



Conservation and Water Stewardship

Environmental Stewardship Division
Environmental Approvals Branch
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April 8, 2014

Ms. Tina Collier
Chief Administrative Officer
Rural Municipality of Miniota
Box 70
Miniota MB R0M 1M0
tcollier@rmofminiota.com

Dear Ms. Collier:

**Re: Miniota Wastewater Treatment Lagoon – Effluent Irrigation Trial
Environment Act Licence No. 2598**

This is in response to your letter of March 28, 2014 to Bruce Webb of this office concerning an effluent irrigation trial involving treated wastewater from the Miniota wastewater treatment lagoon. The trial is intended to demonstrate the feasibility of effluent irrigation on a variety of crops as an alternative to surface discharge.

As the environmental effects of the proposed trial with mitigation measures in place are insignificant, approval is hereby given pursuant to Section 14 (2) of *The Environment Act* to implement the trial for the period May – September, 2014, subject to the following conditions:

1. All provisions of Environment Act Licence No. 2598 remain in effect, with the exception of the permissible discharge date (May 15 – September 30, 2014 for effluent irrigation) and the discharge method. If a discharge via the surface drainage network is required during this period, all provisions of the Licence apply to the discharge.
2. Effluent irrigation shall not be undertaken if the irrigation causes or increases surface ponding on the fields where the effluent is applied. Effluent irrigation may not occur for more than 10 hours continuously in a 24 hour period. Effluent runoff from the fields shall not be permitted.
3. A 100 metre buffer zone is required between effluent application areas and property boundaries, wells and waterways, and public roadways, including provincial and municipal roads. Irrigation including wind drift may not occur in the buffer zone.
4. A 300 metre buffer zone is required between effluent application areas and residences.

5. Effluent irrigation may not take place on crops which may be eaten raw or unprocessed by humans. Harvesting or grazing of the irrigated crop may not take place within seven days of effluent application. Grazing by dairy cattle may not take place within 30 days of effluent application.
6. All proposed monitoring shall be completed. A report summarizing the monitoring program shall be provided by January 30, 2015 to this office.

I understand that based on the outcome of the trial, a longer term trial or a permanent alteration to the facility's Environment Act Licence may be proposed.

Should you have any questions concerning this approval or the preparation of a future alteration request, please contact Bruce Webb at 204-945-7021 or Bruce.Webb@gov.mb.ca.

Yours truly,

“Original signed by”

Tracey Braun, M.Sc.
Director
Environmental Approvals Branch

- c: Ryan Canart, Upper Assiniboine River Conservation District
Don Labossiere, Director, Environmental Compliance and Enforcement
Tim Prawdzik, Provincial Manager, Environmental Compliance and Enforcement
Tyler Kneeshaw, Environmental Compliance and Enforcement, Brandon



Rural Municipality of Miniota

Tina Collier – Chief Administrative Officer

Olive McKean – Reeve

March 28, 2014

Environmental Approvals Branch
Conservation and Water Stewardship
Box 80
160 – 123 Main Street
Winnipeg MB
R3C 1A5

via email

Attention: Bruce Webb, P. Eng
Water Development and Control Assessment Officer

RE: Miniota Lagoon License No. 2598 – Application for temporary change of use

Further to our teleconference held on January 16, 2014, please find the municipality's formal request to conduct a pilot project with the Upper Assiniboine River Conservation District (UARCD) for effluent irrigation from Miniota Lagoon.

The intent of this pilot project is to find and demonstrate suitable, potentially positive alternative uses for treated municipal effluent. Currently municipal effluent is released via gravity drain to a small ravine at ground level and subsequently flows to the Assiniboine River once permitted to do so based on water quality analysis, when minimum negative impacts to surface waters are anticipated.

UARCD are requesting permission to demonstrate the alternative use of irrigating this waste water onto suitable neighboring agricultural lands, between May and September of 2014. Minimal light applications will be practices to avoiding ponding or runoff from irrigation sites. The irrigation unit can be calibrated to apply relatively small amounts of irrigation water to sites.

UARCD will be recording several parameters of this alternate practice, including;

- soil structure and nutrient profile before and after application
- volume of water applied
- soil moisture profiles on irrigated and non irrigated sites
- yields and leaf tissue analysis on irrigated and non irrigated sites
- total cost of alternative practice

Attached to this document are

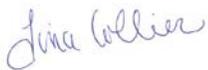
- The analysis of water quality from the secondary cell of the Miniota waste water facility recorded in Oct 2012.
- The irrigation equipment specifications, output and power requirements
- A map depicting the three potential practice sites

The lands which this pilot practice will occur on are still being determined, based on landowner willingness/ proximity to water source. All sites being considered are suitable soil types, sandy loam and have three different crop types, native grass lands, perennial forage and annual crop lands. Landowner compensation is not being discussed at this time, it is generally felt that irrigation will have a positive impact on yields and therefore compensation is not required.

We are seeking permission to apply effluent irrigation to all three sites described as
SE-36-13-27W – tame forage site
NW-30-13-26W – annual crop site
SW-25-13-27W – native grassland site

If you require further information, please do not hesitate to contact our office.

Yours Truly,



Tina Collier, CMMA CGA
Chief Administrative Officer

cc. Ryan Canart, Manager UARCD
Tyler Kneeshaw, Environmental Officer