



Conservation and Water Stewardship
Environmental Stewardship Division
Environmental Approvals Branch
123 Main Street, Suite 160, Winnipeg, Manitoba R3C 1A5
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www.gov.mb.ca/conservation/eal

CLIENT FILE NO.: 4254.10

March 23, 2015

Albert M. Dorish
Sunterra Horticulture (Canada) Inc.
PO Box 760
Riverton MB R0C 2R0

Dear Mr. Dorish:

Enclosed is revised **Environment Act Licence No. 2288RR** dated March 23, 2015 issued to **Sunterra Horticulture (Canada) Inc.** for the construction, operation and decommissioning of the Development being the existing peat harvesting development at the Beaver Point Bog (Environment Act Licence No. 2288R) and associated expansion to quarry leases located in Bullhead and Little Deer Lake Bogs, in accordance with the Proposal filed under *The Environment Act* dated May 1, 1997, a Notice of Alteration dated October 2, 2001 and the Proposal filed under *The Environment Act* dated December 9, 2011.

The decision regarding Sunterra's notice of alteration for an expansion to the existing peat harvesting and processing operation to Bullhead and Little Deer Lake Bogs was made only after careful consideration of the Proposal, dated December 9, 2011, extensive comments from the public and the Technical Advisory Committee and a final consultation report outlining the outcome of the Crown's consultation with communities whose Aboriginal and treaty rights may be potentially impacted by the expansion. As a result, the enclosed licence includes several conditions to address the concerns identified during these processes.

Please note that as a result of the moratorium in the *Save Lake Winnipeg Act* on the issuance of quarry permits under the Mines and Minerals Act, the enclosed licence excludes the pending Sunterra quarry leases included in the Proposal, dated December 9, 2011.

In addition to the enclosed Licence requirements, please be informed that all other applicable federal, provincial and municipal regulations and by-laws must be complied with. A Notice of Alteration must be filed with the Director for approval prior to any alteration to the Development as licensed.

For further information on the administration and application of the Licence, please feel free to contact Mike Baert, Environment Officer at 204-782-9104.

Pursuant to Section 27 of *The Environment Act*, this licensing decision may be appealed by any person who is affected by the issuance of this Licence. Also, the Director`s decision to not recommend a public hearing, pursuant to Section 10(7), may also be appealed. Appeals may be made to the Minister of Conservation and Water Stewardship within 30 days of the date of the Licence. A copy of the Licence is also available for viewing at <http://www.gov.mb.ca/conservation/eal/registries/4254-1sunterra/index.html>.

Yours truly,

“original signed by”

Tracey Braun, M.Sc.

Director

Environment Act

.../2

c: Don Labossiere, Director, Environmental Compliance and Enforcement Branch
Mike Baert, Environment Officer, Environmental Compliance and Enforcement Branch
Shaun Moffat, KGS Group
Public Registries, Public Distribution List (see attached)

NOTE: Confirmation of Receipt of this Licence No. 2288 RR (by the Licencee only) is required by the Director of Environmental Approvals. Please acknowledge receipt by signing in the space provided below and faxing a copy (letter only) to the Department by April 6, 2015.

On behalf of the Sunterra Horticulture (Canada) Inc.

Date

****A COPY OF THE LICENCE MUST BE KEPT ON SITE AT THE DEVELOPMENT AT ALL TIMES****

**Sunterra Horticulture (Canada) Inc – Public Distribution List
Environment Act Licence No. 2288 RR**

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Five State Soils
Cycelia Lazarowich
D. F. and V. W. Pruden
Dan Bigelow
Beaver Creek Cottagers Association
Anders Swanson
Anna and Allan Sutherland
Barbara Mulock
Second Nature Adventures in Discovery
Helios Hernandez
Pebblestone Beach Cottagers Association

Cathryn Nykvist

Green Party of Manitoba

Manitoba Wildlands

Peguis First Nation

George C. Dobson

LICENCE

Licence No. / Licence n° 2288 RR
Issue Date / Date de délivrance October 27, 1997
Revised: October 5, 2001
Revised: March 23, 2015

In accordance with *The Environment Act* (C.C.S.M. c. E125) /
Conformément à la *Loi sur l'environnement* (C.P.L.M. c. E125)

Pursuant to Section 11(1) / Conformément au Paragraphe 11(1)

THIS LICENCE IS ISSUED TO: / CETTE LICENCE EST DONNÉE À:

SUNTERRA HORTICULTURE (CANADA) INC.;
"the Licencee"

for the construction, operation, and reclamation of the Development, being a peat moss mine and processing plant at the Beaver Point Bog located in Townships 28 and 29, Range 5 E1, and peat moss mines at the Bullhead Bog located in Township 31, Range 5 E1 and the Little Deer Lake Bog located in Township 30, Range 5 E1, in accordance with the Proposal dated May 1, 1997, Notice of Alteration dated October 2, 2001, the Proposal dated December 9, 2011, and supplementary information dated July 8, 2013 and August 26, 2013, filed under *The Environment Act*, and subject to the following specifications, limits, terms and conditions:

DEFINITIONS

In this Licence,

“**accredited laboratory**” means an analytical facility accredited by the Standard Council of Canada (SCC), or accredited by another accrediting agency recognized by Manitoba Conservation and Water Stewardship to be equivalent to the SCC, or able to demonstrate, upon request, that it has the quality assurance/quality control (QA/QC) procedures in place equivalent to accreditation based on the international standard ISO/IEC 17025, or otherwise approved by the Director;

“**active mining area**” means any field within the Development, which has undergone preliminary induced drainage for access, and on which surface disturbance in preparation for peat mining has commenced, until such time as when the mined field has been

isolated for water level control in preparation for the reclamation and restoration of the field;

“approved” means approved in writing;

“buffer zone” means a strip of undisturbed land comprised of in-situ vegetation;

“dangerous goods” means dangerous goods as defined in the *Manitoba Dangerous Goods Handling and Transportation Act*, and regulations issued thereunder;

“Director” means an employee so designated pursuant to *The Environment Act*,

“drainage water” means surface or sub-surface water induced, by reason of constructed drains, to drain towards a final discharge point of the Development, but does not include surface runoff diverted around an active mining area nor preliminary induced drainage;

“effluent” means drainage water released into the environment;

“Environment Officer” means an employee so designated pursuant to *The Environment Act*;

“final discharge point” means an effluent quality control point designated as such through the provisions of this Licence, unless otherwise re-designated in writing by the Director;

“fugitive emissions” means suspended particulate matter windblown into the atmosphere and off-site from any source on-site of the Development;

“Integrated Resource Management Team (IRMT)” means a regional management team made up of members of Conservation and Water Stewardship organized to review natural resource issues;

“noise nuisance” means an unwanted sound, in an affected area, which is annoying, troublesome, or disagreeable to a person:

- a) residing in an affected area;
- b) working in an affected area; or
- c) present at a location in an affected area which is normally open to members of the public;

if the unwanted sound

- d) is the subject of at least 5 written complaints, received by the Director in a form satisfactory to the Director and within a 90 day period, from 5 different persons falling within clauses (a), (b) or (c), who do not live in the same household; or
- e) is the subject of at least one written complaint, received by the Director in a form satisfactory to the Director, from a person falling within clauses

(a), (b) or (c) and the Director is of the opinion that if the unwanted sound had occurred in a more densely populated area there would have been at least 5 written complaints received within a 90 day period from 5 different persons and who do not live in the same household;

“particulate matter” means any finely divided liquid or solid matter other than water droplets;

“peat or peat moss” means the moderate to heavily decomposed organic matter of dead vegetation found primarily in the fens and bogs of wetland environments, that has accumulated in varying depths by depositional means over a long period of time;

“peat mining” means the excavation, harvesting or removal of peat or peat moss for commercial purposes;

“preliminary induced drainage” means induced surface and subsurface drainage, off an area intended to be mined, to the extent as may be required to facilitate access to, and the construction of, sedimentation ponds incorporating final discharge points;

“riparian area” means an area of land on the banks or in the vicinity of a waterbody, which due to the presence of water supports, or in the absence of human intervention would naturally support, an ecosystem that is distinctly different from that of adjacent upland areas (*The Water Protection Act 2005*);

“reclamation” means the activity which focuses on the after-use of mined peatland sites;

“restoration” means the re-establishment of a mined peatland site as a peatland with a functioning natural ecosystem with characteristics as close as possible to pre-mining conditions;

“septage” means the sludge produced in individual on-site sewage disposal systems such as septic tanks;

“sewage” means sewage as defined in *Onsite Wastewater Management Systems Regulation 83/2003*, or any future amendment thereof;

“Standard Methods for the Examination of Water and Wastewater” means the most recent edition of Standard Methods for the Examination of Water and Wastewater published jointly by the American Public Health Association, the American Waterworks Association and the Water Environment Federation; and

“waterbody” means any body of flowing or standing water, whether naturally or artificially created, and whether the flow or presence of water is continuous, intermittent or occurs only during a flood, including but not limited to a lake, river, creek, stream, and wetland (slough, marsh, swamp, etc.), including ice on any of them (*The Water Protection Act 2005*).

GENERAL TERMS AND CONDITIONS

This Section of the Licence contains requirements intended to provide guidance to the Licencee in implementing practices to ensure that the environment is maintained in such a manner as to sustain a high quality of life, including social and economic development, recreation and leisure for present and future Manitobans.

Compliance

1. The Licencee shall adhere to the commitments made in the Proposals dated May 1, 1997 and December 8, 2011, Notice of Alteration dated October 2, 2001, and supporting information filed in association with the Proposals during construction, operation, and reclamation of the Development.

Additional Reporting

2. The Licencee shall, in addition to any of the specifications, limits, terms and conditions specified in this Licence, upon the request of the Director:
 - a) sample, monitor, analyse or investigate specific areas of concern regarding any segment, component or aspect of the Development for such duration and at such frequencies as may be specified;
 - b) determine the environmental impact associated from the Development;
 - c) conduct specific investigations in response to the data gathered during environmental monitoring programs; or
 - d) provide the Director, within such time as may be specified, with such reports, drawings, specifications, analytical data, descriptions of sampling and other information as may from time to time be requested.

Sampling and Analysis

3. The Licencee shall, unless otherwise specified in this Licence:
 - a) carry out all preservations and analyses of liquid samples in accordance with the methods prescribed in the Standard Methods for the Examination of Water and Wastewater or in accordance with equivalent preservation and analytical methodologies approved by the Director; and
 - b) ensure that all analytical determinations are undertaken by an accredited laboratory.

Reporting Format

4. The Licencee shall provide to the Director, upon request, all information required under this Licence, in writing and in such form and content (including number of copies), as may be specified by the Director or Environment Officer, and each submission shall be clearly labelled with the Licence Number and Client File Number associated with this Licence.

SPECIFICATIONS, LIMITS, TERMS AND CONDITIONS

Notification

5. The Licencee shall, prior to beginning construction of the Development, provide notification to the Environment Officer responsible for the administration of this Licence of the intended start date of construction and the name of the contractor(s) responsible for the construction.
6. The Licencee shall, prior to construction, provide a copy of this Licence to the contractor(s) and subcontractor(s) involved in the Development.

Emergency Response Plan

7. The Licencee shall:
 - a) within two months of the date of issuance of this Licence, submit to the Director, for approval, a proposed Emergency Response Plan, consistent with the *Industrial Emergency Response Planning Guide (MIAC, September, 1996)* to address such matters as fire suppression and control, and cleaning up spills involving dangerous goods (hazardous chemicals, petroleum products, etc.); and
 - b) continually maintain the approved Emergency Response Plan in a current status for the duration of the Development.

Pre-Construction Surveys

8. The Licencee shall, before commencing any surface disturbance or preliminary induced drainage of an intended mining area within the Development:
 - a) conduct a survey of the intended mining area with respect to rare or endangered species and species of special concern, as well as migratory birds, their nests and their eggs;
 - b) submit a report on the survey for the approval of the Director;
 - c) transplant any visible rare, endangered or threatened species of vegetation, including species of vegetation used for traditional medicines which may be encountered on the site, to another equally suitable site in consultation with the regional wildlife manager of Conservation and Water Stewardship; and
 - d) upon the completion of any transplantation activity, advise the Director, in writing, of the type and number of any plant species so transplanted and the location to which they were transplanted.

Project Land Use

9. The Licence shall restrict construction and operational activities related to the Development, except for the road allowance of all access roads, to those lands to which the Licencee possesses:

- a) a quarry lease issued pursuant to *The Mines and Minerals Act* or any future amendment thereof, or mineral rights, or a signed agreement with another person or legal entity respecting the use of minerals to which that person or legal entity possesses the mineral rights;
 - b) surface rights, or complete ownership, or a signed agreement with another person or legal entity respecting the use of any land to which that person or legal entity possesses the surface rights or complete ownership, wherein the agreement clearly identifies the party which accepts full responsibility for any environmental liabilities incurred by the activities of the Licencee; and
 - c) applicable work permits and timber cutting permits, as may be required by Conservation and Water Stewardship.
10. The Licencee shall restrict all mining of peat or peat moss associated with the Development to only those deposits located within:
- a) the boundaries of each Quarry Lease listed in Schedule “A” attached to this Licence;
 - b) the boundaries as described in any future newly acquired peat mining area of which the Director has been notified in writing, and has approved as an alteration to the licensed Development.

Mining Area

11. The Licencee shall limit the construction and operational activities of the Development at Little Deer Lake Bog and Bullhead Bog to:
- a) 350 hectares of the total combined area for Little Deer Lake Bog and Bullhead Bog listed in Schedule “A”, attached to this Licence, during the first 10 years following the construction start date;
 - b) 66% of the total combined area listed for Little Deer Lake Bog and Bullhead Bog in Schedule “A”, attached to this Licence, over the lifetime of the Development, unless otherwise approved by the Director.

Mining Plan

12. The Licencee shall, prior to commencing the surface disturbance of an undisturbed peat mining area that has been authorized to be prepared for mining, meet with and present to the IRMT the mining plan for the newly authorized area, outlining and detailing:
- a) the proposed drainage ditches;
 - b) the proposed periphery and corridor buffer zones, where or if applicable;
 - c) the depth of peat versus the proposed depth of mining; and
 - d) the projected rates of water release, the projected effluent quality and the projected water quality impact on Lake Winnipeg and Little Deer Lake based on the compiled and reported sampling data collected pursuant to this Licence up to the time of the meeting;

where upon any outstanding concerns brought to the attention of the Director by the IRMT may be addressed through a revised conditional authorization of disturbance for the affected area.

Buffer Zones

13. The Licencee shall, unless otherwise approved by the Director, leave a buffer zone:
- a) of at least 150 metres from:
 - i) the riparian areas of lakes, rivers, creeks, and streams; and
 - ii) riparian beaver flood habitat;
 - b) along the interior of the entire perimeter of each bog area having a width of at least 100 metres and possessing a minimum of 1.0 metre in depth of peat; and
 - c) along such corridors within the Development, and to such a width as may be specified in writing by the Director in consideration of any recommendation(s) received from the IRMT respecting a desirability for any windbreak or habitat corridors.

Minimum Depth of Peat

14. The Licencee shall maintain at least 1.0 metre of in-situ peat throughout the bottom of any active mining area unless evidence provided by the Licencee, and satisfactory to the Director, suggests that a residual depth of less than 1.0 metre will not adversely affect the effluent quality leaving the Development, nor compromise the optimum regrowth rate of vegetation or otherwise adversely affect the reclamation objective of restoring the mined bog area(s) of this Development to a functioning wetland that may eventually succeed back to a sphagnum bog.

Clearing

15. The Licencee shall, where practical, avoid draining and clearing any portion of the overall Development too soon in advance of its needs.

Road Construction and Maintenance

16. The Licencee shall not create any new borrow pit(s) for the construction of the access or bog roads without prior consultation with, and the written concurrence of, the IRMT.
17. The Licencee shall apply and maintain dust suppressant on access roads associated with the Development within 100 metres from Provincial Road (PR) 234.

Water Rights Licence

18. The Licencee shall not construct any water control works associated with the Development, including engineered drains, nor release any drainage water from the Development, without the prior receipt of a Water Rights Licence to Construct Water

Control Works from the Water Stewardship Division of Conservation and Water Stewardship.

Drainage, Sedimentation Ponds and Effluent

19. The Licencee shall prevent, as much as practical, natural surface runoff water from outside the boundaries of the Development from entering the active mining area(s) of Development, by diverting such surface runoff water around the perimeter of the Development.
20. The Licencee shall, during construction and operation of the Development direct all drainage water associated with any mining area of the Development through one or more sedimentation ponds that are designed and constructed to achieve the effluent quality criteria specified in this Licence.
21. The Licencee shall release the effluent from each sedimentation pond through a final discharge associated with each sedimentation pond(s).
22. The Licencee shall ensure that any effluent discharged from the Development from sedimentation ponds shall be retained for a minimum of 2 hours prior to discharge.
23. The Licencee shall register with the Director a list of all active final discharge points and their GPS locations, and maintain the registered list in a current status at all times.
24. The Licencee shall clean sedimentation ponds associated with the Development as described in the Proposal dated December 8, 2011.
25. The Licencee shall design and construct each sedimentation pond associated with the Development:
 - a) to facilitate the termination, if necessary, of the release of any effluent from each final discharge point;
 - b) with a manual flow rate measuring device at each final discharge point that is adequate to measure the full range of instantaneous rates of discharge as may be expected to be released into the environment;
 - c) with a floating debris boom at the outlet of each final discharge point.
26. The Licencee shall not release any effluent from the Development where the release of the effluent would:
 - a) cause a downstream flooding condition;
 - b) contribute to a forecast downstream flooding condition; or
 - c) further aggravate an existing flooding condition prevailing at that time.
27. The Licencee shall not release any effluent from a final discharge point if the quality of the effluent, as determined from the analysis of any grab sample taken of the effluent at the outlet of the sedimentation pond, is such that:

- a) the pH is less than 5.0 pH units; or
 - b) the suspended solids concentration is greater than 30 milligrams per litre.
28. The Licencee shall not release any effluent from a final discharge point if the quality of the receiving lake water, as determined from the analysis of any grab sample taken from the lake in the vicinity of the outlet of the discharge, indicates that the discharge of effluent appears to be causing:
- a) the water quality to be adversely affected relative to the current *Manitoba Water Quality Standards, Objectives, and Guidelines*; or
 - b) naturally elevated levels (i.e. in excess of the current *Manitoba Water Quality Standards, Objectives, and Guidelines*) in these surface waterways to be further degraded.
29. The Licencee shall not increase nutrient loading on Lake Winnipeg such that the Development contributes to a net increase of total nitrogen and total phosphorous over the first 3 years from the date which construction begins and every subsequent 3 year interval.

Sewage Disposal

30. The Licencee shall:
- a) during construction, dispose of all sewage and septage from on-site sanitary facilities in accordance with the *Onsite Wastewater Management Systems Regulation 83/2003*, or any future amendment thereof; and
 - b) dispose of any sewage and septage transported off-site from the Development into a facility which has an Environment Act Licence authorizing the acceptance of sewage and septage.

Stream Crossings

31. The Licencee shall, during construction, adhere to the general recommendations on design, construction and maintenance of stream crossings as specified in the guidelines titled *Manitoba Stream Crossing Guidelines for the Protection of Fish and Fish Habitat, 1996*.

Wildlife Habitat Losses

32. The Licencee shall, where any potential wildlife habitat losses have been identified by Conservation and Water Stewardship, consult with the regional wildlife staff of Conservation and Water Stewardship with respect to the mitigation of the losses, and carry out any related mitigation measures required by the Director.

Operation of Transport Trucks

33. The Licencee shall not operate transport trucks along PR 234 from 10 pm to 6 am, local time.

34. The Licencee shall not operate transport trucks along PR 234 between May 15th and September 15th in any year on Saturdays, Sundays, statutory holidays, and Fridays, after 3:00 pm.
35. The Licencee shall securely cover truck transport loads during transport to and from the development.

Air Emissions

36. The Licencee shall limit the discharge of fugitive emissions from any source within the site of the Development such that:
 - a) distinct plume forming fugitive emissions do not exceed an opacity of 5%; or
 - b) non plume forming fugitive emissions are not visible at any time;when measured or viewed in the atmosphere beyond the property boundary of the Development.

Solid Wastes

37. The Licencee shall dispose of solid waste at a waste disposal ground operating under the authority of a permit issued pursuant to the *Waste Disposal Grounds Regulation 150/91* or any future amendment thereof, or a licence issued pursuant to *The Environment Act*.

Storage and Handling of Petroleum Products

38. The Licencee shall ensure fuel storage containers incorporate secondary containment satisfactory to an Environment Officer.
39. The Licencee shall comply with all the applicable requirements of:
 - a) *Manitoba Regulation 188/2001*, or any future amendment thereof, respecting *Storage and Handling of Petroleum Products and Allied Product*;
 - b) *The Dangerous Goods Handling and Transportation Act*, and regulations issued thereunder, respecting the handling, transport, storage and disposal of any dangerous goods brought onto or generated at the Development; and
 - c) the Office of the Fire Commissioner – Province of Manitoba.
40. The Licencee shall establish any fuel storage areas required for the construction and operation of the Development a minimum distance of 150 metres from any waterbody.
41. The Licencee shall, during construction and maintenance of the Development, operate, maintain, and store all materials and equipment in a manner that prevents any deleterious substances including fuel, oil, grease, hydraulic fluid, coolant, and other similar substances from entering any waterbody. An emergency spill kit for in-water use shall be readily available on site during construction.

Environmental Accident Reporting

42. The Licencee shall, in the case of physical or mechanical equipment breakdown or process upset where such breakdown or process upset results or may result in the release of a pollutant in an amount or concentration, or at a level or rate of release, that causes or may cause a significant adverse effect, immediately report the event by calling the 24-hour environmental emergency response line at 204-944-4888 or toll-free at 1-855-944-4888 pursuant to the *Environmental Accident Reporting Regulation 439/87*, or any future amendment thereof. The report shall indicate the nature of the event, the time and estimated duration of the event and the reason for the event.
43. The Licencee shall, following the reporting of an event pursuant to Clause 42:
- a) identify the repairs required to the mechanical equipment;
 - b) undertake all repairs to minimize unauthorized discharges of a pollutant;
 - c) complete the repairs in accordance with any written instructions of the Director; and
 - d) submit a report to the Director about the causes of breakdown and measures taken, within one week of the repairs being done.
44. The Licencee shall, in a manner approved by the Environment Officer, remove and dispose of all spilled dangerous goods.

Noise

45. The Licencee shall not cause or permit a noise nuisance to be created as a result of the construction, operation, or alteration of the Development, and shall take such steps as the Director may require to eliminate or mitigate a noise nuisance.

Heritage Resources

46. The Licencee shall, prior to commencing subsurface disturbance of soil within the intended active mining area at Bullhead Bog and Little Deer Lake Bog, submit for approval of the Director a Historic Resources Protection Plan, prepared in consultation with Historic Resources Branch, that will include, at a minimum, the following:
- a) protocols and procedures related to surveys of the mining areas with respect to any archaeological or cultural resources;
 - b) protocols and procedures related to the protection and reporting of heritage resources that may be discovered as a result of activities related to the Development; and
 - c) a description of how local and Aboriginal knowledge was considered in the development of protection measures of heritage resources.
47. The Licencee shall, during construction and operation of the Development, apply measures to protect heritage resources, as prescribed in the Historic Resources

Protection Plan and as may be directed by Manitoba Tourism, Culture, Heritage, Sport and Consumer Protection, Historic Resources Branch.

Monitoring, Record Keeping, and Reporting

48. The Licencee shall, throughout the draining and mining of the Development, but only under conditions of effluent release:

- a) once per week, collect samples of the effluent at each final discharge point, and have them analyzed at such frequencies as specified in “Schedule B” attached to this Licence, for such substances and characteristics as specified in “Schedule C” attached to this Licence;
- b) once per week, measure and record the flow rate (in cubic metres per second) of effluent being released from each final discharge point of the Development, and use the weekly flow rate measurements to determine an estimate of the total monthly volumes (expressed in cubic metres) of effluent released from each final discharge point of the Development; and
- c) collect representative samples of the waters in the Local Creek, Mill Creek Little Deer Lake and Lake Winnipeg, pursuant to “Schedule B” of this licence and have the samples analyzed for such substances and characteristics as specified in “Schedule C” attached to this Licence;

unless otherwise specified in writing by the Director.

Annual Report

49. The Licencee shall submit an annual report, by no later than February 28th each year, including an annual summary and discussion on a trend analysis of all the analytical values, measurements, and estimates determined and recorded pursuant to Clauses 29, 48, 50 and 51 of this Licence, to the Environment Officer responsible for administration of this licence, in an acceptable electronic format and in writing if requested. The report shall provide recommendations for mitigation if water quality requirements are not being met.

Decommissioning, Reclamation and Restoration

50. The Licencee shall:

- a) comply with the *Mine Closure Regulation 67/99*, or any future amendment thereof, particularly in regards to addressing environmental issues including, but not necessarily limited to:
 - i) implementation of a restoration plan that includes the re-establishment of self-regulatory mechanisms and a return of the affected areas to functional peat accumulating ecosystems;
 - ii) the implementation of any progressive restoration of those peat bog areas of the Development where mining has reached its terminal depth;

- iii) the decommissioning of any temporary fuel storage site used at or for the Development;
- iv) the decommissioning of access and bog roads, stream crossings, and power lines constructed for the Development;
- v) the decommissioning, reclamation and restoration of the overall affected operational area of the Development;
- vi) the restoration or replacement of wildlife or fish habitats disturbed, adversely affected, or lost as a result of the Development;
- vii) the containment, control, or treatment of pollutants originating from the mine site of the Development; and
- viii) the strategy, scope, frequency, and duration of post-closure environmental monitoring activities at the mine site;

where applicable; and

- b) provide the Director with:
 - i) written notice three months in advance of any imminent permanent closure of this Development; or
 - ii) an immediate written notice of any sudden decision to temporarily close this Development whereby the Development would be placed in a mothballed state for re-opening in the foreseeable future; and
 - iii) in the course of progressive reclamation and restoration, as well as upon the permanent or temporary closure of this Development, implement the environmentally related aspects of the Closure Plan approved pursuant to the *Mine Closure Regulation 67/99*, or any future amendment thereof, to the satisfaction of the Director.

Restoration Monitoring

51. The Licencee shall, upon completion of mining activities within a Quarry Lease, establish at least nine observation stations within the Quarry Lease and annually monitor and record the progress of regrowth of sphagnum moss and other introduced plants in a manner satisfactory to the Director. A report on the progress of regrowth shall be submitted to the Director annually until the Director indicates otherwise.

Progress of Restoration

52. The Licencee shall consult a specialist in restoration ecology for Manitoba if the annual monitoring of the progression of the vegetation carpet, in any field undergoing restoration, suggests a progression rate which is unsatisfactory to the Director.

Future Monitoring and Research

53. The Licencee shall participate in monitoring and research activities related to the development of best practice standards in cooperation with Conservation and Water Stewardship.

Alterations to the Development

54. The Licencee shall obtain written approval from the Director for any proposed alteration to the Development before proceeding with the alteration.

REVIEW OR REVOCATION

- A. Licence No. 2288 R is hereby rescinded.
- B. If, in the opinion of the Director, the Licencee has exceeded or is exceeding or has or is failing to meet the specifications, limits, terms, or conditions set out in this Licence, the Director may, temporarily or permanently, revoke this Licence.
- C. If the Licencee has not commenced construction of the Development within three years of the date of this Licence, this Licence is revoked.
- D. If, in the opinion of the Director, new evidence warrants a change in the specifications, limits, terms or conditions of this Licence, the Director may require the filing of a new proposal pursuant to Section 11 of *The Environment Act*.

“original signed by”

Tracey Braun, M.Sc.
Director
Environment Act

File: 4254.10

SCHEDULE A TO ENVIRONMENT ACT LICENCE NO. 2288 RR

BOG	QUARRY LEASES	TOTAL QL AREA (Ha)	PROPERTY OWNERSHIP
Beaver Point Bog	QL-1321	117.4	Crown Land
	QL-1324	185.3	Crown Land
	QL-1322	75.3	Crown Land
Little Deer Lake Bog	QL-1323	266.8	Crown Land
	QL-1406	100.8	Crown Land
Bullhead Bog	QL-1134	248.4	Crown Land
	QL-1291	49.7	Crown Land

SCHEDULE B TO ENVIRONMENT ACT LICENCE NO. 2288 RR

Area	Source	Location	Sampling Frequency*	Determinations or Analyses
Final Discharge Point	Effluent	Immediately downstream of outlet of sedimentation ponds	Weekly & 3x/year	See "Schedule C"
Mill Creek @ PR 234	Downstream Receiving Water(s)	In the vicinity of each effluent discharge into the lake	2x/year & 1x/year	See "Schedule C"
Local Creek @ PR 234	Downstream Receiving Water(s)	In the vicinity of each effluent discharge into the lake	2x/year & 1x/year	See "Schedule C"
Little Deer Lake	Downstream Receiving Water(s)	In the vicinity of each effluent discharge into the lake	2x/year & 1x/year	See "Schedule C"
Lake Winnipeg	Downstream Receiving Water(s)	In the vicinity of each effluent discharge into the lake	2x/year & 1x/year	See "Schedule C"

* "weekly" means one sample every seven days, but on an operating day.

"2x/year" means one sample every spring freshet and late fall.

"3x/year" means one sample every spring freshet, late summer, and late fall.

Note: The Director reserves the right to make future alterations to this Schedule in the interests of effective environmental management.

SCHEDULE C TO ENVIRONMENT ACT LICENCE NO. 2288 RR

	Effluent	Effluent	Receiving Water
Parameters / Characteristics / Data	(weekly) *	(3x / Year)*	(2x / Year)*
Sampling Date	X	X	X
Flow rate	X		
pH	X	X	X
Total Alkalinity		X	X
Acidity		X	X
Conductivity		X	X
Total Dissolved Solids		X	X
Total Suspended Solids	X	X	X
5-day Biochemical Oxygen Demand		X	X
Hardness		X	X
Total Kjeldahl Nitrogen		X	X
Total ammonia (as N)		X	X
Total organic carbon		X	X
Nitrate + Nitrite (as N)		X	X
Sulphates (as S)		X	X
Total and dissolved metals and metalloids:			
Aluminum (Al)		X	X
Antimony (Sb)		X	X
Arsenic (As)		X	X
Barium (Ba-		X	X
Beryllium (Be)		X	X
Bismuth (Bi)		X	X
Boron (B)		X	X

continued...

	Effluent	Effluent	Receiving Water
Parameters / Characteristics / Data	(weekly)*	(3x / Year)*	(2x / Year)*
Total and dissolved metals and metalloids (continued):			
Cadmium (Cd)		X	X
Calcium (Ca)		X	X
Cesium (Cs)		X	X
Magnesium (Mg)		X	X
Manganese (Mn)		X	X
Mercury (cold vapour)		X	X
Molybdenum (Mo)		X	X
Nickel (Ni)		X	X
Phosphorus (P)		X	X
Potassium (K)		X	X
Rubidium (Rb)		X	X
Selenium (Se)		X	X
Silicon (Si)		X	X
Silver (Ag)		X	X
Sodium (Na)		X	X
Strontium (Sr)		X	X
Tellurium (Te)		X	X
Thallium (Tl)		X	X
Thorium (Th)		X	X
Tin (Sn)		X	X
Titanium (Ti)		X	X
Tungsten (W)		X	X
Uranium (U)		X	X

*	Total and dissolved metals and metalloids (continued):		
	Vanadium (V)		X
	Zinc (Zn)		X

"weekly" means one sample every seven days, but on an operating day.

"2x/year" means one sample every spring freshet and late fall.

"3x/year" means one sample every spring freshet, late summer and late fall.

Note: The Director reserves the right to make future alterations to this Schedule in the interests of effective environmental management.