

APPENDIX C - EXISTING EAL ON SHANNON CREEK  
AND HESPLER DRAIN

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~~XXXXXXXXXX~~  
Conservation

~~XXXXXXXXXXXXXXXXXXXX~~  
Environmental Stewardship Division

123 Main Street, Suite 160  
Winnipeg MB R3C 1A5  
CANADA

Fax: (204) 945-5229

Internet: <http://www.gov.mb.ca/environ>

FAXED  
CLIENT FILE NO.: 4542.00

# COPY

September 15, 2000

Doug Smallwood  
Agassiz Resource Management Ltd.  
PO Box 750  
Winkler MB R6W 4A8

Dear Mr. Smallwood:

Enclosed is Environment Act **Licence No. 2480** dated September 15, 2000 issued in accordance with the Manitoba Environment Act to **Agassiz Resource Management Limited** in connection with the construction and operation of the Development being an irrigation reservoir in SW 11-4-5W in the Rural Municipality of Roland, in accordance with the Proposal filed under The Environment Act dated July 31, 2000.

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.

For further information on the administration and application of the Licence, please feel free to contact Glenn Ritchie at 325-1753.

Pursuant to Section 27 of The Environment Act, this licencing decision may be appealed by any person who is affected by the issuance of this Licence to the Minister of Conservation within 30 days of the date of the Licence.

Yours truly,

~~XXXXXXXXXXXXXXXXXXXX~~  
~~XXXXXXXXXXXXXXXXXXXX~~

Larry Strachan, P. Eng.  
Director  
Environment Act

Enc.

c: L. MacCallum/attn: G. Ritchie, South-Central Region, Conservation  
Centennial Public Library/Manitoba Eco-Network/South Central Regional Library  
R.M. of Roland  
D. Menon, Manitoba Water Services Board

**NOTE: Confirmation of Receipt of this Licence (by the Licencee only) is required by the Director of Approvals. Please acknowledge receipt by signing in the space provided below and faxing back to the Department by September 22, 2000.**

\_\_\_\_\_  
On behalf of Agassiz Resource Management Ltd.      Date



# Environment Act Licence

## Loi sur l'environnement Licence

Manitoba  
Conservation  
Conservation  
Manitoba



Licence No./Licence n° 2480  
Issue Date/Date de délivrance September 15, 2000

**IN ACCORDANCE WITH THE MANITOBA ENVIRONMENT ACT (C.C.S.M. c. E125)  
THIS LICENCE IS ISSUED PURSUANT TO SECTION 11(1) TO:**

**AGASSIZ RESOURCE MANAGEMENT LIMITED; "the Licencee"**

for the construction and operation of the Development being an irrigation reservoir in SW 11-4-5W in the Rural Municipality of Roland, in accordance with the Proposal filed under The Environment Act dated July 31, 2000, 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 ensure that all used oil products and other regulated hazardous wastes generated by the machinery used in the construction and operation of the Development are collected and disposed of 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.
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**

**Construction**

4. The Licencee shall, prior to beginning construction of the Development, provide four copies of detailed construction plans for the approval of the Director.
5. The Licencee shall provide notification to the Environment Officer responsible for the administration of this Licence not less than two weeks prior to beginning construction of the Development of the intended starting date of construction and the name of the contractor responsible for the construction.

6. The Licencee shall ensure that fuel storage areas established for the construction of the Development:
  - a) are located a minimum distance of 100 metres from any waterbody; and
  - b) comply with the requirements of *Manitoba Regulation 97/88R* respecting *Storage and Handling of Gasoline and Associated Products*.
7. The Licencee shall not undertake instream construction activities in connection with the Development between April 1 and June 15 of any year.
8. The Licencee shall not undertake instream construction activities in connection with the Development during periods of high streamflow.
9. The Licencee shall ensure that buried pipelines which are installed on cultivated land or land in its natural state are installed in accordance with the methodology illustrated in Figures 1 to 3, 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**

10. The Licencee shall, during operation of the Development, take all precautions necessary to prevent fuel from entering any waterbody. Diesel pump units, other than tractors, shall be placed on drip trays and all fuel tanks, other than those on tractors, shall be double walled or contained in larger non drainable containers. Fuel spills in excess of 100 litres shall be immediately reported to an Environment Officer.
11. The Licencee shall ensure that pump intakes associated with the Development are screened, if necessary, in accordance with the Department of Fisheries and Oceans publication "Freshwater Intake End-of-Pipe Fish Screen Guideline" (March, 1995). Final screen designs shall be approved by the Department of Fisheries and Oceans prior to the operation of the Development.
12. The Licencee shall ensure that a minimum instream flow is maintained below the diversion point of the Development 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 Conservation and specified in a Water Rights Licence issued for the Development.
13. The Licencee shall immediately cease diverting water from Shannon Creek or reduce the diversion rate if the minimum instream flow provided for in Clause 12 of this Licence is not equalled or exceeded.
14. 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, the Environmental Approvals Branch, and the Water Resources Branch of Manitoba Conservation. The report shall be provided in the format shown in Table 1, attached to this Licence.

15. The Licencee shall ensure that backflow prevention devices are installed and are operational at all times if fertilizer or crop protection products are applied through the irrigation systems of the Development.

**Operation – Matters Respecting Land Management and Soil Quality Protection**

16. The Licencee shall ensure that irrigation does not occur, with water diverted by the Development, on a land parcel other than a land parcel identified in the Environment Act Proposal, dated July 31, 2000.

**Monitoring**

17. The Licencee shall provide a listing of annual groundwater, surface water and soil monitoring activities to be carried out for the Development. The plan shall include a monitoring schedule, and shall be provided to the Director for approval by May 1, 2001.
18. 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 Approvals Branch of Manitoba Conservation to review the monitoring and reporting requirements of this Licence.
19. The Licencee shall, on an annual basis, undertake the monitoring plan approved by Clause 17 of this Licence. A report summarizing the monitoring results for the previous year shall be submitted to the Director by March 1 of each year.

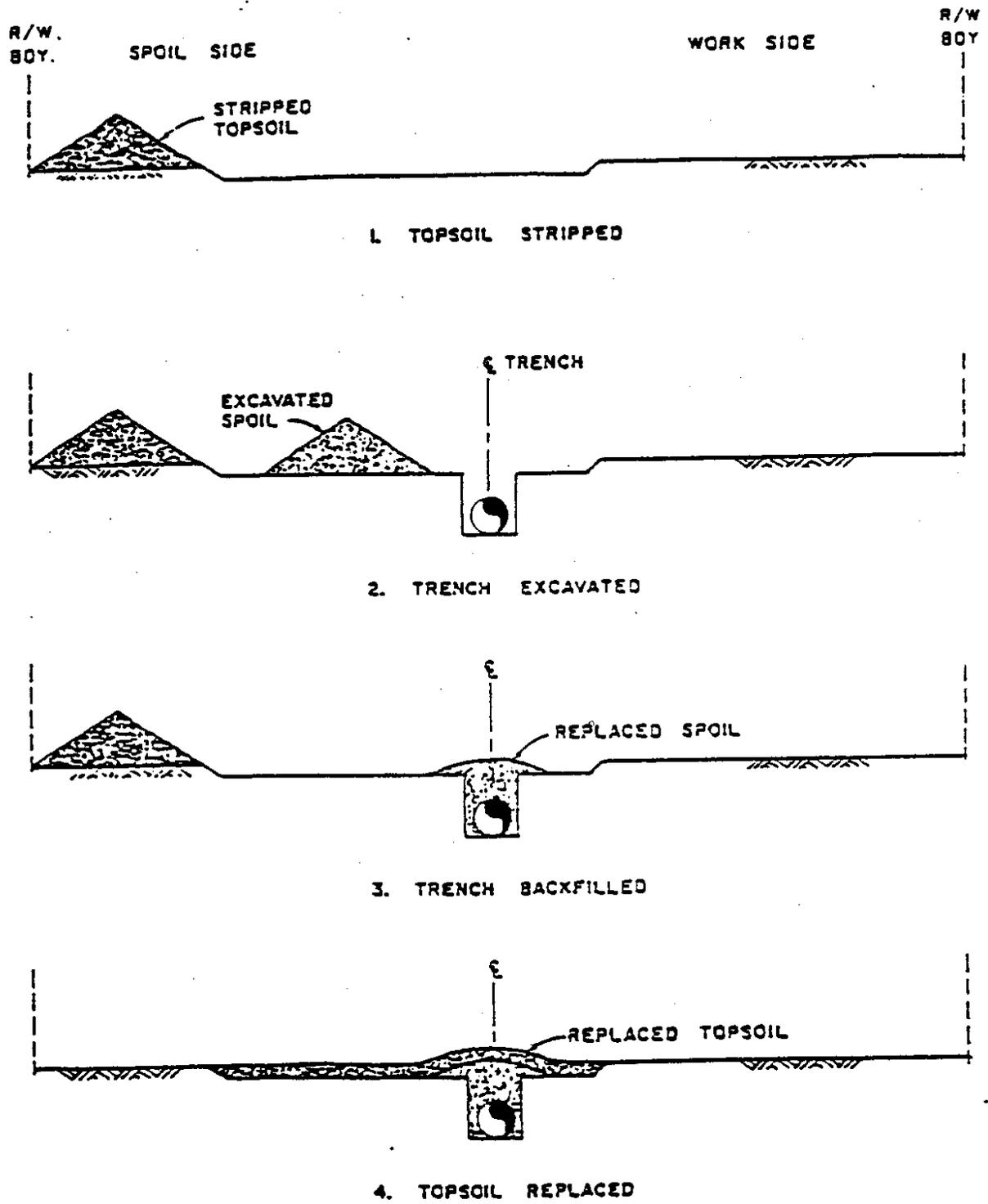
**REVIEW AND REVOCATION**

- A. 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.
- B. If construction of the development has not commenced within three years of the date of this Licence, the Licence is revoked.
- C. 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.



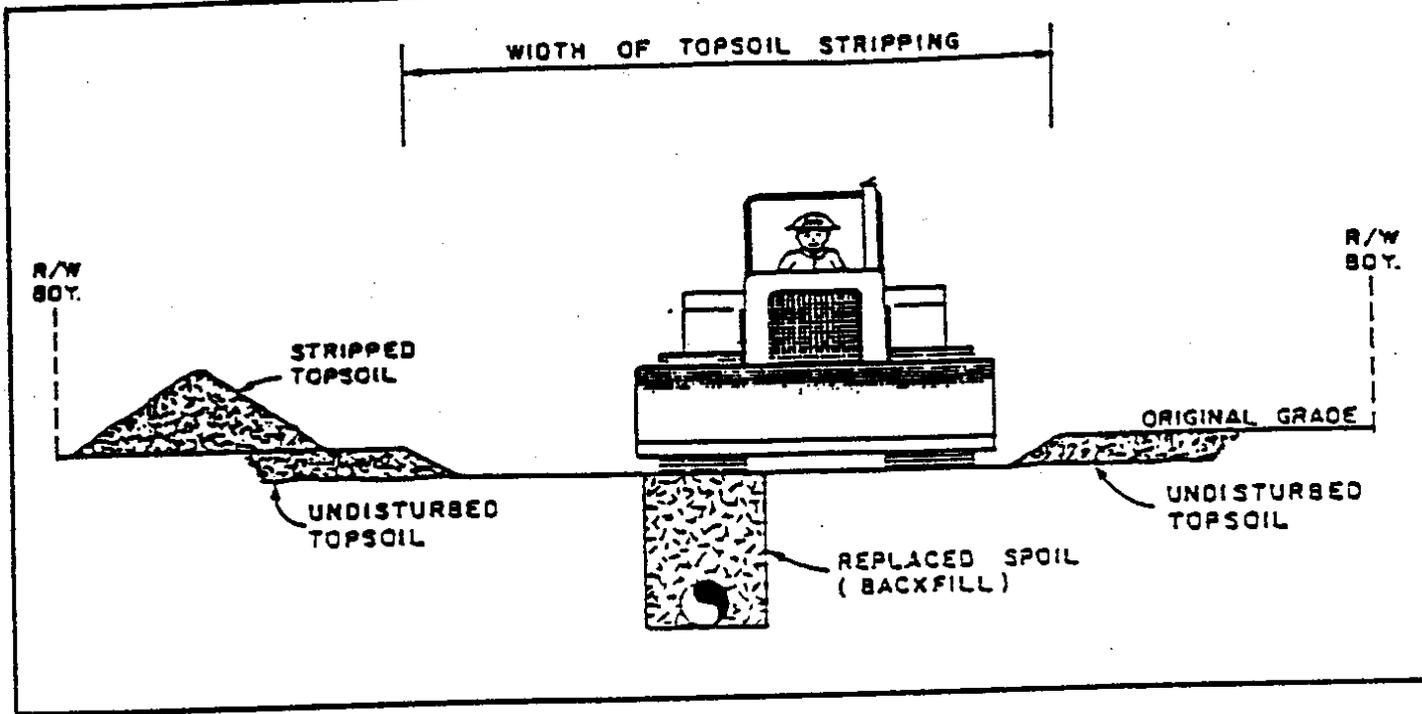
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Larry Strachan, P. Eng.  
Director  
Environment Act



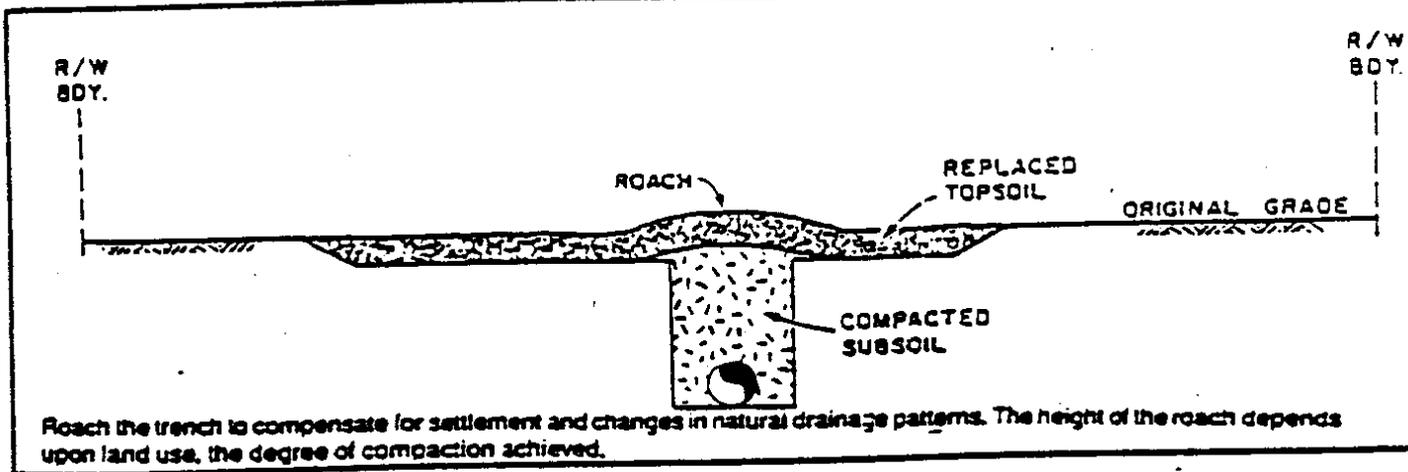
**SEQUENCE OF TOPSOIL HANDLING**

**Figure 1**



COMPACTION OF BACKFILL

Figure 2



ROACHING THE TRENCH

Figure 3

**Table 1**  
**To Environment Act Licence No. 2480**

Agassiz Resource Management Ltd. - Shannon Creek Reservoir SW11-4-5W					
				Year:	_____
Dugout capacity:	_____	dam <sup>3</sup> or acre-feet		Operator:	_____
Pump Capacity: Filling:	_____	m <sup>3</sup> /s or cfs		Use:	_____ m <sup>3</sup> /s or cfs
Minimum instream flow:	_____	m <sup>3</sup> /s or cfs		MIF Monitoring Location:	_____
Notes:					
1. d/s Q - Flow measured at downstream point of interest (specify _____ ) or downstream of pump intake _____					
2. Elevation - dugout elevation (Geodetic - metres)					
3. Volume Pumped - as measured by change in reservoir elevation _____ or pumping rate x time pumped _____					
<b>1. Filling</b>					
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					
18					
19					
20					
Total				0.00	0.00



## **SUMMARY OF COMMENTS/RECOMMENDATIONS**

**PROPONENT:** Agassiz Resource Management  
Limited

**PROPOSAL NAME:** Shannon Creek Irrigation Reservoir

**CLASS OF DEVELOPMENT:** Two

**TYPE OF DEVELOPMENT:** Water Development and Control

**CLIENT FILE NO.:** 4542.00

### **OVERVIEW:**

The Proposal was received on July 31, 2000. It was dated July 31, 2000. The advertisement of the proposal was as follows:

“A Proposal has been filed by Agassiz Resource Management Ltd. (a holding company formed by the Agassiz Irrigation Association) to develop an irrigation reservoir adjacent to Shannon Creek in SW 11-4-5W in the Rural Municipality of Roland. The reservoir would be a replacement water source for the adjacent irrigation operation which has previously used the Winkler Aquifer as a water source. The capacity of the reservoir would be 160 acre-feet, and it would be filled from spring runoff in Shannon Creek. Construction is proposed for the fall of 2000.”

The Proposal was advertised in the Winkler Times on Monday, August 14, 2000. It was placed in the Main, Centennial, Eco-Network and South Central Regional Library (Morden) public registries. It was distributed to TAC members on August 4, 2000. The closing date for comments from members of the public and TAC members was August 28, 2000.

### **COMMENTS FROM THE PUBLIC:**

No public comments were received.

### **COMMENTS FROM THE TECHNICAL ADVISORY COMMITTEE:**

**Manitoba Conservation - Water Quality Management** Although the project description indicates that there will be a minimum 10 metre riparian zone setback from Shannon Creek to the toe of the reservoir, the Appendix includes an illustration of the reservoir location as being in the creek. Provided that the minimum 10 m setback from

the high water mark of Shannon Creek is adhered to, then the proposal appears to be a preferable alternative to using groundwater for irrigation purposes. Providing that the reservoir is filled during spring runoff as indicated in the proposal, then the water quality for irrigation purposes should be better than that of groundwater. However, it should be noted that evapotranspiration over the summer will increase the concentration of total dissolved solids and salts relative to concentrations noted for data collected in April.

.../2

**Disposition:**

Discussions with the Proponent indicate that the reservoir would be an off-channel water storage facility. The approval of plans prior to construction can be required as a licence condition. The comment regarding summer water quality will be brought to the attention of the proponent for information and monitoring.

**Manitoba Conservation - Terrestrial Quality Management** Is this area going to be surveyed to see if there are any undisturbed areas and, if so, will these areas be assessed for rare and endangered floral and fauna species? As there are little riparian areas left and what is left is important, the construction work should attempt to keep the disturbance to a minimum. Finally, if possible, use native grass seed when seeding the flat slopes of the reservoir.

**Disposition:**

The project site was inspected on August 30, 2000. The area is a heavily grazed pasture with a willow grove on the eastern side. There is no undergrowth in the willow grove and only grass in the riparian zone of the stream, which is channelized and dry in this reach. Accordingly, no further assessment of flora and fauna is needed. The proposed setback of 10m will provide adequate protection to the creek to prevent sedimentation during construction. The comment about seeding with native grass seed can be addressed as a licence condition.

**Manitoba Conservation – Policy Coordination** This proposal does not cumulatively review the proposed water withdrawal in light of other licenced and pending allocations of water from Shannon Creek and the downstream minimum flow requirements for fisheries and other riparian needs. The proposal concludes that although there is good to excellent flows, the fish habitat is limited. This conclusion does not take into consideration the value of the habitat if fish were able to access the area. Input is needed from the Department of Fisheries and Oceans on the screening of the water intake.

**Disposition:**

The Water Resources Branch is in the process of completing a cumulative assessment of water withdrawals from Shannon Creek in connection with the project. It is anticipated that the assessment will be completed by mid-September, 2000, and that the requested allocation would be available. Instream flow requirements will be specified in a Water Rights Licence for the project. This matter can be addressed in an Environment Act Licence through a standard licence condition. With respect to fish habitat, a site visit indicates that the waterway is frequently dry, and the reach of interest is heavily pastured.

It is unlikely that access would be provided further downstream to allow fish movement into a low value reach of a highly intermittent stream. DFO comments on fish screening follow below.

**Historic Resources Branch** No concerns.

**Mines Branch** No concerns.

**Highway Planning and Design** No concerns.

**Canadian Environmental Assessment Agency** An environmental assessment under The Canadian Environmental Assessment Act will be conducted by PFRA. Environment Canada, and Health Canada have offered to provide specialist advice in accordance with Section 12(3) of the Act. Fisheries and Oceans has requested more information prior to making their determination.

**Fisheries and Oceans** Additional information is required – there are possible intake screening needs, detailed construction drawings were not provided, instream works may or may not occur, clarification is required respecting the cumulative water allocation, instream flow needs have not been determined, erosion and sediment control planning is not complete, and possible flow regime changes have not been described.

Disposition:

Some of the requested information will be addressed in final construction drawings. The remainder can be addressed as licence conditions. With respect to intake screening, it is believed that the project location is well upstream of the fisheries area of interest. DFO has jurisdiction over intake screens, so will approve any necessary screen design directly.

**PUBLIC HEARING:**

As no public comments were received, a public hearing is not recommended.

**RECOMMENDATION:**

All comments received on the Proposal can be addressed as licence conditions. Therefore, it is recommended that the Development be licensed under The Environment Act subject to the limits, terms and conditions as described on the attached Draft Environment Act Licence. It is further recommended that enforcement of the Licence be assigned to the South-Central Region.

PREPARED BY:

Bruce Webb  
Environmental Approvals - Environmental Land Use Approvals  
September 11, 2000

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# Environment Act Licence

Manitoba  
Environment



Licence No. 2093

Issue Date August 22, 1995

In accordance with the Manitoba Environment Act (C.C.S.M. c. E125)

THIS LICENCE IS ISSUED TO:

**AGASSIZ IRRIGATION ASSOCIATION INCORPORATED:**  
**"the Licencee"**

for the construction and operation of the Development being fifteen water storage dugouts and related intake and outlet works for irrigation water supply in various locations on the Hespeler, North Rosenheim, South Rosenheim, and Buffalo drains and Buffalo Creek in the Rural Municipalities of Rhineland and Stanley, subject to the following specifications, limits, terms and conditions:

**SPECIFICATIONS, LIMITS, TERMS AND CONDITIONS**

1. The Licencee shall construct and operate the Development in accordance with The Environment Act Proposal dated May 17, 1995 and the supplementary information submitted to Manitoba Environment on July 27, 1995, except as otherwise required by this Licence.
2. The Licencee shall ensure that no construction occurs at the S15 site in SW 32-2-3W unless specific written authorization has been received from the Director. The Licencee shall provide, at the time of application for approval to construct a dugout and related works at this site, letters from affected landowners indicating their agreement with proposed design details.
3. The Licencee shall submit, for the approval of the Director, detailed construction plans prepared by a professional engineer for each site prior to beginning construction at each site.
4. The Licencee shall consult with regional staff of Manitoba Natural Resources in the design of the engineered works of the Development. Design features included as a result of these consultations shall be noted on the detailed construction plans.
5. The Licencee shall incorporate recommendations of Manitoba Highways and Transportation in the design of works at the E8A site in SW 10-1-4W, the S14 site in SE 2-2-3W and the S11b site in SE 26-1-3W.
6. The Licencee shall not undertake construction activities at any site until that site has been examined by staff of the Historic Resources Branch. The Licencee shall follow the directions of the Historic Resources Branch respecting archaeological resources found at any site.

7. The Licencee shall obtain authorization from the Manitoba Water Resources Branch for works undertaken on Provincial Waterways.
8. The Licencee shall not undertake construction activities which may result in siltation or sediment deposition on or immediately adjacent to waterways between April 1 and June 15 of any year.
9. The Licencee shall ensure that measures are taken during the construction of the Development to minimize the deposition of sediment in waterways.
10. The Licencee shall plant dykes, stream banks and other areas disturbed by the construction of the Development with varieties of native or domestic grass and forb mixes. Species chosen shall be capable of rapid revegetation.
11. The Licencee shall submit "as built" drawings of each component of the Development to the Director following construction.
12. The Licencee shall ensure that the capacity of pumps used to divert water into the Development does not exceed 0.75 m<sup>3</sup>/s at each site with a storage capacity less than 125 cubic decametres. Pumping capacity shall not exceed 1.5 m<sup>3</sup>/s at sites with storage capacities of 125 to 313 cubic decametres, and pumping capacities shall not exceed 2.25 m<sup>3</sup>/s at sites with storage capacities greater than 313 cubic decametres.
13. The Licencee shall ensure that minimum instream flows are maintained in each waterway below the diversion points of the Development at all times while water is being diverted into the Development. These minimum instream flows (including allowances for domestic use as noted) shall be:
  - Hespeler Drain: 0.36 m<sup>3</sup>/s below the S15 site in SW 32-2-3W
  - Rosenheim Drain: 0.18 m<sup>3</sup>/s (including 0.05 m<sup>3</sup>/s domestic) below the S16 site in NE 5-2-3W
  - Buffalo Drain: 0.09 m<sup>3</sup>/s (including 0.05 m<sup>3</sup>/s domestic) below the S14 site in SE 2-2-3W
  - Buffalo Creek: 0.40 m<sup>3</sup>/s below the S11F site in SE 29-1-2W

Prior written approval from the Director shall be required to reduce these flows.

14. The Licencee shall ensure that buried pipelines which are installed on cultivated land or land in its natural state are installed in accordance with the methodology illustrated in Figures 1 to 3, attached to this Licence.
15. The Licencee shall monitor instream flows, seepage from reservoirs, and land impacts as proposed. All data shall be forwarded to Manitoba Environment, Manitoba Natural Resources, the Prairie Farm Rehabilitation Administration and the Department of Fisheries and Oceans. Data required on an annual basis shall be submitted prior to March 1 of the following year.
16. The Licencee, shall, at the request of the Director, prepare and implement a remediation plan to address seepage from the Development if monitoring results indicate that seepage losses substantially exceed anticipated amounts.

17. The Licencee shall on a daily basis monitor streamflows, diversion rates and pumping durations when dugout filling is occurring. Dugout water levels and pumping rates and durations shall be monitored when water is being used from the dugouts. An annual report on this operating data for each dugout shall be provided to Manitoba Environment, Manitoba Natural Resources, the Prairie Farm Rehabilitation Administration and the Department of Fisheries and Oceans. This report shall be submitted prior to March 1 of the following year.
18. The Licencee shall ensure that all used oil products and other regulated hazardous wastes generated by the machinery used in the construction and operation of the Development are collected and disposed of in accordance with applicable Manitoba Environment and legislative requirements.
19. The Licencee shall ensure that fuel storage areas established for the construction and operation of the Development shall comply with the requirements of *Manitoba Regulation 97/88R* respecting *Storage and Handling of Gasoline and Associated Products*.

#### REVOCATION

If, in the opinion of the Director, the Licencee has exceeded or is exceeding the limits, or has not complied or is not complying with the specifications, terms or conditions set out herein, the Director may revoke this Licence either temporarily or permanently.



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Larry Strachan, P. Eng.  
Director  
Environment Act