Licence No.: 2288 R Licence Issued: October 27, 1997 Licence Revised: October 5, 2001

# IN ACCORDANCE WITH THE MANITOBA ENVIRONMENT ACT (C.C.S.M. c. E125) THIS LICENCE IS ISSUED PURSUANT TO SECTIONS 11(1) AND 14(2) TO:

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

for the construction and operation of the Development, being a peat moss mine and processing plant, located in Beaver Point Bog on Sections 19, 20, 29, 30, 32 and 33, Township 28, Range 5 EPM, and Sections 4 and 5, Township 29, Range 5 EPM in accordance with the Proposal dated May 1, 1997, and a Notice of Alteration dated October 2, 2001, both 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 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 Canadian Standard Can/CSA-Z753, extension of the international standard ISO 9000, Guide 25, or otherwise approved by the Director;

"approved" means approved in writing by the Director;

"CCME" means Canadian Council of Ministers of the Environment;

"Director" means an employee of the department appointed as such by the Minister;

"effluent" means treated or untreated wastewater released into the environment;

"**final discharge point**" means an effluent quality control point as designated within this Licence, unless otherwise redesignated in writing by the Director;

"**restoration**" means the re-establishment of the site of the Development as a peatland having 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 Manitoba Regulation 95/88R, or any future amendment thereto, respecting private sewage disposal systems and privies;

"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

"wastewater" means any liquid containing pollutants, as defined in The Environment Act, which is designated for ultimate release from the Development into the environment.

# 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.

- 1. In addition to any of the limits, terms and conditions specified in this Licence, the Licencee shall, upon the request of the Director:
  - a. sample, monitor, analyze and/or investigate specific areas of concern regarding any segment, component or aspect of pollutant storage, containment, treatment, handling, disposal or emission systems, for such pollutants or ambient quality, aquatic toxicity, leachate characteristics and discharge or emission rates, for such duration and at such frequencies as may be specified;
  - b. determine the environmental impact associated with the release of any pollutant(s) from the Development; or
  - c. provide the Director, within such time as may be specified, with such reports, drawings, specifications, analytical data, descriptions of sampling and analytical procedures being used, bioassay data, flow rate measurements and such other information as may from time to time be requested.
- 2. 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.
- 3. The Licencee shall report all the information requested through the provisions of this Licence in a manner and form acceptable to the Director.

# SPECIFICATIONS, LIMITS, TERMS AND CONDITIONS

# **Respecting Pre-Development Studies**

- 4. The Licencee shall:
  - a. before commencing any induced drainage activities at the Development:
    - i. submit a study program to the Director for approval, that is designed to establish and document the impacts of the induced drainage of the bogs on adjacent plant communities:
    - ii. submit a study program to the Director for approval, that is designed to establish and document the impacts of the induced drainage of the bogs on wildlife species within and surrounding the proposed development area;
    - iii. submit a study program to the Director for approval, that is designed to establish and document the impacts of the induced drainage of the bogs on the hydrology of any groundwater flows between Beaver Point Bog area and adjacent gravel shoals in Washow Bay, and any associated impacts on the fish habitat at these gravel shoals; and iv. undertake the approved study programs to the satisfaction of the Director as soon as possible to obtain any necessary baseline information;
  - b. maintain the required data collection activities throughout the course of the Development, or until such time as may otherwise be specified by the Director; and
  - c. submit such data and reports to the Director at such times or frequencies as may be outlined in the approved study programs.
- 5. The Licencee shall, before commencing any ditching and induced drainage of Bog A1, Bog A2 and Bog B identified in Appendix 'A' attached to this Licence, ensure that representative baseline water quality data is obtained from the immediate receiving waters being Mill Creek, Lake Winnipeg and Local Creek at the receiving water sampling points specified in Clause 26 of this Licence, and submit the analytical data to the Director within 30 days of the date on which the samples were taken.

# **Respecting Land Use and Operational Activities**

- 6. The Licencee shall restrict development and operational activities only to lands and facilities, to which the Licencee possesses:
  - a. the mineral rights, 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 mineral rights, 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
  - b. applicable work permits and timber cutting permits as may be required by Manitoba Conservation.
- 7. The Licencee shall restrict the mining of peat to only Bog A1, Bog A2 and Bog B, as identified in Appendix 'A' attached to this Licence, and within the boundaries of the Quarry Leases listed in Schedule 'C' attached to this Licence.
- 8. The Licencee shall avoid draining and preparing any peat bog for mining too far in advance of its needs.
- 9. The Licencee shall design and construct the bog drainage systems to ensure that the original water level can be restored in each bog in the post-mining restoration period.
- 10. The Licencee shall leave a buffer zone of original vegetation and Sphagnum peat moss around each mined peat bog and along Provincial Road No. 234, of a width satisfactory to the regional staff of the Department of Natural Resources.
- 11. The Licencee shall ensure that at least a one metre layer of peat remains on the bottom of each mined peat bog.

#### **Respecting Wildlife Habitat**

12. The Licencee shall ensure that, where any wildlife habitat losses have been identified by the Wildlife Branch of Manitoba Conservation, that Branch is consulted with respect to the mitigation of the losses, and that the agreed upon mitigation measures are carried out to the satisfaction of the Director.

### **Respecting Fisheries Habitat**

- 13. The Licencee shall, during the construction phase of the Development:
  - a. investigate with regional Fisheries Branch staff the opportunities for any enhancement of fisheries habitat and passage along Mill Creek;
  - b. undertake the improvement activities agreed upon with the regional Fisheries Branch staff as soon as practical; and
  - c. upon completion of the work, provide the Director with a report on the type and extent of improvements made to Mill Creek.

### **Respecting Liquid Wastes**

- 14. The Licencee shall:
  - a. comply with Manitoba Regulation 95/88R, or any future amendment thereto, in regards to any sewage generated at the Development; and
  - b. ensure that any sewage and septage transported off-site from the Development is disposed of only into a facility which has a Licence or Permit authorizing the acceptance of sewage and septage.
- 15. The Licencee shall,

- a. direct all bog drainage waters from Bog A1 through the final discharge point identified as OD-A1 in Appendix 'B' attached to this Licence;
- b. direct all bog drainage waters from Bog A2 through the final discharge point identified as OD-A2 in Appendix 'B' attached to this Licence; and
- c. direct all bog drainage waters from Bog B through the final discharge point identified as OD-B in Appendix 'B' attached to this Licence;

unless otherwise approved by the Director.

- 16. The Licencee shall not release any effluent into the environment from final discharge point OD-A1, OD-A2 or OD-B as identified in Appendix 'B' attached to this Licence, if the quality of the effluent, as determined from the analysis of any grab sample taken of the effluent, 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.
- 17. The Licencee shall not release any effluent into the environment from final discharge point OD-A1, OD-A2 or OD-B as identified in Appendix 'B' attached to this Licence, if the quality of the respective receiving waters of Mill Creek, Lake Winnipeg and Local Creek, as determined from the analysis of any grab sample taken of the receiving water at the receiving water monitoring stations identified in Clause 26 of this Licence, is such that:
  - a. the pH is less than the lesser of 6.5 pH units or the background pre-mixed pH of the receiving water; or
  - b. the suspended solids concentration is greater than 25 milligrams per litre.
- 18. The Licencee shall:
  - a. submit a mitigation plan to the Director, for approval, within one month of becoming aware of data, collected from the monitoring stations in the receiving waters of Mill Creek, Local Creek or Lake Winnipeg, which indicates that water quality levels are either:
    - i. impacted to the extent of exceeding water quality guidelines; or
    - ii. impacted to the extent of further degrading any water quality parameter(s) which, according to the pre-drainage baseline data, already naturally exceeded water quality guidelines;

respecting the least restrictive water quality guidelines specified in the Manitoba Surface Water Quality Objectives for a Class 2B category versus the CCME Canadian Water Quality Guidelines for freshwater aquatic life; and

b. implement the approved mitigation plan to the satisfaction of the Director, within a time frame specified by the Director.

# Respecting Solid Wastes

19. The Licencee shall not deposit solid waste, as defined in Manitoba Regulation 150/91 respecting waste disposal grounds, into the environment except into a waste disposal ground operating under the authority of a permit issued pursuant to Manitoba Regulation 150/91, or any future amendment thereto, where the operator of that facility has agreed to accept the solid waste from the Development.

### **Respecting Recyclable Wastes**

20. The Licencee shall not deposit bulky metallic wastes, used tires, used oil or other fluid lubricants, hydraulic fluids, or any other class of recyclable waste substances as may be specified by the Director, into the environment except to:

- a. a facility or infrastructure which accepts such materials for recycling, or
- b. a waste disposal ground operating under the authority of an operating permit issued pursuant to Manitoba Regulation 150/91 or any future amendment thereof, where these recyclable substances are kept segregated from each other and are not buried (unless otherwise specified by the Director) so as to facilitate their future recycling.
- 21. The Licencee shall ensure that any used oil or hydraulic fluids removed from on-site machinery are collected, transported and stored in secure, properly labeled, non-leaking containers until recycled, and that the storage area consists of a base and dikes lined in a fashion satisfactory to the Director to prevent the loss of any spilled oil or hydraulic fluids to the subsoil at that storage area.

#### **Respecting Dangerous Goods or Hazardous Wastes**

- 22. The Licencee shall comply with all the applicable requirements of:
  - a. Manitoba Regulation 97/88R, or any future amendment thereof, respecting the storage and handling of gasoline and associated products; and
  - b. the Manitoba 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.
- 23. The Licencee shall ensure that all petroleum storage tanks are set back at least 100 metres from any waterway or water body.
- 24. The Licencee shall ensure that dangerous goods or hazardous wastes are not released into, or could drain into, the on-site sewage collection system.

### **Respecting Contingency Plans and Emergency Response Plans**

- 25. The Licencee shall:
  - a. within three months of the date of this Licence, submit to the Director, for approval, a proposed Emergency Response Plan, consistent with the CAN/CSA standard Z731.95 Emergency Planning for Industry, for responding to fires and cleaning up spills involving dangerous goods (hazardous chemicals, gasoline, etc.); and
  - b. continually maintain the approved Emergency Response Plan in a current status for the duration of the Development.

# Respecting Operational Monitoring, Record Keeping and Reporting

- 26. The Licencee shall, throughout the draining and mining of Bog A1, Bog A2 or Bog B as identified in Appendix 'A' attached to this Licence, and under flowing effluent conditions:
  - a. collect samples of the effluent at each of the active final discharge points and at frequencies as described in Schedule 'A' attached to this Licence;
  - b. measure or estimate the total volume of effluent released each month from each active final discharge point, using flow rate measurement equipment and/or estimation techniques satisfactory to the Director; and
  - c. collect samples of the receiving waters at frequencies as described in Schedule 'A' attached to this Licence, in:
    - i. Mill Creek where it passes under Provincial Road No. 234;
    - ii. 20 metres off shore in Lake Winnipeg beyond final discharge point OP-A2; and
    - iii. Local Creek where it passes under Provincial Road No. 234; and

d. have the collected samples analyzed for those parameters identified in the respective column of Schedule 'B' attached to this Licence;

unless otherwise specified in writing by the Director.

27. The Licencee shall submit to the Director, in writing and in an electronic format acceptable to the Director, the analyses and flow rate data determined and compiled in accordance with Clause 26 of this Licence by no later than 30 days following the end of the month in which the samples were taken.

#### **Respecting Decommissioning, Reclamation and Restoration**

- 28. The Licencee shall:
  - a. comply with Manitoba Regulation 67/99, or any future amendment thereto, issued under The Mines and Minerals Act, respecting closure plans for mining developments, particularly in regards to addressing the following environmental issues, where applicable, but not necessarily limited to:
    - i. the implementation of any progressive restoration of those peat bog areas of the Development where mining has reached its terminal depth;
    - ii. the decommissioning of any temporary fuel storage site used at or for the Development.
    - iii. the decommissioning of access roads, stream crossings and power lines constructed for the Development;
    - iv. the decommissioning, reclamation and restoration of the overall affected operational area of the Development;
    - v. the restoration or replacement of wildlife or fish habitats disturbed, adversely affected or lost as a result of the Development;
    - vi. the containment, control or treatment of pollutants originating from the mine site of the Development; and
    - vii. the strategy, scope, frequency and duration of post-closure environmental monitoring activities at the mine site;
  - b. provide the Director with:
    - i. written notice three months in advance of any imminent permanent closure of this Development; or
    - ii. an immediate 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

c. in the course of progressive rehabilitation, as well as upon the permanent or temporary closure of this Development, implement the environmentally related aspects of the Closure Plan approved pursuant to Manitoba Regulation 67/99, or any future amendment thereto, to the satisfaction of the Director.

### **REVIEW OR REVOCATION**

- A. This Licence replaces Environment Act Licence No. 2288 which 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.

Sunterra Horticulture (Canada) Inc.(formerly Gromor), Peat Moss Mine, Licence

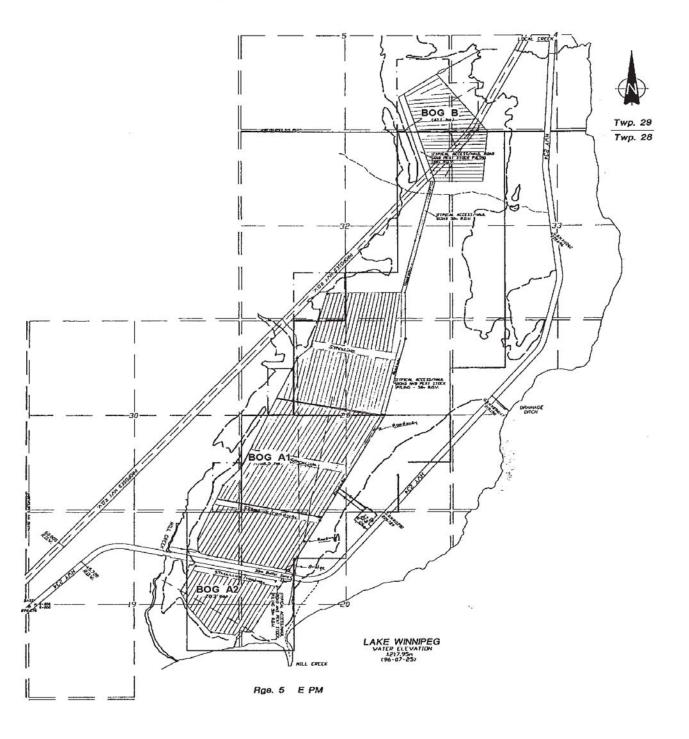
D. If, in the opinion of the Director, new evidence warrants a change in the specifications, limits, terms or conditions of this Licence, the Director may require the filing of a new proposal pursuant to Section 11 of The Environment Act.

"original signed by" Larry Strachan, P. Eng. Director Environment Act

Client File No.: 4254.00

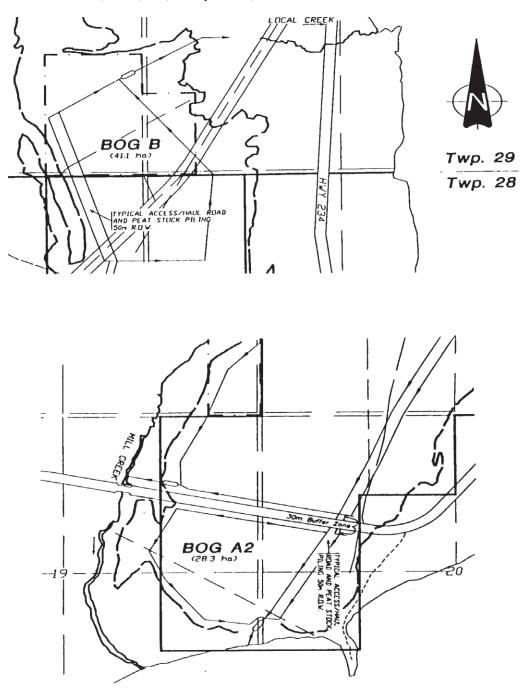
## APPENDIX 'A'

(Area Map) (To view map clearer please print this page.)



# APPENDIX 'B'

(Final Discharge Points) (To view map clearer please print this page.) Sunterra Horticulture (Canada) Inc.(formerly Gromor), Peat Moss Mine, Licence



# SCHEDULE 'A'

Area	Source	Final Discharge Points (see Appendix 'B')	Sampling Frequency*	Determinations or Analyses
Bog A1	Effluent	OD-A1	weekly & 3x/year	See Schedule 'B'
Bog A2	Effluent	OD-A2	weekly & 3x/year	See Schedule 'B'
Bog B	Effluent	OD-B	weekly & 3x/year	See Schedule 'B'

Area Source Sampling Stations Fi	requency	or Analyses

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Bog A1	Receiving Water	Mill Creek @ PR 234	weekly & 3x/year	See Schedule 'B'
Bog A2	Receiving Water	Lake Winnipeg, 20 metres off-shore	weekly & 3x/year	See Schedule 'B'
Bog B	Receiving Water	Local Creek @ PR 234	weekly & 3x/year	See Schedule 'B'

\* weekly means one sample every seven days. 3x/year means one sample every spring, mid-summer and fall.

#### **SCHEDULE 'B'**

	Sample Category				
	Ef	luent	Receiving Water		
Parameter/Characteristic/Data	(weekly)			(3x / Year)	
Sampling Date	X	X	X	X	
Field pH	X	X	X	X	
Lab pH	X	X	X	X	
Field Temperature		X		X	
Electrical Conductivity		X		X	
Total Dissolved Solids		X		X	
Suspended Solids	X	X	X	X	
Biochemical Oxygen Demand		X		X	
Dissolved Oxygen		X		X	
Hydrogen Sulphide		X		X	
Total Alkalinity		X		X	
Bicarbonate Alkalinity		X		X	
Carbonate Alkalinity		X		X	
Hydroxide Alkalinity		X		X	
Calcium		X		X	
Magnesium		X		X	
Hardness		X		X	
Sodium		X		X	
Potassium		X		X	
Extractable Iron		X		X	
Soluble Sulphate		X		X	
Soluble Chloride		X		X	
Ionic Balance		X		X	
Total Phosphorous		X		X	
Total Kjeldahl Nitrogen		X		X	
Dissolved Nitrate + Nitrite as N		X		X	
Total Aluminum		X		X	
Total Arsenic		X		X	

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Total Cadmium	X	Х
Total Chromium	X	X
Total Copper	X	X
Total Iron	X	X
Total Lead	X	X
Total Nickel	X	X
Total Selenium	X	X
Total Silver	X	X
Total Zinc	X	Х

# SCHEDULE 'C'

(List of peat mining Quarry Leases associated with this Development)

BOG	QUARRY LEASES	TOTAL QL AREA (Ha)	PROPERTY OWNERSHIP
A	QL-1321	117.4	Crown Land
A	QL-1324	185.3	Crown Land
В	QL-1322	75.3	Crown Land
	Total Area =	378.0	

Schedule 'C' Revised: October 12, 2001