Progress Report 2011

RESPONSIBLE ACTIONS: A PLAN FOR ALBERTA'S OIL SANDS
Alberta’s oil sands: The oil sands exist in three large deposits beneath 140,200 square kilometres of northern Alberta. This is a very large area, but only three per cent is mineable.

Facts:

- The oil sands are the third-largest source of proven crude oil reserves in the world, next to Saudi Arabia and Venezuela.
- Alberta’s oil sands produced over 1.6 million barrels per day in 2010, with 3.5 million barrels per day expected by 2020.
- Alberta produced an estimated three-quarters of Canada’s crude oil in 2011, and an estimated 70.5 per cent of its natural gas.
- Over the next five years, Alberta is expected to invest $6.1 billion in green technology.
The oil sands are an integral part of Alberta, now and into the future, and the Alberta government is committed to developing this resource responsibly and sustainably.

In 2009, the Alberta government developed a 20-year strategic plan called *Responsible Actions: A Plan for Alberta’s Oil Sands*, which will ensure that Alberta’s leading resource will provide secure, reliable energy to North America and beyond for decades to come. *Responsible Actions* is a gateway to economic progress at both national and local levels, and will provide for a better quality of life for people across Canada. The plan demonstrates leadership by creating effective policy responses to ensure effective planning and management of the province’s valuable oil sands resource.

Together with Alberta’s *Provincial Energy Strategy*, *Responsible Actions* prioritizes clean energy production, wise energy use, and sustained economic prosperity. The successful implementation of these plans will help Alberta’s economy grow, reduce the environmental footprint of oil sands development, and increase the quality of life for Albertans today and in the future.

In year three of Responsible Actions, more than 50 projects and initiatives are well underway and will help ensure we are developing our resources in a responsible and sustainable way.

Short, medium, and long-term outcomes have been set to help guide the government’s efforts to balance environmental, social and economic impacts of oil sands development.

The short-term desired outcomes target oil sands being managed strategically and regionally, allowing the province increased capability to achieve its value-added and environmental goals.

The medium-term desired outcomes target new milestones for environmental stewardship being met through development and full scale implementation of breakthrough technologies; community growth being accomplished in a more proactive and planned manner; and oil sands growth is consistent with the Land-use Framework regional plans and contribute to further industry development in Alberta.

The long-term desired outcomes target 30 per cent of the oil sands deposits being considered recoverable reserves with a reduced overall environmental impact with maximized value; significant value-added processing occurring; and Alberta being positioned as an internationally-recognized refined product and petrochemicals hub.
1. **Enhancing ability to adapt to climate change risks and vulnerabilities:** As part of Alberta’s 2008 Climate Change Strategy, the province is currently developing a Climate Change Adaptation Strategy. In 2011, six Government of Alberta departments made significant progress to complete climate change risk assessments that will provide overall policy direction, identify short and long-term research needs, and provide direction on ways to enhance Alberta’s ability to adapt to climate change risks and vulnerabilities. These assessments will help us understand where Alberta’s vulnerabilities lie and provide input for the development of a comprehensive strategy in 2012.

2. **Improving how we track the progress of reclamation:** Recognizing that reclamation occurs over long periods of time and goes through many stages, eight milestones will be used by the province and industry to track the progress of reclamation. Previously, only three reporting milestones were used. This will result in greater transparency and consistency of reporting.

   In addition, reclamation plans are being updated to clarify the process and provincial expectations for reclamation performance, objectives, and outcomes. Updates began in 2010 and should be completed in 2012.

3. **Updating the air and water quality management frameworks:** In 2011, air, surface water and groundwater management frameworks were drafted and shared for input in the Lower Athabasca Region. Management frameworks build on existing environmental policy, legislation and regulation and provide an understanding of the current state of the environment, as well as emerging trends, challenges and opportunities. Each management framework identifies desired regional objectives, limits and triggers for key indicators, as well as approaches and actions to achieve objectives. They also set the foundation for ongoing monitoring, evaluation, and reporting including how to communicate the results to Albertans.

4. **Planning regional land use:** The Land-use Framework is a shared pursuit of long-term growth that looks beyond short-term considerations to balancing economic prosperity with the natural, cultural and social environments. The framework moves beyond the energy sector’s potential, to the responsibilities everyone must share to ensure these wider benefits are achieved. Under the Land-use Framework, the Alberta government continued development of the Draft Lower Athabasca Regional Plan, which was publicly released on August 29, 2011, and is awaiting government approval.

**Fact:** Air quality in the oil sands region is monitored 24 hours a day, 365 days a year at 16 stations across the region by the Wood Buffalo Environmental Association—a collaboration of communities, environmental groups, First Nations, industry, and government.
World class monitoring system for the oil sands

Increased air, water, land and biodiversity monitoring in the oil sands will begin this year as the Government of Canada and Government of Alberta recently took a major step forward in their partnership to improve environmental monitoring in the oil sands region.

The Joint Canada-Alberta Implementation Plan for Oil Sands Monitoring commits to a scientifically rigorous, comprehensive, integrated, and transparent environmental monitoring program for the region. It outlines the path forward to enhance the monitoring of water, air, land and biodiversity in the oil sands by demonstrating how we will sample more sites for more substances more frequently. The program is designed to provide an improved understanding of the long-term cumulative effects of oil sands development.

“The Alberta oil sands are a key driver of the Canadian economy,” said Canada’s Environment Minister, the Honourable Peter Kent. “Today we are launching the most transparent and accountable oil sands monitoring system in the world. These scientific reports will be posted on our web page for the world to see. We challenge others in the international oil producing community to match Canada’s commitment to environmental monitoring.”

“Albertans, and Canadians, have high expectations that we excel at both energy production and environmental protection,” said the Honourable Diana McQueen, Minister of Alberta Environment and Water. “We can have it both ways. We are confident this environmental monitoring system will be one of the most progressive and comprehensive of any industrially developed region in the world.”

The three-year implementation plan will begin in the spring of 2012 with increased sampling frequency, parameters, and locations. It will also integrate relevant parts of existing monitoring efforts and will give government and industry the scientific foundation necessary to continue to promote the environmentally sustainable development of the oil sands. The implementation plan reflects the Integrated Oil Sands Environment Monitoring Plan released by Environment Canada in July and will be consistent with the Government of Alberta’s plans for a province-wide environmental monitoring system.

Data from the new monitoring program, and the methods on which it is based, will be transparent, supported by necessary quality assurance, and will be made publicly available to allow independent scientific assessments and evaluations. This will encourage informed discussions and analysis on the impacts of oil sands development based on high-quality scientific information.

For the full report, visit www.environment.alberta.ca
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STRATEGY TWO

Promote healthy communities and a quality of life that attracts and retains individuals, families, and businesses.

Fact: Over the last five years the Government of Alberta has spent nearly $1.8 billion on infrastructure projects in the Athabasca Oil Sands Area to help build communities that families are proud to call home. Projects include three new schools, the Athabasca River Bridge, important interchanges, the twinning of Highway 63, and improvements to water and sewage facilities.

PROGRESS MADE IN 2011 IN SUPPORT OF STRATEGY TWO:

1. Planning for future infrastructure development: Comprehensive Regional Infrastructure Sustainability Plans (CRISPs) are being drafted to establish a framework for infrastructure development in Alberta’s three oil sands areas. The Draft Lower Athabasca Regional Plan is complete and will now help in establishing regional infrastructure priorities for the area. The Cold Lake Oil Sands Area plan is in the final stages of development, and the plan for Peace River is expected to be completed in 2012-13.

2. Supporting community growth: As part of ongoing efforts to help Fort McMurray manage growth pressures resulting from oil sands development, the Alberta government will continue to make more land available for residential, commercial and industrial development. Also, a plan is being developed for a Fort McMurray Urban Development Sub-Region to facilitate timely land release over the long term. The sub-region will be a provincially designated area of crown land surrounding the Fort McMurray Urban Service Area that will enable the community to keep pace with the demand for residential, commercial, industrial and institutional land for 20-30 years.

3. Cultural initiatives: In 2010-11, the Alberta Foundation for the Arts provided over $200,000 to support arts activities in Fort McMurray. The Alberta government also worked with stakeholders and First Nations to protect the Quarry of Ancestors, near Fort McMurray. The quarry contains evidence of human activity 5,500-9,800 years ago. The Alberta government also provided more than $300,000 in 2011 for seven projects to enhance historical preservation, youth services and recreational opportunities in the Fort McMurray area.

4. Continuing to invest in safety plans to improve public safety in oil sands regions: The Alberta government and municipalities in the Highway 63 region teamed up to improve driver safety and enhance emergency services. The joint $1.3 million investment could go toward hiring more full-time emergency responders, developing a regional approach to fire and emergency response, and portable speed indicator devices to alert drivers near emergency scenes. The government will also consider traffic enforcement, driver awareness, public safety and volunteer recruitment.

5. Supporting healthy communities: The Alberta government is working collaboratively with the community of Fort McKay to design and implement a community health assessment. Residents in the community will identify their health priorities and will be actively involved in identifying appropriate actions to address those priorities. The process will be led by the community with the support of government.
Regional plan aims to balance all needs

The Land-use Framework is a comprehensive planning approach for the management of lands and natural resources to achieve Alberta’s long-term economic, environmental and social goals. Under the Land-use Framework, the Alberta government developed the Lower Athabasca Regional Plan. Now released after two years of extensive consultation with thousands of Albertans, the Draft Lower Athabasca Regional Plan provides a blueprint for vigorous economic growth, vibrant communities and a healthy environment in northeast Alberta for decades to come.

With oil sands production expected to double within the decade, the draft regional plan proposes the conservation of more than two million hectares of habitat for native species. The draft plan suggests increasing recreation and tourism opportunities, planning for infrastructure and putting strict environmental limits in place for air, land disturbance and water.

Draft Lower Athabasca Regional Plan highlights:

- Two million hectares set aside for conservation areas
- Strict environmental limits to protect air and surface water quality
- Commitment to complete development of management frameworks (including limits) for groundwater, surface water quantity, biodiversity and land disturbance
- Addresses infrastructure challenges
- New strategy to plan for urban development around Fort McMurray
- Improved integration of industrial activities on the landscape
- More timely and progressive reclamation of disturbed lands
- New recreation and tourism areas
- Strengthened commitment to support Aboriginal participation in land-use planning

For more information on the Draft Lower Athabasca Regional Plan, please visit https://www.landuse.alberta.ca
Fact: Every dollar invested in the oil sands creates about $9 worth of economic activity, with one third of that economic value generated outside Alberta - in Canada, the U.S. and around the world.

PROGRESS MADE IN 2011 IN SUPPORT OF STRATEGY THREE:

1. **Encouraging development of new markets for Alberta’s oil sands products:** The government of Alberta has initiated meetings with leaders of other markets, such as Asia-Pacific and California, to ensure our product has buyers across the globe.

2. **Developing multi-use corridor plans for oil sands regions:** Alberta’s Industrial Heartland is a key area—it’s in a central location near the north-south transportation route and in proximity to the industrial and energy hub. Preliminary work has started to clarify options for multi-use corridors. Further work will continue to ensure alignment of these corridors with transportation strategies, future pipeline and electricity transmission corridors, and infrastructure and transportation planning within regional plans.

3. **Addressing labour force needs:** Looking into the future, the Alberta government is reviewing *Building and Educating Tomorrow’s Workforce*, Alberta’s comprehensive labour force development strategy, to ensure that industry in the province, including the oil sands sector, will continue to have the necessary labour force to support anticipated economic growth. In 2011 Keyano College expanded its campus to Fort Chipewyan. This new facility will provide training opportunities and help develop the highly skilled trades people needed to work in the oil sands industry.

4. **Engaging the Aboriginal workforce:** Historically, Aboriginal employment rates have been lower than non-Aboriginal rates but the gap is narrowing. In 2010, the Oil Sands Developers Group estimated that there were more than 1,700 Aboriginal employees in permanent oil sands jobs in the Wood Buffalo region, an increase of more than 60 per cent since 1998. The MLA report *Connecting the Dots: Aboriginal Workforce and Economic Development in Alberta* and subsequent *Government of Alberta Response* were released in May 2011. These reports identified recommendations for increasing education and skill levels, labour force participation and economic opportunities for Aboriginal people in Alberta. A key part of government’s response is the development of an *Aboriginal Workforce Strategy*, which will address the workforce and skills training needs and goals of Aboriginal people in Alberta. Planning has begun on this strategy and work will begin soon with Aboriginal communities to create a working structure and approach. A public report on the progress of *Connecting the Dots* is planned for April 2013.
Promoting Alberta’s economic development and conservation

The provincial government understands the importance of taking Alberta’s story to the world and also welcoming the world to Alberta.

Last year, the Alberta government welcomed more than 40 visiting delegations from across the globe and co-ordinated 21 international missions that focused on trade and investment in key markets including China, India and the Middle East.

Market diversification is a priority for Alberta and was supported by the introduction of Bill 1, the Asia Advisory Council Act, which focuses new energy and expertise on the growing economies of Asia by forming a provincial council of trade and business experts. We also continued working diligently on the Canada-European Union Comprehensive Economic and Trade Agreement negotiations, ensuring Alberta’s voice is heard at the negotiation table.

The Alberta government reinforced to key stakeholders and political leaders that Alberta is a safe, secure and responsible provider of energy and a great place to live, work and invest.

With a greater national and international spotlight on Alberta’s energy resources, the government has expanded its ongoing advocacy work across Europe and the United States. This included outreach in the United Kingdom and Brussels as well as continued participation in forums in the United States.

“In it's imperative that we continue to engage in productive discussions with key individuals, decision-makers and various organizations to ensure our story as a responsible energy leader is being clearly heard on the global stage,” said Premier Alison Redford.

In 2011, Premier Redford and various ministers visited New York, Washington, D.C., several locations in the American Midwest, France, Switzerland and the United Kingdom to meet with public and private sector natural resource and energy leaders. The delegates told Alberta’s story – Alberta will continue to develop its resources responsibly and in a way that balances development and conservation over the long term to be a safe and responsible energy supplier.

“Alberta’s success also requires the industry to sustainably expand. Market diversification is critical to our long-term prosperity. Global demand for energy is growing, our production is rising and new customers are within our reach. We have to connect with them. Over 99 per cent of our crude exports go to the United States, but we can find more outlets. China is already our second-largest export market and they, along with many neighbours, are rapidly modernizing. This government will reach out to potential Asian partners and guarantee Alberta’s prosperity for decades to come,” said Premier Redford.
Strengthen our proactive approach to Aboriginal consultation with a view to reconciling interests.

Fact: An estimated 23,000 Aboriginal people currently live on 18 First Nations Reserves and six Métis Settlements located within or adjacent to the province’s oil sands areas. Thousands more live off-reserve and off-settlements across the region.

PROGRESS MADE IN 2011 IN SUPPORT OF STRATEGY FOUR:


The Geo Data Mapping Initiative has engaged 42 of Alberta’s 48 First Nations. This initiative offers First Nations opportunities to communicate with government regarding their geographical areas of interest. Based on this dialogue, standardized maps may be developed to help guide important Crown decisions on which First Nations to notify and consult with on resource development projects. The initiative is on track to engage the remaining First Nations in 2012.

2. Developing processes for work with First Nations groups: Alberta continues to explore enhancements to consultation processes with the five First Nations in the Athabasca oil sands region that respects Treaty rights and traditional uses. Alberta is committed to consultation with First Nations when potential adverse impacts to Treaty rights resulting from resource development may occur.

3. Pilot project with the Métis Settlements: Initial planning began in 2010 for a long-term pilot project with the Métis Settlements to measure how cumulative effects of resource development may impact Settlement lands. The cumulative effects pilot will come out of new negotiations between Alberta and Métis Settlements to conclude long-term governance and funding arrangements for Métis Settlements. With the help of those new negotiations, this pilot project is expected to be completed by 2019, with study results produced at that time.
First Nations Reserve Lands and Métis Settlements within or adjacent to the Oil Sands Regions
STRATEGY FIVE

Maximize research and innovation to further support sustainable development and unlock the deposit’s potential.

Fact: The Alberta government has committed $2 billion to reduce greenhouse gas emissions through carbon capture and storage (CCS). Also, Alberta has seen significant investments from Climate Change and Emissions Management Corporation (CCEMC) in a range of clean energy and carbon capture and storage technologies.

PROGRESS MADE IN 2011 IN SUPPORT OF STRATEGY FIVE:

1. Alberta’s climate change fund: Alberta companies that annually produce more than 100,000 tonnes of greenhouse gas emissions are legally required to reduce their greenhouse gas intensity by 12 per cent. This includes industrial emitters in the oil sands regions. One compliance option is to pay into the Climate Change and Emissions Management Fund $15/tonne for emissions over the target. The Climate Change and Emissions Management Corporation is spurring innovation and helping Alberta transition to a lower carbon economy. It is doing this by investing the money collected in the Climate Change and Emissions Management Fund into initiatives and projects that support emission reduction technologies and improve our ability to adapt to climate change. To date, the fund has collected $257 million, with nearly half of that committed to investment in 27 clean technology projects it is supporting as part of the provincial effort to reduce greenhouse gas emissions in Alberta. Since the program started in 2007, more than 23 million tonnes of emissions were not released, which is the equivalent of removing 4.8 million cars from the road for a year.

2. Coordination of research efforts: In 2011, Advanced Education and Technology signed the Alberta-Canada Collaboratory in Cleaner Oil Sands’ Development Memorandum of Understanding with Natural Resources Canada to ensure research efforts are co-ordinated and oil sands resources are developed in an environmentally responsible and sustainable manner. For instance, a group of researchers led by Professor Gerrit Voordouw of the University of Calgary has determined which micro-organisms are causing tailings ponds to emit methane; which bacteria can be used to reduce the toxicity of the tailings ponds; and what microbial process can be used to improve water recycling.

Other major research studies done by the Cumulative Environmental Management Association, the Wood Buffalo Environmental Association, and academia continue to find more ways to improve development, recovery of the resource, and criteria for reclaiming the land. Research is also underway to look at land-related activities such as air quality, footprint management and biodiversity, and water quality, quantity and use.
3. **Alberta Innovates programs:** Alberta Innovates, the provincial research and innovation system, has several programs underway to improve efficiency and environmental performance in the oil sands, develop new approaches to reclamation, and address climate change.

**Alberta Innovates – Technology Futures and its partners are:**
- Collaborating on Alberta’s first large-scale commercial CCS project spearheaded by Enhance Energy Inc. (The Alberta Carbon Trunk Line).
- Working with other Canadian governments, the United States Department of Energy, and industry to identify suitable sites for CO$_2$ storage, in particular sites that may be attractive to oil sands producers.
- Working with General Electric Canada and the University of Alberta on new membrane-based technologies for capturing CO$_2$ from oil sands upgrading and refining facilities.

**Alberta Innovates – Energy and Environment Solutions and its partners continue to:**
- Investigate new technologies for upgrading bitumen to increase productivity and reduce the environmental footprint.
- Develop new technology that takes what was waste – low-grade heavy residues from bitumen processing – and turns it into high-value oil and transportation fuels.
- Explore ways to improve water efficiency in in-situ steam assisted gravity drainage projects, improve tailings management, and bring industry together to collaborate in the faster reclamation of tailings ponds.

Alberta Innovates is a new system for innovation that companies and researchers around the world agree is unique. Businesses, government, and universities collaborate to share resources, experts, and ideas across sectors. University researchers work together, unrestricted by academic barriers.
6 STRATEGY SIX

Increase available information, develop measurement systems and enhance accountability in the management of the oil sands.

Fact: Alberta remains the only North American jurisdiction with regulations that require mandatory greenhouse gas reductions across all large industrial sectors.

PROGRESS MADE IN 2011 IN SUPPORT OF STRATEGY SIX:

1. Developing oil sands sustainability performance measures and indicators: Economic, social and environmental performance measures and indicators are being developed to support responsible development of Alberta’s oil sands. Progress will be reported annually to ensure and demonstrate continual improvement.

2. New oil sands online information portal: The Oil Sands Information Portal is a one-window source for individuals interested in the environmental impacts of oil sands development. The portal focuses on the cumulative effects of development on the oil sands region’s air, water, land, climate change and biodiversity/wildlife. The portal has both an interactive map display and a searchable data library. The interactive map allows users to quickly select and view information such as details and locations of all oil sands operations, the location of regional monitoring stations, and surface mining disturbance and reclamation. The data displayed on the map is for the most recent reporting period for any given reporting system (some systems report annually while others report as frequently as every fifteen minutes). The data library is intended to act as a searchable data repository. The data library provides related reports, static images, links, graphs, and tables that allow users to understand trends, or review information in greater depth, or using a different visual representation. The data library also includes historical data. For more information, visit: www.environment.alberta.ca

3. Alberta Official Statistics: Alberta Official Statistics are publicly available key facts that provide a comprehensive perspective of changes over time and geographical areas for Alberta. The Office of Statistics and Information continues to evolve the province’s official statistics to enhance public access to better information on topics that may relate to oil sands development. A strategic review is underway to address gaps in Alberta official statistics (e.g. natural resources and clean energy). The 2011 suite comprise more than 100 indicators providing an Alberta perspective on population, the labour force, educational levels, water quality, environment and much more.

4. Environmental Monitoring: The Governments of Alberta and Canada have agreed to work together to develop an integrated monitoring program in the Lower Athabasca Oil Sands Area. This work will be done in partnership and will integrate recommendations received by both governments on future monitoring in the oil sands. The two governments agree that the joint program will be based on a common understanding of monitoring needs and will clearly identify roles and responsibilities. There is also agreement that the program must be scientifically credible, rigorous and transparent, and that the information derived through it will be made publicly available. The joint program is expected to be announced in the upcoming year.
Investing in Carbon Capture and Storage initiatives

One of the ways Alberta will reduce greenhouse gas emissions is called carbon capture and storage (CCS). Carbon capture and storage is a process that captures carbon dioxide emissions from large industrial emitters and stores them in secure geological formations kilometres below surface.

Alberta’s 2008 Climate Change Strategy commits to reducing projected emissions by 200 megatonnes by 2050 – 70 per cent will be achieved through CCS. CCS is the only technology that can achieve large reductions in carbon dioxide emissions from industrial sources.

As this is a priority for Alberta, the provincial government announced a program to jump-start project development. It offered $2 billion in funding for four industrial-scale projects that would each capture about one million tonnes of carbon dioxide per year, starting in 2015.

Sandra Locke is Assistant Deputy Minister, Electricity, Alternative Energy, and Carbon Capture and Storage Division with Alberta Energy, the group charged with developing and enforcing regulations for Alberta CCS projects. It was a big-dollar commitment but Locke says Alberta has an industrial-scale emissions profile that requires an industrial-scale response. She says implementing the four CCS projects will:

• Demonstrate the “viability” of CCS as an important climate change tool
• Help the province refine its regulatory framework for a new sector of the energy industry, and
• Show that CCS can be done safely

The idea behind the province’s support of CCS is while it reduces greenhouse gas emissions, it also enables companies to continue to use fossil fuels and grow.

Carbon capture and storage is a greenhouse gas mitigation technology that is fully supported by the United Nations Intergovernmental Panel on Climate Change and the International Energy Agency.

For more on CCS, please visit http://www.solutionsstarthere.ca.
Related Government Strategies and Initiatives

Responsible Actions: A Plan for Alberta’s Oil Sands
http://www.energy.alberta.ca/Initiatives/3223.asp

Responsible Actions: A Plan for Alberta’s Oil Sands – Implementation Plan
http://www.energy.alberta.ca/pdf/OSS ResponsibleActionsImplementation.pdf

Oil Sands Information Portal
http://environment.alberta.ca/apps/osip/

Land-use Framework and the Draft Lower Athabasca Regional Plan
https://www.landuse.alberta.ca/Pages/default.aspx

Cumulative Effects and the Lower Athabasca Regional Plan
www.environment.alberta.ca/0890.html

Climate Change Strategy
www.environment.alberta.ca/0909.html

Alberta’s Traffic Safety Plan: Saving Lives on Alberta’s Roads
www.transportation.alberta.ca/3112.htm

Albert’s Oil Sands
www.oilsands.alberta.ca

Alberta Innovates
www.albertainnovates.ca

Alberta Housing and Urban Affairs—Parson’s Creek
www.municipalaffairs.alberta.ca/parsons_creek.cfm

Alberta Energy Strategy
www.energy.alberta.ca/Initiatives/strategy.asp

Spirit of Alberta: Alberta’s Cultural Policy
www.culture.alberta.ca/culturalpolicy

First Nations Consultation Policy on Land Management and Resource Development
www.aboriginal.alberta.ca/1.cfm

Carbon Capture and Storage
http://www.solutionsstarthere.ca/

Building and Educating Tomorrow’s Workforce
www.employment.alberta.ca/betw

Alberta Official Statistics

Joint Canada-Alberta Implementation Plan for the Oil Sands:
http://environment.alberta.ca/03379.html

More information about Responsible Actions, as well as an implementation plan is available at http://www.energy.alberta.ca/Initiatives/3214.asp. More information on reclamation, air, water and communities in the oil sands region is available at www.oilsands.alberta.ca.