THE ENVIRONMENT ACT LOI SUR L'ENVIRONNEMENT



LICENCE

Licence No. / Licence no	2781	
Issue Date / Date de délivrance	September 5, 2007	

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 DONNÉÉ À:

CENTRAL MANITOBA RESOURCE MANAGEMENT LTD.; "the Licencee"

for the construction and operation of the Development being three irrigation systems:

- 1) Site 1 in the Rural Municipality of Lorne, with a groundwater well in NE 10-6-10W and a landbase for the irrigation of 590 ha.;
- 2) Site 2 in the Rural Municipality of Victoria, with a 250 cubic decametre reservoir in SW 29-7-11W filled from the Cypress River during the spring runoff period and a landbase for the irrigation of 490 ha.; and
- 3) Site 3 in the Rural Municipality of South Cypress, with groundwater wells in NE 14-7-13W and a landbase for the irrigation of 244 ha.,

in accordance with the Proposal filed under The Environment Act dated May 22, 2007, and subject to the following specifications, limits, terms and conditions:

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. The Licencee shall collect and dispose of all used oil products and other regulated hazardous wastes generated by the machinery used in the construction and operation of the Development in accordance with applicable Manitoba Conservation and legislation requirements.
- 2. The Licencee shall revegetate areas disturbed by the construction of the Development with a mixture of native or introduced grasses or legumes. These areas shall be revegetated as quickly as possible following construction to prevent soil erosion and the establishment of noxious weeds. Native species shall be used to revegetate areas where native species existed prior to construction.

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

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- 3. The Licencee shall:
 - (a) prepare "As Constructed" drawings for the Development and shall label the drawings "As Constructed"; and
 - (b) provide to the Director, within three months of the completion of construction of the Development, two sets of "As Constructed" drawings.

SPECIFICATIONS, LIMITS, TERMS AND CONDITIONS

Project Scope

4. The Licencee shall, unless otherwise approved by the Director in writing, construct the water diversion and management works and irrigate the lands as described on Figures 1, 2 and 3, attached to this Licence. Proposed amendments to this project must be submitted to the Director for approval with an accompanying discussion of the nature and purpose of the amendments.

Construction

- 5. The Licencee shall, not less than two weeks prior to beginning construction of the Development, provide notification to the Environment Officer responsible for the administration of this Licence of the intended starting date of construction and the name of the contractor responsible for the construction.
- 6. The Licencee shall, prior to beginning construction of the Development, obtain all necessary approvals respecting pipeline installation from Manitoba Infrastructure and Transportation and all affected rural municipalities and conservation districts.
- 7. The Licencee shall establish any fuel storage areas required for the construction and operation of the Development:
 - (a) a minimum distance of 100 metres from any waterbody; and
 - (b) in compliance with the requirements of *Manitoba Regulation 188/2001*, or any future amendment thereof, respecting *Storage and Handling of Petroleum Products and Allied Products*.
- 8. The Licencee shall, during construction and operation of the Development:
 - (a) immediately report any reportable spills to Manitoba Conservation's Accident Reporting Line at (204) 944-4888; and
 - (b) provide a follow-up report to the Director on a reportable environmental accident outlining the cause(s) and proposing corrective action to prevent reoccurrence.
- 9. The Licencee shall not remove, destroy or disturb species listed as rare, endangered, or of special concern, or their habitats. These species are listed in *Manitoba Regulation 25/98*, or any future amendment thereof, respecting *Threatened*, *Endangered and Extirpated Species* and in the federal Species at Risk Act.

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- 10. The Licencee shall not harm, remove, destroy or disturb migratory birds, their nests or their eggs pursuant to the requirements of the federal Migratory Birds Convention Act.
- 11. The Licencee shall, during construction of the Development, take all appropriate measures to prevent erosion and the deposition of sediment into any waterbodies or waterways.
- 12. The Licencee shall not undertake instream construction activities in connection with the Development between April 1 and June 30 of any year.
- 13. The Licencee shall not undertake instream construction activities in connection with the Development during periods of high streamflow.
- 14. The Licencee shall, during construction of water intake works in connection with the Development, minimize the extent of clearing of riparian vegetation adjacent to the Cypress River.
- 15. The Licencee shall install buried pipelines on cultivated land or land in its natural state in accordance with the methodology illustrated in Figures 4 to 6, attached to this Licence. These procedures do not apply when a plough or a continuous trencher is used to install a pipeline.

Operation - Matters Respecting Water Management and Water Quality Protection

- 16. The Licencee shall install and maintain instream water diversion works associated with the Development in accordance with the requirements of the Department of Fisheries and Oceans and the Canadian Coast Guard.
- 17. The Licencee shall screen the pump intake associated with the Development on the Cypress River in E 35-7-12W in accordance with the Department of Fisheries and Oceans publication "Freshwater Intake End-of-Pipe Fish Screen Guideline" (March, 1995). Final screen design shall be approved by the Department of Fisheries and Oceans prior to the operation of the Development.
- 18. The Licencee shall alter the screen on the pump intake described in Clause 17 of this Licence if future research indicates that different design criteria are appropriate with respect to water withdrawals prior to July 1 of any year.
- 19. The Licencee shall maintain a minimum instream flow below the diversion point of the Development on the Cypress River in E 35-7-12W at all times while water is being diverted into the Development. The minimum instream flow at the diversion point shall be as determined by Manitoba Water Stewardship and in accordance with the provisions of a Water Rights Licence issued for the Development. Water withdrawals shall not exceed 10 % of instantaneous streamflow at any time.

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- 20. The Licencee shall immediately cease diverting water from the Cypress River or reduce the diversion rate if the minimum instream flow provided for in Clause 19 of this Licence is not equalled or exceeded.
- 21. The Licencee shall limit the pumping rate at the water diversion point of the Development on the Cypress River in E 35-7-12W to the rate specified in a Water Rights Licence issued for the Development by Manitoba Water Stewardship.
- 22. The Licencee shall limit the pumping rate at the groundwater diversion points of Sites 1 and 3 of the Development in NE 10-6-10W and NE 14-7-13W to 50.5 litres per second at each site, or as specified in a Water Rights Licence issued for the Development by Manitoba Water Stewardship.
- 23. The Licencee shall, on a daily basis while irrigation is occurring from the Development, record volumes of water pumped, and durations of pumping. A report on this information shall be provided, by March 1 of the following year, to the Environment Officer responsible for the administration of this Licence and the Environmental Assessment and Licensing Branch. The report shall be provided in the format shown in Table 1, attached to this Licence.
- 24. The Licencee shall install backflow prevention devices and maintain them in operational condition at all times if fertilizer or crop protection products are applied through the irrigation systems of the Development.
- 25. The Licencee shall, if fertilizer or crop protection products are applied through the irrigation systems of the Development, not allow irrigation water containing these materials to be applied to or drain to surface water bodies.

Operation - Matters Respecting Land Management and Soil Quality Protection

- 26. The Licencee shall not, with water diverted by the Development, irrigate any land parcel other than a land parcel described in Clause 4 of this Licence and identified in Figures 1 to 3 attached to this Licence.
- 27. The Licencee shall implement agronomic practices described in the following documents:
 - (a) Section 4.1.2 of the report "Swansfleet Farms Irrigation Project Environment Act Proposal Addendum Swansfleet Sites #1, #2 and #3 Final Report", prepared by KGS Group, May, 2007;
 - (b) Section 4 of the report "Swansfleet Farms Land-Use and Agronomic Assessment (Addenda 2)", prepared by Tone Ag Consulting, December, 2006; and
 - (c) "Draft Best Management Practices Manual 1999" by the Central Manitoba Irrigators Association and Central Manitoba Resource Management Ltd., concerning general agronomic practices, or future versions thereof.

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28. The Licencee shall manage phosphorus as well as nitrogen in all nutrient management plans developed pursuant to Clause 27 of this Licence. Annual soil and petiole analyses for nitrogen and phosphorus shall be conducted on all fields of the Development. Fertilization using nitrogen and phosphorus shall not exceed soil and petiole test recommendations. Phosphorus application shall not occur on lands with a soil test phosphorus concentration in excess of 180 parts per million as measured by the Olsen sodium bicarbonate extraction method.

Monitoring

- 29. A report on groundwater and surface water monitoring at Site 1 of the Development, as described in Section 5.1 of the report listed in Clause 27 (a) of this Licence, shall be provided, by March 1 of the following year, to the Environment Officer responsible for the administration of this Licence and the Environmental Assessment and Licensing Branch.
- 30. A report on soil and petiole analysis results and fertilizer application for sites 2 and 3 of the Development shall be provided, by March 1 of the following year, to the Environment Officer responsible for the administration of this Licence and the Environmental Assessment and Licensing Branch. This report shall record the following information:
 - (a) Irrigation water application (mm/day);
 - (b) Rainfall (mm/day);
 - (c) Nitrogen application (kg/ha/day);
 - (d) Phosphorus application (kg/ha/day);
 - (e) An evaluation of nutrient management practices for the crop year in comparison to the goal of minimizing the leaching of nutrients below the crop rooting zone; and
 - (f) Recommendations for improving nutrient management practices.
- 31. The Licencee shall, upon the request of the Director:
 - (a) sample, monitor, analyze or investigate specific areas of concern regarding groundwater, surface water and soil for such duration and at such frequencies as may be specified;
 - (b) determine the environmental impact associated with the specific areas of concern; and
 - (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, and such other information as may from time to time be requested.
- 32. The Licencee shall, prior to the commencement of operation of the Development, meet with the Environment Officer responsible for the administration of this Licence and the contact person for the Environmental Assessment and Licensing Branch of Manitoba Conservation to review the monitoring and reporting requirements of this Licence.

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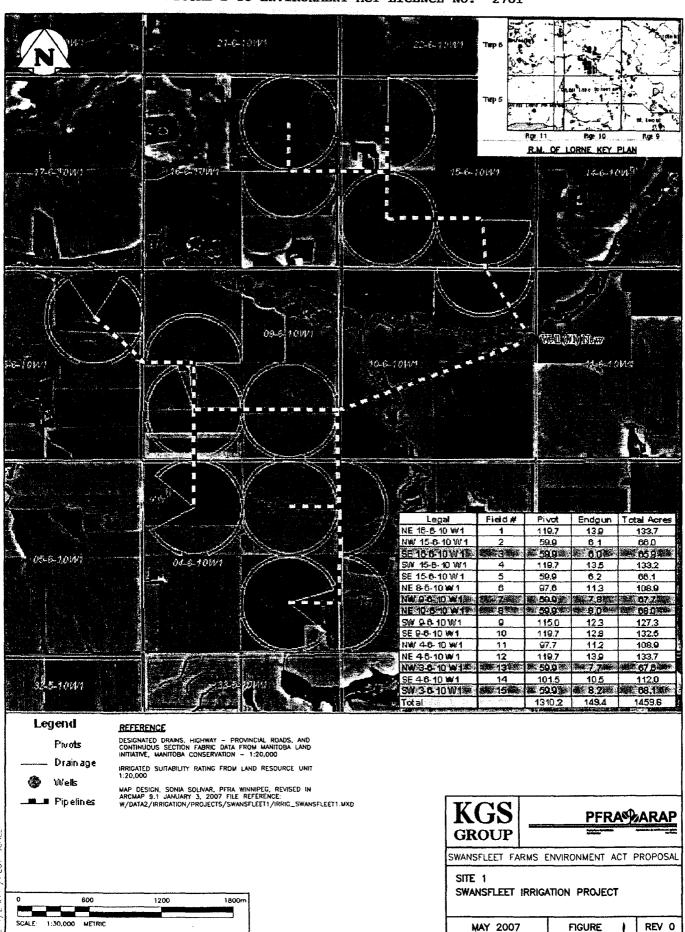
REVIEW AND REVOCATION

- A. Environment Act Licence No. 2125 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 construction of the development has not commenced within three years of the date of this Licence, the 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.

Tracey Braun, M. So

Environment Act

Client File: 5271.00

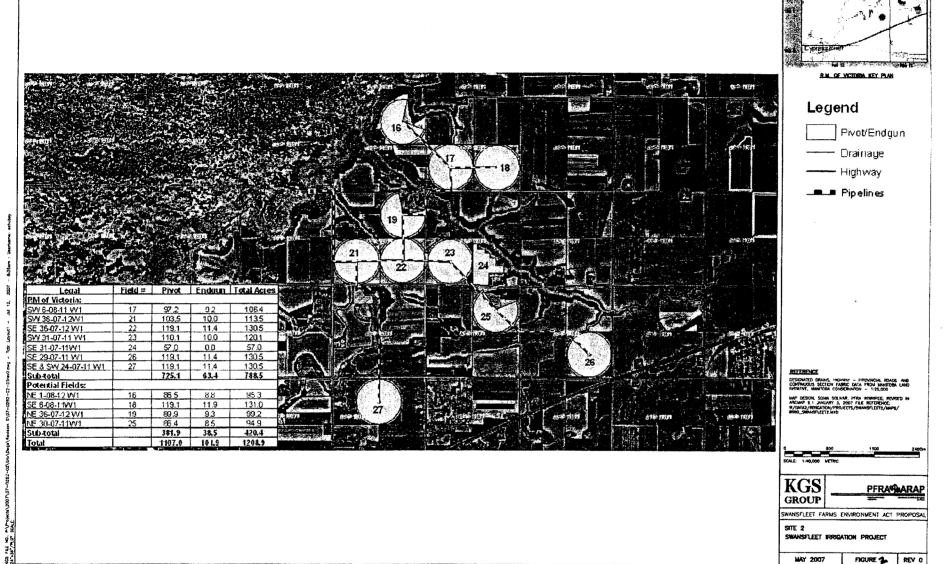


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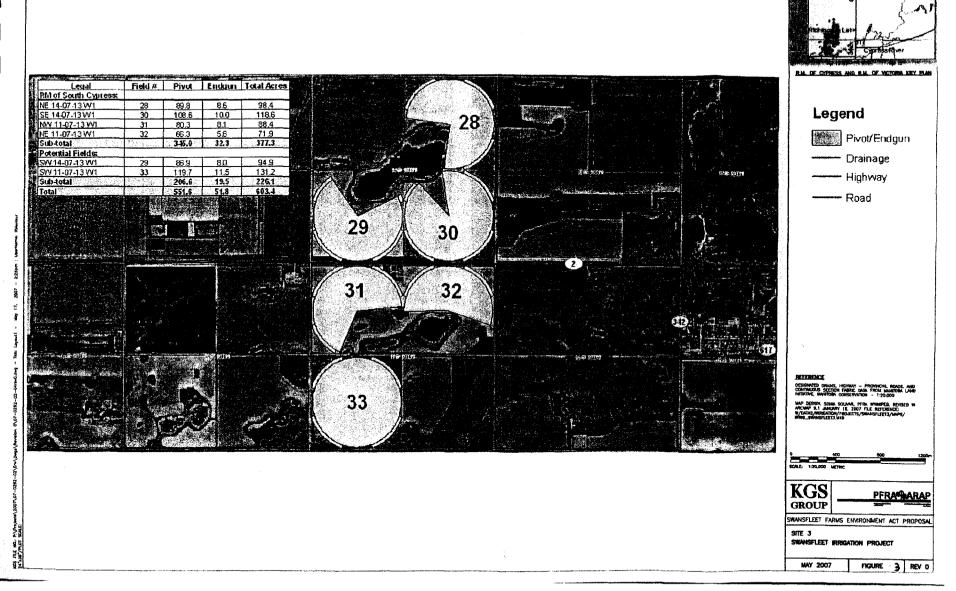
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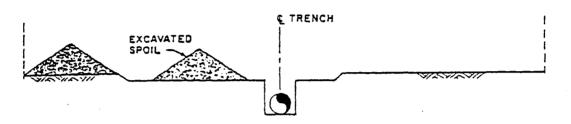




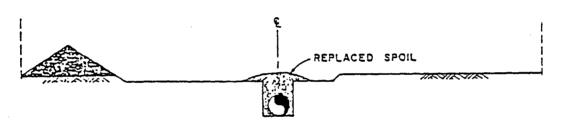




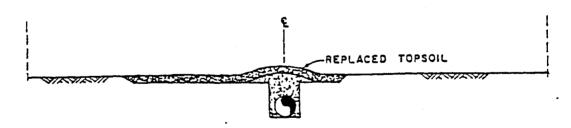
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2. TRENCH EXCAVATED



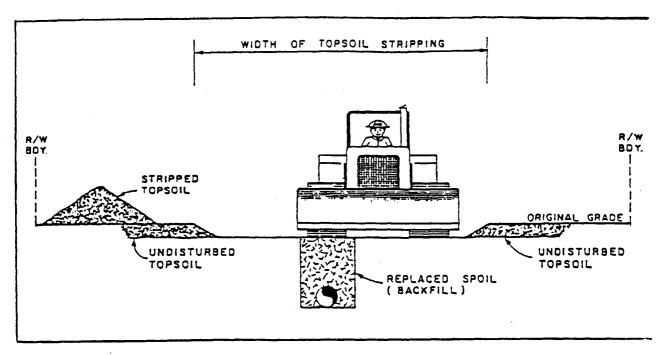
3. TRENCH BACKFILLED



4. TOPSOIL REPLACED

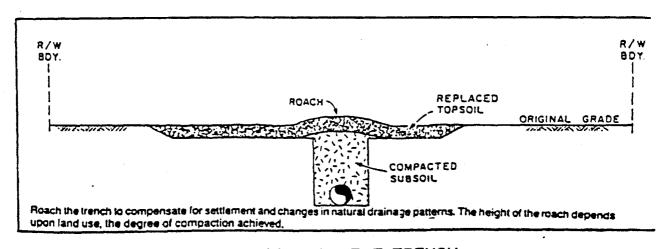
SEQUENCE OF TOPSOIL HANDLING

Figure 4



COMPACTION OF BACKFILL

Figure 5



ROACHING THE TRENCH

Figure 6

TABLE 1 TO ENVIRONMENT ACT LICENCE NO. 2781

Well location: NE 10-6-10W

Swansfleet Farms Irrigation Pro	pject	Page 1 of 4
Annual Water Use Report	Year:	

Site 1

Pump Capacity:			m3/s or cfs		
Conversions:	1 acre-foot (ac 1 cubic foot per 1 m3/s = 35.31 of 1 imperial gallor	acre (ac.) = 0.405 hectares (ha.) 1 ha. = 2.471 ac. acre-foot (acft.) = 1.233 cubic decametres (dam3) 1 dam3 = 0.811 acft. cubic foot per second (cfs) = 0.0283 cubic metres per second (m3/s) m3/s = 35.31 cfs imperial gallon per minute (IGPM) = 0.000076 m3/s US gallon per minute (USGPM) = 0.000063 m3/s			
Date	Pumping Rate	Duration hours	Vol. Pumped dam3	Parcel(s) Irrigated	
·					
L TOTAL					
TOTAL		sum	sum		

TABLE 1

Total

		Annual Wa	ter Use Report	Year:	
Site 2 - Reservo	oir Location: SW	/ 29-7-11W	Capac	ity:	dam3 or acre-feet
Pump Capacities		2. Irrigation	from reservoir:	m3/s	m3/s or cfs
Minimum instrea	im flow:		_ m3/s	MIF Monitoring	Location:
or do 2. Elevation - re	ownstream of pu servoir elevation ped - as measur	mp intake _ i (Geodetic - ed by chang		ition)
1. Filling reserv	voir	From the C	ypress River Inta	ake Location:	
Day	Date	d/s Q (1) Elevation (2) Hours Pumped	Vol. Pumped (3)
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17					

sum

sum

Swansfleet Farms Irrigation Project

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TABLE 1

Total

		Annual Water l	Jse Report	Year:	
Site 2 - Reservo	ir Location: SW	29-7-11W	Capacity	·	dam3 or acre-feet
Pump Capacities					m3/s or cfs
Minimum instrea		Irrigation from reservoir: m3/s or cfs m3/s MIF Monitoring Location:			_ocation:
Notes: 1. d/s Q - Flow ror do 2. Elevation - res 3. Volume Pump	ownstream of pur servoir elevation oed - as measure	mp intake (Geodetic - met	res) reservoir elevatio)
2. Irrigating fro	m reservoir				
Day	Date	Elevation (2)	Hours Pumped	Vol. Pumped (3)	Parcel(s) Irrigated
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16					
17		1			

sum

sum

Swansfleet Farms Irrigation Project

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TABLE 1

Site 3

Swansfleet Farms Irrigation Pr	Page 4 of 4	
Annual Water Use Report	Year:	

Well locations: NE 14-7-13W

Pump Capacity:			m3/s or cfs	
Conversions:	1 cubic foot per 1 m3/s = 35.31 c 1 imperial gallon	ft.) = 1.233 cubic second (cfs) = 0. cfs per minute (IGF	decametres (da	m3) 1 dam3 = 0.811 acft. es per second (m3/s) n3/s
Date	Pumping Rate	Duration hours	Vol. Pumped dam3	Parcel(s) Irrigated
TOTAL		sum	sum	
TOTAL		Sulli	sum	