second reading 22 March 2007); see also *Specified Gas Emitters Regulation* (draft).

¹⁷ Matthew Bramley, *The Case for Deep Reductions: Canada's Role In Preventing Dangerous Climate Change* (Drayton Valley: The David Suzuki Foundation and the Pembina Institute, 2005) at 5.

¹⁸ Matthew McCulloch, Marlo Raynolds & Rich Wong, *Carbon Neutral 2020: A Leadership Opportunity in Canada's Oil Sands* (Drayton Valley: The Pembina Institute, 2006).

¹⁹ Richard Schneider & Simon Dyer, *Death By a Thousand Cuts: Impacts of In Situ Oil Sands Development on Alberta's Boreal Forest* (Edmonton, The Pembina Institute and the Canadian Parks and Wilderness Society, 2006) at 20 [Schneider & Dyer].

²⁰ *Ibid.*

²¹ *Ibid.*

²² See Simon J. Dyer, *High Conservation Value Forests (HCVF) Within the Alberta-Pacific Forest Management Agreement Area: A Summary Report* (Boyle, Alberta: Alberta-Pacific Forest Industries Inc., 2004).

²³ Schneider & Dyer, *supra* note 19 at 20.

²⁴ R.S.A. 2000, c. W-9, ss. 6-7.

²⁵ *Provincial Parks (Dispositions) Regulation*, Alta Reg. 241/1977, s. 2.1.

²⁶ Schneider & Dyer, *supra* note 19 at 21.

Appendix I: Summary of Strategies and Actions

Vision 3: Ensures healthy environment		
Strategy 1. Use planning and regulatory instruments to encourage sound environmental practices		
Actions ELC agrees with	Actions ELC disagrees with	Gaps/alternatives/additions in actions
<p>1.1 Create a comprehensive plan</p> <p>1.3 Regional scale planning as part of the land use framework</p> <p>1.8 Integrated landscape management^a</p>	<p>1.8 Use regional environmental impact assessments</p>	<p>We recommend planning be addressed at all four stages in the energy decision-making continuum:</p> <ul style="list-style-type: none"> • legal and policy framework; • land use planning; • rights dispositions; and • project approval. <p>In order to put this process in place, there must be a moratorium on new oil sands mineral leases and project approvals.</p>

Vision 3: Ensures healthy environment		
Strategy 2. Use economic instruments to encourage sound environmental practices		
Actions ELC agrees with	Actions ELC disagrees with	Gaps/alternatives/additions in actions
<p>2.4 Focus royalty incentives to encourage innovation^b</p> <p>2.5 Conduct a natural capital assessment</p> <p>2.6 Use market instruments for water consumption</p>	<p>2.3 Provide fiscal incentives, such as tax or royalty reductions</p>	

Vision 3: Ensures healthy environment		
Strategy 3. Improve cumulative effects management process for oil sands		
Actions ELC agrees with	Actions ELC disagrees with	Gaps/alternatives/additions in actions
<p>3.1 Assemble environmental baseline data</p> <p>3.2 Continue research and put forward environmental management frameworks</p> <p>3.4 Enhance knowledge and</p>	<p>3.5 Review and improve the assessment process for regional cumulative environmental effects^c</p> <p>3.6 Conduct regional cumulative environmental assessments of oil sands</p>	<p>The ELC proposes as additional action items:</p> <ul style="list-style-type: none"> • that the province make it a top priority to identify and set ecological thresholds, and to establish management frameworks for the oil sands by a set timeframe

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science capacity to more effectively manage	development	(e.g. by 2010); <ul style="list-style-type: none"> • the role of CEMA must be clarified and reformed to do this work in a timely manner
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Vision 3: Ensures healthy environment		
Strategy 4. Develop and implement limits and standards to protect human and ecosystem health		
Actions ELC agrees with	Actions ELC disagrees with	Gaps/alternatives/additions in actions
4.1 Identify precautionary environmental limits to protect human and ecosystem health 4.2 Establish caps for air emissions 4.5 Benchmark Alberta's environmental standards against U.N. ^d 4.6 Benchmark Alberta's environmental standards against other oil producing nations 4.8 Identify environmental limits based on proven science		

Vision 3: Ensures healthy environment		
Strategy 5. Become a leader in reducing greenhouse gas emissions.		
Actions ELC agrees with	Actions ELC disagrees with	Gaps/alternatives/additions in actions
5.5. Set GHG targets that will cap emissions for oil sands industry and will lead to reductions consistent with Canada's international commitments 5.6 Require carbon neutrality in all oil sands industry by the year 2020	5.4 Develop facility targets for energy efficiency measured by per barrel energy intensity 5.7 Require oil sands industries to contribute to meeting GHG targets set by the federal and provincial government	

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Vision 3: Ensures healthy environment		
Strategy 7. Minimize the impact of oil sands development on boreal forests and biodiversity		
Actions ELC agrees with	Actions ELC disagrees with	Gaps/alternatives/additions in actions
<p>7.1 Establish a limit on the amount of land that can be disturbed and a maximum level of disturbance</p> <p>7.3 Establish an inter-connected network of protected areas within the oil sands regions, including the McClelland Lake Wetland^e</p> <p>7.5 Establish new protected areas in oil sands after a balanced review of all factors during land use planning</p>		<p>With respect to protected areas, additional actions should include:</p> <ul style="list-style-type: none"> • specifying that the sites are large enough to support viable populations of native species and to maintain natural ecological processes; • ensuring the sites are fully protected from industrial use, including both energy development and forestry; and • developing a formal process for designating protected areas in the province

Vision 9: Demonstrates leadership through world class governance		
Strategy 1. Establish an effective governance structure for oil sands development		
Actions ELC agrees with	Actions ELC disagrees with	Gaps/alternatives/additions in actions
1.18 Declare a moratorium on new oil sands development (no new leases, no new approvals) until environmental limits have been identified and infrastructure and labour concerns have been addressed		

Vision 9: Demonstrates leadership through world class governance		
Strategy 2. Improve the cumulative effect management system for oil sands		
Actions ELC agrees with	Actions ELC disagrees with	Gaps/alternatives/additions in actions
<p>2.1 Clarify the role of CEMA to achieve more timely outputs and decisions</p> <p>2.2 Bring forward recommendations for the improved management of</p>		

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cumulative environmental effects by enhancing CEMA		
2.4 The RSDS should be reviewed and the role of CEMA should be appropriately modified		

^a Integrated landscape management is defined in our submission as a holistic planning strategy based upon setting and prioritizing landscape-scale objectives; it is not simply a process of coordinating activities in order to reduce industrial footprints on the landscape.

^b This is agreed to on the basis that if royalty incentives continue to be offered, then that money should go towards encouraging innovation that exceeds regulatory requirements. The ELC's starting position is that royalty incentives should not be offered.

^c The caution here is that cumulative impacts should not be viewed as simply as an add-on to environmental assessment process; it should be part of a larger, broader planning process.

^d The ELC's position is that Alberta's environmental standards should be benchmarked against the most stringent relevant standards whether that be United Nations standards or otherwise. Alberta's standards must be tested against standards of excellence.

^e In our submissions, we refer the reader to other work that has been done which identifies priority areas for protection, see *supra* note 22 and accompanying text.

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