Protecting the habitat of species at risk while developing energy resources

BY AMIN ASADOLLAHI

Canada's boreal forest is one of the largest remaining intact forest ecosystems in the world and home to songbirds, bears, wolves, bison and the world's largest caribou herds. Yet the area where oilsands development takes place is home to nearly 90 species at risk, which are already showing less abundance and are expected to decline as approved projects are developed and critical habitat is increasingly disturbed.

It doesn't need to be this way.

The oilsands sector has an opportunity to reverse this trend, in cooperation and coordination with other sectors. And companies that show leadership by taking action through mitigation measures, including conservations offsets, also stand to reap reputational benefits.

In the absence of proactive measures to address projects' impacts on the landscape, we can expect companies to face increasing pressure to ensure that they are not responsible, either individually or collectively, for the decline of a species. In the worst-case scenario, the extinction of a species would be devastating—not only for healthy ecosystems, but also for the corporate image of the sector and its member companies, which would find it hard to dissociate responsibility in the eyes of the public.

Why conservation offsets?

Conservation offsets are one of many tools available to industry and governments to help ensure that species can thrive and be part of the landscape for generations to come while allowing more responsible oilsands development. In essence, conservation offsets (also referred to as terrestrial or biodiversity offsets) are a policy instrument to restore or conserve habitat as a substitute for areas that have been, or are to be, disturbed by project development.

Purchasing offsets does not grant unrestricted opportunities for projects with significant environmental impacts to proceed. Rather, it is the last step in a mitigation hierarchy, which follows these steps: avoiding where possible a project's impact on biodiversity; minimizing any unavoidable impacts; undertaking restoration where such impacts occur; and finally, compensating for damage through offsets. And while reclamation is important, it would be unreasonable to simply wait to take action until a project's closure, especially with a decline in species habitat and population, and given that conservation offsets can provide earlier and additional opportunities.

When looking at benefits and costs, conservation offsets are a feasible option, providing ecological, social licence and financial benefits with a relatively small cost, especially in the context of overall oilsands expenditures. In 2008, the Pembina Institute, along with the Canadian Boreal Initiative and the Alberta Research Council, published a report titled, *Catching Up: Conservation and Biodiversity Offsets in Alberta's Boreal Forest*. In it, we reported on interviews from stakeholders across Alberta that strongly supported this approach. We also outlined the compelling environmental and business case for establishing conservation offset policy.

A work in progress in Alberta

According to analysis by the independent Alberta Biodiversity Monitoring Institute, Alberta's section of the boreal forest is still relatively healthy overall. However, the scale of oilsands expansion planned for the region is predicted to put significant pressure on many wildlife species including the Canada warbler, woodland caribou, barred owl and Canada lynx.

Regulatory panels reviewing oilsands projects have recently concluded that the cumulative impacts of all industrial activities in the region are too high, and traditional methods of mitigation are not adequate. In this context, the deployment of conservation offsets is urgently needed to maintain and restore wildlife populations and habitats in Alberta.

The Government of Alberta committed to developing a biodiversity management framework for the Lower Athabasca region by the end of 2014. This framework, which had not yet been announced at press time, must have binding targets for biodiversity in order to be meaningful. Offsets could serve a critical role in enhancing or maintaining biodiversity levels above the identified target. The Government of Alberta has also stated that a biodiversity offset policy is under development. A strong offset policy would also be welcomed in other parts of the province where much more native habitat has been lost.

Given the level of industrial disturbance, both past and planned, conservation offsets are urgently needed to catch up and maintain ecosystem health in the boreal region. Offsets are not, however, a licence to do harm.

How offsets work

Conservation offsets are defined as "actions intended to compensate for the residual, unavoidable harm to biodiversity caused by development projects, so as to aspire to no net loss in biodiversity." Let's unpack that definition: "conservation actions" can include restoring (where appropriate) and designating sensitive land areas, critical wildlife habitat and certain water bodies as protected from all development or certain types of development. The "no net loss" principle is intended to ensure that wildlife and ecological systems are protected overall, even if there is some unavoidable harm in specific areas where projects are being developed.

The underlying principle of conservation offsets can be controversial, in that it acknowledges that development projects can have impacts that cannot be mitigated locally—and how the principle is applied can determine whether conservation actions succeed in protecting biodiversity.

Another approach: Net positive impact

Interestingly, while Alberta determines what the rules around mitigating biodiversity impacts will be in the province, the World Bank has released a draft environmental and social framework for comment, proposing that any projects it funds should achieve a "net positive" impact on biodiversity through use of offsets:

"For the protection and conservation of biodiversity, the mitigation hierarchy includes biodiversity offsets, which will be considered only after appropriate avoidance, minimization, and restoration measures have been applied. A biodiversity offset will be designed and implemented to achieve measurable conservation outcomes that can reasonably be expected to result in no net loss and preferably a net gain of biodiversity; in the case of critical habitats, a net gain is required."

This net positive objective would be a laudable goal for Alberta to adopt—not to mention it would be embarrassing if mines in developing countries were held to a higher environmental standard than what's required here.

Some industry representatives frequently downplay the impact of oilsands development by comparing the extraction footprint to the size of Canada's forest. Imagine how the conversation could change if, instead, industry committed to having a net positive impact on biodiversity—a goal which is both realistic and achievable.

Companies taking the lead

In the absence of clear policies to protect biodiversity in Alberta, some oilsands companies have started exploring their options. Teck, a global mining company but relatively new entrant to the oilsands sector, already has an ambitious set of corporate goals around biodiversity.

Teck has both short- and longer-term goals for biodiversity offsets. For instance, by 2015 the company aims to develop plans at its operations "to offset ecosystem impacts that cannot be fully mitigated or rehabilitated, by enhancing or protecting similar habitat areas of equal or greater ecological value, in the affected regions." By 2030, Teck aims to "achieve a net positive impact on biodiversity" in all regions where it operates.

Both Shell and Suncor have made voluntary investments in boreal forestlands for conservation. While these efforts are noteworthy, they have not been framed or assessed as mitigation for impacts associated with their oilsands projects, and further investments by the companies will be needed to ensure that offsets are sufficient to compensate for the corresponding impacts of their operations.

So while some oilsands operators are looking to move forward with conservation offsets, their efforts are being hampered by the lack of provincial policy in this area and the lack of a framework to guide industry's implementation of offset plans.

Challenges to establishing offsets in Alberta

Governments need to expedite the introduction of a policy mechanism to allow for public lands in northeastern Alberta and in the vicinity of oilsands projects to be protected under conservation offsets. In the interim, there are opportunities to protect 65,000 square kilometres of private land in Alberta's boreal region, and many landowners would be interested in financial incentives to conserve or restore boreal habitat. There are also hundreds of thousands of kilometres of old abandoned geophysical cutlines that would be amenable to restoration and appropriate designation under an offset program. An ongoing study by Foothills Research Institute recently found that decades of clearcuts, well pads and seismic lines have caused so much disturbance to the ecosystem and species that restoration will have to be prioritized.

Given the level of industrial disturbance, both past and planned, conservation offsets are urgently needed to catch up and maintain ecosystem health in the boreal region. Offsets are not, however, a licence to do harm. They do not replace the need for improved reclamation, legal limits on maximum allowable levels of disturbance and the establishment of protected areas under government land-use planning processes. We do, however, need better biodiversity management and mitigation outside legally designated protected areas. Here, offsets can play a critical role in improving the management of Alberta's precious landscapes while bringing stakeholders from various sectors together to achieve a common goal. OSR

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