The Impact of Development on Wildlife in Manitoba: How We Must Move **Forward**

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Development in Manitoba is harmful to the animals that live here and as a province we need to work towards incorporating the wellbeing of animals into our development planning.

Much of the wildlife in my province suffers due to how we approach development. Manitoba's fifteen hydroelectric dams are incredibly harmful to the animal populations in the area (Manitoba Hydro, 2021). Indigenous communities near the dams have noticed suffering of fish as one of the most direct impacts of this problem. One community who used to catch one million pounds of Whitefish in a year now catch 100 000 pounds after construction of the Keeyask generating station (CBC, 2018). Much of this wildlife suffering comes from the fact that these dams cause immense flooding. Flooding events cause erosion which harms water quality and introduces methylmercury into the food chain. This leads to bioaccumulation, where mercury is passed up the food chain and eventually causes damage to larger animals. In addition, the trees swept away by floods decompose in the water, taking away oxygen from aquatic life, and destroying fish spawning grounds. The moose population is believed to have declined in Fox Cross First Nation due to their food, willows, being swept away in the floods (Fox Lake Cree Nation, 2018). This problem is a current issue because without opposition, my province may be able to get a permanent license for being allowed to flood whenever and wherever they want (Read, 2020). All of these horrible impacts of dams on wildlife show that development in Manitoba does not take into consideration the protection of natural habitat and species and with a permanent license could do a lot of damage to the wildlife populations in the province. Moving forward, in order to solve the issue of animal suffering as a by-product of development we need to start designing new development around wildlife and their habitats by considering potential negative impacts of proposed development on wildlife. In the case of hydroelectric development, it would be useful for Manitoba Hydro to create constructed wetlands around the dam site. Constructing wetlands could bring as much as an 80% reduction in peak flooding (Tinker's Creek Watershed Protectors, 2017). This would mean much of the damage caused by flooding could be eliminated, allowing wildlife and human development to thrive all at once. In

addition, placing monetary value on wildlife will ensure less destruction of natural habitat. In many cases it is impossible to keep all habitat fully intact. That is why putting a value on wildlife and their habitat is so important. If we were to adopt this approach my province would have to pass legislation requiring developers to resume responsibility for their habitat destruction. This would result in developers choosing to create the least amount of harm to natural habitat and would ensure that habitat would have to be restored elsewhere (rather than just destroyed). This strategy would enable my province to develop without the cost of animal suffering. Through the use of these ideas Manitoba can stop developing at the expense of animals.

Clearing natural ecosystems that were designated for protection to make way for development is directly harming animal species in Manitoba. Currently, my province has been allowing multiple explorations for mining in our Provincial Parks which are very harmful to wildlife habitat. In 2012, the Wilderness Committee discovered that extensive mineral exploration was taking place in Nopiming Provincial Park. Large amounts of trees were cleared to build roads in the middle of a moose protection area. As a result, the moose populations plunged by 50% because roads make it easier for wolves and humans to hunt moose (Reder et al., 2012). As well, in Grass River Provincial Park mining waste from exploration caused acidification of clean water (Reder et al., 2012). This acidification hurts fish by causing asphyxiation due to mucus build up, destruction of eggs and reproductive ability, and increased invasive species (Lenntech, n.d.). In addition to this damage, old mines have not been cleaned up. The Spruce Point Mine in Grass River Provincial Park is still devoid of vegetation and contains crystally build up, meaning what was once former habitat is still uninhabitable for wildlife (Reder et al., 2012). This damage is all occurring in an area where animals are supposed to be protected, so this practice must be stopped. In order to prevent this harming of animals Manitoba needs to enact laws to truly protect these protected areas from any kind of industrial development. Manitoba needs to get to a point where no new mining explorations would be allowed, as there would never be a chance of industrial development inside of parks. This goal must be outlined in a roadmap containing

targets and a timeline in order to ensure the phasing out of current mines and exploration projects. This would need to include a goal of not only ending harm towards animals, but helping all disrupted populations to fully recover. In addition, it is highly important that we not only conserve the areas we have but create more conserved areas for important ecosystems and habitats in our province. Peatlands are one of the best places to start with due to their large carbon impact upon destruction (Kopansky, 2019). By creating more areas of protection we can ensure that industrial development does not harm natural habitats. By claiming more areas as protected we can keep wildlife from suffering due to habitat destruction. As well, one way of achieving these goals is by aligning animal protection with recreation (i.e. Manitoba Provincial Parks). Manitoba Provincial Parks provide protected habitat, as well as recreation through swimming, hiking, snowshoeing, and more. Currently, there is a push in Manitoba to get more provincial parks as camping spot bookings in Provincial Parks were at an increase of 117% compared to last year (also a record setting year) because of a want for recreation in the pandemic (CHVN, 2021). Since this push, Manitoba's premier, Brian Pallister, announced a 20 million dollar endowment fund for Manitoba Provincial Parks (Government of Manitoba, 2021). This example effectively shows how the linking of recreation with conservation results in political action being taken for the wellbeing of wildlife.

The impacts of destroying natural ecosystems for agriculture dramatically impacts the wellbeing of many different kinds of wildlife. It is currently estimated that 70% of Manitoba's wetlands have disappeared, most of this being from draining wetlands agriculture (Hitchen, 2020). This is incredibly harmful for wildlife both directly and indirectly. Our Manitoba "pothole wetlands" are some of the best waterfowl breeding grounds on the planet. (Ducks Unlimited Canada, n.d.). The region is home to hundreds of species which includes fifty species currently designated as at risk (Ducks Unlimited Canada, n.d.). Wetlands often serve as the base of food chains, due to their nutritious plants and many invertebrates (Hitchen, 2020). As well, indirectly, these wetlands are important because they filter out harmful pollutants that otherwise go into Lake Winnipeg. This causes eutrophication which

eventually suffocates aquatic life. As well, these wetlands are incredibly helpful against flooding as they regulate water. Wetlands take in the water off the land and slowly release it, preventing habitat destruction for wildlife. These many important uses prove that the destruction of wetlands due to agriculture is incredibly harmful to wildlife. In order to combat loss of wetlands due to agriculture we need to increase the efficiency of agriculture. Manitoba can incentivise more farmers to use sustainable practices such as crop rotation. use of cover crops and silvopasture to produce greater quantity and quality of agricultural products. Better efficiency would ensure less farmland is needed, allowing us to convert cropland back into natural habitat. As well, in order to prevent animal suffering due to the loss of ecosystems, my province can incentivise agricultural landowners to restore parts of their land to its natural state (as Ducks Unlimited is currently doing). Most recently Ducks Unlimited has teamed up with Ron Houck, a farmer, to conserve 42 acres of wetland and grasslands on his property, which will benefit and protect more than 50 species of birds and other animals (Ducks Unlimited, 2020). Another family in Rapid City has seen animals like geese, eagles, cranes, pelicans, owls, moose, deer, and even bears after restoring their land (Ducks Unlimited, 2019). The many more animals seen on landowners' property proves that restoration partnerships are effective in conserving wildlife.

There is immense suffering of wildlife due to development such as hydroelectric dams, mining, and agriculture, and that is why it is so vital to work towards adopting solutions in my province which will allow for development to continue without wildlife paying the price. Protecting animals' habitat and wellbeing from destruction due to development must be adopted by the Manitoba Provincial Government. We cannot truly "develop" as a province when development continues to only benefit the human species at the cost of others.

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