



Environment, Climate and Parks

Climate and Green Plan Implementation Office

1200-155 Carlton St., Winnipeg, Manitoba, Canada R3C 3H8

T 204-945-3674 F 204-943-0031

[www.manitoba.ca](http://www.manitoba.ca)

28 January 2022

Upon review of the above-referenced Environment Act Proposal (EAP), the Climate and Green Implementation Office has the following comments and recommendations aiming to minimize peat harvesting operations' carbon footprint:

- 1. To minimize GHG emissions from equipment and processes, we recommend that Sun Gro include mitigation measures in the Environmental Protection Plan (EPP) proposed under Section 6.4 (pp. 45-46).**

We note that "Implementation of mitigation measures proposed by Sun Gro will be carried out through development of an Environmental Protection Plan that includes mitigation measures, follow-up requirements, licence and permit terms and conditions, and other related requirements. The Environmental Protection Plan also provides for effective integration of environmental assessment results into operational procedures." However, it is not clear as to whether the proponent is considering taking action to reduce their carbon footprint in particular; that is, to implement mitigation measures aiming to minimize greenhouse gas (GHG) emissions resulting from peat extraction and on-site processing, as well as the machinery being used. ***We would encourage the proponent to include an emissions reduction strategy as part of the EPP and update it periodically, and provide an annual emissions report to the province.***

In implementing the above recommendation, we encourage the proponent to follow requirements of the Certification for Responsibly Managed Peatlands.

- 2. To minimize GHG emissions from land use change, we recommend that Sun Gro include mitigation / adaptation measures in the Environmental Protection Plan proposed under Section 6.4 (pp. 45-46) for enhanced climate resiliency**

Land use change (as caused by peatland draining and peat extraction activities) has been estimated to be responsible for 15% (14,686 tCO<sub>2e</sub>) of total life cycle GHG emissions of the Evergreen Bog peat-mining operations. This is more than peat harvesting and processing (4%) and transportation to market (10%), combined. Land

use change is therefore the biggest GHG-generating activity that is directly under the control of the peat-mining company. Implementing enhanced mitigation measures (e.g., improved management of the site hydrology, for example through drain blocking to rewet the peatland site using a variety of techniques including peat dams, plastic piling and bunding, plantation removal, pollution control, Sphagnum transfer and/or control of grazing, burning, water quantity and quality, etc.) through the Environmental Protection Plan should help to lower GHG emissions.

It should also be noted that, in addition to methane (CH<sub>4</sub>) and carbon dioxide (CO<sub>2</sub>), peatlands can also act as a source of nitrous oxide (N<sub>2</sub>O), a potent GHG. In an undisturbed state, losses of N<sub>2</sub>O from most peatlands are small. However, drainage and fertilization (depending on chosen post-harvest restoration mode) of peatlands can greatly increase N<sub>2</sub>O emissions, making an important contribution to the overall peatland GHG balance. Investing in restoration of peatlands can help restore natural capital and its ecosystem goods and services (EGS).

***Due to projected climate change, we recommend that the Environmental Protection Plan include considerations for climate adaptation in the proposed protection measures.***

**3. We recommend that Sun Gro consider Canada's net-zero aspirations as part of an emissions reduction plan.**

Still in Section 5.2.4 (p.26), the proponent indicates that “[...] an average year of production at the Evergreen 1 sub-area will account for approximately 0.0002% of the total annual emissions for the country.” This alludes to a potential insignificance of these emissions. However, given the 17-year life cycle of the proposed expansion project and five-year site post-restoration (which would take us to 2044) and Canada's bid for net-zero emissions (or carbon neutrality) at the horizon 2050, this level of GHG emissions could have a material impact.

**4. We recommend that the proponent reassess their benefit proposition in relation to life cycle peat emissions reductions.**

In section 5.2.4 (p.26) of the EAP, the proponent states that “[...] GHG emissions from decomposition are associated with the end use and should not be attributed to the producer.” However, we note that the submission justifies the development on the basis that mined peat will be used in plant growing, which is anticipated to potentially store carbon. Either the proponent takes responsibility for the full life cycle of their product or this benefit not be considered by Manitoba.