



TECHNICAL REVIEW COMMITTEE

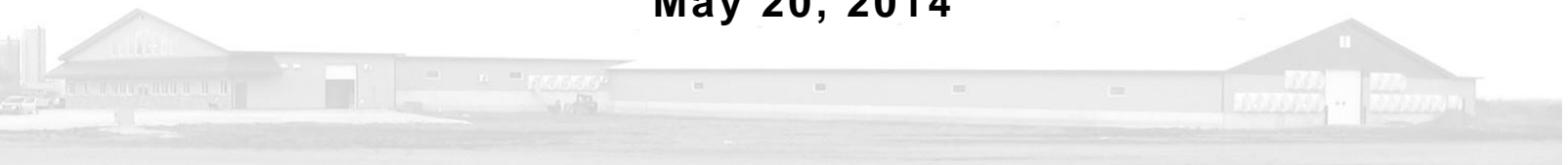
**A TECHNICAL REVIEW REPORT
PREPARED FOR**

**THE RURAL MUNICIPALITY
OF
FRANKLIN**

NEVIN BENDER

NE 14-02-04 EPM

May 20, 2014



INTRODUCTION

The Technical Review Committee (TRC) consists of representatives from the following provincial departments:

- Agriculture, Food and Rural Development (MAFRD);
- Conservation & Water Stewardship (CWS);
- Infrastructure & Transportation (MIT);
- Municipal Government (MMG); and
- Any other department that may have an interest, which may be consulted during the process.

The Technical Review Coordinator, Manitoba Municipal Government, chairs the committee.

The Technical Review Committee Report includes the following:

- An assessment of completeness and nature of the information contained in the Site Assessment provided by the project proponent that enables the TRC to conduct its review.
- A summary of public comments along with proponent and departmental responses, if any.
- Recommendations to the Municipal Council and proponent based upon a review of the information provided by the proponent.

Should the Municipal Council provide conditional approval of the proposal, the project proponent will be required to obtain various permits and licenses from the Province to address in greater detail environmental aspects of the proposal.

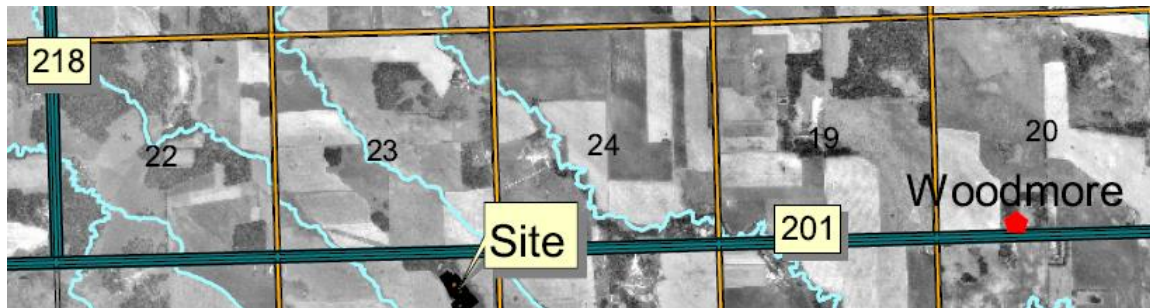
B. DESCRIPTION OF PROPOSED LIVESTOCK OPERATION

To view a detailed description go to

<http://www.gov.mb.ca/ia/livestock/trc-12-009.html>

Applicant: Nevin Bender

Site Location: Approximately 2 miles west of Woodmore, in the RM of Franklin (SE 14-02-04 EPM) refer to map below.



Proposal: To expand a feedlot operation (backgrounders) from 299 Animal Units to 600 Animal Units. This will involve the following:

- No additional construction
- Field storage for manure
- Consuming 10,800 imperial gallons of water per day
- Spreading manure over 1,188 suitable acres
- Composting dead animals on site
- Using the Provincial Road 201 as a truck haul route

C.SITE ASSESSMENT AUDIT

The Audit of: Nevin Bender

Site Assessment Sections	Meets Requirements for TRC Review (type "X")	Comment	Reviewing Department
2.0 Description of Operation	X	The applicant has provided a detailed description of the current operation.	MMG
3.0 Nature of Project	X	The applicant has clearly defined the nature of the project.	MMG
4.0 Proposed Type and Size of Operation	X	The proposed operation is for 1200 beef cows that will be fed in confinement and on pasture.	MAFRD
5.0 Animal Confinement Facilities	X	<p><u>Climate Change & Environmental Protection - Environmental Approvals</u> The proponent acknowledges that the confined livestock area was constructed without a permit and is now trying to obtain the required permit. Manitoba Conservation and Water Stewardship does not issue a construction permit for a facility that has already been built. To use the confined livestock area the proponent would be required to submit an engineering assessment report. The engineering assessment report must include a professional engineer's opinion regarding suitability of the confined livestock area for the intended purpose.</p> <p><u>Climate Change & Environmental Protection - Environmental Compliance and Enforcement</u> An engineering assessment has been submitted, as well as a permit application to address issues identified by the assessment.</p>	CWS
6.0 Environmental Farm Planning	X	The applicant has indicated that there is no Environmental Farm Plan for this Operation.	MAFRD
7.0 Water	X	<p><u>Climate Change & Environmental Protection - Environmental Approvals</u> A distance of 328 ft from non-earthen manure storage facility to surface water and surface watercourse is reported on page 21 of the site assessment. In the "clarification questions and answers" included at the end of the site assessment it is indicated that there is no manure storage facility at the site. Further clarification of this apparent discrepancy is recommended to avoid confusion.</p>	CWS

The Audit of: Nevin Bender

Site Assessment Sections	Meets Requirements for TRC Review (type "X")	Comment	Reviewing Department
		<p><u>Climate Change & Environmental Protection - Environmental Programs and Strategies</u> A source water submission has not been received, as required for livestock operations with 300 animal units or more.</p> <p><u>Water Stewardship - Water Science and Management</u> All unused and abandoned wells on the site and spread fields should be properly sealed and a sealed well report filed with the Groundwater Management Section of Conservation and Water Stewardship. Information on well sealing is available from Conservation and Water Stewardship (204-945-6959) or: www.gov.mb.ca/waterstewardship/water_info/misc/abandoned_wells.pdf. It is recommended that all but the most basic wells should be sealed by a well drilling professional.</p> <p>During manure field storage and application all groundwater features, including water wells, should be given as a minimum, the amount of buffer as outlined in the regulations.</p> <p>Reconnaissance level maps indicate that SE 29-1-4E and SW 16-2-5E contain a Class 2 drain. The Manure Application Field Characteristics Table indicates no features are present. The proponent must not apply fertilizer directly to Class 1 or 2 drains (see Table Appendix B).</p> <p>Proper nutrient management applications that avoid excess loss of nutrients to surface waters are needed on lands receiving manure in southern Manitoba because long-term trend analysis of total phosphorus and total nitrogen has shown significant increases in these nutrients in the Assiniboine and Red rivers (Jones and Armstrong 2002)</p> <p><u>Water Stewardship - Water Use Licensing</u> No concerns.</p>	
8.0 Manure Related	X	<p><u>Climate Change & Environmental Protection - Environmental Compliance and Enforcement</u> Environmental Compliance and Enforcement (Eastern Region) has reviewed the above noted Proposal (Site Assessment). Please find the following notes regarding the proposal:</p> <p>Conservation and Water Stewardship has received one complaint from the public regarding concerns related to manure management practices and odour at the site.</p> <p>An inspection carried out by Conservation and Water Stewardship of the subject property revealed operation of a confined livestock area capable of housing more than 300 animal units that had been constructed without a permit. A manure composting windrow was observed on site. The windrow appeared to be in compliance with the Livestock Manure and Mortalities Management Regulation with regard to manure composting and field storage.</p>	CWS

The Audit of: Nevin Bender

Site Assessment Sections	Meets Requirements for TRC Review (type "X")	Comment	Reviewing Department
		<p><u>Climate Change & Environmental Protection - Environmental Programs and Strategies</u> Manitoba Conservation and Water Stewardship regulates the construction of manure storage facilities (MSF) by requiring the proponent to submit an "Application for Permit to Construct, Modify or Expand a Manure Storage Facility". The definition of MSF does not include gutter or pit (including under barn storage) used to contain liquid or semi-solid manure for less than 30 days for the purpose of moving the manure to a storage facility.</p> <p>The operation has submitted a manure management plan for the 2014 crop, as required by Environmental Protection Order 2013-08.</p>	
8.1 Land Available/Required for Manure Application	X	<p><u>Climate Change & Environmental Protection - Environmental Programs and Strategies</u> Manitoba Conservation and Water Stewardship has obtained information on average phosphorus output from livestock and expected crop removal rates of phosphorus as well as Census data in order to estimate the phosphorus budget in each Rural Municipality within agro-Manitoba. "Certain Areas", are defined by the Livestock Manure and Mortalities Management Regulation as areas where the amount of phosphorus in the manure produced annually by livestock in an area of not less than 93.24 km² is greater than two times the annual crop removal rate of P₂O₅ in that area. The Rural Municipality of Franklin is not considered to be a "certain area".</p> <p>Manitoba Conservation and Water Stewardship requires permits for construction of manure storage facilities. As part of the review operators must identify manure spread fields. In areas of Manitoba which are not considered to be "certain areas" as defined above, Manitoba Conservation and Water Stewardship's current policy for the construction permit is to require an operation to demonstrate access to sufficient land to apply manure at a rate equivalent to 2 X the crop removal rate of phosphorus. The proponent has indicated that sufficient land is available and suitable for manure application; therefore Manitoba Conservation and Water Stewardship is sufficiently satisfied with the proposal for background operation in this respect.</p> <p><u>Water Stewardship - Water Science and Management</u> Manitoba has included phosphorus as a nutrient by which fertilizer application through manure, synthetic fertilizer, and municipal waste sludge to agricultural lands may be limited. To remain environmentally sustainable over a long-term planning horizon of 25 years or more, the proponent must be able to balance phosphorus inputs from applied manure and other nutrient sources such as commercial fertilizers with crop removal rates to avoid excessive build-up in soils. Consequently, sufficient land base or economically achievable</p>	CWS MMG MAFRD

The Audit of: Nevin Bender

Site Assessment Sections	Meets Requirements for TRC Review (type "X")	Comment	Reviewing Department
		<p>treatment technologies must be available so that manure can be applied at no more than 1 times crop removal rates. Over the short-term, regulations allow manure to be applied at no more than 2 times crop removal rates when soil-test phosphorus is between 60 ppm and 120 ppm. Once phosphorus levels reach 120 ppm, applications of manure would be restricted to no more than 1 times crop removal rates. It should be noted that soil-test phosphorus levels of 60 ppm are well above phosphorus needs for most crops (over 20 ppm is usually considered very high), and that as excess phosphorus levels build up in soils, greater losses occur to surface and ground water.</p> <p>For long-term planning purposes, the proponent needs to have sufficient land available to ensure that manure can be applied at 1 times crop removal.</p> <p>Sufficient land (1188 acres) has been identified by the proponent to ensure that manure can be applied at 2 times crop removal over the long term. To ensure that manure can be applied at 1 times the crop removal 1196 acres is needed. An additional 8 acres will be required for manure application to land over the long term planning horizon. The proponent has acknowledged that over the long term, up to 1196 acres may be required for the long term environmental sustainability of the operation.</p> <p><u>Manitoba Agriculture, Food and Rural Development</u></p> <p>MAFRD has done a detailed calculation of the land base requirement considering the unique production system provided to MAFRD by Nevin Bender (Appendix A).</p> <p>MAFRD has determined that Nevin Bender requires only 622 acres for the long-term environmental sustainability of the operation. This is significantly less than what was submitted in the site assessment. MAFRD believes that this is because a relatively high Quebec-based default phosphorus excretion rate was used in the TRC land calculator for backgrounders and the calculator assumes 2 x 150 day cycles for a total of 300 days of production. MAFRD adjusted each stage (backgrounding, pasture and finishing) based on typical Manitoba feeding practices and weight gains provided by Nevin Bender and reviewed by MAFRD.</p> <p>As Nevin Bender has identified 1188 suitable acres for manure application, MAFRD is confident that sufficient suitable land is available to ensure the long-term sustainability of the operation when beneficial management practices are used.</p> <p>Manitoba Municipal Government noted that all the proposed spread fields are designated and zoned for agricultural use, in the RM of Franklin Development Plan and Zoning By-law.</p>	

The Audit of: Nevin Bender

Site Assessment Sections	Meets Requirements for TRC Review (type "X")	Comment	Reviewing Department
9.0 Mortalities Disposal	X	<p><u>Climate Change & Environmental Protection - Environmental Programs and Strategies</u> <i>In accordance with the Livestock Manure and Mortalities Management Regulation (M.R. 42/98), mortalities must be kept in a secure storage room, covered container or secure location; and continuously frozen or refrigerated, if not disposed of within 48 hours after death.</i></p> <p><i>Composting mortalities is acceptable provided the composting site is located at least 100-meters from any surface watercourse, sinkhole, spring or well, and the operation's boundaries. Mortalities must be composted in a manner that does not cause pollution of surface water, groundwater or soil, and the composting facility and process must be acceptable to the Director of Manitoba Conservation and Water Stewardship.</i></p> <p><i>Application of composted mortalities to land is prohibited between November 10 of one year and April 10 of the following year.</i></p> <p><i>The proponent should prepare a contingency plan in case of a catastrophic event resulting in mass mortalities.</i></p>	CWS
10.0 Project Site Description	X	<p>The proposed expanded operation is entirely located in the RM of Franklin. The surrounding area is all designated Rural Area and zoned Rural 2. The land uses in the surrounding area has an average of two residences per square mile. There are a total of 21 residences within a three kilometre radius of the proposed expanded livestock operation. The nearest single residence not associated with the operation is located approximately 2,000 feet from the operation, which meets the current minimum separation distance of 820 feet. The primary land use within a mile radius of the proposed operation is agriculture. The area of the proposed operation is characterized by a mixture of agricultural land uses, including cropland, pastureland, hobby farms, and a variety of livestock operations. The landscape is relatively flat, cultivated and partially tree covered. A number of drainage ditches meander through the area.</p> <p>According to the Development Plan, the area is designated "Rural Policy Area 2". Policies associated with this designation accommodate a full range of agricultural uses, including livestock production operations and manure applications. Policy 9.2.2.a states that the operation should use "... the most current odour reducing techniques approved and recommended by [MAFRD] available at the time of application". It is not known if the operation is currently using the most current odour reducing techniques recommended by</p>	MMG (CRP Regional Office) MAFRD

The Audit of: Nevin Bender

Site Assessment Sections	Meets Requirements for TRC Review (type "X")	Comment	Reviewing Department
		<p>MAFRD. This should be evaluated to ensure that adverse impacts to surrounding land uses are minimized. The operator is not proposing any new odour reducing measures with the proposed expansion.</p> <p><i>Under The Farm Practices Protection Act, any complaints about odour or other disturbances (such as flies, smoke, noise or dust) can be directed in writing to The Farm Practices Protection Board. The Act is intended to provide for a quicker, less expensive and more effective way than lawsuits to resolve complaints about farm practices. It may create an understanding of the nature and circumstances of an agricultural operation, as well as bring about changes to the mutual benefit of all concerned, without the confrontation and the expense of the courts.</i></p> <p>The property is zoned "R2" Rural 2 Zone, Part VII.5.5.c states that permitted livestock operations must be 199 a.u. or less. This operation does not meet this requirement. The operation has 299 a.u. which requires a Conditional Use Order regardless of whether or not the expansion to 600 a.u. is approved.</p>	
10.0 Project Site Description (Native Prairie, Wildlife Mgt Areas, Crown Land)	X	<u>Conservation – Lands Management & Planning Section:</u> Land Management & Planning Section of Manitoba Conservation has no concerns to forward.	CWS
11.0 Truck Haul Routes and Access Points	X	<p>We have reviewed this site assessment. The land does front onto a provincial highway, PR 201, and it does have access onto this highway.</p> <p>Based on the available information we have no concerns with this proposal.</p>	MIT

CWS – Conservation and Water Stewardship

MAFRD- Manitoba Agriculture, Food and Rural Development

MIT – Manitoba Infrastructure and Transportation

MMG- Municipal Government

D. PUBLIC COMMENTS & DISPOSITIONS

Brant Family:

The Brants are located approximately ¼ mile south east of the Nevin Bender operation. Concerns raised were as follows;

- 1) The “horrible odor” from the manure, especially with a north west wind. (Manure is currently field stored on the east side of the corrals).
- 2) The operation has in the past been enlarged beyond the size stated by the proponent.
- 3) The operation has been operating without provincial permitting.
- 4) In the past, cattle have escaped and mixed with the Brant cattle.

Disposition: The concerns had been forwarded to the applicant’s consultant for response. The concerns have also been forwarded to the Provincial Livestock Technical Review Committee. In response the applicant’s consultant had indicated the following:

- 1) Manure will no longer be composted east of the corrals and efforts will be made to keep the odors as low as possible throughout the year.
- 2) A perimeter fence around the feedlot has been completed to prevent cattle from escaping.

MAFRD advises that should the Brant family continue to be concerned about odor they could file a complaint with the Farm Practices Protection Board (see Audit Table Item 10.0) Also, the applicant is in the process of acquiring the necessary Provincial permits for the operation.

Perry Scott:

Mr. Scott is located adjacent to the Nevin Bender operation on NW ¼ 22-2-4EPM. Run off from the Nevin Bender site enters Mr. Scott’s property via two drains (Casson and Stewart).

His concerns were as follows:

- 1) Would the concentration of livestock at the proposed location affect the quality of water draining through Mr. Scott’s land?
- 2) Would normal spring runoff or rain runoff affect the drains?

- 3) Could a weather event (rapid snow melt or a heavy rainfall) cause possible contamination of the ground water or drainage system entering Mr. Scott's property?

Disposition: The concerns had been forwarded to the applicant's consultant for response. The concerns had also been forwarded to the Provincial Livestock Technical Review Committee. In response the applicant's consultant has indicated the following:

- 1) Manure spreading setbacks as per the Nutrient Management Regulation (MR 62/2008) will be adhered to regarding Casson Drain. The existing vegetative buffer strip surrounding the drain is believed to provide additional protection regarding potential runoff from the adjacent fields.
- 2) The manure composting pile is moved every year and the land is cropped to take up nutrients that may have leached into the ground.
- 3) Trees surrounding the feedlot in addition to a berm west of the pens are expected to minimize any potential for runoff.
- 4) The feedlot exceeds the minimum separation distance from surface water drains as required by the RM of Franklin Zoning By-law.

In addition, MB Conservation and Water Stewardship has reviewed the concerns raised by Mr. Scott and the response can be found in Appendix C.

E. CONCLUSIONS & RECOMMENDATIONS

Overall Conclusion

Based on the Site Assessment submitted by the producer and available information, the Technical Review Committee recommends the following appropriate practices, measures and safeguards be taken in addition to any additional measures identified through subsequent Provincial and Federal licensing or permitting in order to minimize any identified risks to health, safety and the environment.

Recommended Actions to Council

- As per Section 114(1) of The Planning Act, Council must set a date for a Conditional Use hearing which must be at least 30 days after it receives this report
- As per Section 114(2) of The Planning Act, at least 14 days before the date of the hearing, Council must:
 - a) send notice of the hearing to
 - (1) The applicant,
 - (2) The minister, (c/o the Steinbach Community & Regional Planning Office)
 - (3) All adjacent planning districts and municipalities, and
 - (4) Every owner of property located within three kilometres of the site of the proposed livestock operation, even if the property is located outside the boundaries of the planning district or municipality;
 - b) publish the notice of hearing in one issue of a newspaper with a general circulation in the planning district or municipality; and
 - c) post a copy of the notice of hearing on the affected property in accordance with Section 170 of The Planning Act.
- Council should specify the type(s) of operation, legal land location, number of animals in each livestock category and total animals units in its Conditional Use Order.
- As per Section 117 of The Planning Act, Council must send a copy of its (Conditional Use Order) to
 - a) the applicant;
 - b) the minister (c/o the Steinbach Community & Regional Planning Office); and
 - c) every person who made representation at the hearing.

- Council should specify in its Conditional Use Order, the number of head of each subspecies and the legal location of the animal confinement area(s);

Recommended Actions to Proponent

- The proponent is required to submit an “*Application for Permit to Construct, Modify, or Expand a Manure Storage Facility*” to Manitoba Conservation and Water Stewardship for each Manure Storage Facility (MSF) to be constructed;
- Construction of a MSF shall not commence until a permit is granted by the Director, and adequate notification is given to Manitoba Conservation and Water Stewardship;
- The proponent shall ensure the MSF, alone or in combination with other MSFs located on the property of the agricultural operation, is/are of sufficient capacity to store all livestock manure produced and used by the agricultural operation;
- Livestock manure shall be stored until such a time that it can be applied as fertilizer;
- The proponent must submit a Manure Management Plan (MMP) annually to Manitoba Conservation and Water Stewardship in accordance with the *Livestock Manure and Mortalities Management Regulation* (MR 42/98);
- All unused and abandoned wells on the site and spread fields should be properly sealed and a sealed well report filed with the Groundwater Management Section of Conservation and Water Stewardship;
- The proponent must ensure all setbacks requirements are observed in accordance with the *Livestock Manure and Mortalities Management Regulation* and *Nutrient Management Regulation* for livestock manure application;
- In accordance with the *Livestock Manure and Mortalities Management Regulation*, the proponent must annually submit to Manitoba Conservation and Water Stewardship analytical results from samples of drinking water provided to their livestock;
- The proponent should prepare a contingency plan in the event of a catastrophic event resulting in mass mortalities;
- Manitoba Conservation and Water Stewardship requires that all deficiencies and issues regarding environmental performance identified by the professional engineer be addressed prior to populating the CLA with 300 AU or more.

The overall conclusion represents the consensus of the TRC Members.

F. TECHNICAL REVIEW COMMITTEE MEMBERS

Name	Department	Title	Address	Telephone
Don Malinowski Chair	Municipal Government	Senior Planner,TRC Community & Regional Planning Branch	604-800 Portage Avenue Winnipeg	945-8353
Andrea Bergman	Conservation and Water Stewardship	Technical Review Officer Environmental Programs & Strategies Branch	1007 Century St Winnipeg	945-4384
Petra Loro	Agriculture, Food & Rural Development	Livestock Environment Specialist	545 University Crescent Winnipeg	945-3869
Heinz Lausmann	Infrastructure and Transportation	Senior Highway Planning Engineer Highway Planning and Design Branch	1420-215 Garry Street Winnipeg	945-2664

Land Base Assessment for Nevin Bender TRC Report

April 30, 2014

Petra Loro, Livestock Environment Specialist

Manitoba Agriculture, Food and Rural Development (MAFRD) assessed the land base for manure application as provided by the proponent in order to provide Council with the assurance that adequate suitable land is available for this operation. The Province will require sufficient suitable land when the proponent applies for the confined livestock area permit.

In the Rural Municipality of Franklin, it is currently the Government of Manitoba’s policy to require enough suitable land to allow manure application at a rate that does not exceed the nitrogen uptake or 2 times the phosphorus (P) that will be removed from the field in the harvested portion of the crop. Only lands with Agriculture Capability Class 1 to 5 and recent soil tests demonstrating P levels below 60 ppm Olsen P are considered suitable. Buffer strips and setbacks must be excluded.

Nevin Bender has submitted 1188 acres of land below 60 ppm Olsen P for manure application. This land is primarily Agriculture Capability Class 2 and 3 (prime agricultural land) with some areas of lower Class 5 land. The soil survey information indicates the land has slight to severe limitations due to wetness (W), moisture (M), stoniness (P) and inundation (I).

MAFRD has done a detailed calculation of the land base requirement considering the unique production system provided to MAFRD by Nevin Bender. Nutrient excretion was based on the following feeding system:

	Weight In (lb)	Weight Out (lb)	Days on Feed	Rate of Gain (lb/day)
Calves	450	650	90	2.2
Feeders on Pasture	650	850	133	1.5
Finishers	850	950	45	2.2

An N volatilization rate of 40% was assumed for field storage of manure and pasture deposition. Crop nutrient removal was based on the crop rotation provided by Nevin Bender and long-term (2003-2012) MASC yield averages for the RM of Franklin.

Based on MAFRD’s calculation, Nevin Bender requires a minimum of approximately 392 acres of suitable land in order to ensure there is adequate land for the nitrogen in the manure. This is also enough to meet the Province’s policy for P in the RM of Franklin (i.e. 2 times the P that will be removed from the field in the harvested portion of the crop). In order to ensure the long-term environmental sustainability of the operation, however, Nevin Bender may require up to a total of approximately 622 acres to balance manure P with crop P removal over the life of the operation. These estimates are significantly less than what was provided in the site assessment because the site assessment used higher default values for nutrient excretion per animal per cycle and 2 cycles of backgrounders in the feedlot for a total of 300 days.

Nevin Bender has identified 1188 suitable acres for manure application. As such, Nevin Bender has demonstrated that sufficient land is available to ensure the long-term sustainability of the operation when beneficial management practices are used.

MAFRD also reviewed the soil test reports provided by the operation. In Manitoba, manure application to land is regulated on the basis of residual soil nitrate-N limits and P thresholds. The fields identified for manure application include Class 2 and 3 soils (excluding 3M) for which the residual soil nitrate-N limit is 140 lbs/acre. Class 3M soils have a residual soil nitrate-N limit of 90 lbs/acre. There are also Class 5 soils identified for which the residual soil nitrate-N limit is 30 lbs/acre. Manure application must be managed to ensure that soils do not exceed the residual soil nitrate-N limits.

All of the fields identified for manure application are currently below 60 ppm Olsen P. Manure can be applied to meet the nitrogen requirements of the crop on these fields. However, this often results in more P being applied than is removed from the field and a build-up of soil test P. No more than 2 times crop removal rates for P can be applied when soil-test P is between 60 ppm and 120 ppm. If soil test levels reach 120 ppm Olsen P, manure application rates will be restricted to no more P than what is removed in the harvested portion of the crop over the course of a rotation.

Actual manure application rates will be determined in the manure management plan submitted to Manitoba Conservation and Water Stewardship. Although the regulations allow for greater build-up of soil test P, since Nevin Bender has enough land to balance manure application rates with crop P₂O₅ removal, it is recommended that Nevin Bender manage the fertility of the fields that receive manure to keep all soil tests below 60 ppm P for the long-term environmental sustainability of the operation.

MAFRD provides extension support and computer software to help producers complete manure management plans. If the operation uses professional services to prepare the plan, manure management planners must successfully complete the Manure Management Planners Course offered by the Assiniboine Community College and be a member in good standing in the Manitoba Institute of Agrologists or a Certified Crop Advisor. If the services of a Commercial Manure Applicator are obtained to apply the manure, the applicator must be trained by the Assiniboine Community College and licensed by MAFRD.

Appendix B

Table 1. Setback requirements for livestock manure application on land adjacent to surface waters or a groundwater feature. Setback requirements extracted from the Livestock Manure and Mortalities Management Regulation (MR 42/98) and the Nutrient Management Regulation (MR 62/2008).

Surface water or Groundwater Feature		Manure Application Method	Manure Application Setback Width (metres) with Permanently Vegetated Buffer Width (metres)	Manure Application Setback Width (metres) with no Permanently Vegetated Buffer	Regulation Source for Setback Width
Lakes	Designated as vulnerable in Nutrient Management Regulation schedule ¹	Any method	30 m setback, consisting of 30 m permanently vegetated buffer	35 m setback	Nutrient Management Regulation (MR 62/2008)
	-	Injection or low-level application followed by immediate incorporation	15 m setback, consisting of 15 m permanently vegetated buffer	20 m setback	Livestock Manure and Mortalities Management Regulation (MR 42/98)
		High-level broadcast or low-level application without incorporation	30 m setback, including 15 m permanently vegetated buffer	35 m setback	
Rivers, creeks, streams and large unbermed drains, designated as an Order 3 or greater drain on a plan of Manitoba Water Stewardship, Planning and Coordination, that shows designations of drains	Designated as vulnerable in Nutrient Management Regulation schedule ¹	Any method	15 m setback, consisting of 15 m permanently vegetated buffer	20 m setback	Nutrient Management Regulation (MR 62/2008)
	-	Injection or low-level application followed by immediate incorporation	3 m setback, consisting of 3 m permanently vegetated buffer	8 m setback	Livestock Manure and Mortalities Management Regulation (MR 42/98)
		High-level broadcast or low-level application without incorporation	10 m setback, including 3 m permanently vegetated buffer	15 m setback	
Groundwater feature ²	-	Any method	15 m setback, consisting of 15 m permanently vegetated buffer	20 m setback	Nutrient Management Regulation (MR 62/2008)
Major wetland, bog, marsh or swamp ³ and constructed storm water retention ponds	-	Any method	3 m setback, consisting of 3 m permanently vegetated buffer	8 m setback	
Wetland, bog, marsh or swamp not defined as major	-	Any method	Distance between the water's edge and the high water mark		
Roadside ditch or an Order 1 or 2 drain	-	Any method	No direct application to ditches and Order 1 and 2 drains		

¹ Designated as vulnerable if listed in the schedule in the Nutrient Management Regulation under the Water Protection Act.

² Groundwater feature means a sinkhole, a spring or a well other than a monitoring well.

³ As defined in 1(2) in the Nutrient Management Regulation under the Water Protection Act. For the purposes of this regulation, a wetland, bog, marsh or swamp is major if it:

- has an area greater than two hectares (4.94 acres)
- is connected to one or more downstream water bodies or groundwater features

Appendix C

In response to Mr Perry Scott's comments submitted to the Technical Review Committee on March 21, 2014, Manitoba Conservation and Water Stewardship has provided the following response.

If a Conditional Use Order is granted by the municipality, it is the proponent's responsibility to ensure the confined livestock area (CLA) operates in compliance with all applicable regulations and requirements. If manure is observed in the drain, or any other contravention of the regulation, the regional environment officer should be contacted at (204) 346-6060 to address the situation.

Section 7(2) of the *Livestock Manure and Mortalities Management Regulation* (M.R. 42/98) states:

"A person who stores solid manure as field storage shall

- a) locate the livestock manure at least 100 m from any surface watercourse, sinkhole, spring or well; and*
- b) store the livestock manure in a manner that does not cause pollution of surface water, groundwater or soil."*

Additionally, Section 11 states:

- 1) No person shall handle, use or dispose of livestock manure, or store livestock manure in an agricultural operation, in such a manner that it is discharged or otherwise released into surface water, a surface watercourse or groundwater.*
- 2) An operator shall ensure that livestock manure that is handled, used, disposed of or stored in an agricultural operation is not discharged or otherwise released into surface water, a surface watercourse or groundwater.*

Furthermore, section 12(2) states:

No person shall apply livestock manure to land if, due to meteorological, topographical or soil conditions, or the rate of application, livestock manure

- a) causes pollution of surface water, groundwater or soil; or*
- b) escapes from the boundary of the agricultural operation.*

(2.1) In addition to the requirements of subsection (2), no person shall apply livestock manure to land adjacent to surface water or a surface watercourse, except in accordance with the minimum setback requirements set out in Schedule C.

It is important that the proponent addresses the concerns raised by Mr. Perry Scott based on engineering assessment of the constructed confined livestock area (CLA) and examination of the topography of the site in relation to the property listed in the letter from Mr. Scott.

An engineering assessment has been conducted, and a permit application has been submitted to Conservation and Water Stewardship for work on the facility to address deficiencies identified by the assessment with relation to surface and groundwater protection. The application is currently under review. Note that the department requires that all deficiencies and issues regarding environmental performance identified by the professional engineer be addressed prior to populating the CLA with 300 AU or more.