

Province can learn from mistakes of its western neighbour

The general public doesn't think of Saskatchewan when it hears "oil sands," but commercial and government interests want to develop our substantial bitumen reserves.

Although Alberta's oil sands have received most of the Canadian and international attention, an estimated 27,000 square kilometres of northwestern Saskatchewan – an area larger than Lake Erie – could hold as much as 2.3 billion barrels of bitumen. Oil sands developers have leased land there and they are proceeding with exploration and development.

Because Saskatchewan's oil sands deposits are too deep for surface mining, oil sands development in Saskatchewan will likely use in situ ("in place") methods. In situ oil sands development comes with a host of environmental impacts that must be carefully managed, including very high greenhouse gas emissions, major impacts to forests and wildlife, and concerns about water use and contamination.

To date, oil sands exploration is taking place in northwestern Saskatchewan north of La Loche. Exploration has proceeded in the absence of a regional land use plan and before regional environmental monitoring is in place or rules to protect air, land and water have been identified. Saskatchewan is not currently equipped to ensure that oil sands development proceeds responsibly.

Up to 27,000 square kilometres of northwestern Saskatchewan could be subjected to oil sands development.
PHOTO: DAVID DODGE, THE PEMBINA INSTITUTE

Saskatchewan lags on climate change action

Oil Sands Impacts in Saskatchewan: large and growing

- An estimated 27,000 square kilometres of northwestern Saskatchewan – an area larger than Lake Erie – has some level of oil sands potential.
- Oil sands dispositions have been granted prior to environmental assessment or land-use planning in northwestern Saskatchewan
- Saskatchewan has the highest per capita greenhouse gas emissions of any province in Canada. Greenhouse gas pollution will rise with oil sands development.
- The people of Saskatchewan have not been adequately consulted on their vision for oil sands development in the province.
- Saskatchewan has the opportunity to avoid the mistakes made in developing the oil sands in Alberta.
- Already, more than 200,000 tonnes of acid producing sulphur dioxide and nitrogen oxides are released each year from oil sands operations in Alberta. Over two thirds of that pollution is blown on the winds into Saskatchewan where it lands on lakes and forests.



The Clearwater River Wilderness Park protects 2,000 square kilometres of northwestern Saskatchewan, but many other ecologically



important lands are vulnerable to development. PHOTO: CHURCHILL RIVER CANOE OUTFITTERS

Heading in the wrong direction on greenhouse gases

Saskatchewan's annual greenhouse gas emissions were 72 million tonnes in 2007. The provincial population was around a million people in that year, which means Saskatchewan's emissions were about 72 tonnes per person – three times the Canadian average.

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Saskatchewan's per person greenhouse gas emissions are so high that if Saskatchewan were a country, it would have the third-highest per-capita emissions in the world. This is even before the increased greenhouse gas pollution that can be expected from oil sands development.

Oil sands production is taking us in the opposite direction to the international consensus about the need to reduce greenhouse gas pollution. Oil sands operations using in situ methods are even more greenhouse intensive than oil sands mining because of their higher energy requirements. They create about three to five times more emissions per barrel than conventional oil production in North America.

Canada has no regulations in place to reduce greenhouse gas pollution, and Saskatchewan recently weakened its own greenhouse gas management plan so that emissions in Saskatchewan will continue to rise.

Saskatchewan's greenhouse gas emissions are three times higher per person than the Canadian average. SOURCE: THE PEMBINA INSTITUTE



Acid rain kills fish and puts Saskatchewan's world-class lakes and forests at risk. PHOTO: HELENE WALSH

Acid rain is falling on northern Saskatchewan

Acidifying emissions blown in from Alberta oil sands

Acid rain is already falling in northern Saskatchewan, and it is coming from the oil sands. More than 200,000 tonnes of acid producing sulphur dioxide and nitrogen oxide pollution are released each year from the oil sands operations in Alberta.

Over two thirds of that pollution is blown on the winds into Saskatchewan. Acidification of lakes kills fish and places Saskatchewan's world-class lakes and forests at risk.

To date, lakes in northwest Saskatchewan are still considered to be healthy, with a

pH level that is generally between 6.0 and 7.0. However, there is rain and snow falling on these lakes with a pH of between 4.0 and 5.0 a level that Environment Canada considers acid rain, and the pollution from Alberta is increasing. To make matters worse, northern



The Government of Canada has important jurisdiction in oil sands environmental management when it comes to protecting Saskatchewan from down-

stream and downwind impacts from oil sands.

Unfortunately it has failed to act, leaving Saskatchewan vulnerable to the airborne pollutants from Alberta's oil sands.

 Saskatchewan's forests are particularly sensitive to acid rain. PHOTO: X. FANG

Nuclear Power and the Oil Sands

Oil sands development in both Alberta and Saskatchewan is pushing the drive towards another controversy the proposed construction of one or more nuclear reactors in Saskatchewan. Bruce Power, an Ontario-based nuclear reactor operator, is seeking provincial government approval for reactor construction in Saskatchewan, in part to supply electricity to the Alberta oil sands.

In addition to unresolved concerns about safety and storage of nuclear waste, nuclear reactor construction projects have a history of design problems and significant cost overruns, which would result in large increases in power rates.



Summary of recommendations

While there are short-term job and revenue benefits from oil sands activity, there are also substantial risks that have not been adequately explored in Saskatchewan.

What is needed to make sure Saskatchewan "does it right"?

- 1. Suspend the granting of oil sands dispositions and *approvals.* We recommend a pause on oil sands lease sales and development approvals while public consultations on oil sands development occur. If oil sands development is supported by the people of Saskatchewan, a further pause would be necessary until a set of conditions are put in place aimed at minimizing environmental damage while ensuring maximum economic benefits for the people of Saskatchewan – most particularly the people of northern Saskatchewan.
- 2. Ask the people of Saskatchewan. We recommend that the Government of Saskatchewan complete a provincewide public consultation on the prospect of developing Saskatchewan's oil sands resources. It should engage the people of Saskatchewan in a meaningful public dialogue on their expectations about whether and how to develop Saskatchewan's oil sands resource.
- 3. Make sure the appropriate rules are in place. If the people of Saskatchewan support oil sands development, the responsible development of that resource would require a number of significant policy changes and improvements to environmental management and monitoring.
 - Set real greenhouse gas reduction targets.
 - Complete the protected areas network in northwestern Saskatchewan.
 - Develop a royalty regime that maximizes benefits to the owners of the resource, the Saskatchewan public.
 - It also includes the federal and provincial government genuinely fulfilling their duty to full consultation with First Nations and Métis peoples.







Want more information?

For more information and a complete list of recommendations, download our full report Carbon Copy: Preventing Oil Sands Fever in Saskatchewan. It is available from www.oilsandswatch.org, www.cpaws.org, and www.environmentalsociety.ca.

This report was prepared by Peter Prebble and Ann Coxworth of the Saskatchewan Environmental Society, Terra Simieritsch, Simon Dyer and Marc Huot of the Pembina Institute, and Helene Walsh of the Canadian Parks and Wilderness Society.

Saskatchewan's Opportunity: Leader or Follower?

Alberta represents a cautionary example of how mismanagement of oil sands development can have significant environmental and social impacts. In Alberta oil sands development outpaced environmental management, and the Governments of Alberta and Canada are still struggling to catch up. Saskatchewan has the opportunity to ensure that if oil sands development proceeds, it occurs in an environmentally responsible manner and in the best interests of the citizens of Saskatchewan.

Saskatchewan stands at the crossroads. Will Saskatchewan learn from the mistakes of its western neighbour, or will development of oil sands in Saskatchewan be characterized by the same feverish rush and lack of planning that defined oil sands development in Alberta?

