Conservation Council *of* New Brunswick
Conseil de conservation *du* Nouveau-Brunswick

**Response to the Environmental Impact Assessment of the Kingsclear Tree Nursery (Water Supply Source Assessment)**

Dear Amelie Duguay,

On behalf of the Conservation Council of New Brunswick (CCNB), we appreciate the opportunity to provide comments on the Environmental Impact Assessment (EIA) for the Kingsclear Tree Nursery. CCNB acknowledges the importance of the provincial tree nursery. However, we would like to raise some questions and recommendations regarding the project's potential environmental impacts. We are commenting on groundwater extraction, wetlands, watercourses, and climate-resilient tree species.

**Project Background**

The Department of Natural Resources (DNR) is undertaking an EIA for the Kingsclear Tree Nursery located in Island View, New Brunswick. The nursery, operated by DNR, produces approximately 20 to 22 million seedlings annually for reforestation and research. Irrigation is supported by groundwater wells and surface water ponds.

The project includes a hydrogeological investigation to determine a sustainable groundwater pumping rate and to ensure long-term water supply resilience. This will involve drilling of two new observation wells and conducting step-drawdown and constant-rate pumping tests after the growing season. The project footprint is entirely contained within the existing nursery property. Potential environmental impacts are expected to be short-term and localized, primarily during pump testing.

**Groundwater Extraction:** The facility consumes a significant volume of water for its operations. Such a draw is orders of magnitude above typical local usage - for comparison, an average NB household uses only 0.243 $m^3$ *per day*. Withdrawing this daily from the local aquifer could deplete groundwater levels, especially during dry seasons.

Will the EIA offer detailed hydrogeological modeling of aquifer recharge vs. drawdown under various scenarios in the reporting? CCNB would like to ensure that this level of

groundwater use is supportable without risking other water users and ecosystems, especially during the current extreme drought and future droughts.

What best management practices are being implemented to promote water conservation?

**Impacts to Wetlands and Streams:** Pumping groundwater may also reduce base flows to wetlands, streams, and springs that depend on the water table. Wetland habitats downgradient from the site could dry out or experience vegetation shifts if the water table drops. This compounds the direct loss of wetlands mentioned earlier. It is well documented that over-pumping groundwater can cause wetland desiccation and soil subsidence.

Will the proponent be committed to a sustainable yield limit and a monitoring plan that would halt pumping if environmental flow thresholds are exceeded? Granting a water-taking permit of this magnitude *without* such safeguards and analysis would be irresponsible. We need to ensure water security for both people and nature in the region.

It has been noted that the watercourse buffers around Maple Glen Brook are less than 20m in some sections of the project footprint, with few/no 30-metre-wide wetland buffers. The New Brunswick Wetlands Conservation Policy encourages a 30-metre-wide protective buffer of natural, undisturbed vegetation around a wetland. The buffer protects wetlands from the impact of outside threats and serves as important habitat for a wide range of wildlife.

Would the proponent consider developing and implementing a plan to restore the 30-metre-wide protective buffer of natural undisturbed (wetland) vegetation around the wetlands in the project footprint? Restoration of wetland buffers could include heightened berms between wet areas and upland areas to slow the runoff from these areas.


Figure 1 – Mapped wetlands are indicated in light purple.

**Climate-resilient trees**

Protecting and enhancing New Brunswick's terrestrial and aquatic carbon sinks is paramount as the province moves towards net-zero emissions as discussed in the 2022-2027 NB Climate Change Action Plan. Our natural environment – forests, soils, wetlands, and coastal areas – remove carbon from the atmosphere and store it. Improved monitoring and understanding of these carbon stocks are needed to inform conservation and management efforts and enhance their ability to absorb carbon. By doing so, the province will be better equipped to reduce GHG emissions and support resilient ecosystems that help combat climate change. As part of the commitment to natural carbon sinks, the provincial government will continue to improve the climate benefits of New Brunswick's forests by planting climate adapted trees.

Is the Kingsclear tree nursery growing climate adapted and climate resilient tree species?

We support the provincial government in their commitment to improve the climate benefits of New Brunswick's forests. Climate resilient forestry is an approach to restoration that includes techniques such as encouraging the growth of more broadleaved and fire-resistant trees throughout the forest and in buffer zones around more flammable conifers, to slow the spread of wildfires. We recommend increasing the forest's structural diversity and resistance to wind damage by growing more deep-rooted tree species like maple and oaks. Kingsclear Tree Nursery has the opportunity to increase the tree supply needed to build this diversity.

Thank you for considering our questions and comments.

Sincerely,

Marieka Chaplin, Freshwater and Forest Conservation Director
Conservation Council of New Brunswick
info@conservationcouncil.ca
https://www.conservationcouncil.ca/