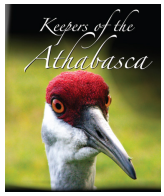

Alberta's Oil Sands Development is Not Responsible- Moratorium Needed

Report: http://www.keepersofthewater.ca/files/cumulativeeffects2012.pdf

This Keepers of the Athabasca report provides:

1. A compilation of evidence documenting the lack of information on cumulative effects on the environment in the oil sands region of Alberta, which is a requirement for regulatory approval of new projects under both provincial and federal requirements, and

2. Evidence that significant harmful environmental effects have occurred already.

This report's evidence supports a Keepers of the Athabasca recommendation to the Alberta and Federal Governments for a moratorium on new oil sands projects until existing cumulative effects are fully documented and properly assessed. The current plan to allow new development while a new monitoring program is being established, and implemented, is contrary to regulation and is not responsible development.

Approval of oil sands projects is the responsibility of both provincial and federal agencies. The Canadian Environmental Assessment Agency requires cumulative effects be determined before new projects can be approved. The provincial Energy Resources Conservation Board requires that approved projects are in the public interest, and claims that it is a requirement of the approval process to consider cumulative effects.

To support the conclusion that the full cumulative effects in the oil sands area are not known, the key findings of the five recent reviews of current monitoring efforts are provided: the Federal Oil sands Advisory Panel (2010), the provincial Regional Aquatics Monitoring Program (RAMP) Review Panel, a panel commissioned by the Royal Society of Canada, the provincial Alberta Environmental Monitoring Panel and the Auditor General of Canada. To support the conclusion that significant harmful environmental effects have already been found, evidence is provided from available traditional knowledge, peer reviewed scientific literature, and independent studies.

All five oil sands reviews concluded that environmental monitoring in the region has not been adequate to measure the current harmful cumulative effects. In addition, evidence documented in this report from the five reviews, aboriginal groups and independent study is sufficient to show that environmental effects caused by the oil sands industry in the region already pose a threat to air, water, land and biodiversity. This is after over 30 years of building huge projects, the accumulation of 170 km^2 of toxic tailings ponds, acid rain, destruction and fragmentation of boreal forest, toxins in surface and groundwater and serious problems with reclamation.

Therefore, until a monitoring program capable of detecting regional trends and cumulative effects has been established, implemented and has results upon which decisions can be made, approvals (since at least 2004 when the first review of the water monitoring in the oil sands area was very critical, indicating then that cumulative effects were not being determined) are contrary to the Canadian Environmental Assessment Act, and to Alberta's Environmental Protection and Enhancement Act. Therefore, at least since 2004 both agencies (Energy Resources Conservation Board and the Canadian Environmental Assessment Agency) that approve new oil sands projects did not have the basis in their own regulations to approve more projects.

These are some of the main findings indicating existing and increasing future environmental damage:

- Aboriginal people in the region have indicated water and wildlife quality and quantity problems already exist and are affecting their treaty rights.
- The main water monitoring program (Regional Aquatic Monitoring Program (RAMP)) has not been doing an adequate job of monitoring for over ten years, including not collecting baseline data or trends in toxic substances, so that at this point in time we do not know the cumulative effects of pollution from petroleum development on water and sediment quality in rivers and lakes.
- Recent independent science and reviews of existing information have concluded that industrial activities are the source of observed contamination of water with toxic heavy metals and petroleum compounds from Ft. McMurray all the way down to the Peace Athabasca Delta, and on land within about forty km of the mining projects.
- Increases over time of some of some extremely toxic substances such as arsenic, mercury, naphthenic acids, polycyclic aromatic hydrocarbons (PAH, PAC) have been found in water and sediments.
- Canada's or Alberta's guidelines for the protection of aquatic life were exceeded for seven Priority Pollutants —cadmium, copper, lead, mercury, nickel, silver, and zinc—in melted snow and/or water collected near or downstream of development.
- Tailings ponds are not lined and contain toxic substances that are leaking into the surrounding environment and groundwater.
- Groundwater is being contaminated to unknown degrees and repair may take an extremely long time, is very expensive, and may be impossible.
- Water quantity in the area is expected to decline due to global warming, while industrial water needs continue to increase. This will increase the clash between environmental and economic needs.
- Quantities of groundwater used in the oil-sands are not sustainable. Some areas have already seen lowering of water levels harmful to ecosystems due to petroleum activity.
- Populations of some wildlife species are already declining. The woodland caribou, for example, is threatened with local extinction and indicators of native fish integrity, fisher, moose and black bear are below healthy levels.
- In situ operations will occupy about eighty per cent of the region and increase habitat fragmentation to an extent that sensitive wildlife populations will decrease even further.
- Aboriginal people report increasing frequency of deformed fish caught in the Athabasca River and Lake.
- Alberta's air quality standards allow significantly more pollution than the European Union, U.S. Environmental Protection Agency and World Health Organization. The tar sands industry is allowed to largely self-monitor air pollution.
- Acid rain from the oil sands extraction process is already falling in amounts that will lead to conditions that are harmful to fish and other species in lakes.
- It is well known that restoration will not be able to return the landscape of the mined area to its previous condition. Wetlands of various types currently occupy about half of the oil sands area now, but will be much reduced in the future. The salty nature of the tailings sand needed to reconstruct the landscape after mining will limit the success of restoration.
- Unlined end pit lakes are to be permanent features on the landscape where toxic liquid tailings will be stored. It is hoped that capping them with fresh water will result in the eventual creation of a functional lake ecosystem. This is unproven.