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January 17, 2023

Impact Assessment Agency of Canada
Canada Place
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Edmonton, Alberta T5J 4C3
Email: Jennifer.Dallaire@iaac-aeic.gc.ca

Dear Ms. Dallaire;

**Re: Clearwater Peat Harvesting Project
IAAC Registry Reference Number 84141
Response to IAAC information request pursuant to section 9(3) of the *Impact Assessment Act***

This letter is in response to the November 28, 2022 letter from the Impact Assessment Agency (“Agency”) requesting information about Premier Tech Horticulture Ltd.’s (“Premier Tech”) proposed Clearwater Peat Harvesting Project (“the Project”).

To facilitate the identification and tracking of our responses, sections (identified below) are presented and follow the same sequence as the requests in your letter.

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| Section A | Available information regarding potential adverse effects within federal jurisdiction and effects to greenhouse gas emissions including carbon sequestration. |
| Section B | Available information regarding potential adverse effects (changes to the environment or to health, social, or economic conditions) that are directly linked or necessarily incidental to a federal authority’s exercise of a power, performance of a duty or function, or provision of financial assistance, that would enable the carrying out of the Project, in whole or in part. |
| Section C | Available information about key project activities, maps and layouts of the location of project components, land tenure, zoning, and estimated timelines for planning, construction, operation, decommissioning and abandonment. |
| Section D | Available information regarding a list of all regulatory approvals (federal, provincial, municipal, other) and any federal financial assistance that would be required for the Project and the associated project components or activities. |

Section E	Steps taken or planned to be undertaken to consult with the public and, if there are issues, what they are and plans to address them.
Section F	Steps taken or planned to be undertaken to consult with Indigenous communities and, if there are issues, what they are and plans to address them.
Section G	Any other comments in relation to environmental effects or impacts to the public or Indigenous peoples.
Section H	Views on whether the Project should be designated under the <i>Impact Assessment Act</i> (“IAA”).

The information included in each of the above sections originates from various sources. We have attached three reports that Premier Tech provided to Alberta Environment and Protected Areas (“AEPA”) for the Project:

1. Biophysical Report and Peat Development and Operations Plan - 2022 Update, January 21, 2022 (“Biophysical Report”)
2. Wetland Assessment and Impact Report, updated January 31, 2022 (“WAIR”); and
3. Conservation and Reclamation Plan – 2022 Update, January 31, 2022 (“Reclamation Plan”).

Other technical information provided from third parties is specifically identified. All other information reflects Premier Tech’s current understanding.

Section A. Available information regarding potential adverse effects within federal jurisdiction and effects to greenhouse gas emissions including carbon sequestration

A-1. Available information regarding potential adverse effects to fish and fish habitat

Fish and fish habitat impact assessments were conducted, and proposed mitigation measures identified. Effects to fish and fish habitat were assessed for the duration of construction and operation of the Project. The potential effects resulting from the Project activities, mitigation to address these issues, and predicted residual effects and evaluation criteria are more fully described in the Biophysical Report, Table 3.3-1.

Fish and fish habitat surveys conducted for the Project along Mud Creek and in the unnamed tributary to Mud Creek found suitable overwintering and rearing habitat for forage fish due to the sites not being frozen to the bottom during winter months, suitable levels of dissolved oxygen during winter conditions, sufficient water depth, and undercut banks providing instream and overhead cover. However, there is limited overwintering, rearing, and spawning habitat for sport fish and sucker species due to the narrow channel, lack of under-ice water depth over 0.50 m during the winter, as well as limited amounts of coarse substrate and fast flowing water required for spawning.

Four (4) fish species were captured during the fish inventory, all of which were forage species. Fish were captured at all sites sampled, including in both Mud Creek and the unnamed tributary to Mud Creek. However, the largest number of fish were captured at Site 13, the furthest downstream site on Mud Creek.

Brown Trout and Brook Trout have previously been captured in Mud Creek, but these species are not natural to the area. While Bull Trout has been captured in the Clearwater River near Mud Creek, no records of Bull Trout exist within Mud Creek. Furthermore, the Project is more than 9 km upstream from Mud Creek's confluence with the Clearwater River and the availability of preferred spawning substrate for Bull trout (e.g., gravel and cobble) is limited to road crossings and near the confluence with the Clearwater River. Winter water temperature in Mud Creek was at or below 1°C, which is below the 2°C minimum temperature threshold for optimal egg incubation conditions. As a result, habitat conditions in Mud Creek are not likely to support Bull Trout spawning and incubation. Therefore, considering the limited habitat for Bull Trout in Mud Creek and the unnamed tributary, proposed mitigation measures, and the fish and fish habitat assessment results, no short- or long-term residual effects on Bull Trout and Bull Trout habitat in the vicinity of the Project are predicted as a result of Project works. Residual effects to surface water hydrology and water affecting fish and fish habitat quality are expected to be negligible through the implementation of the mitigation measures.

Overall, residual effects to fish and fish habitat are predicted to be negligible as a result of the implementation of mitigation measures.

Fisheries and Oceans Canada has confirmed that the Project will not require an authorization under the *Fisheries Act*.

A-2. Available information regarding potential adverse effects to migratory birds and species at risk

Migratory birds

Migratory birds were assessed through wildlife and breeding bird surveys. No federally listed Breeding Bird species were detected during the surveys.

Even though no listed species were detected, to mitigate any potential effect of vegetation clearing leading to destruction of migratory bird nests, Premier Tech will develop and implement a wildlife mitigation and monitoring plan. The application of effective mitigation is expected to keep effects within the resilience and adaptability limits of wildlife valued components ("VCs").

Species at risk

One listed species was observed during the wildlife surveys: Western Toad (*Anaxyrus boreas*), a species of special concern under the *Species at Risk Act* ("SARA").

Western Toads appear to be common breeders in the Local Study Area ("LSA") based on autonomous recording unit data collected in 2020. The Project is predicted to remove 155.5 ha of potentially suitable habitat for Western Toads (i.e., wetland plant communities). This effect of the removal of this habitat is expected to be within the adaptability and resilience limits for the Western Toad population in the Regional Study Area ("RSA"). Suitable

habitat for this species will remain adjacent to the Project and other areas in the RSA. It is expected that Western Toads will be able to access this remaining breeding habitat because they have relatively high mobility. Additionally, the Project may create new suitable breeding habitat for this species (e.g., drainage ditches, outflow ditches, sedimentation ponds).

Bull Trout have been captured in the Clearwater River in close proximity to Mud Creek, but have not been documented in Mud Creek; based on the Alberta Fisheries and Wildlife Information System database, they were not captured in a recent 2019 survey conducted in Mud Creek near the confluence with the Clearwater River and have not been recorded in the watercourse further upstream (AEP 2020a). Bull Trout are considered At Risk in Alberta (AEP 2020b). The Saskatchewan - Nelson Rivers population of Bull Trout are listed as Threatened under the SARA, and the Clearwater River watershed is within their natural range in Alberta (GOC 2020).

A-3. Available information regarding potential adverse changes to the environment that would occur on federal lands and lands outside Alberta or Canada

The Project is not on or adjacent to federal lands. No adverse changes to the environment on federal lands and lands outside Alberta or Canada are foreseen as the Project is not near provincial borders (>100km to British Columbia boarder and >300km to Saskatchewan border).

A-4. Available information regarding potential adverse effects to greenhouse gas emissions including loss of carbon sequestration

We respectfully suggest that the Minister does not have the authority to designate a project on the basis of greenhouse gas emissions. The Minister's powers to designate are circumscribed by section 9 of the IAA and the division powers in the Constitution. Section 9 provides:

Minister's power to designate

9 (1) The Minister may, on request or on his or her own initiative, by order, designate a physical activity that is not prescribed by regulations made under paragraph 109(b) if, in his or her opinion, either the carrying out of that physical activity may cause adverse effects within federal jurisdiction or adverse direct or incidental effects, or public concerns related to those effects warrant the designation.

Factors to be taken into account

(2) Before making the order, the Minister may consider adverse impacts that a physical activity may have on the rights of the Indigenous peoples of Canada — including Indigenous women — recognized and affirmed by section 35 of the Constitution Act, 1982 as well as any relevant assessment referred to in section 92, 93 or 95.

In forming his opinion under section 9(1) about whether a project warrants designation, the Minister is authorized to consider the following:

- a) effects within federal jurisdiction;
- b) adverse direct or incidental effects; and
- c) public concerns about the above.

Pursuant to section 9(2), he may also take into account:

- a) impacts on the rights of Indigenous peoples; and
- b) regional and strategic assessments.

Impacts on climate are not included under the definition of “effects within federal jurisdiction” nor will the Project have “direct or incidental effects” as no federal authorizations are required and there is no federal financial assistance for the Project. The wording of the IAA and the division of powers in the Constitution prohibit the Minister from opining that a project should be designated on the basis of public concerns that are unrelated to effects within federal jurisdiction and unrelated to “direct or incidental effects”. In forming his opinion under section 9, the Minister can only consider public concerns about *effects within federal jurisdiction*. In other words, the Minister is not authorized to designate a project on the basis of concerns about greenhouse gas emissions alone.

While we dispute that the Minister has the authority to base his opinion on whether the Project warrants designation because of its greenhouse gas emissions, we nevertheless provide the requested information below.

Greenhouse gas emissions

The Project GHG emissions are estimated to be between 1,248 tons (T) and 3,010 tons (T) of carbon dioxide equivalent (CO₂e) per year during the twenty-one (21) years of peat harvesting.¹ The annual variability in GHG emissions over the lifetime of the Project is a function of the variability of the areas that will be actively harvested from year to year. As explained in the Project Development and Operations Plan, the harvesting area will be progressively harvested, not harvested all at once.

The Project CO₂e contribution is relatively minor. According to Canada Energy Regulator², Alberta’s GHG emissions in 2020 were 256,4 megatons (MT) of CO₂e. The Project would thus represent between 0.0005% (1,248/256,400,000) and 0.0012% (3,010/256,400,000) of the total 2020 Alberta GHG emissions. Emissions are minor particularly in light of the economic and other significant benefits derived from the use of peat as a substrate for plant growth, food security, and well-being. This is explained further below in Section H.

Further, the clearwater fen is relatively close to Premier Tech’s facility (about 100 kms). The alternative would require peat to be transported from greater distances in northern Alberta which would cause more greenhouse gas emissions.

Overall, the peat industry is not a major contributor to greenhouse gas emissions. For example, the peat industry is not considered a large emitter for the purposes of the federal *Greenhouse Gas Pollution Pricing Act*, nor are any peat projects “regulated facilities” under Alberta’s *Technology, Innovation and Emissions Reduction Regulation*.

¹ Greenhouse gas emissions calculator for the peat moss industry - Version 2.0

² www.cer-rec.gc.ca/en/data-analysis/energy-markets/provincial-territorial-energy-profiles/provincial-territorial-energy-profiles-alberta.html#:~:text=GHG%20Emissions,-Alberta%27s%20GHG%20emissions&text=Alberta%27s%20emissions%20per%20capita%20are,of%2017.68%20tonnes%20per%20capita

Carbon sequestration

According to studies conducted by Dr. Nigel Roulet, McGill University³, carbon sequestration is halted during the harvesting operations. The impact on lost carbon sequestration during the lifetime of the Project is estimated at 2,130 tons (T) of CO₂e. Our Project Development and Operations Plan⁴ (“the Plan”) calls for adopting a progressive opening of harvesting surface areas, thereby limiting to a minimum the period of time during which carbon sequestration is halted. The Plan, when implemented, provides for progressive restoration aimed at implementing restoration activities immediately following the closure of harvested sites. These sites would become carbon sinks approximately fourteen (14) years⁵ following restoration using the Moss Layer Transfer Technique (MLTT) described in the Peatland Restoration Guide.⁶

A-5. Available information regarding potential adverse impacts resulting from any changes to the environment on Indigenous peoples (e.g., changes to the environment impacting physical and cultural heritage, current use of lands and resources for traditional purposes, and structures, sites or things of historical, archaeological, paleontological or architectural significance) or changes to their health, social or economic conditions

The Project would change the physical landscape of the peat harvesting area for a period of thirty-five (35) years: this includes approximately twenty-one (21) years of harvesting and fourteen (14) years of restoration. While the Project is located on Crown land that is available for the exercise of Treaty rights, to date, we have not been provided information that demonstrates that the Project lands are currently used by Indigenous peoples for the exercise of Treaty and Aboriginal rights.

During the restoration phase, the ecological functions would be restored gradually, and full functionality of the ecosystem is forecasted after thirty-five (35) years. Changes to the environment would thereafter be negligible and the fen would return to its original state as a carbon sink reservoir.

A key impact to Indigenous peoples that currently use this area would be an access restriction to the 135.9 ha of land that will be under harvest operations for twenty-one (21) years. As noted above under section A-4, the Project Development and Operations Plan provides for progressive opening of harvesting areas. Access to portions of the 155.5 ha Project footprint would be available before peat harvesting commences.

The Indigenous consultation process began in mid-2022, details of which are described section F below. Although several exchanges have occurred to date, consultation with O’Chiese First Nation (“OCFN”) is ongoing.

³ Nugent KA, Strachan IB, Strack M, Roulet NT, Rochefort L. Multi-year net ecosystem carbon balance of a restored peatland reveals a return to carbon sink. *Glob Change Biol*. 2018;24:5751–5768. <https://onlinelibrary.wiley.com/doi/abs/10.1111/gcb.14449>

⁴ The Peat Development and Operational Plan is included in the Biophysical Report

⁵ https://resolver.scholarportal.info/resolve/13541013/v24i0012/5751_mnecborartcs.xml

⁶ https://www.gret-perg.ulaval.ca/fileadmin/Fichiers/centre_recherche/Peatland_Restoration_guide_2ndEd.pdf

Section B. Available information regarding potential adverse effects (changes to the environment or to health, social or economic conditions) that are directly linked or necessarily incidental to a federal authority's exercise of a power, performance of a duty or function, or provision of financial assistance, that would enable the carrying out of the Project, in whole or in part.

No federal financial assistance was provided for the Project.

We do not anticipate that any federal regulatory approvals will be required for this Project.

The only area where the federal exercise of power could have been required would have been by Fisheries and Ocean Canada under the *Fisheries Act* and *Species at Risk Act*. Following engagements between Premier Tech and Fisheries and Ocean Canada, the department confirmed that no *Fisheries Act* Authorization was required.

On April 14, 2017, as part of developing the Surface Material Lease (“SML”) application, a Request for Review under the *Fisheries Act* and the *Species at Risk Act* was sent to Fisheries and Ocean Canada. The Fisheries Protection Program of Fisheries and Ocean Canada evaluated if a *Fisheries Act* Authorization was required for the Project. On July 4, 2017, we received a response from Fisheries and Oceans Canada concluding that no authorization from the Program under the *Fisheries Act* was required for the implementation of the Project. The response from Fisheries and Oceans Canada provided:

“Based on the information provided, your proposal has been identified as a project where a Fisheries Act Authorization is not required given that serious harm to fish can be avoided by following standard measures. Your project, as proposed, would not be considered to need an authorization from the Program under the Fisheries Act in order to proceed.”

Section C. Available information about key project activities, maps, and layouts of the location of project components, land tenure, zoning, and estimated timelines for planning, construction, operation, decommissioning and abandonment.

C-1. Available information about key project activities

The key project activities are broken down into four (4) major phases and sub-phases: planning, construction, operations, and restoration and certification.

1. Planning

Regulatory approval process, including Indigenous consultation.

This phase involves the elaboration, preparation, and submission of all required information to satisfy the different regulatory requirements required to obtain approvals to proceed with the Project. These requirements

and authorities are described under section D. An integral part of this phase is the Indigenous consultation process. Before the approvals are granted, the Aboriginal Consultation Office (“ACO”) must issue a consultation adequacy assessment.

2. Construction

a. Access road preparation

The construction of the main access road from Alberta Provincial Highway 22 and Township Road 365A to the harvest site. The road would be 3.2 km long by 10 m wide.

b. Site & field preparations

A yard site would be located on the northern part of the harvest site and would consist of a main office, garage, and diesel tank on an 80 m x 80 m well pad. Large perimeter, and smaller lateral and cross drainage ditches, would be dug in a predetermined sequence to slowly lower the water table and allow the peat to dry. Fields would be delineated by trenches 30 m apart.

Sedimentation ponds would be constructed and would receive waters from the perimeter ditches prior to exiting the harvest site area.

Surface vegetation would be cleared, and shallow drainage trenches dug, all in a predetermined sequence. The harvest roads providing access to harvest fields would be built out of 0.5 m of non-commercial timber laid down with a top layer of 0.5 m of clay and will be 4.5 m in width. A supplementary 7-10 cm of gravel would be added on top to improve usability.

3. Operations

a. Field harrowing

Harrowing devices would be attached to tractors and would be used to loosen the top layer of peat moss of every prepared field. The loosened peat moss would be allowed to dry from sun and wind exposure. This activity would be conducted on a regular basis prior to harvesting.

b. Harvesting

Harvesting of peat moss would occur on all prepared fields at intervals dictated by when dried up peat would be available. Peat harvesters with attached vacuums would travel along the harrowed fields and recover dried peat in a large vessel.

c. Stockpiling

Once the vessel would be full, peat would be stockpiled along harvest roads. These piles would be monitored to ensure temperature stability to prevent decomposition. Once temperature stability would be achieved, these peat piles would be covered with tarping to maintain their relative humidity and prevent rainwater and snow from falling on the piles.

d. Loading & Transporting

Peat harvested from the Project site would be processed and bagged at the Premier Tech facility located Olds, Alberta, located approximately 65 km from the harvest site. Upon demand from the factory planning team, peat would be loaded on semi-trailers by front-end loaders and transported to the facility. Hauling would occur approximately eleven (11) months of the year.

e. Maintenance of the site

Maintenance of drainage ditches would be conducted when needed during the harvest season and at the end of the harvest season to ensure an early and effective start of harvest operations the following year. Sedimentation ponds would be cleaned at least yearly using an excavator to ensure peat accumulation would not exceed 50% of the volume of the basin.

f. Monitoring

The monitoring of water quantity and quality would be conducted throughout the life of the Project. The proposed monitoring would include a sampling plan for water quality (temperature and TSS) and flows in Mud Creek. Monitoring stations would be installed at specific locations according to protocols. Regular recovery of data and verification would be conducted to identify any unusual deviations from average and expected data. The field data would be analyzed, described, and summarized using statistical techniques.

4. Restoration and Certification (Decommissioning and Abandonment)

The terminology common to peat development projects is restoration (as opposed to decommissioning) and certification (as opposed to abandonment). These terms are used in all of section C.

Premier Tech has initiated over forty (40) peat harvest projects across Canada, of which twenty-one (21) are currently undergoing or have completed reclamation activities. Premier Tech is also part of the collaborative Peatland Ecology Research Group (PERG) in association with Université Laval. PERG is a partnership between the scientific community, the Canadian peat moss industry, and associated federal and provincial agencies. The main areas of research with PERG include peatland restoration, plant propagation of fen species, and the establishment of fen species in degraded peatland ecosystems.

Once harvesting operations are completed within a peat field, restoration activities would begin. Sphagnum peat moss from adjacent natural donor sites (a designated area set aside within the lease) would be collected and spread on the to-be-restored area using a spreader and according to the Moss Layer Transfer Technique protocols set out in the Peatland Restoration Guide, a world-renowned ecological restoration method. Secondary ditches would then be filled, and fields would be flattened. As an industry best practice, and as soon as the climatic conditions are favorable, a progressive restoration approach is implemented. Main ditches would be blocked and filled with previously excavated material, and culverts removed. Sedimentation ponds would be filled with dredged spoil from the regular cleanings. The natural water table would be restored to near the restored peat surface. The Project harvesting area would be converted back into a wooded coniferous fen, like the current site. Thereafter, Premier Tech will need to obtain a reclamation certificate from provincial authorities once the site meets the requirements under the *Environmental Enhancement and Protection Act* and Alberta's *Conservation and Reclamation Regulation*.

C-2. Available information about maps, and layout of the location of project components

The Project would be located approximately 10 km north-west of the Town of Caroline and about 26 km south of the Town of Rocky Mountain House on the west side of Range Road 22 (N 52.150, W 114.889).

Figure 1 provides the location of the potential Project site and boundaries.

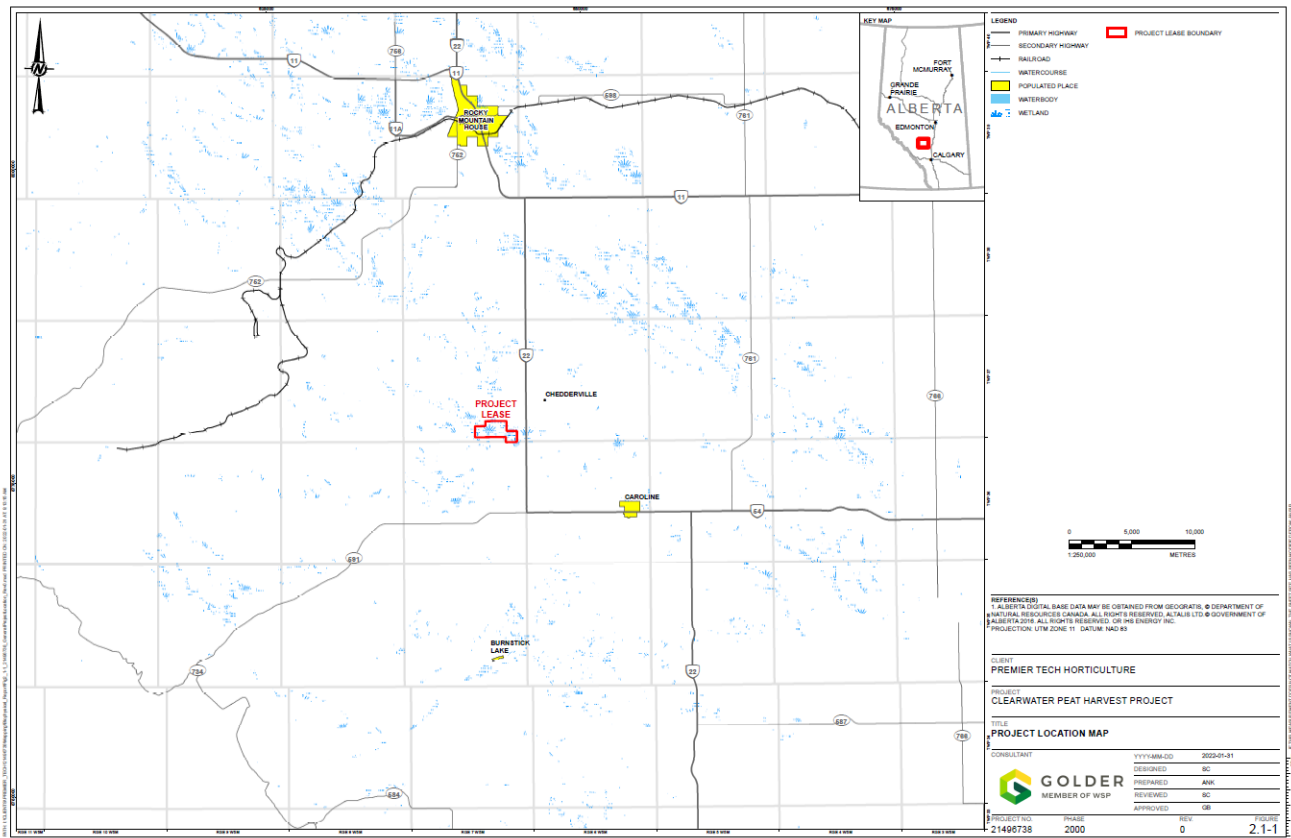


Figure 1.

The Project Surface Material Lease (SML) area would cover approximately 323 ha (800 ac) with 135.9 ha (335.8 ac) of harvestable fields. The total Project footprint is 155.5 ha. The Project requires an access road coming from the south using existing Township Road 365A and constructed along Range Road 71 for 3.2 km.

The layout of the potential location components is presented in Figure 2 below.

The Project footprint would consist of a main access road, one yard site, five harvest sections, six sedimentation ponds, culverts, and access roads within the fen.

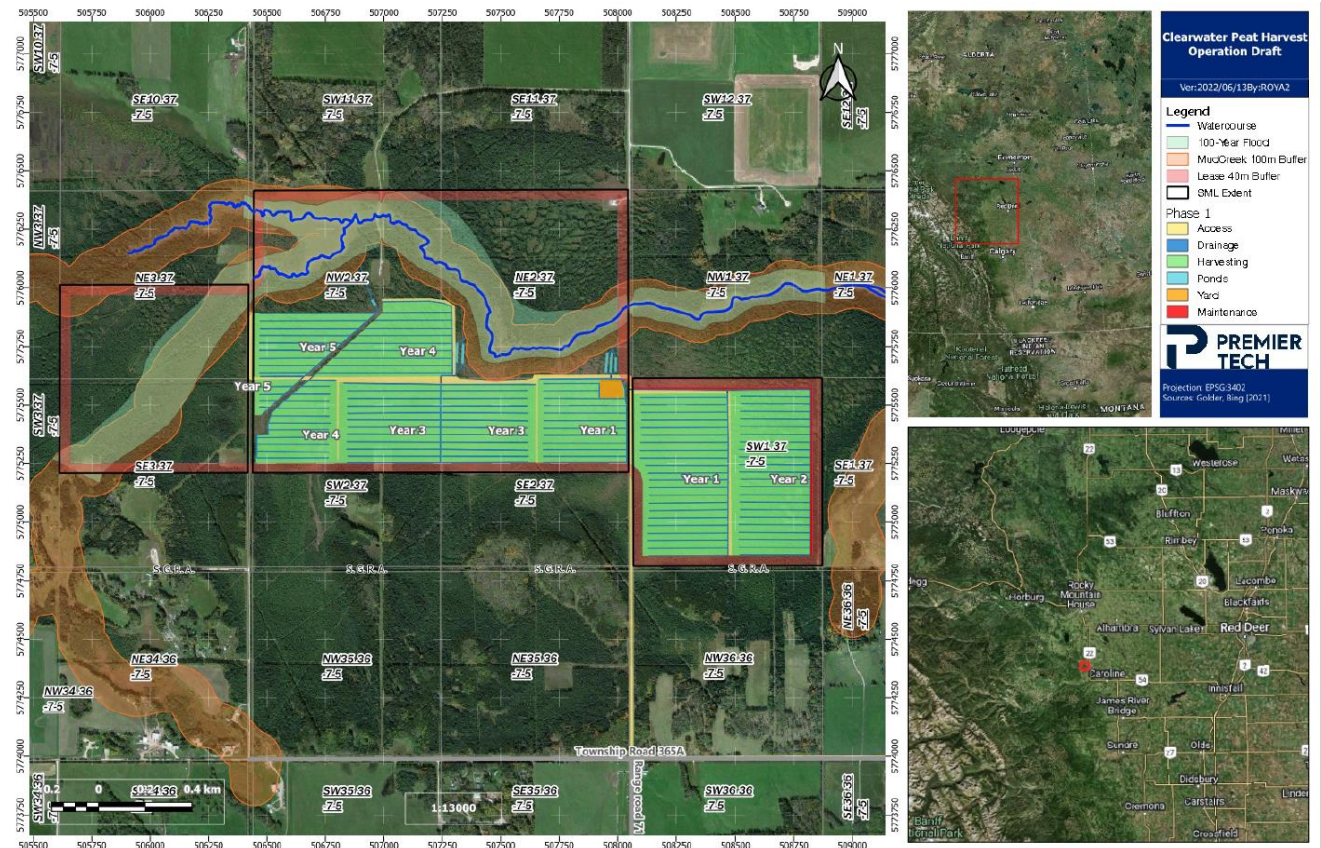


Figure 2.

C-3. Available information about land tenure and zoning

The Project site is in Sections 1, 2, and 3 of Township 37 Range 7 West of the 5th Meridian (1, 2, and 3-37-7-W5M).

The land tenure and zoning for the Project are shown in Figure 3 below. The land is municipally zoned as Agricultural.

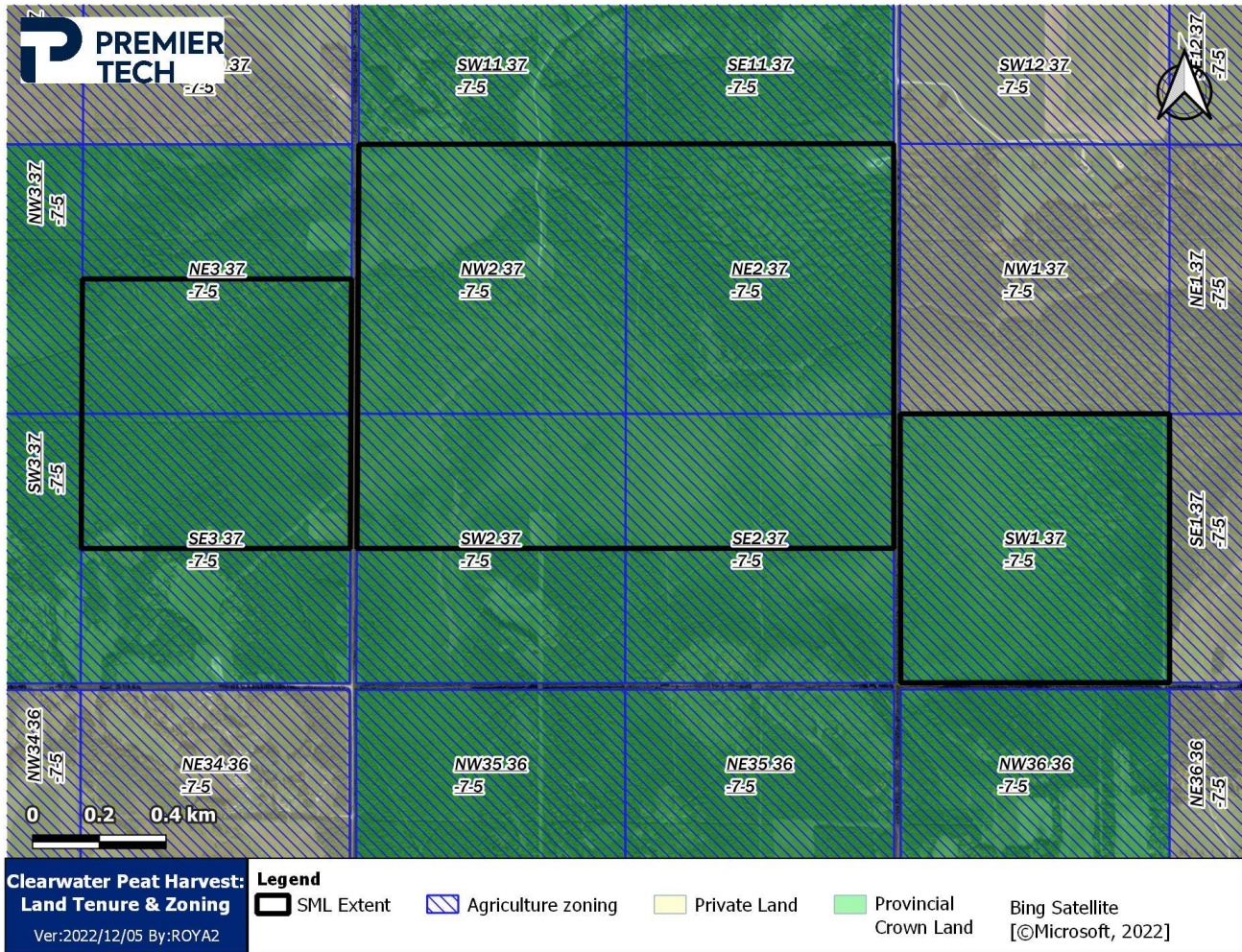


Figure 3.

C-4. Available information about estimated timelines for planning, construction, operation, decommissioning, and abandonment

The Project site activities would occur over an expected timeframe of thirty-five (35) years, from construction to certification. The final Project schedule would be confirmed after regulatory approvals are in place. The following are estimated timelines and any one of these may change over time.

1. Planning

The planning phase comprises all the steps involved in the regulatory approval processes, including engagement with key stakeholders, including Indigenous consultation.

The target date for the receipt of the necessary approvals to commence operations is the fall of 2023. Earlier target dates have been pushed forward to account for the overhaul of Alberta's regulatory requirements for peat projects and to accommodate further consultation with OCFN.

The exploration phase took place in 2008. In about 2010, Premier Tech submitted applications for a *Water Act* approval and an SML which complied with the provincial regulatory requirements at the time ("Initial Applications"). The timing of the Initial Applications coincided with the development and implementation of significant changes to Alberta's Wetland Policy. In about 2014, the Government of Alberta advised they were not accepting new applications for peat operations until regulatory guidelines were updated to account for changes in the new Wetland Policy. In January 2017, Alberta's Guide to Surface Materials Lease Information Requirements was implemented. Thereafter, Alberta Environment directed Premier Tech to amend its SML application. Alberta Environment cancelled the Initial Application for the *Water Act* approval and directed a new *Water Act* application be filed along with a Wetland Impact Assessment Report ("WAIR"). The new *Water Act* application and amended SML application have been under review since then. Alberta Environment issued two rounds of Information Requests (IRs). Following our responses to the IRs and provision of additional information, the ACO directed we commence consultations with three potentially impacted First Nations: O'Chiese, Montana, and Sunchild First Nations.

2. Construction

Once all regulatory authorizations have been obtained, construction of the access road and yard site would be initiated and completed in year one (1).

Field development for harvesting activities would occur in five (5) phases. Harvest areas would be opened, and drainage ditches and ponds built in sequence over a period of five (5) years. The first harvest area would be opened in year one (1), the second in year two (2), and so on.

3. Operations

Peat harvesting would start in year two (2) in the first harvest area, and end in year twenty-one (21) in the fifth harvest area. All other related operational activities would span the same time periods.

4. Restoration and Certification

Within three (3) years of the closing of each of the five (5) harvest areas, once the appropriate and agreed upon depth is achieved, progressive restoration activities would begin.

The first harvest area to be restored would be scheduled in year eighteen (18). Flexibility in the timing would be required due to possible weather conditions not being conducive to successful restoration. All harvesting fields would be restored twenty-four (24) years after the onset of harvesting. Between year twenty-one (21) and thirty (30), sedimentation ponds and access roads would be restored.

Certification of the Project site would occur when the lease would be over, successful restoration conditions satisfied, and the land returned to the Crown to allow for a full and uninterrupted access to all community members, including First Nations. The first harvest area reclamation certificate is projected to occur from year twenty-eight (28) to year thirty (30). Other restored land disturbances would be granted certification by the year thirty-five (35).

Tables 1 and 2 provide more detail regarding construction, operations, restoration, and certification timelines.

Activity	Harvest Area	Schedule
Entry and Clearing of Production Field Site	Harvest Area 1	Year 1
	Harvest Area 2	Year 2
	Harvest Area 3	Year 3
	Harvest Area 4	Year 4
	Harvest Area 5	Year 5
Drainage Schedule ^(a)	Harvest Area 1	Year 1
	Harvest Area 2	Year 2
	Harvest Area 3	Year 3
	Harvest Area 4	Year 4
	Harvest Area 5	Year 5
Peat Harvesting and Removal	Harvest Area 1	Year 2 to 17
	Harvest Area 2	Year 3 to 18
	Harvest Area 3	Year 4 to 19
	Harvest Area 4	Year 5 to 20
	Harvest Area 5	Year 6 to 21
Remediation and Progressive Restoration ^(b)	Harvest Area 1	Year 18 to 20
	Harvest Area 2	Year 19 to 21
	Harvest Area 3	Year 20 to 22
	Harvest Area 4	Year 21 to 23
	Harvest Area 5	Year 22 to 24

(a) Drainage construction will include sedimentation pond and ditch construction in winter months.

(b) Restoration will be undertaken within three years after the closure of each harvest area.

Table 1. Various construction, operations and restoration phases, and timelines.

Harvest Section	Active Peat Removal	Ready for Restoration	Restoration Initiated	Ready for Certification (Projected)
Harvest Section 1	Year 2 to 17	Year 18	Year 18 to 20	Year 28 to 30
Harvest Section 2	Year 3 to 18	Year 19	Year 19 to 21	Year 29 to 31
Harvest Section 3	Year 4 to 19	Year 20	Year 20 to 22	Year 30 to 32
Harvest Section 4	Year 5 to 20	Year 21	Year 21 to 23	Year 31 to 33
Harvest Section 5	Year 6 to 21	Year 22	Year 22 to 24	Year 32 to 34
Harvest Road	N/A	Year 29	Year 29	Year 35
Sedimentation Pond (Harvest Section 1 & 2)	N/A	Year 21	Year 21	Year 29 to 31
Sedimentation Pond (Harvest Section 3)	N/A	Year 20	Year 22	Year 32
Sedimentation Pond (Harvest Section 4)	N/A	Year 21	Year 21	Year 33
Sedimentation Pond (Harvest Section 5)	N/A	Year 22	Year 22	Year 34
Yard Site	N/A	Year 30	Year 30	Year 35
Access Road	N/A	Year 30	Year 30	Year 35

N/A=not applicable.

Table 2. Restoration and certification phases, and timelines.

Section D. Available information regarding a list of all regulatory approvals (federal, provincial, municipal, other) and any federal financial assistance that would be required for the Project and the associated project components or activities.

D-1. A list of all regulatory approvals (federal, provincial, municipal), other and any federal financial assistance that would be required for the Project and the associated project components and activities.

1. Federal

As indicated above and under section B, the Project does not require a federal license, permit, authorization, or approval. No federal financial assistance is required for the Project.

2. Provincial

At the Provincial level, the Project is subject to, amongst others, the following statutes, regulations, policies and other regulatory instruments:

- *Public Lands Act*
- *Public Lands Administration Regulation*
- Guide to Surface Materials Lease Information Requirements for Peat Operations, 2017
- Process for the Administration and Maintenance of Applications and Dispositions for Peat Operations on Public Land, 2018
- Allocation and Sustainable Management of Peat Resources on Public Land, 2016
- PLAR Formal Disposition Directive, 2014
- Master Schedule of Standards and Conditions, April 2021

- *Water Act*
- Guide to Water Act Application Requirements for Surface Water Quality Monitoring for Peat Operations in Alberta, 2018.
- Alberta Wetland Policy
- Alberta Wetland Regulatory Requirements Guide
- Alberta Wetland Identification and Delineation Directive, June 2015
- Alberta Wetland Classification System, June 1, 2015
- Alberta Wetland Assessment and Impact Report Directive, June 2017
- Alberta Wetland Restoration Directive
- Directive for Permittee-Responsible Wetland Construction in Alberta
- Code of Practice for Wetland Replacement Works

- *Historical Resources Act*
- Surface Materials Historical Resources Act Compliance, 2014
- Standard Requirements under the *Historical Resources Act*: Reporting the Discovery of Historic Resources, October 2022
- Standard Conditions under the *Historical Resources Act*, October 2022

- *Environmental Enhancement and Protection Act*, Part 6 (reclamation)
- *Conservation and Reclamation Regulation*
- *Activities Designation Regulation*
- Requirements for Conservation and Reclamation Plans for Peat Operations, 2016

- Government of Alberta's Policy on Consultation with First Nations on Land and Natural Resource Management, 2015
- Government of Alberta's Guidelines on Consultation with First Nations on Land and Natural Resource Management, July 28, 2014

- Government of Alberta Proponent Guide to First Nation and Metis Settlements Consultation Procedures, December 2019
- *Alberta Land Stewardship Act*
- Land Use Framework

The approvals required for the Project and their current status are as follows:

- a) Surface Material Lease (“SML”) – *in progress*;
- b) Approval under the *Water Act* – *in progress*;
- c) ACO consultation adequacy assessment – *in progress*;
- d) Heritage Resources approval – *approval received*; and
- e) Reclamation Certificate – *to be applied at end of project life*.

In addition, AEPA informed Premier Tech that a Licence of Occupation (“DLO”) *may* be required.

The responsible regulatory authority for the SML, DLO, *Water Act* approvals, and the Reclamation Certificate is AEPA, formerly Alberta Environment and Parks (AEP). The *Heritage Resource Act* application is administered by Alberta Culture, and the consultation adequacy assessment is governed by the ACO, a branch of Alberta’s Indigenous Relations department.

Peat harvesting operations require an SML under the *Public Lands Act* and *Public Lands Administration Regulation*, as well an approval under the *Water Act*. A SML grants its holder the exclusive right to extract peat on the public land subject to the SML. An approval under the *Water Act* is required before disturbing any wetland and will authorize the construction of ditches and sedimentation ponds. A SML will also contain conditions governing restoration and reclamation. As directed in Alberta’s Guide to Surface Materials Lease Information Requirements for Peat Operations, 2017, and described above, Premier Tech submitted the SML and *Water Act* applications together following exploration activities. These applications are currently under consideration by AEPA. As set out in the Guide to Surface Materials Lease Information Requirements for Peat Operations, 2017, AEPA processes the *Water Act* and SML applications together and approval decisions are issued together.

The SML and *Water Act* approvals cannot be issued until Alberta Culture issues an approval under the *Heritage Resources Act* and the ACO issues an adequacy assessment. As explained in the Consultation Guidelines, page 17:

In assessing adequacy, the ACO will review information gathered during the pre-consultation assessment information review, the proponent’s consultation record and any information provided by the First Nation. The ACO will consider, at a minimum, if the following factors have been addressed:

- Were all identified First Nations provided project information and given an opportunity to participate in the consultation process?
- Did the proponent provide project-specific information withing a reasonable time before approvals were required or before the project was scheduled to start?

- If the First Nation provided site-specific concerns about how the proposed project may adversely impact their Treaty rights and traditional uses, did the proponent make reasonable attempts to avoid and/or mitigate those potential impacts?
- Did the proponent indicate how they intend to mitigate any potential adverse impacts to the exercise of Treaty rights and traditional use?

Premier Tech received approval in April, 2022 under the *Heritage Resource Act* from Alberta Culture. The approval is subject to requirements regarding chance discoveries, including discoveries of Indigenous traditional use sites, including the requirement that any chance finds be immediately reported to the Minister of Culture and other conditions as set out under Alberta’s Standard Requirements under the *Historical Resources Act: Reporting the Discovery of Historic Resources*. Indigenous use sites considered by Alberta Culture to be historic resources under the *Historical Resources Act* include:

- Historic cabin remains;
- Historic cabins (unoccupied);
- Cultural or historical community camp sites;
- Ceremonial sites/Spiritual sites;
- Gravesites;
- Historic settlements/Homesteads;
- Historic sites;
- Oral history sites;
- Ceremonial plant or mineral gathering sites;
- Historical Trail Features; and
- Sweat/Thirst/Fasting Lodge sites.

(see: Standard conditions under the Historical Resources Act, October 2022)

Indigenous consultation is currently underway. The ACO oversees consultation. The applicable policies include Alberta’s Policy on Consultation with First Nations on Land and Natural Resource Management, Guidelines on Consultation with First Nations on Land and Natural Resource Management (“Consultation Guidelines”), and the Proponent Guide to First Nation and Metis Settlements Consultation Procedures.

Reclamation of the Project site is governed by the *Environmental Enhancement and Protection Act* (“EPEA”), Part 6 and its regulations, including the *Conservation and Reclamation Regulation* and the *Activities Designation Regulation*. Some requirements for reclamation will be set out in the conditions of the *Water Act* Approval, as informed by our Reclamation Plan. Premier Tech would apply for a Reclamation Certificate following restoration.

3. Municipal

At the Municipal level, a development permit from Clearwater County is required. The process governing development permits is governed by the *Municipal Government Act* and the County’s applicable bylaws and policies.

It is anticipated that the development permit will be applied for following the receipt of the necessary provincial approvals.

D-2. Available information regarding whether regulatory approvals would involve an assessment of any of the effects described on page 2 of the letter dated November 28th, 2022

The SML and *Water Act* approvals require assessments and are reviewed simultaneously by AEPA.⁷

The contents of the required assessments are set out in the Guide to Surface Materials Lease Information Requirements for Peat Operations and in the Wetland Policy and its related instruments, including the Guide to Water Act Application Requirements for Surface Water Quality Monitoring for Peat Operations in Alberta. A WAIR is mandatory for all *Water Act* applications for peat operations.

If a DLO is required, it will be linked with the SML.

Because of the significant links between the necessary provincial approvals, in providing responses to the Agency's questions under sections 3 a) ii, iii and b) i, and ii, we have created tables showing the various assessment topics covered by each regulatory approval.

Table 3 indicates if assessments of any of the listed potential adverse effects are required.

⁷ Guide to Surface Materials Lease Information Requirements for Peat Operation, 2017, page 8. <https://open.alberta.ca/dataset/11312715-f877-4d80-b0fd-f045c846a656/resource/2b4f470e-64c6-454e-be42-3edf5552e705/download/guidesmlrequirementspeat-jan17-2017.pdf>

	YES	NO	Regulatory approval
Fish and fish habitat	X		SML <i>Water Act</i>
Migratory birds	X		SML
Species at risk	X		SML <i>Water Act</i>
Potential adverse changes to the environment that would occur on federal lands and lands outside Alberta or Canada		X	Not applicable
Greenhouse gas emissions including loss of carbon sequestration		X	See comments above in section A-4
Potential adverse impacts resulting from any change to the environment, on Indigenous peoples or changes to their health, social or economic conditions.	X		SML <i>Water Act</i> ACO adequacy

Table 3.

Fish and fish habitat

The SML application requires a fish and fish habitat assessment. The proponent would need to describe the effect of the development on aquatic habitat, including endangered and threatened species, mitigation measures determined to alleviate these effects, and proposed monitoring to confirm mitigation success. The complete description of a required assessment can be found in the Guide to Surface Materials Lease Information Requirements for Peat Operations, 2017, p. 8 and 28.

The Biophysical Report describes the fish and fish habitat assessment process. The complete assessment results and mitigation measures can be found in the Biophysical Report, p. 71 to 75.

The conditions would be set to eliminate any potential effects on Bull Trout. Over and above the best practices involved in water quality for a peat operation, a continuous measurement program of temperature and total suspended solids would have to be implemented and a 100 m avoidance buffer from the Project footprint would be established around all permanent waterbodies and watercourses within the Project footprint (i.e., Mud Creek and the Unnamed Tributary to Mud Creek).

These conditions would address flow regimes, channel morphology, and water quality.

Migratory birds

The SML and *Water Act* approvals would require a breeding bird assessment. The proponent would need to provide a Peat Development and Operations Plan that includes an assessment of environmental and other resource values, any associated issues or impacts that would result from the removal of that peat resource, and proposed mitigation measures. The complete description of the assessment can be found in the Guide to Surface Materials Lease Information Requirements for Peat Operations, 2017, p. 22.

The Biophysical Report includes a breeding bird assessment and mitigation measures to be in compliance with the *Migratory Bird Convention Act*. The complete assessment and mitigation measures can be found in the Biophysical Report and Peat Development and Operations Plan - 2022 Update, p. 40 to 42 and 78.

The condition would be set to eliminate any potential disturbances to nests or nesting birds during breeding and nesting periods (April 17 to August 24). The main condition would be to develop and implement a wildlife mitigation and monitoring plan, which would include pre-clearing nest sweeps for migratory birds in accordance with the *Migratory Birds Convention Act* (GOC 1994) when operations would occur during the general nesting period for this region (April 17 to August 24; ECCC 2018).

These conditions would address disturbances to nests or nesting birds during breeding and nesting periods. As a result, application of effective mitigation would be expected to keep effects within the resilience and adaptability limits of Migratory birds.

Species at risk

From the *Species at Risk Act*, species at risk means an extirpated, endangered, or threatened species or a species of special concern. The SML and *Water Act* applications would require a rare and endangered species assessment, including any threatened species. The proponent would need to identify and report any rare and endangered species, including plants encountered during any of the biophysical inventory investigations. The complete description of the assessment can be found in the Guide to Surface Materials Lease Information Requirements for Peat Operations, 2017, p. 23.

The Biophysical Report and Peat Development and Operations Plan - 2022 Update includes a rare and endangered species assessment.

Two species have been identified through the assessments. The Project location has been identified as within the range of Bull Trout (*Salvelinus confluentus*), and Western Toad was noted during the wildlife surveys. Conditions for Bull Trout have been described in the fish and fish habitat assessment section.

Conditions for Western Toad would be set to minimize the effects of the change from human developments and activities on mortality. The main condition would be to develop and implement a wildlife mitigation and monitoring plan, which would include pre-clearing amphibian sweeps with possible relocation of individuals when operations occur during the non-winter period.

These measures would address habitat fragmentation and mortality from transportation corridors, mortality from infection with the amphibian chytrid fungus (*Batrachochytrium dendrobatidis*), habitat loss from forestry, agriculture and oil and gas activities, climate change, and pollution of waterbodies used for breeding (ECCC 2016). Suitable habitat for this species would remain adjacent to the Project and other areas in the RSA. It is expected that Western toads would be able to access this remaining breeding habitat because they have relatively high mobility. Additionally, the Project may create new suitable breeding habitat for this species (e.g., drainage ditches, outflow ditches, sedimentation ponds).

Application of effective mitigation is expected to keep effects within the resilience and adaptability limits of wildlife VCs.

Complete assessment and mitigation measures can be found in the Biophysical Report, p. 39, 40, 76 and 78.

Potential adverse changes to the environment that would occur on federal lands and lands outside Alberta or Canada

Not Applicable. See section A-3.

Greenhouse gas emissions including loss of carbon sequestration

Alberta regulatory approvals for a peat harvesting project do not require an assessment of GHG emissions.

The peat industry and Premier Tech in particular implement a number of measures to reduce GHG emissions and minimize the loss of carbon sequestration. Sections A-4 and H provides a summary of such actions and related information.

Potential adverse impacts resulting from any changes to the environment on Indigenous peoples (e.g., changes to the environment impacting physical and cultural heritage, current use of lands and resources for traditional purposes, and structures, sites, or things of historical, archaeological, paleontological, or architectural significance) or changes to their health, social or economic conditions

The SML and *Water Act* Approval will not be issued until the ACO provides an assessment that consultation is adequate.

The requirements under the Consultation Guidelines involve a consultation process intended to help parties understand and consider the potential adverse impacts of anticipated Crown decisions on the exercise of Treaty rights and traditional uses. Through consultation, the Government of Alberta would seek to reconcile First Nation Treaty rights with the interests of all Albertans. (Consultation Guidelines, p. 1-2).⁸

⁸ <https://open.alberta.ca/publications/3775118-2014>



Indigenous consultation is currently underway. The ACO’s pre-consultation assessment determined a Level 3 – extensive consultation requirement. This consultation has been underway since July 5, 2022.

See also the comments under section F.

D-3. Public and/or Indigenous consultation requirements, steps taken or intended to be taken, and issues reported with proposed responses

Public engagement requirements and Indigenous consultation requirements and related details are set out under sections E and F below.

D-4. Available information regarding whether any licence, permit, authorization, or approval listed above would address any of the matters described on page 3 of the letter dated November 28th, 2022

Table 4 indicates which approval(s) address any of the matters.

Matters addressed by regulatory approvals			
	YES	NO	Regulatory approval
Adverse effects to areas within federal jurisdiction, including Indigenous peoples and lands	X		SML, <i>Water Act</i> ACO adequacy Heritage Resource (“HR”) approval
Adverse impacts to soil, water, wetlands, watersheds, medicines, vegetation, and other component of the environment important to O’Chiese First Nation Treaty right	X		SML <i>Water Act</i> ACO adequacy
Alteration of the land and hydrological and ecological functions of groundwater, surface water, and wetlands in O’Chiese First Nation’s traditional territory	X		SML <i>Water Act</i> ACO adequacy
Significant adverse impacts on the Treaty and Aboriginal rights of O’Chiese First Nation as well as significant adverse effects on health, social, and economic conditions	X		SML <i>Water Act</i> ACO adequacy
Adverse impacts to O’Chiese First Nation’s Section 35 rights	X		SML <i>Water Act</i> ACO adequacy HR approval
Impacts to highly used traditional hunting, trapping and gathering areas including areas of cultural importance (i.e., gravesite located approximately 6 km from the Project area)	X		ACO adequacy HR Approval SML <i>Water Act</i> The Project will not impact a gravesite outside the footprint, 6 km away.
Contribution to climate change due to loss of peatland carbon storage and sequestration area		X	See comments in section A-4 above
Cumulative effects of existing peat harvesting operations in the area, which are likely irreversible or not restorable for well over 100 years	X		EPEA reclamation certificate <i>Water Act</i> SML conditions <i>Alberta Land Stewardship Act</i>

Table 4.

Adverse impacts or effects to Indigenous peoples and/or the lands, including on the OCFN will be assessed by the SML, *Water Act* applications, and other provincial processes described above, including the provincial consultation process.

The following six (6) matters are addressed together:

1. **Adverse effects to areas within federal jurisdiction, including Indigenous peoples and lands;**
2. **Adverse impacts to soil, water, wetlands, watersheds, medicines, vegetation, and other component of the environment important to O’Chiese First Nation Treaty rights;**
3. **Alteration of the land and hydrological and ecological functions of groundwater, surface water, and wetlands in O’Chiese First Nation’s traditional territory;**
4. **Significant adverse impacts on the Treaty and Aboriginal rights of O’Chiese First Nation, as well as significant adverse effects on health, social, and economic conditions;**
5. **Adverse impacts to O’Chiese First Nation’s Section 35 rights;**
6. **Impacts to highly used traditional hunting, trapping, and gathering areas including areas of cultural importance (i.e., gravesite located approximately 6km from the Project area).**

All changes to the environment, described as concerns in 1, 2, and 3 above, and as a result of the implementation of the Project, will be adequately addressed by standard mitigation measures and through provincial regulatory processes.

The SML and *Water Act* applications address the impacts of the Project on the alteration of the land and wetlands.

The SML application must satisfy the requirements of the *Public Lands Administrative Regulation*, and include the assessments enumerated in the Guide to Surface Materials Lease Information Requirements for Peat Operations. The SML would be subject to the Master Schedule of Standards and Conditions.⁹

The *Water Act* application and approval calls for satisfying the standards in the Guide to Water Act Application Requirements for Surface Water Quality Monitoring for Peat Operations in Alberta¹⁰ and mandates the provision of a WAIR.

The matters dealing with adverse impacts to OCFN, described as concerns in 4, 5, and 6 above, are addressed by the SML and *Water Act* application requirements, along with the provincial consultation process. The standards to meet consultation adequacy can be found in the Alberta’s Guidelines on Consultation with First Nations on Land and Natural Resource Management (2014) and Alberta’s Proponent Guide to First Nations and Métis Settlements Consultation Procedures (2019)¹¹ and are set out above.

⁹ <https://open.alberta.ca/publications/master-schedule-of-standards-and-conditions>

¹⁰ <https://open.alberta.ca/publications/9781460141182>

¹¹ <https://open.alberta.ca/publications/goa-proponent-guide-to-first-nations-and-metis-settlements-consultation-procedures-2019>

As explained above, the *Historical Resources Act*, along with Alberta's Standard Requirements under the *Historical Resources Act: Reporting the Discovery of Historic Resources*, October 2022 and *Surface Materials Historical Resources Act Compliance*, 2014, provide, in specific instances, guidance to follow and standard conditions to satisfy in the determination of the presence of Aboriginal Traditional Use sites on the Project site.

As described below, the two last matters from Table 4 are either not addressed by regulatory bodies for peat development projects in Alberta or are irrelevant under the current Project scenario. Nevertheless, Premier Tech has implemented a number of measures to address these two concerns, as described under section H.

Contribution to climate change due to loss of peatland carbon storage and sequestration area

From the document *Allocation and Sustainable Management of Peat Resources on Public Land (2016)*¹², “[i]n Alberta, wetlands are covering over 100,000 square kilometers of land (10,000,000 ha). Peatlands comprise almost 58 percent of this area.” The Project, which will temporarily impact 155.5 ha, or 0.0027%, of Alberta's peatlands, will not contribute notably to climate change.

With the implementation of the MLTT ecological restoration method, as described above, once the harvesting and restoration activities are completed, the environmental conditions of the harvested site will gradually move to their original state within a little over one decade. Hence, no permanent significant changes to the landscape or cumulative effects are anticipated.

See also the comments above under section A-4.

Cumulative effects of existing peat harvesting operations in the area, which are likely irreversible or not restorable for well over 100 years

Premier Tech does not agree that harvested areas cannot be restored. As explained above, with the implementation of the MLTT ecological restoration method, once the harvesting and restoration activities are completed, the environmental conditions of the harvested site will gradually move to their original states within a little over one (1) decade. No permanent significant changes to the landscape are anticipated. See also sections C-1 and 4.

Premier Tech, as a private project proponent, is not able to directly address OCFN's concerns with respect to the overall loss of suitable land in their traditional territory. We have referred these concerns to the Government of Alberta to respond to. Our understanding is that cumulative impacts are managed by the province through Integrated Resource Management System, the *Alberta Land Stewardship Act*, and regional land use frameworks to manage cumulative effects.

¹² <https://open.alberta.ca/dataset/a3866d2b-d28c-40fb-ac84-ee270e936d0/resource/0b5dc1ec-3572-4e3c-97ae-578771369b4f/download/peatallocationpublicland-dec16-2016.pdf>

Section E. Steps taken or planned to be undertaken to consult with the public and, if there are issues, what they are and what is planned to address these.

E-1. Public engagement

The public consultation requirements are summarized in the Guide to Surface Materials Lease Information Requirements for Peat Operations on page 8: they include requirements for public notice under the *Water Act*, Indigenous consultation, and any public notification or consultation requirements has established by the municipality.

The *Water Act* mandates that all application for approvals be publicly posted, including in local newspapers. Those who wish to engage on the application file statements of concern, which, if accepted by the AEP, provide certain participation rights. Public notice under the *Water Act* has been provided twice: once in 2010 for the Initial Application and again in 2018 for the new *Water Act* application.

In April 2018, the *Water Act* application was in Rocky Mountain House Mountaineer and The Western Star. Nine (9) statements of concern were received with respect to the public notice. OCFN did not file a statement of concern. Premier Tech thereafter provided information and engaged with seven (7) of the nine (9) statements of concern filers as directed by AEP and had our technical consultant, Golder, provide information. Our engagement with directly affected interested parties is currently under review by AEPA.

In 2010, Premier Tech also held an Open House to inform the local community about its plans for the Project.

E-2. Steps taken or planned to be undertaken with the public during all phases of the Project

As with all our projects, Premier Tech will respond and work with individuals and entities who raise concerns or seek information about the Project whenever those concerns are raised, regardless of the project phase.

E-3. Overview of any public concerns in relation to the Project and the way in which they are intended to be addressed or have been addressed

We have been apprised of some concerns, and for each of them, we have communicated with the interested party and offered to discuss the concerns and respond to any questions.

The following is an overview of the key concerns raised by the public and how Premier Tech's responses thus far.

Surface Water and Water Quality

Concerns were raised regarding the impacts of the Project on the water quality and flow of the Mud Creek, and water filtering capacity.

We provided interested parties information about the process we would put in place to protect from and mitigate any potential impacts resulting from the Project. More specifically we explained that peat would be harvested by draining a portion of the fen via drainage ditches and that the water from ditches would be collected in sedimentation ponds. Water from the sedimentation ponds would then be released slowly using an agricultural sprayer at each outlet into the 100 m vegetative setback from Mud Creek. A complete Surface Water Monitoring Plan has been submitted through the SML and *Water Act* applications. The predicted changes to downstream flows from the Project releases would be very small and the predicted effect on even an average 1:2-year flood event would be predicted at 0.5% or less.

Groundwater

Concerns were expressed about potential on the groundwater and water wells.

We provided information to interested parties about relevant mitigation processes, explaining that operations would only drain a portion of the surface water and that drainage ditches would not affect the groundwater as the water that is drained from a peat fen is not part of the aquifers.

Wetland impacts and Wetland restoration

Concerns were expressed regarding the impacts on the natural watershed and wetland, on the efficacy of the restoration process in returning the site to its original state, on the time required to accumulate all the peat removed during the life of the Project, and on the risk of destroying the wetland.

We provided information on the applicable mitigation measures. Harvesting a natural resource such as peat would have a direct effect on the harvest area. These effects (removal of vegetation, lowering of the surface water table) would be limited to peat harvest operations, and would be remediated once the operation ceases through the reintroduction of peatland vegetation and restoration of the water levels. Impacts would be mitigated through progressive opening and restoration of the harvest fields, including pristine buffer areas around the operations to preserve biodiversity.

The operations plans also provide for progressive restoration aimed at implementing restoration activities immediately following the closure of harvested sites. Wetland vegetation would come back within five (5) years and these sites would become carbon sinks approximately fourteen (14) years following effective restoration using the MLTT. There are concrete examples of our successful restoration practices in our other projects.

Wildlife, Waterfowl and Fisheries

Concerns were expressed regarding the impacts of the Project on the natural fauna and wildlife.

We explained that the use of peatlands, in particular fens, by wildlife tends to be limited. However, our surveys indicated that portions of the fen were observed to contain significant amounts of open water, hence that it could be used as waterfowl staging areas during migration. Overall, wildlife habitat in the surrounding area would be expected to be sufficient to support mammal, avian, and amphibian habitat requirements. Once harvesting activities would be completed, active restoration techniques would be implemented to return the area to suitable wildlife habitat.

Section F. Steps taken or planned to be undertaken to consult with Indigenous communities and, if there are issues, what they are and what is planned to address these.

F-1. Indigenous consultation

The Guide to Surface Materials Lease Information Requirements for Peat Operations (January 17, 2017, page 8), the Consultation Guidelines and Alberta's Proponent Guide to First Nations and Métis Settlements Consultation Procedures (2019), set out the key elements of the consultation requirements.

In 2018, when Premier Tech filed its new SML and *Water Act* applications, it met with ACO, who advised that the Project would require a Level 3 – extensive consultation, as per Alberta's Consultation Guidelines. Level 3 is the most in-depth consultation under the Consultation Guidelines. At that time, the ACO advised Premier Tech to complete the IR process with the AEP and commence consultation once more fulsome Project information was available.

In 2022, the ACO in its pre-consultation assessment, directed Premier Tech, as a delegate of the provincial Crown, to commence consultation with three potentially affected First Nations. Pursuant to the governing Consultation Guidelines, consultation was initiated in July 2022 with the delivery of an information package to Sunchild First Nation, Montana First Nation, and OCFN, and exchanges have occurred. As per the Consultation Guidelines, bimonthly Records of Consultation (ROC) Logs have been submitted to each of the First Nations for their review and comment and to ensure their accuracy.

To date, Premier Tech has been most actively engaged with OCFN. The other two First Nations have not expressed concerns about the Project.

Following delivery of the plain language Project information package, Premier Tech has been actively engaged in consultation with OCFN through correspondence and virtual meetings. Active communication is ongoing with OCFN, and we plan to conduct further consultation with OCFN. Further details are set out below.

F-2. Steps taken or planned to be undertaken during all phases of the Project

Since information sharing is a critical step of the engagement process, Premier Tech has provided information about the project in a transparent, timely, and effective manner. Premier Tech offered to organize meetings,



translate material, provide adequate, clear, understandable, and manageable volumes of documentation, and to the best of our ability doing so in respect of Indigenous traditions.

The information shared about the project included, but was not limited to:

- Proponent overview;
- Project summary;
- Short and long-term adverse effects on land, water, and natural resources;
- Authorizations' update;
- Anticipated project timelines;
- Anticipated benefits to Indigenous communities;
- Relevant data, reports, studies, and maps; and
- Updates related to the Peat Development and Operations Plan.

Premier Tech has invited Indigenous community members, including knowledge holders and elders, to visit the Project site to provide information to better understand potential concerns. Premier Tech also invited OCFN to visit existing harvesting sites in other parts of the province to show how Premier Tech manages similar proposed projects.

More recently, we suggested the development and implementation of an access management plan to facilitate OCFN community members' access to parts of the Project site. We also offered to include OCFN in the monitoring of activities during the phases of the Project.

Throughout these exchanges, Premier Tech gains increasing awareness of OCFN's concerns. This iterative process will allow Premier Tech to better identify means by which such concerns could be addressed.

F-3 Overview of any Indigenous community concerns in relation to the Project and the way they are planned to be addressed

Premier Tech has been apprised of some Indigenous community concerns, in this case all and only from OCFN. For each of these concerns, we are currently in communication with OCFN through the provincial consultation process. Importantly, our discussions with respect to the identification and any responses to OCFN concerns are ongoing.

The following is an overview of the key concerns raised by OCFN and how Premier Tech has addressed them or intends to address them. A more detailed description of OCFN's concerns and Premier Tech's responses are available in the attached enclosures.

Some concerns have been regrouped as they will require additional information from OCFN before Premier Tech can identify specific means to address them.

- **Disturbance to Wildlife, Fish, and Vegetation;**
- **Culturally critical resources;**
- **Access to Project site; and**
- **Activity restrictions.**



OCFN has expressed concerns that Project would create disturbance to wildlife, fish, and vegetation resources and their habitats, as well as limit access to the Project site to conduct culturally important activities.

To address these points respectfully and meaningfully, Premier Tech has been looking to better understand firstly which specific “wildlife”, “fish”, and “vegetation” resources OCFN is concerned about, and the potential impacts such disturbance would cause to the exercise of the rights, and secondly, the extent of current traditional use by community members in the Project area. Premier Tech has reached out to OCFN to gain a better and more specific understanding of these concerns. Premier Tech has recently offered capacity funding to OCFN to carry out studies to gain this understanding and engage in discussions to develop effective mitigation measures, including an access management plan to maximize continued access by OCFN citizens and to ensure ongoing positive communication between OCFN and Premier Tech.

Assuming that OCFN is willing to provide specific information on current use on the Project site, mitigation measures could be developed to address these specific impacts.

Native ecosystems

OCFN has requested proportionate accommodation of Project impacts on their inherent and Treaty rights to address the “visible alteration or conversion of native ecosystems”.

To address these points respectfully and meaningfully, Premier Tech asked OCFN for further information and has proposed a study as explained above to better understand the specifics with respect to impacts on OCFN.

This study would allow Premier and OCFN to come to a common understanding of the potential impacts and mitigation measures thereafter. Discussions about the restoration process, the science-based facts regarding the return of the harvested site to a natural ecosystem and an opportunity to participate in the monitoring of this phase of the Project are a few options to address OCFN’s concerns.

AEPA Application process and ACO Consultation

OCFN has expressed concern about the regulatory process and timing of consultation. AEPA and the ACO govern the applicable regulatory processes and Premier Tech has documented these concerns and informed the ACO.

To the extent possible, Premier Tech has tried to be responsive to these concerns. We have consistently been open to extending the timelines for consultation set out the Consultation Guidelines. Premier Tech has and will continue to be flexible and work in good faith with OCFN and other Indigenous communities who may express concerns.

Capacity funding

OCFN has expressed a general concern with the provincial consultation process: that it has limited capacity to respond to and review the documents provided within the aggressive timelines. It also seeks additional capacity funding from Premier Tech.

Premier Tech has offered capacity funding to complete an additional study as described above to understand the use of the Project area by OCFN members. Based on this information, we have offered to work with OCFN to develop an access management plan to facilitate safe access to adjacent untouched natural areas within the Project leased lands. Premier Tech has been flexible in granting extensions to timelines contemplated in the Consultation Guidelines and intends to continue to be reasonable in providing sufficient time for OCFN to meaningfully engage.

Greenhouse Gas emission and carbon sequestration

We acknowledge that the harvesting of peat releases CO₂, as with all activities involving the extraction of natural resources. There are, however, significant benefits that flow from harvesting peat. Peat enables the creation of substrates that are used to grow food and plants providing food security and well-being to humans. In addition to conditions included with provincial approvals with respect to restoration and reclamation, Premier Tech uses science-based best practices developed over the last thirty (30) years, and these practices are monitored by a third independent party via the Veriflora® - Responsibly Managed Peatland, Standards.¹³

Canada benefits from an inventory of 114,000,000 ha of peatlands acting as carbon sinks with the whole of the Canadian peat harvesting industry footprint reaching a mere 34,000 ha, or 0.03%, of which more than 7,000 ha have been restored since the inception of the industry lead restoration initiative.

The Canadian peat harvesting industry is a science-based, internationally recognized leader in the development and application of restoration methods to reduce the impacts of harvesting of peatlands.

The mitigation measures identified over the years include, but are not limited to, the progressive opening of fields for harvest in small increments to minimize exposed surface areas and the progressive restoration of sections of bogs within the first two (2) to three (3) years following harvest completion on such sections (rather than waiting for the entire harvest site to be harvested). These measures are all part of the Development and Operations Plan.

See also comments above in section A-4.

Lands unavailable with Project approval and cumulative effects

OCFN is concerned about loss of available land to exercise their Treaty rights and traditional uses.

Premier Tech has documented this concern and has informed the ACO.

¹³ <https://www.scsglobalservices.com/services/veriflora-certified-sustainably-grown>

The Project lease area would be 323 ha. The Project footprint would comprise 155.5 ha, or 48%, of the lease area. The remainder, 167.5 ha, or 52% of the leased area, would remain pristine and could be accessible to OCFN citizens year-round. We have proposed the development of an access management plan to provide access to the leased area in a safe manner. We also explained to OCFN that the unavailable portion of land would be restored and available again for future generations. Details of the progressive harvesting and reclamation process are set out above in sections C-1 and 4 – Restoration and Certification.

Section G. Any other comments in relation to environmental effects or impacts to the public or Indigenous peoples and how it is intended to address and manage those.

All comments in relation to environmental effects or impacts to the public or Indigenous peoples have been presented in other sections of this document.

Section H. Views on whether the Project should be designated under the IAA.

Premier Tech believes the Project should not be designated under the IAA for the reasons set out below:

1. *Peat operations not on Project List:* Peat operations are not included in the *Physical Activities Regulations* at all. To our knowledge, no peat project has ever been subject to a federal environmental or impact assessment. To designate a peat project under the IAA would represent a radical departure from existing government policies and legislation which ought not be contemplated in the absence of a robust engagement with the peat industry and affected provincial and territorial governments.
2. *Comprehensive provincial process:* Comprehensive existing provincial legislative and regulatory requirements apply to the Project. These processes also provide a mechanism to consult and accommodate, if indicated, affected Indigenous communities and to address potential impacts on rights and related concerns. The applicable regulatory regime is governed by the following:
 - *Public Lands Act*
 - *Public Lands Administration Regulation*
 - *Guide to Surface Materials Lease Information Requirements for Peat Operations, 2017*
 - *Process for the Administration and Maintenance of Applications and Dispositions for Peat Operations on Public Land, 2018*
 - *Allocation and Sustainable Management of Peat Resources on Public Land, 2016*
 - *PLAR Formal Disposition Directive, 2014*
 - *Master Schedule of Standards and Conditions, April 2021*
 - *Water Act*
 - *Guide to Water Act Application Requirements for Surface Water Quality Monitoring for Peat Operations in Alberta, 2018.*
 - *Alberta Wetland Policy*

- Alberta Wetland Regulatory Requirements Guide
- Alberta Wetland Identification and Delineation Directive, June 2015
- Alberta Wetland Classification System, June 1, 2015
- Alberta Wetland Assessment and Impact Report Directive, June 2017
- Alberta Wetland Restoration Directive
- Directive for Permittee-Responsible Wetland Construction in Alberta
- Code of Practice for Wetland Replacement Works
- *Historical Resources Act*
- Surface Materials Historical Resources Act Compliance, 2014
- Standard Requirements under the *Historical Resources Act*: Reporting the Discovery of Historic Resources, October 2022
- Standard Conditions under the *Historical Resources Act*, October 2022
- *Environmental Enhancement and Protection Act*
- *Conservation and Reclamation Regulation*
- *Activities Designation Regulation*
- Requirements for Conservation and Reclamation Plans for Peat Operations, 2016
- Alberta's Policy on Consultation with First Nations on Land and Natural Resource Management, 2015
- Alberta's Guidelines on Consultation with First Nations on Land and Natural Resource Management, July 28, 2014 (assessed at a level 3 of consultation)
- Government of Alberta Proponent Guide to First Nation and Metis Settlements Consultation Procedures, December 2019
- *Alberta Land Stewardship Act*
- Land Use Framework

In addition, provincial approvals will include legally binding conditions, including with respect to mitigation. Taking into account the implementation of mitigations measures described in the assessment material, the predicted residual environmental effects associated with the Project are anticipated to be negligible (Biophysical Report, 4.0).

3. *Adverse effects in federal jurisdiction will be dealt with:* The Project does not warrant a designation on the basis of effects within federal jurisdiction. Effects within federal jurisdiction can be managed by the mitigation measures set out in the Project assessment material. It is clear that adverse effects within federal jurisdiction and related concerns can be appropriately managed through the above referenced provincial regime. Likewise concerns raised by OCFN, can be managed through the province's consultation process.
4. *No federal authorizations are required for the Project.*
5. *The Project's contribution to Canada's greenhouse gas emissions will be minimal:* While providing continued significant benefits to society in terms of food security and well-being, the Project will provide for limited GHG emissions. The Project annual emissions (over 21 years) of 1,248 tons (T) and 3,010 tons (T) of carbon dioxide equivalent (CO₂e) 0.0005% (1,248/256,400,000) and 0.0012%

(3,010/256,400,000) of the total 2020 Alberta GHG emissions. As with most types of industrial activities, however, considering the significant benefits derived from the use of peat and its undeniable and unparalleled characteristics as a substrate for plant growth, food security, and well-being, the adverse effects and cumulative adverse effects would be negligible.

6. *There is nothing exceptional about the Project:* The Project is relatively small compared to most of Premier Tech's harvesting projects. The predicted residual effects associated with the Project are similar to those normally encountered during peat extraction. Aside from potential improvements in restoration methods which may occur during the life of the Project, the Project does not involve new technologies or untested activities.
7. *Premier Tech is an industry leader:* Premier Tech takes pride in being an industry leader in the responsible stewardship of our environment. Over the course of the last thirty (30) years, Premier Tech has adopted responsible managed peatland principles developed to ascertain the implementation of management practices that adhere to the highest standards with respect to social and environmental matters. Premier Tech is an active leader in developing initiatives based on the principles of a responsible use and protection of the natural environment.

Premier Tech and the peat moss industry have implemented several initiatives to reduce the environmental footprint of peat harvesting and ensure the industry's sustainability, including:

- In the early 90's, Premier Tech led the industry quickly adopting responsible peatland management principles and initiating the first research program on peatland restoration, conducted by the Peatland Ecology Research Group (PERG) at Université Laval which led to the development of Canada's expertise in peatland restoration research, including the world-renowned Moss Layer Transfer Technique (MLTT) for restoring peatlands and fens. What started as a 5-year research program was expanded into more research with more academic partners, including McGill University and many more with public funding and partnering mostly through the Natural Sciences and Engineering Research Council of Canada (NSERC). The research focused on ecological restoration and the return of functions of bogs including biodiversity, hydrology, and the return to acting as a greenhouse gas sink.
 - Premier Tech and the industry invested in scientific research to ensure the harvesting of peat is done in a responsible manner, including adapting their harvesting techniques to minimize the project footprint and making the responsible management of peatlands an integrated component of daily operations.
 - In 2011, the industry producers implemented SCS Global's Veriflora® - Responsibly Managed Peatlands, a recognized and an ever more stringent certification program. The goal is to ensure our activities align with the highest available standards.
 - In 2016, the industry implemented the National Peatland Restoration Initiative. Under this initiative, the industry producers committed to restore 100% of their "legacy" peatland sites over the next fifteen (15) years. It is currently on track to reach its goal.
8. *Benefits of the Project:* The Project will have positive economic impacts. The Project will create full time and seasonal employment including for the operation of the fen, transportation of peat from the Project to Premier Tech's nearby facility, as well as maintenance of employment at our facility in Olds.

Peat moss harvested during the Project will be used exclusively in agriculture and horticulture, growing plants, flowers, and food, providing significant benefits to society, namely food security and well-being. The following sets out the benefits of peat moss:

- Peat is a unique and unmatched substrate which provides three essential elements: water retention, nutrient retention, and aeration for plants supporting wide usage in greenhouses and home gardening;
- Peat moss plays an essential role in food production, especially in the mushroom, herb, and vegetable growing industries;
- Peat moss is the most common substrate for field agriculture transplants such as broccoli, cabbage, tomatoes, and lettuce;
- The ornamental industry uses peat moss as its primary soilless substrate component;
- Peat moss is a primary contributor to billions of seedlings used annually for reforestation;
- Canadian-made peat-based growing media is used by North American professional growers (70%) and consumers / gardeners (30%);
- The consumer market uses our peat moss-based products for gardening, lawn care, and vegetable growing;
- Peat moss is the staple soilless substrate used in the medicinal cannabis industry; and
- Governments across North America deemed the peat moss industry essential during the COVID-19 pandemic.

No other alternatives to peat present characteristics that match those of peat, nor offer better combined values when availability, performance, and the environmental footprint are considered.

The performance of growing media is often considered a function of how much peat moss it contains. Premier Tech and the peat industry have been active in the last decades in identifying other growing media inputs that could achieve similar plant growth performance while reducing the peat moss content. Although no other growing media constituents have the unique features and benefits of peat moss, reducing the proportion of peat in growing media with limited impact to overall growing performance has been successfully accomplished. The objective has been to reduce the use of peat moss to acceptable level and in doing so reduce the harvesting of peat moss from peatlands and extend the lifespan of peatlands under commercial activity.

Over the years, the industry has integrated a significantly higher proportion of other components in its substrates. Constituents like bark (a long-time partner of peat), coco coir, wood fiber, compost, etc. The industry anticipates that the proportion of other constituents will continue to grow over the years to ensure fulfillment of demand for growing media and ensuring the wise use of peat. Although other constituents are also under review, their quality varies, their availability is cyclical, their costs are currently prohibitive, and their environmental footprints are significant.

9. *Project meets UN Development Goals:* The peat moss industry jointly meets seven (7) of the UN Development Goals:
- Goal 2: End Hunger: Peat plays a significant role in food security;
 - Goal 3: Good Health & Well-Being: We help to grow healthy food, medical cannabis, and floriculture to significantly impact human well-being;
 - Goal 8: Decent Work and Economic Growth: The peat moss industry provides generational jobs to rural communities (both direct and indirect impacts);
 - Goal 12: Responsible Consumption and Protection: Veriflora® certification and commitment to restoration;
 - Goal 13: Climate Action: Investments in science for better management of land use and partnerships with governments;
 - Goal 15: Life on Land: Strong investments and commitments in ecological restoration; and
 - Goal 17: Partnership for the Goals. The peat industry has partnerships with conservation groups and is a member of the Canadian wetland roundtable, for example.

In summary, the Project involves the harvesting of peat from a relatively small footprint under environmentally responsible management practices. The Project is subject to a comprehensive and recently updated provincial regulatory regime. Assessments and consultations to date have identified mitigation measures for identified impacts. For the most part, implementation plans have been developed. These will continue to be refined with impacted stakeholders and Indigenous communities, including OCFN. The consultation process with OCFN continues, and Premier Tech remains committed to carrying out that process in a meaningful way, demonstrating respect, openness, and flexibility, and working with Indigenous communities to address their concerns.

We invite the Agency to contact Frédéric Caron if it has questions.

Enclosures:

- 1) Biophysical Report and Peat development and Operations Plan
- 2) Wetland Assessment and Impact Report
- 3) Conservation and Reclamation Plan
- 4) O'Chiese First Nation November 4th, 2022, letter and annexes
- 5) Premier Tech's response to O'Chiese First Nation letter of November 4th, 2022, letter and annex
- 6) Project Information Package provided to OCFN July 5th, 2022