

Comment on the Proposed Joyce Lake Iron Mine
University of Waterloo Environmental Assessment Review Society
October 28, 2021

Introduction

The University of Waterloo's Environmental Assessment Review Society has completed its evaluation of the Joyce Lake Iron Mine DSO Project (#80015) proposed by Joyce Direct Iron Ore Inc., a subsidiary of Century Global Commodities. It is our opinion that the project proposal should be declined without conditions by the Minister for its

Biophysical Effects

Open-Pit Mine

Open pit mines in themselves carry significant implications such as the generation of millions of tonnes of waste rock and subsequent risk of leaching toxic pollutants and heavy-metals, animal mortalities, and the loss of local habitats and ranges. Within the project area, the open-pit would occupy 181.425 km-squared which the proponent has refused to remediate. While the waste rock, overburden, and tailings facilities would be remediated by the proponent, we see the open-pit as the largest concern of the project due to its scale and drastic alteration of the local landscape.

Dewatering of Joyce Lake

This open pit would require the dewatering of the local Joyce Lake in order to access the iron ore which the proponent has stated as essential to the economic viability of the project. The dewatering of a lake has large-scale impacts on habitats and species ranges as well as affects the local and regional hydrology of an area. This can lead to decreased flows and freshwater resources. This is particularly pertinent to the geography of the area which supports a host of wetland systems that rely on this hydrological connectivity to sustain its biodiverse habitat. Lake dewatering can often also create issues of groundwater contamination as these sites are often aligned with the local or regional water tables and so this could threaten the water security of surrounding communities. With no promise of remediating the open pit, it is unclear how Joyce Lake itself would be remediated in a way that would prevent leaching of toxic materials within the open pit itself. Therefore, it does not seem viable to proceed with this project due to the drastic and widespread biophysical impacts it may have.

Socio-Economic Impacts

Economic Viability

The Joyce Lake project brings potential for economic growth in an area with an employment rate lower than the national average. But given the nature of the mine and its seven year life span there is a high likelihood that its benefits would not be long-term.

Mines are not permanent employment hubs and are often shut down temporarily due to fluctuations in the prices of the minerals. Indeed, it was for this reason of fluctuating market prices of iron ore that the project was originally suspended. This history of the project draws into question its economic sustainability as future fluctuations may require lengthened periods of suspension. This risk is heightened by the fact that the proponent has refused to remediate some biophysical impacts of the project such as the open-pit mine on the grounds that doing so would make the project economically unviable. Remediating a pit by backfilling is a standard practice for most open-pit mines and the inability of the project to do so highlights its limited economic potential to the region.

Infrastructure

As the project is located in a remote area, it would require 27.6km of service roads to be developed in order to service the mine. This could be a benefit to the regional economy as it could promote further development along these corridors and increase connectivity between existing communities. However, this also raises concerns around impacts to Indigenous Treaty rights. Often increased connectivity can create hunting pressures from settlers that infringe on game species and the rights of Indigenous communities to hunting and fishing these species. As the project area lies entirely within lands under legislative authority of the Innu Nation as stated in an Agreement-In-Principle between the Innu Nation, Canada, and the Province of Labrador, we would advocate that the Minister recognize the stance of the Innu Nation on the project in his determination.

Conclusion

The Joyce Lake Iron Ore Mine DSO Project would create net-negative effects on the receiving social and biophysical environments. By creating permanent alterations to the local landscape through the dewatering of the Joyce Lake and the un-remediated open pit mine. While the project could provide short-term economic gains to the region, the proponent's refusal to remediate the most significant environmental alterations of the project creates long-term liabilities to communities and the local government. Additionally, the project's short 7-year lifespan combined with its history of withdrawal due to a lack of economic feasibility limits the potential economic contributions of this project to the regional economy.

About Us

The University of Waterloo's Environmental Assessment Review Society (UW EARS) is a student-run organization representing scholars passionate about environmental assessment and its role as a pathway for sustainable development in Canada. We work collaboratively and rigorously across faculties to review current high-profile assessments and submit formal comments during their comment periods based on our expertise in assessment and related fields. Our goal is to foster the next generation of assessment practitioners, contribute to the assessment field, and raise awareness of evolving assessment practice in Canada. Comments were developed in consultation with students from the University of Waterloo but do not represent the official stance of the University on this project.