




**TECHNICAL REVIEW COMMITTEE**

**A TECHNICAL REVIEW REPORT  
PREPARED FOR**

**THE RURAL MUNICIPALITY  
OF  
RITCHOT**

**Red River Pullet Farms  
Ltd**

**SW 18-08-04E**

A faint, wide-angle photograph of a large, long farm building with multiple gabled sections, situated in a flat, open landscape.

**March 14, 2013**

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## A. INTRODUCTION

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

- Agriculture, Food and Rural Initiatives (MAFRI);
- Conservation & Water Stewardship (Con-WS);
- Infrastructure and Transportation (MIT)
- Local Government (LG); and
- Any other department that may have an interest, which may be consulted during the process.

The Technical Review Coordinator, Manitoba Local 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 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.

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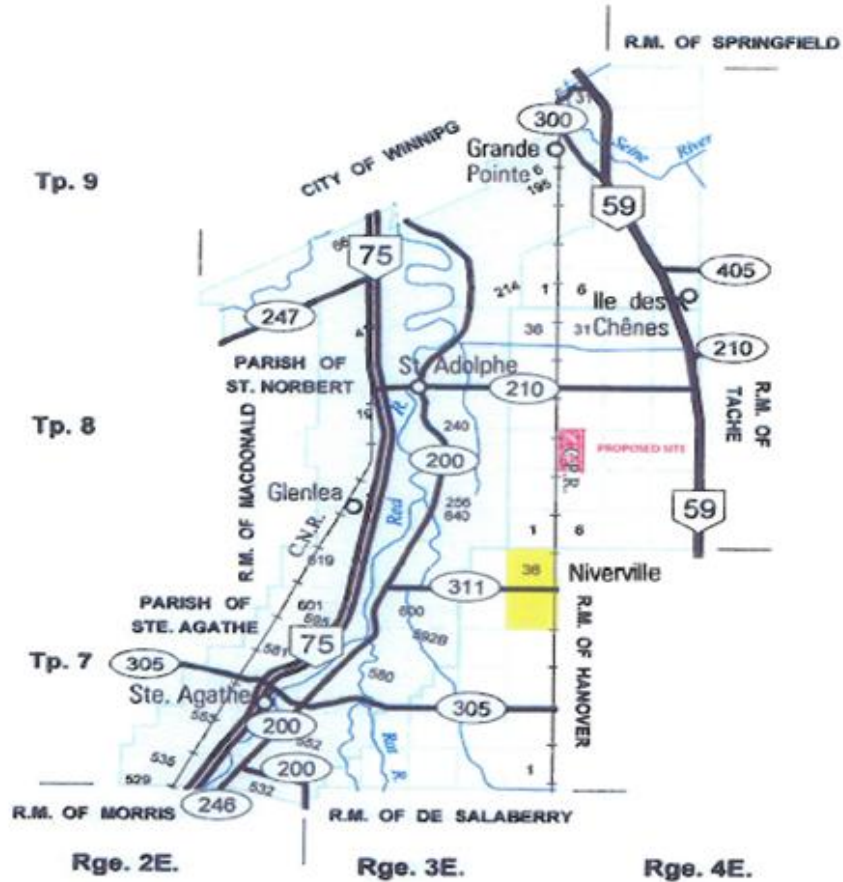
## **B. DESCRIPTION OF PROPOSED LIVESTOCK OPERATION**

To view a detailed description go to

[www.gov.mb.ca/ia/programs/livestock/public\\_registries.html](http://www.gov.mb.ca/ia/programs/livestock/public_registries.html)

Applicant: Red River Pullets Farms Ltd

Site Location: Approximately 2 miles north of the Town of Niverville, in the R.M. of Ritchot (SW 18-08-02EPM) Refer to Map below.



Proposal: To establish a 130,000 pullet (429 A.U.) operation. This will involve the following;

- Constructing two 60' X 342' barns and a 60' X 138' enclosed wood frame manure storage building
- Water consumption of 5,200 imperial gallons per day/ 7.0 acre-feet per year

- Spreading manure over 840 suitable acres
- Composting dead animals on site
- Using the truck haul routes as shown below



## C.SITE ASSESSMENT AUDIT

The Audit of: Red River Pullet Farms Ltd.

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.	LG
3.0 Nature of Project	X	The applicant has clearly defined the nature of the project.	LG
4.0 Proposed Type and Size of Operation	X	The applicant has indicated that this is a 130,000 pullet operation with 2 cycles per year.	MAFRI
5.0 Animal Confinement Facilities	X	<b>Con-WS – Climate Change &amp; Environmental Protection – Environmental Programs and Strategies:</b> 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.	Con-WS
6.0 Environmental Farm Planning	X	This is a new operation so they do not have an Environmental Farm Plan	MAFRI
7.0 Water	X	<b>Climate Change &amp; Environmental Protection - Environmental Programs and Strategies:</b> The proposed operation is a new facility and not yet constructed, therefore the producer has not submitted Source Water Monitoring analysis. No deficiency was identified. <b>Con-WS – Water Stewardship – Water Science and Management:</b> The proponent should note that nutrients cannot be applied within the Nutrient Buffer Zone as outlined in the Nutrient Management Regulation (see Appendix A); Agri-Maps indicate a Class 4 drain (St. Adolphe Coulee) through River lots 234, 235, 239 and 240 Parish of St. Norbert. The setback area for this order of drain and application method is 8 meters. The setback area required for this drain should not be included in the land base calculations.  The proposed site is located in the Red River Valley Designated Flood Area or Lower Red River Designated Flood Area and verification of flood protection level at the 100 year flood elevation or elevation set by Manitoba Conservation and	Con-WS

**The Audit of: Red River Pullet Farms Ltd.**

<b>Site Assessment Sections</b>	<b>Meets Requirements for TRC Review (type "X")</b>	<b>Comment</b>	<b>Reviewing Department</b>
		<p>Water Stewardship for any proposed barns should occur prior to a permit issue.</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>See supporting table in Appendix.</p>	
8.0 Manure Related	<b>X</b>	<p><b>Climate Change &amp; Environmental Protection - Environmental Programs and Strategies:</b></p> <p>The proposed operation is a new facility and not yet constructed, therefore the producer has not submitted a Manure Management Plan for the 2013 crop year. No deficiency was identified.</p>	<b>Con-WS</b>
8.1 Land Available/Required for Manure Application	<b>X</b>	<p>MAFRI has 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. Although Municipal Councils have no authority to require a specific minimum land base for manure application within the Conditional Use permitting process, the Province will require sufficient suitable land through future Provincial permitting processes.</p> <p>In Municipalities outside of Hanover and La Broquerie, 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 twice the phosphorus 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 phosphorus (P) levels below 60 ppm Olsen P are considered suitable. Buffer strips and setbacks must be excluded.</p> <p>Red River Pullet Farms Ltd has submitted 840 acres of land for manure application. All of this land is Agriculture Capability Class 2 and 3 (prime agricultural land) based on detailed and reconnaissance soil survey. The quarter section parcels have only reconnaissance level soil survey that indicates the land has slight to moderate limitations due to wetness. The river lots have detailed soil survey information that indicates the land has slight to moderate limitations due to wetness, density and inundation. The soil test results indicate that none of this land is currently above 60 ppm Olsen P. It appears from the Manure Application Field Characteristics Table and Map 8 provided by the proponent that buffer strips and setbacks from water have been excluded (see Appendix B).</p> <p>MAFRI has also estimated the minimum acreage needed for</p>	<b>MAFRI</b>

The Audit of: Red River Pullet Farms Ltd.

Site Assessment Sections	Meets Requirements for TRC Review (type "X")	Comment	Reviewing Department
		<p>both the manure nitrogen and phosphorus, although phosphorus typically determines the minimum land base required. The land base requirement calculation considers the total number of animals proposed, typical nutrient excretion rates, the cropping system provided, a 20% N loss during storage and the nitrogen and phosphorus crop removal rates. The number of pullets proposed by Red River Pullet Farms Ltd will excrete about 42328 lb N per year and 38896 P<sub>2</sub>O<sub>5</sub> per year (assuming 2 cycles per year). The crop yields provided by Red River Pullet Farms Ltd are long-term (1995-2011) MASC yield averages for the RM of Ritchot. Based on the crop rotation indicated for the land deemed suitable for manure application and the MASC yield averages provided, the average crop N removal rate is 72 lb N per acre per year and the average crop P<sub>2</sub>O<sub>5</sub> removal rate is 29.6 lb P<sub>2</sub>O<sub>5</sub> per acre per year.</p> <p>MAFRI estimates that Red River Pullet Farms Ltd will need a minimum of 657 acres to satisfy the government's policy on phosphorus. Red River Pullet Farms Ltd has identified 840 suitable acres for manure application. <b>As such, Red River Pullet Farms Ltd has exceeded the minimum land requirements for the establishment of the operation.</b></p> <p>In the future, if soil test levels reach 120 ppm Olsen P, manure application rates will be restricted to no more phosphorus than what is removed in the harvested portion of the crop (i.e. one times the crop removal rate of phosphorus). At that time, additional lands may be required for the disposition of the manure. As Red River Pullet Farms Ltd is developing in an area of lower livestock intensity, additional neighbouring lands should be available within a reasonable transportation distance from the farm.</p> <p>Red River Pullets Farms Ltd will be required to prepare an annual manure management plan. MAFRI provides extension support and computer software to help producers complete manure management plans.</p> <p>All of the river lots identified for manure application are adjacent to St. Adolphe. The recommended separation distance from a designated residential area (i.e. urban centre) is 400 m when manure is incorporated within 48 hours to minimize odour nuisance. The boundaries of the fields located within the river lots meet the recommended separation distance provided the manure is incorporated within 48 hours of application.</p>	
8.1 Land Available/Required for Manure Application(Permit Related)	<b>X</b>	<p><b>Climate Change &amp; Environmental Protection - Environmental Programs and Strategies:</b> Manitoba Conservation and Water Stewardship has obtained information on average phosphorus output from livestock and</p>	<b>Con-WS</b>



**The Audit of: Red River Pullet Farms Ltd.**

Site Assessment Sections	Meets Requirements for TRC Review (type "X")	Comment	Reviewing Department
		<p>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 km<sup>2</sup> is greater than two times the annual crop removal rate of P<sub>2</sub>O<sub>5</sub> in that area. The Rural Municipality of Ritchot 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 spreadfields. 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. During the course of the application review, it was determined that the Land Base Calculation was not completed correctly and the "Crop Information Table" identified more available acreage for manure application than what was listed on the "Manure Application Field Characteristics Table" in the Site Assessment. The original calculation completed by the proponent identified that 654 acres would be required based on a 2 x P<sub>2</sub>O<sub>5</sub> removal land base. However, Manitoba Conservation and Water Stewardship re-calculated the land base required using the information listed in the proponent-revised "Manure Application Field Characteristics Table" and determine that a land base, at 2 x P<sub>2</sub>O<sub>5</sub> Removal, of 657 acres is required. The proponent has identified that 840 acres is available and suitable for manure application; therefore Manitoba Conservation and Water Stewardship is sufficiently satisfied with the proposal for pullet operation in this respect.</p> <p>Spread fields located at W1/2 18-08-04 E, NE 19-08-04 E, SE 13-08-03 E and NE 13-08-03 E have been identified as being used by another operation through a manure management plan. In order for sustainable use of these fields for manure application on a 2X application rate basis, the fields can only be used by one operation for land base calculations. Manitoba Conservation and Water Stewardship requires confirmation that these spread fields will be used solely by Red River Pullet Farms Ltd.</p> <p><b>Con-WS – Water Stewardship – Water Science and Management:</b>  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.</p>	

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Site Assessment Sections	Meets Requirements for TRC Review (type "X")	Comment	Reviewing Department
		<p>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 must be available over the long term so that manure can be applied at no more than 1 times crop removal rates for phosphorus. Over the short-term, regulations allow manure to be applied to meet the nitrogen requirements of the crop. This often results in more phosphorus being applied than the crop uses and results in a build-up of soil test phosphorus. No more than 2 times crop removal rates for phosphorus can be applied 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 of phosphorus. 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 agronomically very high), and that as excess phosphorus levels build up in soils, greater losses occur to surface and ground water.</p> <p>Insufficient land has been identified by the proponent to ensure that manure can be applied at 1 times crop removal of phosphorus over the long term. An additional 474 acres will be required for manure application to land over the long term planning horizon.</p>	
9.0 Mortalities Disposal	X	<p><b>Con-WS – Climate Change &amp; Environmental Protection – Environmental Programs and Strategies:</b>            In accordance with the Livestock Manure and Mortalities Management Regulation 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.</p> <p>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.</p> <p>Application of composted mortalities to land is prohibited between November 10 of one year and April 10 of the following year.</p> <p>Although a plan has not been approved at this time by Manitoba Conservation and Water Stewardship, it is not a requirement provided that the producer abides by the regulatory requirements in the case of a mass mortality. In the</p>	Con-WS

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Site Assessment Sections	Meets Requirements for TRC Review (type "X")	Comment	Reviewing Department
		<p>event of a mass mortality, operators should contact the local Manitoba Conservation and Water Stewardship office.</p> <p>The proponent should prepare a contingency plan in case of a catastrophic event resulting in mass mortalities.</p>	
10.0 Project Site Description	X	<p><u>Development Plan</u> The subject land is designated 'Green/Agricultural Policy Area' in the Macdonald-Ritchot Planning District Development Plan (By-law 2-2010). In addition, Map 15 of the Development Plan identifies the subject land as 'MSD – Livestock Mutual Separation Distance Management Area'. The policies relevant to the subject proposal can be summarized as follows:</p> <ul style="list-style-type: none"> <li>• A Conditional Use order will be required (in the Zoning By-law) to allow for a livestock operation with greater than 300 AU. (Policy 4.4.1.3).</li> <li>• The proposed operation must be compatible with the nature of the surrounding area (Policy 4.4.1.3(a)).</li> <li>• The proposed operation will not be detrimental to the health or welfare of people in the area (Policy 4.4.1.3(a))</li> <li>• The proposed operation should not be on Class 6 or 7 soils (Policy 4.4.1.3(b)).</li> <li>• The location must not be within the mutual separation distance requirements established in the Zoning By-law (Same distances as Provincial Land Use Regulation).</li> </ul> <p><u>Zoning</u> The subject land is zoned 'AG' Agricultural General Zone, in RM of Ritchot Zoning By-law 18-2002. As indicated in the application, the proposed site meets the minimum bulk requirements of the zone.</p> <p>The separation distances indicated by the applicant are incorrect. The nearest dwelling is 4,430' from the proposed operation, and not 3,960'. Plus, the nearest Designated Area is St Adolphe (~14,000') and not Niverville (~16,000'). Regardless, both the nearest dwelling and nearest Designated Area are well beyond the required minimum separations distances.</p> <p><u>Conclusion</u> The proposed operation is in compliance with the policies of the Development Plan. The proposed operation will require a Conditional Use order from the RM of Ritchot Council to allow for a 429 AU operation in the AG Zone.</p>	LG (CRP Regional Office)
10.0 Project Site Description (Native Prairie, Wildlife Mgt Areas, Crown Land)	X	<p><b>Conservation Programs – Wildlife &amp; Ecosystem Protection:</b> No comment</p>	Con-WS

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<b>Site Assessment Sections</b>	<b>Meets Requirements for TRC Review (type "X")</b>	<b>Comment</b>	<b>Reviewing Department</b>
11.0 Truck Haul Routes and Access Points	<b>X</b>	MIT has reviewed this application. The proposed site does not front onto a provincial highway nor does it have direct access onto a provincial highway. Based on the available information we have no concerns with this proposed development. It should be noted that PR 210 in this vicinity can handle Class B1 loading. PR 311 between PTH 59 and Niverville is capable of RTAC loading.	<b>MIT</b>

Con-WS – Conservation and Water Stewardship

LG- Local Government

MAFRI- Manitoba Agriculture, Food and Rural Initiatives

MIT – Manitoba Infrastructure and Transportation

## **D. PUBLIC COMMENTS & DISPOSITIONS**

### **Tri-Venture Farms Inc :**

The existing 350 AU (sow farrowing operation) is located less than ¼ mile south of the proposed poultry operation. Concerns raised are as follows:

- 1) The potential threat of disease transmittal from poultry to hog, given the close proximity of the proposed poultry operation; and
- 2) The impact of the poultry operation on Tri-Venture’s ability to expand in the future.

Disposition: The concerns have been forwarded to the applicant’s consultant for response. The concerns have also been forwarded to the Provincial Office of the Chief Vetrinarian for a response. The TRC is satisfied with the responses of both which indicate that there is a very low probability of disease transmission from poultry to hog (see Appendix C). If the proponent wished to locate the proposed poultry operation further away from the hog operation he may do so within an area that maintains a ¾ mile separation distance from the nearest residential dwelling as shown on the Barn Siting Option Map (see Appendix C). Should the proponent wish to locate the operation closer than ¾ of a mile from the nearest residential dwellings, he would need to explore the matter with neighboring residences and Municipal Council.

### **Enns Family 1919/1929/1935 Leblanc Rd:**

The Enns Family households are located approximately 1 mile north east of the proposed poultry operation site. Concerns raised are as follows:

- 1) The anticipated odor from the proposed barn will compound existing odor challenges faced by the households from surrounding uses (lagoons, land fill & livestock operations).
- 2) The proposed site is subject to flooding.

Disposition: The concerns have been forwarded to the applicant's consultant for response. The TRC is satisfied with the response provided by the Consultant that the enclosed manure structure and commitment by the proponent to incorporate manure soon after spreading will serve to minimize odours (see Appendix D). The matter of flood-proofing has been noted by Conservation and Water Stewardship in the audit (Item 7.0 Water). The TRC is further satisfied that flood related concerns will be addressed in the permitting process (Office of the Fire Commissioner for the barn; MB Conservation & Water Stewardship for the manure storage structure).

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## **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 Portage la Prairie 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 may wish to ask for a contingency plan, provided by the proponent, detailing dead animal disposal method(s) in the event of a catastrophe resulting in mass mortalities.
  - 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).
  - 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 Portage la Prairie Community & Regional Planning Office);
    - and
    - (c) every person who made representation at the hearing.
  - Should Council wish to consider enabling the proponent to locate the proposed livestock operation closer to a residence than the ¾ mile distance, Council will require the proponent to apply for a variance.

#### **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; and
- 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)*

- Red River Pullet Farms Ltd requires a minimum of 657 acres to meet the land base requirement. Red River Pullet Farms Ltd has identified 840 suitable acres for manure application. As such, Red River Pullet Farms Ltd has identified sufficient suitable land for the establishment of their operation.
- The proponent has identified less land than recommended for environmental sustainability. Over the long term planning horizon, the proponent should access an additional 474 acres.
- 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.
- Should the proponent propose to locate the livestock operation closer to a dwelling than the minimum  $\frac{3}{4}$  mile distance, the proponent would be required to obtain a Variation Order from the Rural Municipality of Ritchot.

**\* and 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.**

**The overall conclusion represents the consensus of the TRC Members.**

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## F. TECHNICAL REVIEW COMMITTEE MEMBERS

Name	Department	Title	Address	Telephone
Don Malinowski Chair	Local Government	Senior Planner,TRC Community & Regional Planning Branch	604-800 Portage Avenue Winnipeg	945-8353
Petra Loro	Agriculture, Food and Rural Initiatives	Livestock Environment Specialist	545 University Crescent Winnipeg	945-3869
Andrea Bergman	Conservation and Water Stewardship	Technical Review Officer Environmental Programs & Strategies Branch	1007 Century St Winnipeg	619-2230
Heinz Lausmann	Infrastructure and Transportation	Senior Highway Planning Engineer  Highway Planning and Design Branch	1420 - 215 Garry Street Winnipeg	945-2664

## Appendix A

**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 <sup>1</sup>	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 <sup>1</sup>	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 <sup>2</sup>	-	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 <sup>3</sup> 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		

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

<sup>2</sup> Groundwater feature means a sinkhole, a spring or a well other than a monitoring well.

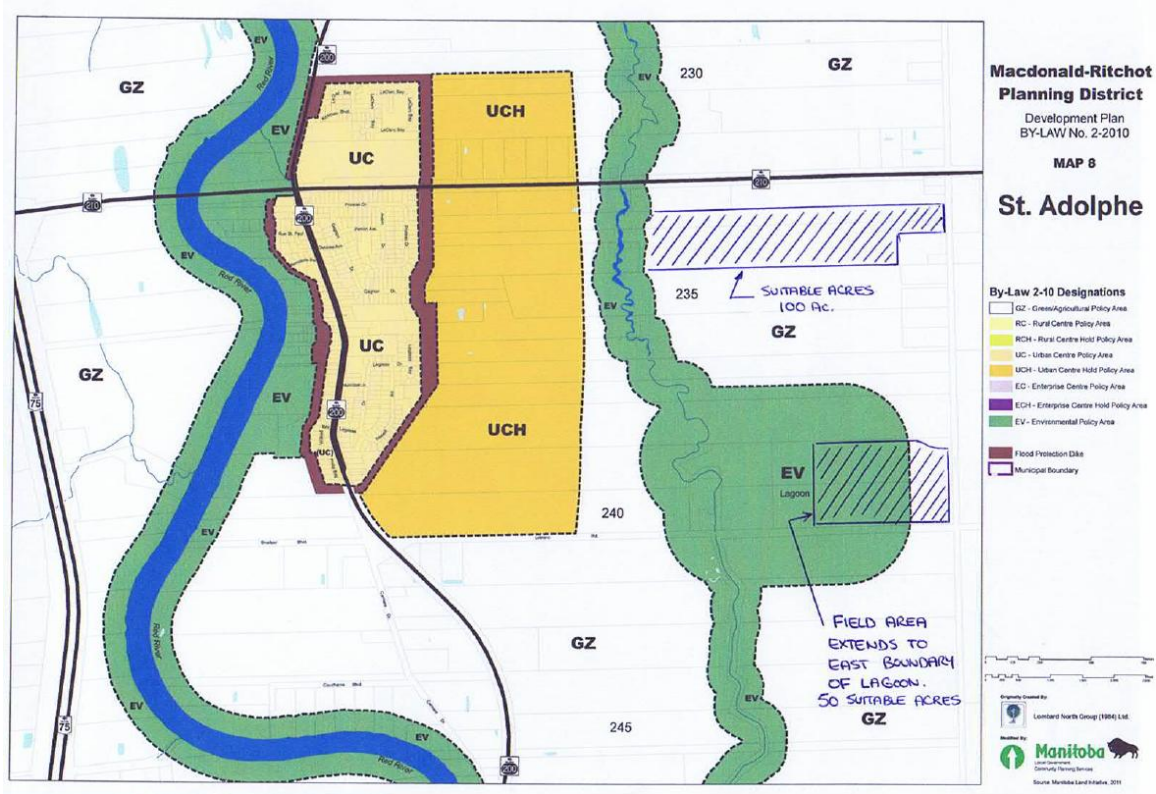
<sup>3</sup> As defined in 1(2) in the Nutrient Management Regulation under the Water Protection Act. For the purposes of this regulation, a wetland, bog, marsh or swamp is major if it:

- has an area greater than two hectares (4.94 acres)
- is connected to one or more downstream water bodies or groundwater features
- contains standing water or saturated soils for periods of time sufficient to support the development of hydrophytic vegetation.



# Appendix B

- Spread-field map and table from South-Man Engineering



**Manure Application Field Characteristics Table**

Field	Legal Description <sup>1</sup>	Municipality	OLA/A <sup>2</sup>	Acreage Available <sup>3</sup>	Features <sup>4</sup>	Expected Crop to be Grown (Historical Yield Average)	Soil Nitrate <sup>5,6</sup>	Soil Phosphorus <sup>1,7</sup>	Acreage Suitable for Manure Spreading <sup>8</sup>	Development Plan Designation <sup>9</sup>	Zoning <sup>10</sup>
1	W1/2 16-8-4E	Ritchot	O	310	None	Spring wheat, 35.9 bu/ac	36 lb/ac	36 ppm	310	By-Law 18-2002	AG
2	NE 19-8-4E	Ritchot	O	75	Dwelling	Grain Corn, 66.2 bu/ac	84 lb/ac	43 ppm	75	By-Law 18-2002	AG
3	RL 234,235 Parish of St. Norbert	Ritchot	L	105	Natural Drainage	Soybeans, 30 bu/ac	25 lb/ac	6 ppm	100	By-Law 18-2002	AR
4	RL 239,240 Parish of St. Norbert	Ritchot	L	190	Natural Drainage	Canola, 29.2 bu/ac	18 lb/ac	19 ppm	50	By-Law 16-2002	AR
5	SE 13-8-3E	Ritchot	A	180	None	Winter Wheat, 73.4 bu/ac	46 lb/ac	33 ppm	155	By-Law 18-2002	AG
6	NE 13-8-3E	Ritchot	A	155	Dwelling	Winter Wheat, 73.4 bu/ac	21 lb/ac	30 ppm	150	By-Law 18-2002	AG
7											
8											
9											
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16											
17											
18											
<b>TOTAL PROPOSED</b>				<b>995</b>							
								<b>TOTAL</b>	<b>340</b>		

1. \_\_\_\_\_ Indicates Roll Number, Sec, Twp, Rge or River Lot.
2. \_\_\_\_\_ Indicates how the land has been secured for spreading. O – Own / L – Lease / A - Agreement
3. \_\_\_\_\_ Acreage available should take into account setbacks from water courses, including ditches, property lines (refer to setback tables in the SA Guide)
4. \_\_\_\_\_ Features indicate any dwellings, other uses, wells (existing or abandoned), water bodies or other natural features within or adjacent to a spread field (note if any native habitat is proposed for manure application)
5. \_\_\_\_\_ Soil fertility analysis must be completed by an accredited soil-testing laboratory.
6. \_\_\_\_\_ Nitrate concentration N (lb/ac at 0-24 inch depth)
7. \_\_\_\_\_ Phosphorus concentration (ppm P at 0-6 inch depth) based on extraction method specified
8. \_\_\_\_\_ Suitable acreage is to be based on soil, crop and setback calculations
9. \_\_\_\_\_ Please reference the Development Plan for the designations
10. \_\_\_\_\_ Please reference the Zoning Bylaw of your municipality(ies)

## **Appendix C**

- February 24, 2013 Letter from South-Man Engineering
- Letter from Dr. Lloyd Weber
- Qualitative Threat and Risk Assessment, Office of the Chief Veterinarian
- Barn Siting Option Map



15-1599 Dugald Road  
Winnipeg, MB R2J 0H3

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February 24, 2013

Don Malinowski  
Senior Planner Community & Regional Planning Branch  
Technical Review Section  
604-800 Portage Ave.  
Winnipeg MB  
R3G 0N4

**Re: Red River Pullet Farms Ltd.  
Response to Letter Submitted by Rudy, Elda, Cory and Kim Enns**

Dear Mr. Malinowski;

In consultation with our client, Red River Pullet Farms Ltd., we have been asked to prepare a response to the concerns expressed within the letter submitted by the Enns family.

- 1) The proposed barn consisting of 130,000 pullets represents 429 AU, the equivalent to a 215 head dairy operation or 3000 finisher pigs, which is of a size that is common for family operations within the municipality. The intent of the barn is to raise replacement pullets to stock two local layer barns along with the layer operation constructed several years ago by Jacob and Marina on their home site. These layer barns are currently populated by pullet operations in the RM of Hanover, by owners that have decided to retire from the business due to both age and increasing pressure on land base within that municipality. To sustain the existing layer barns, the quota from these pullet operations will be purchased and utilized to establish the proposed operation within the guidelines regulating egg production in Manitoba. The proposed operation is a partnership between Jacob and Marina Doerksen and their children and the Ottens family from Ontario, which is also a family operation. With a vested interest in the operation, the Doerksen family is committed to managing and operating the facility to the best of their ability in order to ensure its success and viability.
- 2) It is not possible to comment on the air quality within the region other than to acknowledge that open livestock manure storages and domestic wastewater lagoons servicing the local communities are present and will inevitably produce some odour throughout the year. The proposed operation will consist of a concrete manure storage enclosed by walls and a roof, which will house the manure from the operation for a minimum of 250 days. Being totally enclosed it is not anticipated that there will be any significant odour generated through daily



operation of the facility. It is anticipated that some odours will be experienced several days throughout the spring and fall when the manure storage is emptied and the manure if field applied. To minimize odour production during these times, the surface applied solid manure will be incorporated as quickly as possible after application. Realizing the loss in fertilizer value that is incurred by leaving surface applied manure exposed, Mr. Doerksen is committed to have this manure incorporated as quickly as practical.

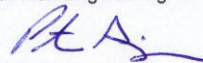
- 3) See response above.
- 4) Measures for flood protection to protect against inundation of the barn and manure storage by flood waters will be incorporated through licensing by Manitoba Conservation and Water Stewardship. Field applied manure will be incorporated into the soil to minimize the potential for transport, and would be just as susceptible and represents a similar risk to commercial fertilizers. Being local residents to the area, the Doerksen's are aware of the flood risks associated with the area and would take all reasonably foreseeable measures to protect the operation from the affects of flooding.
- 5) The proposed operation will allow Jacob and Marina to provide the opportunity for their children to participate and take ownership in farming activities which will ultimately result in them remaining within the community. With seven children, it is not financially feasible for Jacob and Marina to provide this same opportunity for their children, without forming some type of partnership which they were fortunate to find with the Ottens. It is intended that the Doerksen family will operate and manage the proposed facility and that their children will be employed within the facility as they become of age.
- 6) The support of the Enns family in the past has been greatly appreciated by the Doerksens, and as partners in the proposed operation, the Doerksen family would appreciate if the Enns family would continue their support. The proposed operation provides the opportunity for Jacob and Marina's children to remain in the community and pursue their interest in agriculture.
- 7) Jacob has indicated that he will endeavor to operate the proposed operation with the utmost consideration for his neighbours and community. The Ottens have also echoed this sentiment as they can appreciate the importance of working in harmony with their neighbours as experienced in more densely populated areas of Ontario.

Jacob and Marina welcome further dialogue in this respect with their neighbours. If there are any questions or concerns, it is the desire to be as accommodating as possible. Similarly, if there are questions of a technical nature, they can also be communicated our office as well.

Respectfully Submitted;

South-Man Engineering

Per,



Peter Grieger, P. Eng.

Jacob & Marina Doerksen

The Red River Pullet Farm LTD

To whom it may concern,

I have been asked to state an opinion on the building of a leghorn operation in a diverse animal agriculture community in Manitoba. In my opinion there is no risk of transmission of infectious organisms from leghorn pullets or layers to neighboring animals. Leghorns are vaccinated with very safe and efficacious viral vaccines which do not affect other species of livestock. Today's modern housing systems have dry long term manure storage. Whenever this manure is incorporated into the soil the risk of bacterial contamination of neighboring wells is greatly diminished. Even within close proximity to neighboring farms there is no risk of exhaust fan emissions contaminating or infecting bovine or porcine facilities. Dry manure system greatly reduces emissions or pollutants into the environment. If any further information is required I can be reached at 519 658 7127.

Yours truly,

Dr. Lloyd Weber

Poultry Veterinarian

**Tri-Venture Farms Inc. 2022 Four Mile Rd, Niverville,**

**MB R0A 1E0 NW 07-08-04 EPM 204-388-4188**

**Approximately: 8 employees work at this location**

**AND**

**Red River Pullet Farms Ltd. R.M. of Ritchot SW 18-08-4E**

**TRC File No. 12-004**

**Qualitative Threat and Risk Assessment**

Initiation of Request



See Attachment 1

Author



Qualitative Risk Assessment

1. Identify the possible hazards
2. Estimate the probability that the hazard will happen
3. Estimate the impact of that event
4. Consider Mitigating actions that may be taken and their respective cost
5. The aim of the risk assessment process is to remove a hazard or reduce the level of its risk by adding precautions or control measures, as necessary.
6. Assessments should be done by a competent team of individuals who have a good working knowledge of the situation under study. This attempt uses the method but based on limited specific knowledge of the situation.



**Overview:**

This comment will be limited to the change in biosecurity risks to the hog farm (Tri-Venture Farms Inc.) by the building of a poultry operation (Red River Pullet Farms Ltd.) on the quarter section immediately north of the hog farm (Figure 1-5).

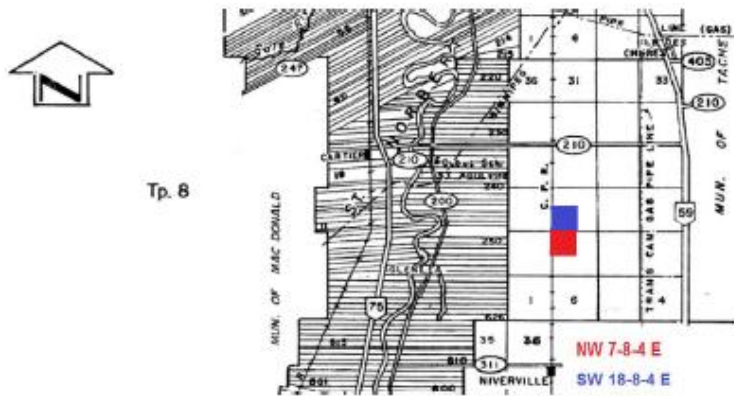


Figure 1 The General location of the hog farm (red) and the poultry farm (blue).

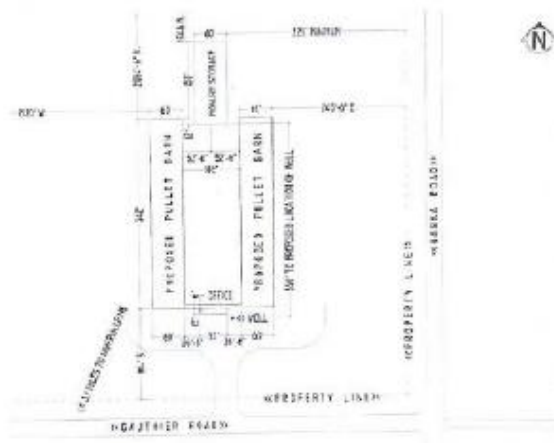


Figure 2 Proposed orientation and location of new barns at the SE Junction of Gauthier and Nanka Road.

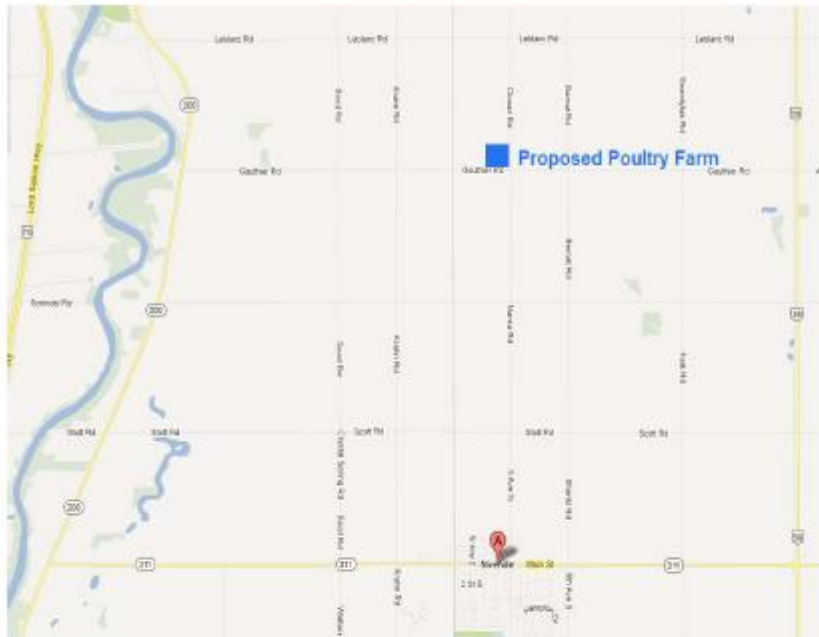


Figure 3 Proposed poultry farm in relation to the town of Niverville.



Figure 4 Aerial view of Figure 3.



Figure 5 Location of the current barn belonging to Tri-Venture Farms Inc. and approximate location of the proposed Red River Pullet Farms Ltd. Gauthier Road west of the current Tri-Venture Farm is closed and Nanka Road both North and south of the current Tri-Venture Farm is also closed to regular traffic, making Tri-Venture Farms Inc. currently enjoy the biosecurity benefits of being located on the end of a dead end road.

## Nature of Operations

### Tri-Venture Farms Inc.

For the purpose of this comment the author assumes the following 1400 sow farrowing barn 350 animal units:

- 1 The unit produces isowean piglets approximately 33,600/year (1350/week) sold off the farm once a week.
- 2 The farm replaces sows at a rate of 700/year and receives 60 gilt replacement once a month.
- 3 Water for the farm is supplied by one or more deep wells.
- 4 Employed staff 7-8 people continuously.

TYPICALLY – These facilities have high biosecurity and strict disease control programs in the sow herd. Usually there is a quarantine facility for the introduction of new breeding stock. Piglets are removed from the farm at approximately 20 days of age. At this age maternal immunity prevents the piglets from being colonized by pathogenic agents that may be present in the sow herd.

This "clean" status of the piglets makes them higher in value than traditional rearing practices. They are moved off the farm and grown to slaughter weight as a single age cohort in previously disinfected barns. Without the burden of infectious agents the group of pigs grows faster and more efficiently than traditional pigs.

#### **Red River Pullet Farms Ltd.**

From the "Large Livestock Operation Proposal" RRPf is described as 130,000 bird 439 animal unit pullet barn. For the purpose of this comment the author assumes the following:

1. The proposal includes 2 barns: there will probably be 2 ages of pullets on the farm.
2. The pullets are of the leghorn commercial laying egg type; raised in cages in the barn from day zero until about 19-20 weeks.
3. Each barn will produce 2 "crops" of laying hens per year: 4 crops of 65,000 laying hens.
4. Water will be from a proposed deep well.
5. Employ 1.5 staff continuously, 30-40 staff at time of flock movement and 15 staff at the time of chick receiving.

TYPICALLY – This type of facility is very high security with a salmonella surveillance and exclusion program. Layers identified as infected with Salmonella serotype Enteritidis will normally not be allowed to go into egg production causing a serious financial cost.

TABLE 1 - Risks to TVF Inc. from the establishment of RRPf Ltd.

1. Increased truck and employee traffic
  - a. Feed trucks
  - b. Chick and pullet transport
  - c. Worker transport
  - d. Service Industry traffic, mechanical, veterinarians,
2. Contamination of water supply of TVS Inc.
  - a. Added manure storage probably above ground Dry, attract wildlife and vermin.
  - b. Competition for manure spreading land.
3. Competition for ground water – Both farms will be drawing water from the same water table with bore holes between 1000 and 1500 feet apart.
4. Infectious diseases common to poultry and pigs
  - a. Common influenzas of pigs and poultry.



- b. Salmonella and other enteric pathogens.
- c. Highly Pathogenic Influenza – RRRPF Ltd. placed under federal Quarantine and TVF Inc is within the highly controlled zone requiring initial stop animal movement later reduced to animal and feed movement with permit conditions.
- d. New influenza (both operations) affecting poultry pigs and man such as the Asian H5N1.

**Risk Matrix**

This matrix is a rough estimate based on speculation by the author. Better informed individuals may adjust as appropriate, numbers and letters refer to Table 1.

Likelihood	Consequences					
	Insignificant	Minor Disruption = \$5,000/yr	Moderate Disruption = \$50K/yr	Major Disruption = \$500K/yr	Extreme Disruption = \$1mil/yr	Catastrophic Business Failure
Certain p>90%	4a	1 a,b,c,d				
Likely 50%-90%		2b	2a			
Moderate 11%-49%		4b		3 Uncertain	3 Uncertain	
Unlikely 3%-10%						
Rare <3%/year					4c	4d

Colour Code: Green: minor action or No action producer discretion

Yellow: mitigation recommended, Red: Mitigation required if available

Risk 3, the water table stability is unknown by the author and thus the uncertainty around that item. There may be other hazards that the author has not considered. Any hazard can be conceptualized as how likely is it to happen and what the consequences are if it does. Rational investment in prevention can then be made with a positive cost-benefit.

The cost of injury due to disruption of personal life and emotive impacts of uncertainty are not generally captured in this approach to talking about negative outcomes. If the swine herd has special or heritage genetics the hazards of production interruption may be more severe and generate more or different rational preventative mechanisms.

## Risk Mitigation Plan

1. Increased truck and employee traffic a) Feed trucks b) Chick and pullet transport c) Worker transport d) Service Industry traffic, mechanical, veterinarians,

Mitigation: (bullet)

- Place clear biosecurity signs identifying farm and refusing entry to trucks and individuals without prior authorization.
- Plant heavy windbreak on an East-West line dividing the properties.

2. Contamination of water supply of TVS Inc.

a) Added manure storage probably above ground Dry. Attract wildlife and vermin.

- No mitigating options available

b) Competition for manure spreading land.

- Work out schedules where both companies are not hauling manure on public roads at the same time
- Forward contract for land use
- Use different contract manure handlers

3. Competition for ground water – Both farms will be drawing water from the same water table with bore holes between 1000 and 1500 feet apart.

- Unknown risk. May have a method of determining the carrying capacity of that aquifer.

4. Infectious diseases common to poultry and pigs

a) Common influenzas of pigs and poultry.

- Influenza strains affecting both pigs and poultry have not been well documented. Most strains only affect a single species.
- Swine influenza currently circulating in North America is infective to turkeys causing significant egg drop syndrome.
- Current circulating human influenza virus is infective to pigs but disease is rare. Pigs are more commonly affected by the human to swine spread of human influenza.

**Recommendation:** Vaccinate swine workers yearly for circulating strains of influenza. Vaccinate sow her with swine influenza as recommended by your veterinarian.

4b) Salmonella and other enteric pathogens.

- Pullet growers have a high level of bio-security and are sampled prior to going into production for certain strains of salmonella.

- Avian specific salmonella strains are generally not commonly found in swine.
- S. Typhimurium and some other salmonella strains and other enteropathogens are infective to both swine and poultry.
- Maintain good biosecurity.
- Contain manure and limit staff contact with other farms and poultry.

4c) Highly Pathogenic Influenza – RRPf Ltd. placed under federal Quarantine and TVF Inc is within the highly controlled zone requiring initial stop animal movement later reduced to animal and feed movement with permit conditions.

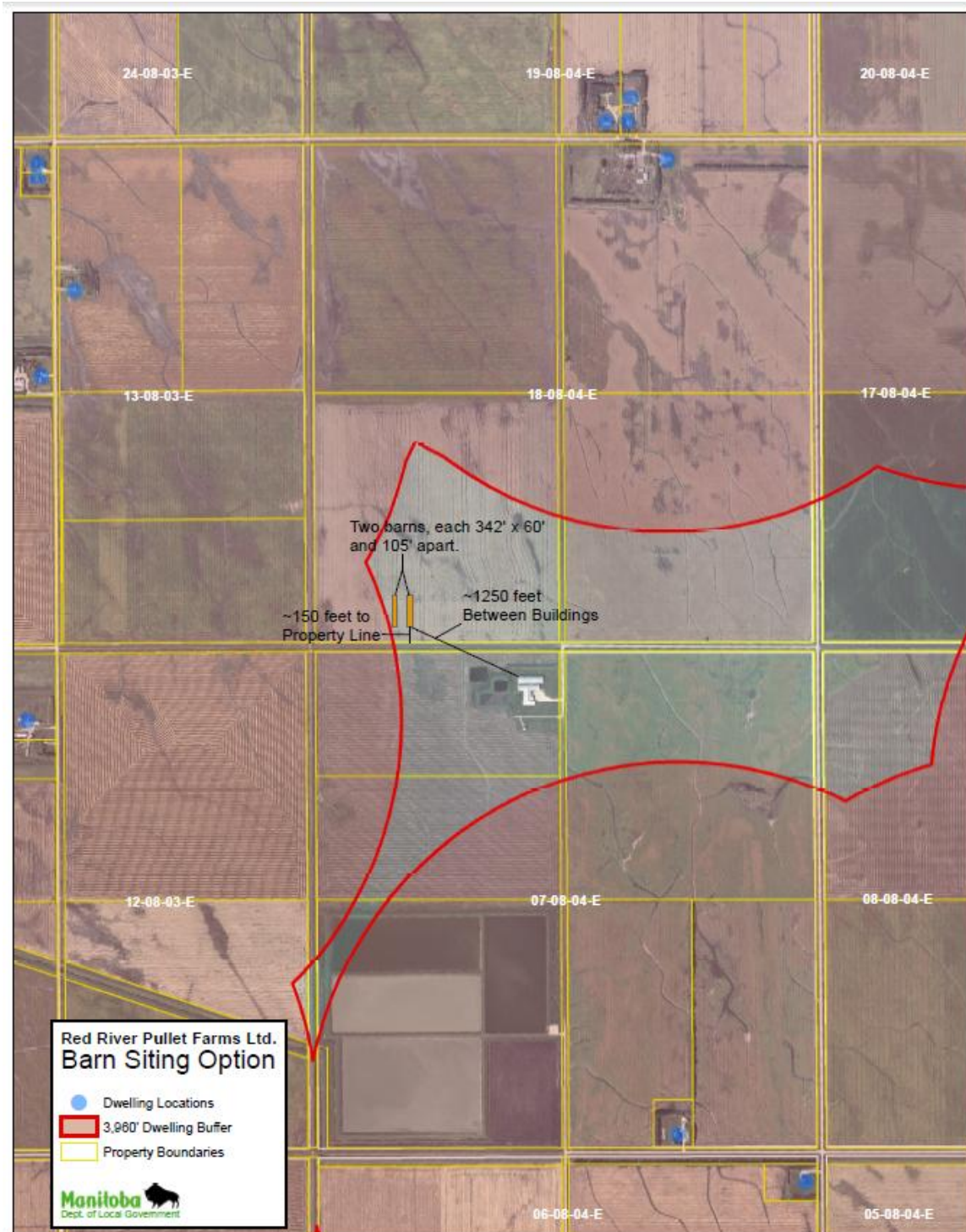
- This rare event will occur every couple of years someplace in Canada.
- Most recent poultry influenza where CFIA responded with stamping out the flock in Manitoba was in turkeys (2010).
- Saskatchewan had a limited outbreak in the past 5 years due to the remote location of the farm (2007).
- British Columbia had a very wide outbreak affecting thousands of birds and many farms (2004).

4d) New influenza (both operations) affecting poultry pigs and man such as the Asian H5N1. This has never known to occur and the risk is near zero.

- Catastrophic disease, people could not enter the barn without full respiratory protection.
- Pigs would likely be destroyed under the Manitoba Public Health Act, or Manitoba Animal Diseases Act. the CFIA has no compensation program for influenza that does not occur in poultry.
- Safety net and ad hoc government programs may be available.

**Conclusion: if the development proceeds.**

- The risks to TVS are similar to the risks shared by many livestock operations in Manitoba. Strategies for managing these risks have been outlined in this document and are increasingly being improved on in national and commodity forums.
- For the highest risk (multi-species influenza), the greatest threat to TVS currently is the human virus introduced by people or other pigs as opposed to poultry. The main swine influenza viruses circulating in U.S. and Canadian pigs in recent years are swine triple reassorting (tr) H1N1 influenza virus. trH3N2 virus trH1N2 virus.
- Poultry are normally free of influenza viruses with the exception of waterfowl.
- Swine flu viruses do not normally infect humans. However, sporadic human infections with swine influenza viruses have occurred.
- Bacterial agent transmission is highest with the attraction of mice and larger vermin. Both companies should adhere to a zero tolerance for spilled feed outside storage bins if the development proceeds.





## Appendix D



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