

Submission of

**Her Majesty Queen in right of Alberta  
as represented by the Minister of Environmental Protection  
and the Minister of Health**

in relation to the

**Suncor Millennium Project**

submitted by  
**Suncor Energy Inc.**

before the

**Alberta Energy and Utilities Board**

ALBERTA ENERGY AND UTILITIES BOARD  
APPLICATION NO. 980197

ALBERTA ENVIRONMENTAL PROTECTION  
APPLICATION NO. 014-094 TO AMEND EPEA APPROVAL 94-01-00  
AND  
APPLICATION TO AMEND *WATER RESOURCES ACT* LICENCES

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## I. INTRODUCTION

1. This submission is being filed on behalf of Her Majesty the Queen in right of Alberta (Alberta) further to the Alberta Energy and Utilities Board (EUB) Application No. 980197 (Project Millennium) filed by Suncor Energy Inc. (Suncor). This will be considered at an Alberta Energy and Utilities Board (EUB) public hearing to commence on January 4, 1999, at Fort McMurray.
2. Alberta will be represented by two participating departments, Alberta Environmental Protection (AEP) and Alberta Health (AH). Alberta's interest in the application is a consequence of legislation and regulation in relation to the environment, public lands, forestry, health and historical resources which are set out in detail under the heading "Alberta's Interest".
3. Alberta appears before the Panel respecting this application to assist in the EUB's evaluation of Project Millennium proposed by Suncor. It will present information to the Panel about Alberta's role and responsibilities with respect to the application for AEP approvals. Alberta will make the Panel aware of specific issues with the application and indicate how they will be addressed by AEP and AH.
4. The nature of the approvals sought from AEP are also set out in the section "Alberta's Interest". No decisions have been made with respect to applications made to AEP. Participation at this hearing is not meant to constrain or fetter any Alberta statutory decision-makers in fulfilling their responsibilities under the laws of Alberta. The *Environmental Protection and Enhancement Act (EPEA)* permits the consideration of evidence submitted to the EUB and requires the consideration of the EUB decision in any applicable *EPEA* approval to be issued.
5. Alberta does not object to the proposed Project Millennium provided the EUB finds that the project is in the public interest and that the matters raised in this submission are properly addressed. The position set out in this submission is subject to change as the hearing progresses. Alberta's final position will be presented at the hearing at the time of final argument.

## II. SUNCOR OIL SAND FACILITIES

6. Suncor has an existing facility adjacent to and overlapping Project Millennium. AEP approvals for the existing facilities under the *EPEA* and *Water Resources Act* include:
  - a) *Environmental Protection and Enhancement Act* Approval 94-01-00;
  - b) *Water Resources Act* Licence, File 11403 (Lease 86/17);
  - c) *Water Resources Act* Licence, File 27549/27551.

## III. ALBERTA'S INTEREST

7. AEP is responsible for the protection of the province's air, land, and water, and for the management and conservation of renewable resources such as forests, fish, and wildlife.
8. AEP has regulatory responsibilities for this proposed project pursuant to *EPEA*, the *Water Resources Act*, the *Public Lands Act* and the *Forests Act*. Suncor has submitted an application under *EPEA* and the *Water Resources Act* and must receive approval before it proceeds with the project.

9. AEP undertakes its business and service through a community-based approach. The province is divided into six regions: North West Boreal, North East Boreal, Northern East Slopes, Parkland, Bow, and Prairie.

Project Millennium is located in the North East Boreal Region which is administered through 3 services: the Environmental Service, the Natural Resource Service, and the Land and Forest Service.

10. Alberta Health's mission is to improve the health of Albertans and the quality of the health system. Alberta Health is responsible for developing policy and standards that contribute to improving health for all Albertans. Alberta Health provides strategic direction to Regional Health Authorities who promote and protect the health of the population in the health region and work towards the prevention of disease and injury. The Project is located in the Northern Lights Regional Health Authority.
11. Section 11 of the *Environmental Protection and Enhancement Act* provides for co-operation between AEP and Alberta Health in promoting human health through environmental protection.

#### **Environmental Protection and Enhancement Act**

12. *EPEA* provides for the protection of the environment through seven core business strategies: project assessment/evaluation; approvals; monitoring; enforcement; pollution prevention; setting standards, objectives, and guidelines; and decommissioning and reclamation.

#### **Other Legislation**

13. The *Water Resources Act* deals with the management and allocation of water and regulates all activities which have an effect on watercourses or water bodies. A regulation under the *Water Resources Act* deals with the safety of fluid retaining projects, including tailing ponds. The *Water Resources Act* will be replaced by the *Water Act* as of January 1, 1999.
14. The *Public Lands Act* authorizes the allocation of public land and provides for management of forest land use activities such as recreation areas, trails and land use zones. Provincial public land is administered either as Green Area or White Area. All public land within Project Millennium is within the Green Area.
15. The *Public Health Act* provides that no person shall create, commit or maintain any nuisance. Nuisance is a condition that is or might become injurious or dangerous to the public health or that might hinder in any manner the prevention or suppression of disease.
16. The *Historical Resources Act* requires a proponent to assess whether the project will result in the alteration, damage or destruction of historic resources. Alberta Community Development, who administers this Act, can require action to protect any historic resources.
17. Other legislation that AEP has regulatory responsibility for includes the *Fisheries Act (Canada)*, the *Forests Act*, *Forest and Prairie Protection Act* and the *Wildlife Act*.

#### **IV. RESOURCE MANAGEMENT RESPONSIBILITY**

18. Nine government policies apply to this project: the *Regional Sustainable Development Strategy (1998)*; the *Fort McMurray-Athabasca Oil Sands Subregional Integrated Resource Plan (1996)* (IRP); the *Oil Sands Mining: End Land Use Committee Recommendations (1998)*; *Special Places*

(1995); the *Fish and Wildlife Policy for Alberta* (1982); the *Fisheries Conservation Strategy* (1997); *Statement of Commitment to Support the Canadian Biodiversity Strategy* (1995); the *Recommended Wetlands Policy for Alberta* (1994); and the *Recommended Native Grasses and Legumes for Revegetating Disturbed Lands in the Green Area* (1996).

Regional Sustainable Development Strategy (1998)

19. Given the number of current resource development proposals in the Athabasca Oil Sands, it is important to continue to provide proper context for resource and environmental management. To provide clear direction and effective decision making for sustainable development and environmental management, AEP is committed to lead the development of a "Regional Sustainable Development Strategy" for the Athabasca Oil Sands. The draft Terms of Reference are attached as Appendix I.
20. The Strategy will not duplicate existing effort, nor impede important existing initiatives or projects. The Strategy must include consideration of the recommendations and findings of these other initiatives. A key component of the Strategy will be to improve communication, co-operation and co-ordination of ongoing activities in the Athabasca region, and to define gaps in knowledge and activities, and initiate work to fill these gaps.

Fort McMurray-Athabasca Oil Sands Subregional Integrated Resource Plan

21. The Fort McMurray-Athabasca Subregional Integrated Resource Plan (IRP) provides a comprehensive integrated approach for management of public lands and resources. It provides government direction, policy information and guidance for developing and assessing future actions by provincial government agencies and the private sector. The Plan was sub-divided into resource management areas (RMA) on the basis of similar landscape patterns to be managed with common management goals, objectives and guidelines. Project Millennium is located within the Athabasca-Clearwater RMA and the Mildred-Kearl Lake RMA. The associated infrastructure is located solely in the Athabasca-Clearwater RMA.
22. The management intent for the Athabasca-Clearwater RMA is to protect the natural landscape, which encompasses water, wildlife habitat, ecological and geological features, to ensure aesthetic, recreational, traditional, and environmental values. The Mineral and Surface Material Resources objective is to explore and develop mineral and surface material resources in a manner that ensures protection of and minimizes the impacts to the unstable slopes, watershed, wildlife, ecological, historical, traditional, and recreational values of the RMA.
23. The IRP states that the Athabasca River Valley ecosystem and its resources and values will be protected and adverse impacts of development minimized. Exploration and development of oil sand resources will be considered only if the proponent can demonstrate that a satisfactory level of mitigation of the adverse impacts of development on the resources and values listed below can be achieved. This determination will be made during the project approval process and will not entail a plan amendment.
  - a) Wildlife-valley vegetation, riparian habitat, habitat diversity
  - b) Erosion-sensitive soils and drainage patterns
  - c) Floodplain-setback to at least 1:100 year flood level
  - d) Water Quality-water quality for downstream users
  - e) Recreation and Tourism-visual and acoustic aesthetics
  - f) Ecological-unique valley characteristics and critical ecological functions
  - g) Traditional Uses-important traditional areas for First Nations Peoples

- h) Historic Sites-historic resources for scientific, educational and interpretative purposes
24. The management intent for the Mildred-Kearl Lakes RMA is to promote the orderly planning, exploration and development of the resources with emphasis on the area's oil sands reserves. The Mineral and Surface Material Resources objectives are the following:
- a) To provide opportunities for industry to further delineate the extent of surface mineable oil sands reserves; and
  - b) To encourage the orderly, efficient development and production of surface mineable oil sands reserves, to optimize regional and provincial economic and employment benefits.

Oil Sands Mining: End Land Use Committee Recommendations

25. In June 1997, AEP established a committee whose membership included; the Oil Sands Mining Industry, the Alberta Energy and Utilities Board, and other stakeholders affected by oil sands mining.
26. In early 1998, the committee made recommendations to the Government of Alberta to assist decision making during the regulatory review and approval process. The purpose of the recommendations was to minimize impacts of oil sands operations on other users and industries (e.g., forestry) while at the same time respecting Oil Sands Mining as an important regional activity. Those recommendations that are of particular relevance to this project are:
- a) **Baseline Information/Data for End Land Use Decision Making-Pre-Disturbance Land Capability:** This includes recommendations on baseline data collection for new oil sands developments, existing oil sands operations and verification of baseline vegetation data for existing oil sands developments;
  - b) **Reclamation Plan Coordination:** Recommendations deal with the need for regional coordination of end land use decisions through a group consisting of regulatory agencies, Oil Sands Industry and key stakeholders in the Regional Municipality of Wood Buffalo, requirements for coordination between government and industry and coordination of plans and reclamation activities among industry operators;
  - c) **Land Use Categories and Allocation:** The committee provided recommendations as well as guidelines for implementation and allocation for major land use categories: Natural and Conservation Areas, Human Development, and Forestry;
  - d) **Priority of Establishing End Land Uses:** Recognizing that development of land uses on reclaimed land will happen over long periods of time, the committee provided recommendations for setting end land use priorities;
  - e) **Use of the Committee Recommendations:** The committee recommendations have been provided to government regulatory agencies and oil sands mining companies as a framework for:
    - i) reclamation and end land use planning by companies;
    - ii) provincial Government regulatory review and decision making;
    - iii) preparing a strategy for ongoing monitoring and review of the committee's recommendations on oil sands mining end land use.

27. The End Land Use Committee Recommendations will be considered by the Director when making a decision.

#### Special Places

28. Special Places is a made-in-Alberta strategy to complete a network of protected areas that represent the environmental diversity of the province's six natural regions and twenty sub-regions. The program seeks to balance the goal of preservation with the three other goals of outdoor recreation, heritage appreciation, and tourism/economic development.
29. AEP and Alberta Community Development have reviewed the proponent's application with respect to Special Places. The Athabasca River and the associated valley ecosystem including 1600 meters from the high water mark on both sides of the valley have been nominated as a Special Place site.
30. The portion of the Athabasca River Valley however, that lies within the applicant's proposed site has not been selected as a candidate site for detailed review by the multi-sectoral Provincial Coordinating Committee or for Local Committee consideration. Consequently, it is unlikely that this portion of the Athabasca River Valley nomination will be designated as a protected area under the Special Places program. A large portion of the Athabasca River Valley nomination lying upstream from Fort McMurray, in the area of the Athabasca River Rapids is under detailed review as a preliminary candidate site.

#### Fish and Wildlife Policy for Alberta (1982)

31. The Fish and Wildlife Policy provides general direction regarding outdoor recreation, wildlife resources, fisheries resources and regulatory aspects of fish and wildlife management for Alberta. The primary consideration with respect to fish and wildlife populations is to protect them from severe decline and to maintain abundance and diversity at the carrying capacity of the habitat.

#### Fish Conservation Strategy for Alberta (1997)

32. A *Fish Conservation Strategy for Alberta* has been developed to guide the management of fish resources in a manner consistent with the federal *Fisheries Act* and the *Fish and Wildlife Policy for Alberta*.
33. The *Fish and Wildlife Policy* recognizes fish conservation and confers on AEP the mandate for protection of fisheries. AEP's role is to sustain the abundance, distribution and diversity of fish populations at the carrying capacity of their habitats.

#### Sustaining Alberta's Biodiversity

34. In 1995, Alberta, along with the governments of other provinces, territories, and Canada, committed to the Canadian Biodiversity Strategy as a guide for conserving biodiversity and ensuring the sustainability of biological resources. The Canadian Biodiversity Strategy provides a strategic framework of action to ensure the productivity, diversity and integrity of natural systems. Governments should use environmental assessments to determine the impacts of projects on ecosystems, species, and genetic resources and to recommend means for mitigating or avoiding these impacts. Governments should also determine the effects of cumulative impacts of human activities on ecosystems, species, and genetic diversity and to take appropriate steps to eliminate or reduce them to acceptable levels. Alberta implements the strategy through its legislation, policies, and

programs as outlined in the document titled *Sustaining Alberta's Biodiversity: An Overview of Government of Alberta's Initiatives Supporting the Canadian Biodiversity Strategy*.

35. Discussions regarding furthering the approach to biodiversity assessment, mitigation, and *in situ* conservation have been initiated with the Oil Sands Industry with respect to the current developments. These discussions, along with further action by the Industry, will help develop the framework that will ensure productivity, diversity, and integrity of the region's ecosystems.

#### Wetlands Policy for Alberta

36. The goal of the Recommended Wetlands Policy for Alberta, which is approved for interim implementation, is to "sustain the environmental, economic and social benefits that wetlands provide, now and in the future".

#### Recommended Native Grasses and Legumes for Revegetating Disturbed Lands in the Green Area

37. In addition to controlling erosion, native species are used for revegetation to maintain the genetic integrity of a site's native vegetation and to ensure appropriate habitat for wildlife after reclamation. These aims reflect the department's objective of managing resources within the framework of the landscape's ecology.

### **V. ALBERTA'S APPROVAL PROCESS**

#### Environmental Protection and Enhancement Act Approval Process

38. This Suncor oil sands mine and processing plant are designated as Division 3 and Division 2 activities, respectively, under Schedule 1 of the *Activities Designation Regulation* of *EPEA*. The Director responsible for issuing this approval is the Director, Environmental Service, North East Boreal Region.
39. The department provided terms of reference for environmental impact assessment (EIA) reports for Project Millennium following the public notice provisions and procedural steps set out in *EPEA*. AEP reviewed the EIA reports and supporting documentation. AEP intends to participate in the EUB hearing to assist the Board in reviewing the likely environmental consequences of these activities and how the department intends to manage them.
40. Suncor prepared the EIA that forms the basis of the application both to the EUB and to AEP. AEP, in its co-ordination role, ensured that all regulatory and interested agencies reviewed and had input into the EIA. The environmental assessment process ensures that the EUB and AEP Directors have the best available information upon which to make their decisions.
41. Suncor filed an integrated application with AEP for regulatory approval, which combines *EPEA* and *Water Resources Act* regulatory review processes. When reviewing an application, the Director is required by *EPEA* to consider the decision of the EUB and may consider any information placed before the EUB in making a decision. AEP will not issue any of its approvals until the EUB has completed its evaluation and decided that the project is in the public's interest. AEP must be satisfied that Project Millennium will meet AEP's requirements before it will issue any environmental approvals.
42. The Director decides whether to issue an approval and what conditions will be required. Before doing so, the Director considers any Statements of Concern filed by directly affected individuals.

The Director may circulate the particulars of the proposed decision to the applicant and persons who filed Statements of Concern for their comment. If the Director approves the project, the approval will contain terms and conditions to protect the environment. The approval issued by AEP can be for a period of up to ten years, at which time a new approval is required.

#### Water Resources Act Approval Process

43. The application under the *Water Resources Act* is for the amendment of two existing licences to divert and use water. One, for the Steepbank Mine project (File 27549/27551), is to increase the allocation of water that will be diverted in the course of the mine development and operation, to prevent runoff exposed to the oilsands from entering the environment. The other, for the operations at Lease 86/17 (File 11403), is to increase the consumptive use and decrease the return flow of the existing allocation from the Athabasca River.
44. The *Water Act*, which is proclaimed in force on January 1, 1999, provides in Section 171 that the application continues as an application under *Water Resources Act*.

#### Alberta Health's Process

45. EIA reports are reviewed by an interdepartmental Human Health Review team led by staff from Health Surveillance, Alberta Health. The population health risk assessment process is based on a multidisciplinary approach including epidemiology, toxicology, environmental health, engineering, social sciences, and biostatistics. Public Health recommendations may include health protection, health promotion, disease prevention, and exposure control strategies.
46. Further monitoring activities related to human health will be needed to improve future health impact assessments to further the understanding of the links between air quality and human health, and to address cumulative effects issues. How these activities continue, in what form and with whose support have yet to be determined. However, AEP and Alberta Health agree that proactive efforts to find acceptable options and solutions should be pursued. This may be appropriately pursued in a multi-stakeholder forum that includes the collection of long-term air quality and personal exposure monitoring data.

## **VI. PROJECT ANALYSIS**

#### Management of Regional Air Quality

47. In addition to consideration of direct air emissions from Project Millennium, the management of regional effects of air emissions needs to be considered.

#### Departmental Position

48. Further modelling and monitoring will be needed to more precisely and accurately establish the effect of regional NO<sub>x</sub> and VOC emissions on ambient ground-level ozone and NO<sub>2</sub> concentrations. This may occur through initiatives under the Wood Buffalo Environmental Association (WBEA) or may be recommended by staff to the Director as an *EPEA* approval condition. However, the predicted exceedance of the one-hour ambient ozone guidelines, by the maximum peak hourly concentration predicted by the modelling that Suncor has submitted, and uncertainty in the predicted exceedance of the NO<sub>2</sub> guidelines (in close proximity to the mine pits), suggests that a precautionary approach towards minimization of emission of ozone precursors (i.e., NO<sub>x</sub> and VOC) would appear to be warranted.

49. In addition to this application and EIA report, there are other regional initiatives that are important to consider with regards to regional air quality management:
- a) other project specific monitoring and studies, such as the Regional Aquatic Monitoring Program (RAMP);
  - b) initiatives being conducted by the Clean Air Strategic Alliance (CASA);
  - c) initiatives being conducted by the WBEA;
  - d) the Alberta Oil Sands Community Exposure and Health Effects Assessment Program (AOSCEHEAP);
  - e) Alberta Energy and Utilities Board and *EPEA* Approvals issued to existing facilities; and
  - f) the Regional Sustainable Development Strategy for the Athabasca Oil Sands initiative.

These activities will provide data and information for use in the management of regional air emissions.

#### Acid Deposition

50. In addition to being key air pollutants, sulphur dioxide (SO<sub>2</sub>) and nitrogen oxides (NO<sub>x</sub>) are major contributors to acidic deposition. Acid deposition can affect ecosystems alone and in combination with other stress factors. Acidifying emissions are a concern in Northeastern Alberta due to the low buffering capacity of the bedrock and soils in the region and the amount of acidifying emissions from oil sands industry.
51. The expected trend in regional emissions for the Cumulative Effects Assessment scenario is for SO<sub>2</sub> to increase slightly and for NO<sub>x</sub> emissions to more than double. Nitrate deposition may also cause changes in an ecosystem which are unrelated to acidification, as nitrogen can also act as a fertilizer. These effects may include changes in ecosystem structure, such as increased growth in some terrestrial and aquatic plant species.

#### Departmental Position

52. Regional SO<sub>2</sub> emissions have been substantially reduced by Suncor's recent SO<sub>2</sub> reduction projects, including installation of a flue gas desulphurization plant to treat emission streams from coke fired boilers at the plant. Suncor, however, is still a significant source of the regional SO<sub>2</sub> and NO<sub>x</sub> emissions.
53. Continued ambient monitoring in the region to determine the concentration of acidifying substances (SO<sub>2</sub>, NO<sub>x</sub>) in air is a critical component to quantify and assess any risk of acidification in regional soils and water bodies.
54. A long-term goal for the region should be enhancing the monitoring program to ensure that all components of acid deposition (wet and dry deposition of sulphur, nitrogen, and base cations) are being monitored.

55. AEP is dedicating substantial resources to the CASA Target Loading Subgroup and their effort to derive a mechanism for the application of critical and target loads in Alberta.
56. The interim critical loads recommended by the Target Loading Subgroup of CASA are currently used as benchmarks in the evaluation of potential effects due to acid deposition. Application of these values in the EIA defines the areas most at risk of environmental acidification. This helps focus attention on the areas and receptors within these areas which require further examination either through increased monitoring or through other means. Other means may include, but are not limited to, a more detailed examination of the buffering ability of the receptors within the potentially impacted area, research into the potential effects in the area, and development of mitigation plans to correct the effects of acidification, should effects be detected. The applicant has made a number of recommendations and commitments on monitoring and future studies in the EIA report and supplemental follow-up information. The results of such monitoring programs, and the outcomes of other initiatives through forums such as WBEA can be used to assess whether further mitigation of acidifying emissions will be necessary.
57. The Terrestrial Environmental Effects Monitoring (TEEM) program sponsored by Suncor and others through WBEA includes acid deposition effects monitoring in forest ecosystems. This is a key initiative in providing necessary monitoring data for management of acidifying emissions and acid deposition. The department supports and participates in this monitoring program.
58. Staff may recommend that the Director require Suncor to continue to conduct long term monitoring of regional ecosystems (e.g. TEEM program) and to consider broadening this program to include monitoring of sensitive lakes, other aquatic ecosystems (e.g. wetlands) and/or other environmental receptors, through initiatives like WBEA and CASA.

#### **Acid Deposition Modelling**

59. The dispersion model used to estimate and predict acidic deposition in the region was CALPUFF. This model predicts exceedances of the interim critical loads for acid deposition in an area near the proposed mine. This model predicts exceedances of the interim critical loads for acid deposition in the regional study area. The level and extent of the exceedance increases from project scenario to CEA scenario.

#### **Departmental Position**

60. The precautionary principle suggests that, given that the CALPUFF model appears to be the best tool available at this time for predicting PAI from the projected emissions, the predicted PAI levels should be considered for environmental management decisions.
61. Staff may recommend to the Director that the results of the deposition modelling be revisited, possibly through forums such as WBEA, by conducting further ambient monitoring to provide data to compare to deposition modelling predictions.

#### **Oxides of Nitrogen (NO<sub>x</sub>) Emissions**

62. High temperature combustion processes produce NO<sub>x</sub> emissions. NO<sub>x</sub> can contribute to ground level ozone, and can also be of concern in relation to acidification, vegetation effects, and human health. Total regional NO<sub>x</sub> emissions are expected to increase in the future.

### Departmental Position

63. There is some uncertainty in NO<sub>2</sub> model predictions submitted by Suncor. Models show maximum predicted concentrations in the vicinity of the mine are near or exceed ambient air quality guidelines for all averaging periods. Due to the uncertainty, a precautionary approach should be taken.
64. NO<sub>x</sub> emissions should be controlled to the lowest practicable level through the use of the most appropriate pollution prevention and control technologies. Since regional NO<sub>x</sub> emissions are projected to increase in the future, the potential effects of these emissions should continue to be studied through the initiatives that are presently being undertaken in the region.
65. Suncor's proposed use of low NO<sub>x</sub> burners in stationary combustion sources is consistent with AEP's policy for minimization. Suncor has confirmed that new furnaces' level of emissions will meet the levels referenced in the *National Emission Guidelines for Commercial/Industrial Boilers and Heaters* published by the Canadian Council for Ministers of the Environment (CCME). Suncor indicated that detailed calculations for emissions and monitoring methods will be provided as engineering design and equipment selection progress, and that it will comply with all government requirements. Staff may recommend that the Director require Suncor to submit these detailed calculations as a condition of an EPEA approval. Staff may also recommend that the Director require Suncor to ensure that all new turbines meet the CCME *National Emission Guideline for Stationary Combustion Turbines*.
66. The modelling that Suncor has submitted for predicting ambient NO<sub>2</sub> suggests that NO<sub>x</sub> emissions from the mine mobile equipment should be further studied and minimised. Suncor should vigorously pursue the work that it is undertaking in this area through optimising diesel fuel specifications, equipment performances and diesel engine design. The information should be shared with other stakeholders. Suncor and other oil sands mine operators should consider an industry undertaking to review the minimization of emissions from mobile sources.
67. Future emission control equipment for heavy-duty diesel vehicles is scheduled to improve around the year 2006. A typical mine-fleet vehicle or engine may be replaced after the year 2006. Staff may recommend that the Director include a clause in the EPEA approval requiring the proponent to demonstrate all replacement vehicles will meet the latest vehicle emission standards and are equipped with effective emission control technology.
68. Potential effects of NO<sub>x</sub> emissions are being addressed in the region through initiatives such as the WBEA. The WBEA ambient air quality monitoring sites include the monitoring of ground-level ozone. The ozone monitoring data which are collected at these sites may assist in clarifying whether any changes in ground-level ozone do occur due to increased regional NO<sub>x</sub> emissions. The overall intent of the WBEA terrestrial environmental effects monitoring (TEEM) program is to allow detection of changes in the surrounding environment which are due to regional industrial operations. Direct effects of NO<sub>x</sub> on vegetation are not well understood, however, the TEEM program may detect changes in the surrounding ecosystems that may occur due to NO<sub>x</sub> exposure. This monitoring program will provide data and information for use in the management of regional air emissions.

### Sulphur Dioxide (SO<sub>2</sub>) Emissions

69. Sulphur dioxide (SO<sub>2</sub>) is a compound for which ambient air quality guidelines have been stipulated and it is a major contributor to acidic deposition.

70. Regional SO<sub>2</sub> emissions have been substantially reduced by Suncor's recent SO<sub>2</sub> reduction projects, including installation of a flue gas desulphurization plant to treat emission streams from coke fired boilers at the plant. Under the Cumulative Effects Assessment scenario Suncor will emit an estimated 24% of the regional SO<sub>2</sub>.
71. Daily and annual average concentrations of SO<sub>2</sub> may exceed the ambient guidelines within the Suncor and Syncrude development areas. The hourly ambient guideline for SO<sub>2</sub> may on a few occasions be exceeded within the Suncor lease.

Departmental Position

72. It appears that the removal of sulphur compounds from the refinery fuel gas would eliminate the predicted exceedances of the hourly ambient guideline for SO<sub>2</sub>. Staff may recommend that the Director require Suncor to either reduce SO<sub>2</sub> emissions from this source or undertake other SO<sub>2</sub> reduction measures as part of Millennium Project to eliminate the predicted SO<sub>2</sub> exceedances.
73. Staff are still reviewing the request by Suncor to increase the long-term (365 day rolling average) SO<sub>2</sub> emission limit that Alberta Environmental Protection has stipulated for the existing plant.

Volatile Organic Compounds (VOC) and Total Reduced Sulphur (TRS) Emissions

74. VOCs can act as catalysts in the generation of ground-level ozone and can be of concern in relation to odours, human health, and environmental effects.
75. VOC emissions from Project Millennium will mainly occur from the tailings settling ponds and exposed mine faces.
76. The majority of the Millennium Project's predicted VOC total emissions (233 t/cd) are from the tailings ponds (200.2 t/cd). Almost all of the predicted increase is associated with Pond 2/3. The highest annual VOC and TRS concentrations occur over the existing and proposed pond areas.

Departmental Position

77. The predicted amount of VOC and TRS emissions that Suncor has estimated from their tailings ponds is of concern to the Department. Further efforts are needed to better understand and minimize emissions from the ponds.
78. Staff may recommend to the Director that Suncor be required to provide further back-up capability in the Naptha Recovery Units, or to implement further operational procedures that prevent untreated tailings streams from being sent to the tailings ponds. This may help ensure appropriate minimisation of VOC and TRS emissions from the tailings ponds during all operating scenarios.
79. Suncor struck a task force to propose an action plan to minimize VOC and TRS emissions. Staff may recommend to the Director that Suncor be required to submit the action plan to minimize VOC and TRS emissions as an EPEA approval condition. Further source monitoring and study of the tailings ponds emissions may also be recommended as an EPEA approval condition.

### Particulate Matter (PM) Emissions

80. Particulate matter (PM) is a concern from a human health and vegetation standpoint. Primary and secondary particulate emissions from the proposed project will occur from mobile sources (trucks and mine equipment), stationary sources (plant stacks) and from disturbed areas (wind-blown sand and dust).

### Departmental Position

81. Mitigative measures are available to reduce problems with primary particulate emissions from the mine. Staff may recommend to the Director that as a condition of an *EPEA* approval, Suncor be required to apply these measures where appropriate.
82. Further follow-up on studying the effects of regional particulate emissions and characterization of secondary particles may occur through forums such as the WBEA.

### Composite Tailings (CT) Technology

83. Composite tailing is a promising new tailings management system designed to reclaim fine tails deposits to a dry landscape.
84. CT technology requires further investigation and research to demonstrate it as a successful reclamation technique.

### Departmental Position

85. The objective of reclamation in Alberta is to return disturbed land to equivalent land capability. CT technology, which produces a dry landscape, is the result of many years of co-operative effort between the oil sands industry, government and other stakeholders. This technology appears to be the best option currently available to reclaim tailings as dry land.
86. Although several issues remain with CT technology, AEP is optimistic that they can be resolved with further research, which will include field-scale demonstrations. Suncor has committed to participate in ongoing industry-wide tailings research to assist in the full-scale implementation of this technology.
87. Staff may recommend that the Director require Suncor to:
- a) contribute research to evaluate composite tailings technology, including:
    - i) time required to consolidate tailings into a trafficable surface;
    - ii) suitable capping materials and depth of reclamation materials required to cover composite tailings deposits;
    - iii) stability of the reclaimed surface over time;
    - iv) characterization of composite tailings release water and means of treatment to ensure acceptable water quality, if required;
    - v) movement of salts from composite tailings release water during deposition and impact on plant development due to uptake of organic compounds, heavy metals and salts from composite tailings release water;
    - vi) seepage of composite tailings release water into groundwater and subsequent release to surface drainage systems;

- vii) techniques for establishment of native ecosystems on the CT-affected reclamation areas;
  - viii) a schedule for the research; and
  - ix) a report on the results of the research.
- b) construct watersheds and watercourses to collect and isolate CT affected waters, that could potentially become a natural, self-sustaining watershed.

**End Pit Lake: Water Quality**

88. There is uncertainty regarding the water quality in the end pit lake proposed by the applicant due to its potential great depth and the constituent water and residual tailings it may contain. The end pit lake will be a significant feature in the final landscape.

**Departmental Position**

89. AEP is prepared to conceptually accept an end pit lake from a reclamation perspective providing it does not negatively impact downstream water bodies and that it meets the regulatory objective of equivalent capability.
90. A lake developed for fisheries purposes must support the development of viable, self-sustaining fish populations that will create a domestic and recreational fishery suitable for human consumption. Further research will be required to verify the proposed end pit lake is capable of supporting a healthy aquatic ecosystem.
91. Staff may recommend that the Director require Suncor to:
- a) review options for final disposal of tailings other than in the end pit lake;
  - b) document the hydrological, physical, chemical and biological characteristics of the lake; including water quality, lake morphometry, littoral zones, fish habitat features, inflowing and outflowing stream channels, and wildlife and waterfowl habitat features to demonstrate that the lake will meet the intended capability and will be self-sustaining in the long term;
  - c) optimize the lake design features to enhance fisheries and recreation potential, in particular:
    - i) increase the extent of littoral zone;
    - ii) decrease the mean depth and maximum depth of the lakes; and
    - iii) do shoreline and beach contouring to enhance recreation use, public access and public safety;
  - d) continue to model the behaviour of the end pit lake and to substantiate that self-sustaining fish populations can be established to support a fishery for human consumption, including consideration of:
    - i) the expected water quality in the lake, including the potential for stratification and development of anoxic conditions in the deeper waters;
    - ii) the potential water quality effects associated with the behaviour of CT release water under the anoxic conditions that may occur in the deeper water in the lake (e.g. possible H<sub>2</sub>S production; and

- iii) the viability (self-sustaining populations, fish health, consumption by humans) of fisheries in lakes that will receive substantial volumes of composite tailings release water;
  - e) monitor fish health to ensure that they are safe for human consumption;
  - f) monitor lakes established during reclamation to evaluate their performance; and
  - g) develop contingency plans in the event that the lakes do not achieve their intended fisheries capability.
92. In the event that acceptable water quality is not achievable within the planned schedule, staff may recommend that the Director require Suncor to consider and develop other options that ensure that water of unsuitable quality is not released offsite.
93. An end pit lake is not a compensation requirement of AEP for loss of fish habitat; however, the establishment and maintenance of fish populations suitable to sustain a domestic and recreational fishery are the responsibility of Suncor. If a naturally reproducing sport fishery cannot be developed in the end pit lake, Suncor will be required to maintain the fisheries resource on a sustainable basis through a stocking program.

#### **Fisheries**

94. AEP has reviewed the application with respect to the Fish Conservation Strategy for Alberta and the Fish and Wildlife Policy for Alberta and concludes that the project will impact fish populations.

#### **Departmental Position**

95. AEP has adopted the Federal policy of no-net-loss of productive fish habitat as a working guideline for decision making. Staff may recommend that the Director require Suncor to mitigate for loss of fisheries habitat either on or off site in their development plans to meet the no-net-loss expectation.

#### **Closure Planning**

96. Continuity of landform, watershed, and vegetation communities across oil sands mine closure landscapes are necessary for the development of a naturally functioning, sustainable and diverse landscape. The initial development of a landscape from a geomorphic, watershed and vegetation community standpoint is necessary to provide the opportunities for the proponent to achieve the End Land Use Committee and the Subregional Integrated Resource Plan's long term goal of a self sustaining natural landscape.

#### **Departmental Position**

97. The mine plan will require landscape design to ensure that the reclaimed landscape is characteristic of adjacent landscapes. This will require integration of mine plan designs with adjacent mines and the surrounding environment.
98. Mine closure landscapes should be designed to be visually acceptable by adopting criteria that will create a landscape pattern similar to the local natural landscape.

99. Return of equivalent land capability is a requirement of the *Environmental Protection and Enhancement Act* and is an objective of the Fort McMurray-Athabasca Subregional Integrated Resource Plan.
100. Staff may recommend to the Director that the following key Fort McMurray-Athabasca Oil Sands Subregional Integrated Resource Plan and End Land Use Committee recommendations be included in Suncor's mine design, operations, and reclamation activities to:
- a) re-establish a watershed that resembles and functions as a natural feature which has the characteristics of the existing pre-development natural landscape including watercourses that will be self-sustaining and provide controlled drainage in the reclaimed landscape. The restructured soil profile shall be capable of supporting a variety of native vegetation and have the potential to reduce erosion;
  - b) re-establish ecosystem connections between reclaimed areas and the river valleys. On the uplands include permanent ponds, sloughs and small lakes, and associated connecting streams.  
Progressively construct functional riparian habitat areas on drainage systems that will become part of the reclaimed landscape;
  - c) cooperate with adjacent oil sands operators to design a seamless landscape with reclamation landforms, watersheds and vegetation communities across lease boundaries;
  - d) reclaim the land using a wide variety of local native tree species and shrub species. The reclaimed land base will be capable of supporting a variety of uses and provide equivalent capability for the following; timber harvesting, extensive recreation, traditional native activities, wildlife habitat (including fisheries and waterfowl) and watershed protection;
  - e) reclaim disturbed lands to an equivalent of the pre-disturbance land capability distribution and landscape position; and establish equivalent land capability in the reclaimed landscape equating to pre-disturbance quality and distribution conditions. The existing area of Class 1 and 2 land should be restored to an equivalent area of Class 2 land capability in the reclaimed landscape. The replacement of pre-disturbance Class 2 land capabilities is important for maintaining commercial forest and biodiversity capabilities. The replacement of Class 4 and 5 capabilities with Class 3 may be considered acceptable because there is currently no proven method for replacing the fen and bogs that have been lost.
  - f) consult with Aboriginal Communities and progressively establish areas of vegetation suitable for traditional use;
  - g) provide a rare plant protection plan for rare species that are in locations that could be protected;
  - h) conduct research, monitoring and demonstrations to validate the soil factors and techniques required for establishing a range of native vegetation on a variety of subsoil and topsoil types. Conduct research to determine if there are key starter species for each ecosite phase, and identify any limiting soil and environmental or physiological factors or techniques required for their establishment; and

- i) conduct research on the development of natural functioning watercourses, and riparian areas for runoff from mine landscapes, especially out of pit dumps and overburden or sand dikes.

**Athabasca River Valley- (Athabasca-Clearwater RMA)**

101. In consideration of the unique Athabasca Valley ecosystem, and the intent and objectives for protection and preservation of the unique features of the Athabasca-Clearwater RMA, staff may recommend to the Director that for all development within the area from the river's high water mark to the RMA boundary (defined as the valley break + 100 meters) Suncor may be required to:
- a) re-establish a watershed that resembles and functions as a natural feature and has the characteristics of the existing pre-development natural landscape including watercourses that will be self-sustaining and provide controlled drainage in the reclaimed landscape;
  - b) re-establish ecosystem connections between reclaimed areas and the un-disturbed river valley with the inclusion of permanent ponds, sloughs and small lakes, and associated connecting streams;
  - c) establish equivalent levels of habitat diversity, patch size, arrangement and distribution for wildlife habitat within the valley;
  - d) establish equivalent land capability in the reclaimed landscape equating to pre-disturbance quality and distribution conditions. The pre-disturbance areas of Class 1 and 2 lands must be represented by at least an equivalent area of Class 2 land in the reclaimed landscape. The pre-disturbance area of Class 3 land must be represented by at least an equivalent area of Class 3 in the reclaimed landscape.
    - i) reclaim disturbed lands equivalent to the pre-disturbance land capability distribution and landscape position;
    - ii) salvage all Class 1, 2 and 3 soils that will be impacted within the mine site;
    - iii) develop a variety of reclamation soil materials to be distributed in support of the varied ecosites on the reclaimed landscape;
    - iv) provide the capability for equivalent ecosystem development through selectively salvaging and segregation of each pre-development topsoil and subsoil type, within the Athabasca River Valley for reclamation use in the valley.
  - e) new resource development facilities and structures that must be located within the Athabasca-Clearwater RMA should be screened from the river using natural features and architecturally designed and landscaped to complement the natural surrounds; and
  - f) maintain recreational opportunities within the valley.

**Impacts on Wildlife**

102. The cumulative impacts on wildlife populations, as a consequence of long-term removal of habitat from individual and multiple oil sands development is uncertain. The habitat loss/gain approach and habitat suitability modelling used for assessing impacts needs to be improved and expanded to fully understand the implications to local and regional wildlife populations.

103. Suncor conducted limited surveys and designed Habitat Suitability Index (HSI) models for prediction purposes for some key wildlife species found in the proposed development area.

Departmental Position

104. Because of the extent of the affected land base, and proposals for new developments, the impacts of oil sands mining projects must be more clearly evaluated in the temporal context throughout the complete cycle of each project. The Cumulative Effects Assessment for wildlife would be enhanced if it also predicted and evaluated the impacts of lost reproductive potential and recruitment into local and regional wildlife populations over time.
105. Additional information about the use of Habitat Suitability Index (HSI) models for assessing impacts to wildlife habitat and further surveys conducted by Suncor for nesting raptors (hawks and owls) would provide a better understanding of the possible effects of multiple mine development. This would enable more informed management decisions by the Department regarding game and non-game species of concern in the region (i.e. red, blue, yellow list species in *Status of Alberta Wildlife 1996*).
106. Staff may recommend that the Director require Suncor to:
- a) provide further testing and verification of the HSI models used to assess impacts to wildlife;
  - b) re-conduct the surveys for nesting raptors with more emphasis on the Local Study Area so that predictions are validated.

Aggregate Resources

107. The impacts and conservation of aggregate resources in the Project area need to be fully identified and planned and is a requirement of the Public Lands Act. The aggregate resources are a public resource and assurance of aggregate availability for public use is mandatory.

Departmental Position

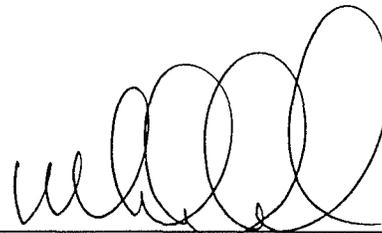
108. Staff may recommend the Director require Suncor to develop an inventory of the quantity, quality and location of all aggregate resources and an associated management plan/strategy for its conservation and utilization.

## VII. CONCLUSION

### Alberta Environmental Protection's and Alberta Health's Position

109. The position of AEP and Alberta Health at the filing of this submission is that AEP and Alberta Health do not oppose the proposed project. This submission has identified a number of environmental matters which AEP and Alberta Health intend to address through a variety of environmental protection strategies identified in the discussion on Alberta's Interest, including conditions in an AEP approval, should one be issued.

ALL OF WHICH IS RESPECTFULLY SUBMITTED this 7th day of December, A.D. 1998.

A handwritten signature in black ink, consisting of several overlapping loops and a long horizontal stroke at the end, positioned above a solid horizontal line.

William A. McDonald  
Environmental Law Section  
Alberta Justice

## References

1. Environmental Protection and Enhancement Act
2. Water Resources Act
3. Water Act
4. Public Lands Act
5. Forests Act
6. Wildlife Act
7. Forest and Prairie Protection Act
8. Fisheries Act
9. Public Health Act
10. Historical Resources Act
11. Fort McMurray-Athabasca Oil Sands Integrated Resource Plan (1996)
12. Oil Sands Mining: End Land Use Committee Recommendations (1998)
13. Special Places (1995)
14. Fish and Wildlife Policy for Alberta (1982)
15. Fish Conservation Strategy for Alberta (1997)
16. Statement of Commitment to Support Biodiversity Strategy (1995)
17. Recommended Wetlands Policy for Alberta (1994)
18. Recommended Native Grasses and Legumes for Revegetating Disturbed Lands in the Green Area (1996)
19. CCME National Emission Guideline for Commercial/Industrial Boilers and Heaters (1998)
20. CCME National Emissions Guidelines for Stationary Combustion Turbines (1992)

## Appendix I

### Terms of Reference Sustainable Development Strategy for the Athabasca Oil Sands

# Draft October 30, 1998

## Background:

The Athabasca Oil Sands area has been experiencing significant interests in resource development and management. Given the number of resource development proposals being considered it is important to continue to provide proper context for resource and environmental management. There is a strong base of current initiatives based on multi stakeholder membership. Some of important issues that need to be addressed include:

- Effects - Regional effects (e.g. water and air quality, forest productivity and Biodiversity, wildlife habitat, traditional land uses) need to be better understood.
- Management - Better descriptions of current management approaches and coordination of initiatives is needed.
- Context - Need for regional context to improve individual review of Environmental Impact Assessments. Goals, thresholds and targets need to be clear and updated as new information is made available
- Thresholds - Some environmental thresholds may be approached.
- Monitoring - Effective monitoring, communication and decision-making are required in an on-going basis.
- Adaptive management - Adaptive management approaches are required to ensure direction for decision-making remains up-to-date using the best available knowledge.
- Knowledge - Gaps in science and knowledge need to be described.
- Research - Research is required to fill gaps.

## Purpose:

To ensure clear direction for sustainable resource and environmental management in the Athabasca Oil Sands area (the "Region") that:

- Ensures a transparent view of Alberta's approach and better linkages of initiatives;
- Manages regional effects (analyze, minimize, mitigate).
- Sets the context to assess and guide resource and environmental management;

To ensure effective decision-making for resource and environmental management in the Region that:

- Ensures better and comprehensive information is available for decision-making;
- Streamlines and improves decision making;
- Makes decisions in an adaptive management approach;

The strategy will be used as the context to assess and guide resource and environmental management. Results will be implemented and decisions made in an adaptive management approach, keeping pace with new information and goals. This includes management of facilities after approval.

## **Objectives:**

To resolve issues under the background section.

To collaborate with task forces and other initiatives currently active in the area to optimize effort, in order to maximize returns in achieving a *Regional Sustainable Development Strategy* (the "Strategy") that includes:

- ◇ A refined regulatory and resource management framework;
- ◇ Defined environmental thresholds and goals (e.g. species requirements) in place where required.
- ◇ To coordinate, focus and ensure completion of research essential to the Strategy.
- ◇ To improve data collection and monitoring in support of the Strategy.
- ◇ To provide a comprehensive forum for information exchange pertaining to the Strategy.
- ◇ To coordinate work and seek leadership from stakeholder participants in the existing efforts that are related to development in the Athabasca Oil Sands. The Project will not duplicate existing effort, nor impede important existing initiatives or projects.
- ◇ To include consideration of the recommendations and findings of existing initiatives and projects, including the anticipated recommendations flowing from the Cumulative Effects Initiative.

## **Principles:**

Provincial policy, legislation, standards and programs apply. The process will consider regional application of these policies and Federal Legislation.

Alberta Environmental Protection is accountable for the project and will provide leadership and management to the extent necessary to ensure the Strategy is successful. AEP is committed to seeking leadership from stakeholders and building on and developing partnerships with stakeholders.

Principles of public involvement will be followed to ensure meaningful participation by stakeholders.

Adaptive Management - The Strategy must keep pace with new information, including the management of facilities after approval. As new information is acquired, management will be adapted based on good science and public values.

## **Definition of the Region:**

The definition of the Region will be based on consultation with stakeholders. The definition is flexible to reflect the resources and effects being considered. Possible definitions could be: the surface mineable oil sands area; or the air shed; or AI Pac Forest Management Area. Some other definitions are possible as well - the final definition(s) must include the necessary areas for effective resource and environmental management of effects from associated Oil Sands development.

## **Benefits to Albertans/Strategic Outcomes:**

A number of benefits and strategic outcomes are envisioned from the creation of the Strategy through this Project:

- ◇ Research and science to address priority issues in the region
- ◇ New recommendations on resource and environmental management approaches
- ◇ Resource development while the environment is protected
- ◇ Infrastructure developed, improved and shared through management strategies
- ◇ Jobs continued to be created for Albertans
- ◇ Decision times reduced and relationships enhanced
- ◇ Canada's and export market needs for oil met.

## **Internal AEP Reporting Structure**

The Regional Sustainable Development Strategy is to be developed through the leadership and accountability of the Regional Board of Directors, Northeast Boreal Region, Alberta Environmental Protection:

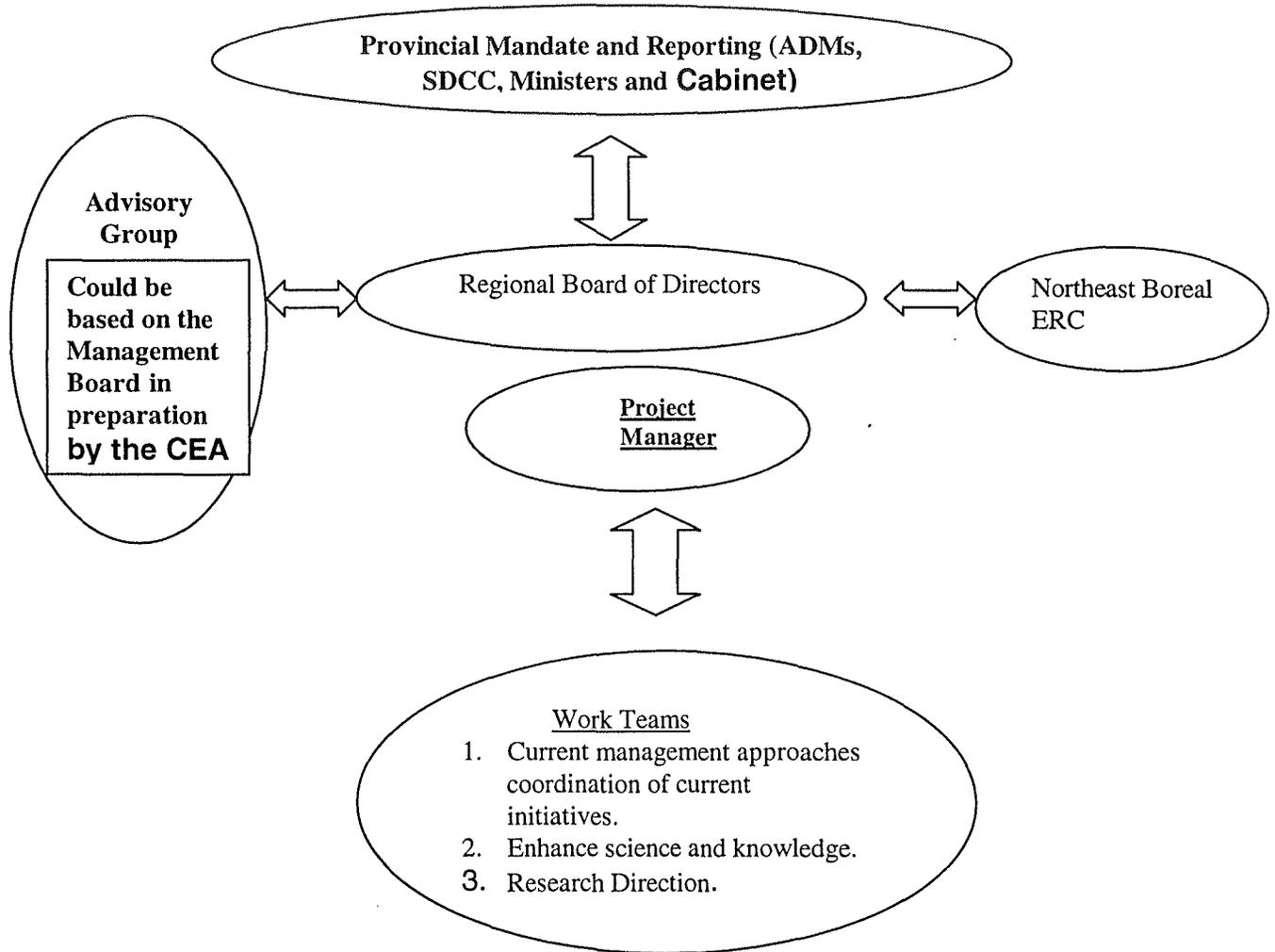
- ◇ Chair, Neil Barker, Land and Forest Service
- ◇ Members: Dennis Giggs, Natural Resources Service and Jay Nagendran, Environmental Service

The Regional Board of Directors will be recruiting a Project Manager to lead the overall project under their direction. The Project Manager will be the primary AEP contact point for the project.

The development of the Strategy will be aided by the use of a Steering Group to advise the Regional Board of Directors. Membership in the Advisory Group will include representation of stakeholder groups involved in initiatives.

The Project Manager and the working teams will be assisted throughout the Project through the use of Department and other experts and specialists on technical, science and knowledge matters.

The following chart represents the overall organization for the Project:



## Project Work Steps:

The Strategy will be developed by completing a number of project work steps, as set out below. Each work step will be the responsibility of a Work Team:

1. Current Initiatives, and Resource and Environmental Management Regime
2. Gap Analysis in environmental and resource science and knowledge
3. Research prioritized and focussed on science and knowledge gaps
4. Examine and enhance management regime (goals, thresholds, and targets)
5. Implementation of effective monitoring, communication and decision-making.

In addition, there will be a Project Initiation work step including: the drafting of these Terms of Reference; introduction of the Project and Strategy concept to Stakeholders and other existing initiatives; selection of the Project Manager; and staffing of the Work Teams.

## Project Timing, Responsibilities, Partners and Products:

The following chart describes the currently planned project timing, the assigned responsibility, partners envisioned to be involved in the work step, and the product or output from the work step. These details may be varied by consultation with the Steering Group, or as the project progresses.

Step	Start	Finish	Partners	Product
1. Describe: i). The current resource and environmental management regime; ii). the current initiatives and recommend better coordination.	Sept/98	3-6 months	AEP, Industry, Federal Government, Municipalities, Aboriginals	Report on "what is" and recommendations for better coordination.
2. Define where environment and resource science and knowledge needs to be enhanced.	Oct/98	3-6 months	AEP, Industry, Federal Government, Municipalities, Aboriginals	Research plan of the area
3. Research directed to opportunities under step 2 above.	Early 99	2001 (possibly longer, depends on activity)	AEP, Industry, Federal Government, Municipalities, Aboriginals.	Research Priorities established, efforts and \$'s redirected. It will take more than 2 years to complete and evaluate much of the research.
4. Examine and enhance management regime * [This includes goals that are based on science and values]	Nov/98	July /99	Provincial agencies, Aboriginals, community, industry	A strategy to guide decisions and project reviews. Will include goals, thresholds, and targets (some of which exist, others will be modified, some will be new).
5. Implementation.	Nov/98	On-going	AEP, Industry, Federal Government, Municipalities	Effective Monitoring, communication and decision-making: the new Strategy facilitating adaptive management.

*\* Step 4 will keep pace with new information, including the management of facilities after approval, on a continuous basis. As new science and knowledge are acquired (e.g. under Step 3), management will be adapted based on good science and public values.*

## Collaboration, Communication and Consultation:

For the Project to be successfully completed, collaboration will be needed with the many existing initiatives and working groups, committees that are already involved on development and related matters in the Athabasca Oil Sands. The Project will take an organized approach to this collaboration, beginning with the formal communication of this Term of Reference. This will be followed by the establishment over time of a Steering Group, as set out above. In addition, formal communication mechanisms will be established with existing initiatives and working groups to keep stakeholders informed of progress, to involve them in the process (because the Project must assist each initiative to get maximum benefit from their individual efforts).

The Regional Sustainable Development Strategy will continue to support involvement of stakeholders in existing and new initiatives. AEP will continue as members of stakeholder committees and contribute to the Strategy as a partner in these efforts.

The initial communications from the project must ensure clarity of the purpose and background of the Project, which includes the following:

- ◇ Environmental Assessment reviews conducted by the Department indicate that the intensity of current and planned development will require regional management of environmental effects and impacts.
- ◇ The Department has a comprehensive provincial regulatory and management framework and a box of tools to manage effects, and these need to be focused on the needs of the Region.
- ◇ In addition to Departmental reviews of individual projects the Department and Albertans need a more "robust" sustainable development strategy to make the best use of tools, to work on the most important aspects first and to ensure that responsible and interested parties work together to make the best use of tools and resources.
- ◇ The Department needs and expects cooperation and leadership from Industry, other levels of government and communities.
- ◇ The strategy will evolve as the Project work steps are completed. A comprehensive vision of the Department's role in relation to other parties is needed.
- ◇ The Department will concentrate, ultimately, on its responsibilities for Air, Water and Land (its Core Business) and will seek partnership and leadership from others whose responsibilities and interests complement the Department.

The Department's initial priorities are to seek a common understanding of the current initiatives and management regime, and of the gaps in environmental and resource science and knowledge (see work steps #1 and #2). The opportunities and issues identified will form the basis for the rest of the Project.

The initial list of contacts is set out in the table below:

<b>Metis Locals</b>	Chipewyan Prairie Local 214; For Chipewyan Metis Association 124; Conklin Metis Local 193; Fort McMurray Local 2020; Fort McMurray Metis Local 1935; Fort McKay Local 122; Anzac Metis Local 334
<b>Bands</b>	Mikisew Cree First Nation; Chipewyan Prairie Dene Nation; Fort McKay First Nation; Athabasca Chipewyan Band 201; Fort McMurray #468 First Nation
<b>Federal Departments</b>	Natural Resources Canada; Department of Fisheries and Oceans; Canadian Environmental Assessment Agency; Environment Canada
<b>Industry</b>	ALPac; Gulf Canada Resources Limited; Mobil Oil Canada Properties; Northland Forest Products Ltd.; PanCanadian Petroleum Limited; Petro-Canada; Shell Canada Limited; Suncor Energy Inc.; Syncrude Canada Ltd.
<b>Municipality</b>	Municipality of Wood Buffalo
<b>Other</b>	Sustainable Development Coordinating Council; Athabasca Oil Sands Cumulative Effects Initiative members Other provincial departments and boards (Energy, Energy and Utilities Board)

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