

TECHNICAL REVIEW COMMITTEE

A TECHNICAL REVIEW REPORT PREPARED FOR

THE RURAL MUNICIPALITY OF STUARTBURN

CANADA SHEEP AND LAMB FARMS LTD. SW 28-03-08E

TRC 12 - 019

February 4, 2016

A. 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 (MG); 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 the 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 may 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

www.gov.mb.ca/ia/programs/livestock/public registries.html

Applicant: Canada Sheep and Lamb Farms Ltd.

Site Location: Approximately 6 kms south east of the community of Zhoda (SW 28-03-08 EPM). Refer to map below.

Proposal: To establish a 945 Animal Unit lamb feeder operation This will involve the following:

- Construction of ten feeder structures (each 32ft x 704ft)
- · Using field storage for manure
- Consuming 24,000 imperial gallons of water per day
- Composting mortalities
- Using the truck haul routes as shown below



C.SITE ASSESSMENT AUDIT

The Audit of: Canada Sheep and Lamb Farms Ltd.

Site Assessment Sections	Meets Requirements for TRC Review (type "X")	Comment	
2.0 Description of Operation	x	The applicant has provided a detailed description of the current operation.	MG
3.0 Nature of Project	x	The applicant has clearly defined the nature of the project.	MG
4.0 Proposed Type and Size of Operation	x	Canada Sheep and Lamb Farms Ltd is proposing to build a new lamb feeding facility with the capacity for 15000 feeder lambs totalling 945 animal units.	MAFRD
5.0 Animal Confinement Facilities	x	Environmental Stewardship Division; Environmental Approvals branch Manitoba Conservation and Water Stewardship regulates the construction of confined livestock areas (CLA) by requiring the proponent to submit an "Application for Permit to Construct, Modify or Expand a Confined Livestock Area" to the Environmental Approvals branch. Section 16(1) of the Livestock Manure and Mortalities Management Regulation (M.R. 42/98) prohibits livestock in a confined livestock area to have access to surface water.	
6.0 Environmental Farm Planning	x	As this is a new operation, there is no existing Environmental Farm Plan.	MAFRD
7.0 Water	Environmental Stewardship Division; Environmental Approvals branch The proposed operation is a new facility and therefore has not submitted Source Water Quality Monitoring analysis to Manitoba Conservation and Water Stewardship. Should approval be grant to establish, the proponent must annually submit Source Water Quality Monitoring reports to Manitoba Conservation and Water Stewardship. Water Stewardship Division; Water Use Licensing branch; Groundwater Licensing section The water requirement from the on-site well for the proposed operation requires a Water Rights Licence. An application for a Water Rights Licence has been received.		cws

The Audit of: Canada Sheep and Lamb Farms Ltd.

Site Assessment Sections	Requirements for TRC Review (type "X")	Comment	Reviewing Departmen
		Water Stewardship Division; Water Science & Management branch Proper nutrient management applications that avoid excess loss of nutrients to surface waters are needed on lands receiving nutrients including 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).	
		The proponent has acknowledged that the setback areas for all water features have been observed and excluded from land base calculations for this operation. It is important that these setbacks be clearly communicated and observed by everyone involved in manure application so as to minimize the risk of nutrients entering surface waters.	
		All unused and abandoned wells on the site and spread fields should be properly sealed. A sealed well report should be filed with the Groundwater Management Section of Conservation and Water Stewardship for all sealed wells. Information on well sealing is available from Manitoba Conservation and Water Stewardship at 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. A list of currently licensed well drilling professionals is located http://www.gov.mb.ca/conservation/waterstewardship/water_quality/wells_groundwater/well_drillers.html.	
		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.	
		Please note that the proposed Well Standards Regulation under the Groundwater and Water Well Act (http://www.gov.mb.ca/conservation/waterstewardship/groundwate r/consultation/index.html) requires a 100 metre separation distance between newly constructed wells and confined livestock areas. Proposed separation distances are meant to protect groundwater quality and should be considered for this proposal. Please note that set-backs will be required from other features if present as described in the proposed regulations.	
0.0 Manure Related	x	Environmental Stewardship Division; Environmental Approvals branch Based on the number of proposed Animal Units, Canada Sheep & Lamb Farms Ltd. will be required to submit an annual Manure Management Plan by the regulated deadline for the storage, handling, disposing, or application of any livestock manure.	cws

Canada Sheep and Lamb Farms Ltd. The Audit of:

Site Assessment Sections	Meets Requirements for TRC Review (type "X")	Comment	Reviewing Department
		Environmental Stewardship Division; Environmental Compliance & Enforcement branch — Eastern region The site assessment proposes field storage as a means of solid manure storage. The proponent is reminded that Manitoba Regulation 42/98 Livestock Manure and Mortalities Management Regulation requires that: Ivestock manure field storage sites are located at least 100 metres from any surface watercourse, sinkhole, spring or well; and livestock manure is stored in a manner that does not cause pollution of surface water, groundwater or soil.	
8.1 Land Available/Required for Manure Application	X	CWS: Environmental Stewardship Division; Environmental Approvals branch 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 P2Os in that area. The Rural Municipality of Stuartburn is not considered to be a "certain area". Manitoba Conservation and Water Stewardship requires permits for construction of manure storage facilities and confined livestock areas. 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. Spreadfields identified in the Site Assessment to be used by Canada Sheep and Lamb Ltd. have been identified on Manure Management Plans for other operations as confirmed spreadfields, specifically: E1/2 NW 28-03-08 E, SE 32-03-08 E and NE 32-03-08 E. In order for sustainable use of these fields for manure application on a 2X application rate basis, the fields should only be used by one operation for land base calculations. The proponent should confirm long term access by Canada Sheep and Lamb Ltd. Manure application must be completed in accordance with Section 12 of the Livestock Manure and Mortalities Management Regulation (M.R. 4298). All residual nutrient concentrations must	CWS MG MAFRD

The Audit of: Canada Sheep and Lamb Farms Ltd.

Site Assessment Sections	Meets Requirements for TRC Review (type "X")	Comment	Reviewing Department
	1000	Manure Management Plan.	
		Water Stewardship Division; Water Science & Management branch The proponent plans to surface broadcast manure without incorporation. It is recommended that where possible manure be incorporated within 48 hours following broadcast application to minimize risk of phosphorus and nitrogen loss in runoff. Where this is not possible, to reduce the risk of runoff losses of nitrogen and phosphorus application should not occur to saturated, frozen or snow covered soils or when heavy rainfall is expected within 24 hours. Fall applications are best completed by mid-October or	
		earlier as manure broadcast shortly before freeze up is more susceptible to nutrient runoff losses during spring snowmelt than if the manure is broadcast earlier in the fall.	
		Manure tends to have an excess of phosphorus (P) compared to nitrogen (N) and as a result for most crops application at N based rates causes a buildup of soil P. Composting manure reduces the N:P ratio further and will require the addition of synthetic N fertilizer for many crops. The majority of the spread fields are sandy with rapid infiltration rates and shallow groundwater (4M and 5W3M Ag Capability) and therefore to minimize N leaching, N fertilizers should not be applied in fall but rather as close as possible to planting of spring seeded crops or as a spring top dressing to fall seeded crops and split applications would be recommended whenever possible (apply N closer to time of maximum crop uptake).	
		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 treatment technologies must be available so that manure can be applied at 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. 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. Sufficient land	
		(2057 acres) has been identified by the proponent to ensure that manure can be applied at 2 times crop removal (1247 acres needed). Over the long term, 2493 acres will be required to remain environmentally sustainable under current cropping	

The Audit of: Canada Sheep and Lamb Farms Ltd.

Site Assessment Sections	Meets Requirements for TRC Review (type "X")	Comment	Reviewing Department
		MG All but one of the spreadfields identified in the site assessment are designated and zoned "A1" Agriculture 1 Area or "LD" Limited Development in the RM of Stuartburn Development Plan By-law 081-2008 and Zoning By-law 98-2011 respectively. The one remaining field is designated and zoned "R1" Rural Area 1 and "R3" Rural Area 3 in the RM of Piney Development and Zoning By-law respectively (BL 53-2009 and BL 80-2012). The RM of Stuartburn and Piney planning by-laws support the continued use of these fields as spreadfields. MAFRD Detailed comments from MAFRD are provided in the Appendix A. In summary, in order to satisfy the Province's requirement for phosphorus (P) in the RM of Stuartburn, it is estimated that Canada Sheep and Lamb Farms Ltd will require approximately 1247 acres of suitable land. This is also enough land to satisfy the Province's requirement for nitrogen (N). Canada Sheep and Lamb Farms Ltd indicated that have access to 2057 acres of suitable land for manure application. Canada Sheep and Lamb Farms Ltd has exceeded the Province's land requirements for the manure N and P. Canada Sheep and Lamb Farms Ltd has also estimated that it may require up to 2493 acres of land in order to manage manure P over the life of the operation. As land requirements are largely based on livestock feeding practices, crop rotation and crop yields, it is impossible to determine with certainty the exact amount of land that will be required for manure application years from now. However, based on the current crop rotation, 2493 acres is a reasonable, approximate estimate of what may be required to manage manure P over the long-term.	
9.0 Mortalities Disposal X		Environmental Stewardship Division; Environmental Approvals branch 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. Composting mortalities is acceptable method of disposal provided it is in accordance with section 15.1 of the Livestock Manure and Mortalities Management Regulation (M.R. 42/98). The proponent should prepare a contingency plan in case of a catastrophic event resulting in mass mortalities.	cws

Canada Sheep and Lamb Farms Ltd. The Audit of:

Site Assessment Sections	Meets Requirements for TRC Review (type "X")	Comment	Reviewing Department
		Environmental Stewardship Division; Environmental Compliance & Enforcement branch – Eastern region The site assessment proposes to compost livestock mortalities (other than mass mortalities). The proponent is reminded that Manitoba Regulation 42/98 Livestock Manure and Mortalities Management Regulation requires that: • livestock mortality composting sites are located at least 100 metres from • any surface watercourse, sinkhole, spring or well, and • the operation's boundaries; • mortalities are composted in a manner that does not cause pollution of surface water, groundwater or soil; and • the composting facilities and process are acceptable to the director.	
10.0 Project Site Description	X	The proposed livestock operation is on land that is designated "A1" in the RM of Stuartburn Development Plan By-law 08-2008. The Development Plan states new livestock operations may be considered in "A1" areas and will be required to meet setbacks identified in the Zoning By-law. Further, the siting of new livestock operations shall be considered as part of the conditional use process to ensure that livestock operations maximize separation distances to adjacent uses as much as possible. The proposed livestock operation is very large and occupies the majority of the quarter section in which it is proposed. The quarter section owned by the applicant to the east is not designated or zoned for the establishment of an intensive livestock operation and cannot be used for the livestock operation. Therefore, based on the size of the operation and the adjacent uses, the proposed siting cannot be altered significantly to increase the separation distances to adjacent uses. The proposed livestock operation is on land that is zoned "A1" in Zoning By-law 98-2011. New livestock operations greater than 200 animal units are listed as a Conditional Use. A Conditional Use application was accepted by the RM of Stuartburn on April 28, 2015. For new livestock operations in the range of 801-1600 animal units the minimum setback requirement from a single residence is 1180 feet. A mobile home has been identified within the setback distance that is required by Table 6-2 in the Zoning By-law. The mobile home is approximately 700 feet away from the proposed pen area for the livestock operation. The Zoning By-law also requires a setback of 6300 feet from a designated settlement area. The closest settlement area, Zhoda, is almost 4 miles away in RM of La Broquerie. The Zoning By-law requires that the site area for the livestock	MG (CRP Regional Office)

The Audit of: Canada Sheep and Lamb Farms Ltd.

Site Assessment Sections	Meets Requirements for TRC Review (type "X")	Requirements for TRC Review (type "X")	
		operation be a minimum of 80 acres. The proposal exceeds this requirement.	
		The Zoning By-law requires that the site width be 600 feet. The proposal exceeds this requirement.	
		The Zoning By-law requires that the site have required front, side and rear yards of 330 feet. The proposal exceeds these requirements.	
		Community and Regional Planning advises that a Variance Order is required to reduce the minimum separation distance between Canada Sheep and Lamb's proposed livestock operation to a residence from1180 feet to approximately 700 feet. The services of a Manitoba Land Surveyor could be employed to determine the exact distance between the mobile home and the proposed pen area.	
10.0 Project Site Description (Native Prairie, Wildlife Mgt Areas, Crown Land)	x	Biodiversity & Land Use Division; Wildlife branch; Habitat, Biodiversity & Endangered Species section No wildlife related concerns. Biodiversity & Land Use Division; Lands branch; Provincial & Regional Land Management Planning section Be advised that if any Crown land is used for the purposes of "spreading" (e.g., laying pipe or hose across or within the parcel) applicable Crown land disposition and review is required. It is recommended that the proponent contact the Regional Lands Manager (Dale Sobkowich at 945-6660) to review what type of disposition would be required to access fimpact Crown lands as part of the proposal.	cws
11.0 Truck Haul Routes and Access Points	x	No concerns.	MIT

CWS - Conservation and Water Stewardship

MAFRD- Manitoba Agriculture, Food and Rural Development

MIT - Manitoba Infrastructure and Transportation

MG- Municipal Government

D. PUBLIC COMMENTS & DISPOSITIONS

All public comments received have been forwarded to Canada Sheep & Lamb Farms Ltd. Their response has been posted on the Public Registry http://www.gov.mb.ca/ia/livestock/trc-12-019.html and has been appended to this report (Appendix B). The comments have also been forwarded to Provincial Departments and their responses have been noted in this report (where applicable).

In addition, provincial department representatives will be in attendance at the yet to be scheduled Conditional Use Hearing to speak to this report and provide additional comments in response to questions regarding provincial requirements.

John & Linda Berg SW28-03-08EPM:

The Bergs reside in a home within 1,000 feet of the proposed operation, downhill from the proposed site. Concerns raised relate to the following:

- Odours;
- 2) Noise;
- 3) Pollution from runoff given adjacent swampy area and nearby Rat River;
- Foreign investors with little concern for impact on locals;
- 5) Impact on property values;
- 6) Handling of solid waste;
- Availability of spreadable land and impact on local water quality;
- 8) Impact on nearby cemetery;
- 9) Impact on local road conditions;
- 10) Dust generation; and
- 11) Monitoring and enforcement of regulations.

Disposition: It has been noted that the applicant has acknowledged potential impacts for the Bergs and has provided a response to most of the raised concerns (refer to Appendix B). As well, the proponent is directed to adhere to provincial requirements and guidelines related to water, manure and mortalities as noted in this report. Concerns related to local roads are generally addressed by the applicant and Municipal Council.

J. Greaves W16-03-08EPM & SE 29-0308EPM:

- J. Greaves is a land and business owner on Franko Road who resides at SW 16-3-8EPM (one to two miles south of the project site). Concerns raised relate to the following:
- 1) Air quality;
- 2) Water table;
- Sound pollution;
- 4) Flies;
- Orchid population;
- 6) Mass mortalities;
- Road degradation and related noise;
- 8) Impact on local cemetery (air quality, sound pollution & fly control);
- Proximity of project to residence on SE 29-3-8E; and
- 10) Proponent's business practices.

Disposition: The proponent has provided a response to the raised concerns. As well, the proponent is directed to adhere to provincial requirements and guidelines related to water, manure and mortalities as noted in this report. Concerns related to local roads are generally addressed by the applicant and Municipal Council.

L.Shologin SW33-03-08EPM:

- L. Shologin is a landowner on Franko Road who resides at SW 16-3-8EPM (one half mile north of the project site). Concerns raised relate to the following:
- 1) Waste storage on field;
- Well capacity;
- 3) Surface runoff, water contamination;
- Solid/liquid waste clarification;
- Composting;
- 6) Phosphorus levels in soils;
- 7) Odours;
- Road maintenance;
- 9) Impact on taxes;
- 10) Sufficient spread fields; and

11) Project location.

Disposition: The proponent has provided a response to the raised concerns. As well, the proponent is directed to adhere to provincial requirements and guidelines related to water, manure and mortalities as noted in this report. Concerns related to local roads are generally addressed by the applicant and Municipal Council.

H. Hosty Roll #187000.000:

The Hostys own a farm approximately 2 miles from the project site. Concerns raised relate to the following:

- 1) Water and air quality; and
- 2) Maintaining the small farm nature of the area.

Disposition: The proponent has provided a response to the water and air quality concerns raised. As well, the proponent is directed to adhere to provincial requirements and guidelines related to water as noted in this report.

E.CONCLUSIONS & RECOMMENDATIONS

Overall Conclusion

The information contained in the Site Assessment submitted by the proponent generally meets Provincial requirements.

Based on the Site Assessment submitted by the producer and available information, the TRC recommends the following appropriate practices, measures and safeguards be taken;

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;
 - publish the notice of hearing in one issue of a newspaper with a general circulation in the planning district or municipality; and
 - 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;
 - the minister (c/o the Steinbach Community & Regional Planning Office);
 and
 - c) every person who made representation at the hearing.

Recommended Actions to Proponent

- The proponent is required to submit an "Application for Permit to Construct, Modify, or Expand a Confined Livestock Area" to Manitoba Conservation and Water Stewardship for each Confined Livestock Area (CLA) to be constructed;
- Construction of a CLA shall not commence until a permit is granted by the Director, and adequate notification is given to Manitoba Conservation and Water Stewardship;
- 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:
- All unused and abandoned wells on the site and spread fields should be properly sealed. A sealed well report should be filed with the Groundwater Management Section of Conservation and Water Stewardship for all sealed wells
- Livestock manure shall be stored until such a time that it can be applied as fertilizer:
- 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;
- 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);
- It is recommended that where possible manure be incorporated within 48 hours following broadcast application to minimize risk of phosphorus and nitrogen loss in runoff:
- The proponent should prepare a contingency plan in the event of a catastrophic event resulting in mass mortalities;
- Any Crown land used for the purposes of "spreading" (e.g., laying pipe or hose across or within the parcel) applicable Crown land disposition and review is required. It is recommended that the proponent contact the Regional Lands Manager to review what type of disposition would be required to access /impact Crown lands as part of the proposal;
- A Variance Order is required to reduce the minimum separation distance between Canada Sheep and Lamb's proposed livestock operation to a residence from1180 feet to approximately 700 feet. The services of a Manitoba Land Surveyor could be employed to determine the exact distance between the mobile home and the proposed pen area;

^{*} 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.

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
Petra Loro	Agriculture Food and Rural Development	Livestock Environment Specialist	545 University Crescent Winnipeg	945-3869
Andrea Bergman	Conservation and Water Stewardship	Technical Review Officer Environmental Approvals Branch	160-123 Main Street Winnipeg	945-4384
Heinz Lausmann	Infrastructure and Transportation	Senior Highway Planning Engineer Highway Planning and Design Branch	1420-215 Garry Street Winnipeg	945-2664

Appendix A

Canada Sheep and Lamb Farms Ltd August 6 2015 Revised January 20 2015 Petra Loro, P. Ag. Livestock Environment Specialist

Manitoba Agriculture, Food and Rural Development (MAFRD) reviewed the site assessment for Canada Sheep and Lamb Farms Ltd as provided by Southman Engineering dated July 31, 2015 and revised January 20, 2016.

Proposed Type and Size of Operation:

Canada Sheep and Lamb Farms Ltd is proposing to build a new lamb feeding facility with the capacity for 15000 feeder lambs totalling 945 animal units.

Environmental Farm Planning:

As this is a new operation, there is no existing Environmental Farm Plan.

Land Available/Required for Manure Application:

MAFRD worked with Canada Sheep and Lamb Farms Ltd prior to submission of the site assessment to determine realistic crop yield targets and the land required for manure application.

In the Rural Municipality of Stuartburn, 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 (N) uptake or twice the phosphorus (P) that will be removed from the field in the harvested portion of the crop over the course of a rotation. 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.

Using the MAFRD land calculator, it is estimated that all of the lambs associated with Canada Sheep and Lamb Farms Ltd will generate approximately 106880 lbs N and 63732 lbs P₂O₅ to be land applied. Using the crops and acreages provided by Canada Sheep and Lamb Farms Ltd, in conjunction with estimated MASC yields using the appropriate agri-insurance tables for risk area 14, it is estimated that the average annual crop N uptake to be approximately 94.6 lb/acre and the average annual crop P₂O₅ removal to be approximately 25.6 lb/acre.

Therefore, in order to satisfy the Province's requirement for P, it is estimated that Canada Sheep and Lamb Farms Ltd will require approximately 1247 acres of suitable land. This is also enough land to satisfy the Province's requirement for N in the RM of Stuartburn. MAFRD's land estimate considers only the N and P from the livestock and does not consider nutrients from any other sources.

MAFRD assessed the land provided in the site assessment in order to provide Council with the assurance that adequate suitable land is available for all of the livestock associated with Canada Sheep and Lamb Farms Ltd to satisfy Provincial policies and

regulations. Canada Sheep and Lamb Farms Ltd has indicated that it has access to 2057 acres of suitable land for manure application. Some of this land will require clearing before it will be accessible by manure spreading equipment. Canada Sheep and Lamb Farms Ltd has indicated in the site assessment that the land will be cleared as required. According to Agri-Maps (MAFRD internal soil survey map viewer), the lands submitted contain Agriculture Capability Classes 2 to 5. Agri-Maps indicates the land has moderate severe limitations due to lack of moisture (M) and wetness (W). These limitations are indicative of wet sands and are reflected in the MASC crop yield averages. Canada Sheep and Lamb Farms Ltd has exceeded the Province's requirements for the manure N and P.

Using the crop P₂O₅ removal values for 1436 acres of suitable annual crop land, Canada Sheep and Lamb Farms Ltd has extrapolated that it may require up to 2493 acres of land in order to manage manure P over the life of the operation. As land requirements are largely based on livestock feeding practices, crop rotation and crop yields, it is impossible to determine with certainty the exact amount of land that will be required for manure application years from now. However, based on the current crop rotation, 2493 acres is a reasonable, approximate estimate of what may be required to manage manure P over the long-term. If feeding practices, crop rotation or crop yields change, then the land required for the long-term management of the manure P will also change accordingly.

Agronomic Information:

In any given year, the amount of land that actually receives manure will depend on the annual manure application rates and the volume of manure to be applied. Manure application rates are most often based on annual soil tests, crop N requirements, realistic target crop yields and estimates of the available N in the manure. Information on the availability of the N in composted sheep manure is limited and is expected to be low relative to liquid pig, dairy or poultry manures. As such, the composted sheep manure may not supply the total N requirement of some crops and application of supplemental synthetic fertilizer N may be required to produce optimum yields. Because manure is rarely a "balanced" fertilizer, repeated, annual N-based manure application rates often result in the build-up of soil test P. Moderate build-up of soil test P enhances soil fertility and benefits crop production, however, excessive build-up of soil test P increases the risk of P being lost to surface water. For this reason, MAFRD recommends that Canada Sheep and Lamb Farms Ltd manage the fertility of the fields that receive manure to keep all soil tests below 60 ppm P over the long-term. Incorporation of manure within 48 hours of application on tilled lands and will also reduce the risk of manure being lost to surface water, particularly if the manure is applied in the fall.

Manure Management Planners and Commercial Manure Applicators:

If the operation uses professional services to prepare its manure management plan, manure management planner 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.

Odour Complaints:

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 Manitoba Farm Industry 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.

Appendix B



Unit 15 - 1599 Dugald Road . Winnipeg, MB . R2J 0H3

ph: (204) 669-9652 • fax: (204) 668-9204 • e-mail: sme@southmaneng.com

Canada Sheep & Lamb Farms Ltd. Technical Review – Response to Community Comments December 15, 2015

Preface:

Canada Sheep & Lamb Farms Ltd. (Canada Sheep & Lamb) propose to construct and operate a lamb finishing facility and abattoir on the property at SW28-3-8E. This site was carefully chosen to minimize disruption of the well-being and lifestyle of rural residents in the Rural Municipality of Stuartburn. The proposal includes many engineering design features aimed at protecting the environment and minimizing odours. These measures including roofs over pen areas and solid concrete floors to prevent any manure constituents from infiltrating into the soil as well as to improve housing conditions for the animals. Out of concern both, for the environment, and the well being of the lambs and employees, and to the benefit of land owners who have accepted to receive the manure from the operation at no cost, Canada Sheep & Lamb propose to compost all of the lamb manure. This will result in a manure product that is nearly odourless, and that is a very stable source of organic fertilizer known to have little impact on water resources.

Canada Sheep & Lamb firstly met nearly all rural residents in the immediate neighbourhood of the proposed site individually, as most of these residents owned some land that was perceived as suited for land application of composted manure. The response at that time was very favourable to the proposal and many landowners willingly provided manure spreading agreements for the arable acres they possessed. Canada Sheep & Land then accepted the gracious invitation of Mrs. Greaves to participate in an information session with other members of the community that she had so effectively arranged in an effort to get a better understanding and more information regarding the proposal. From this interaction, Canada Sheep & Lamb invited all neighbours to visit their Sarto property in order to be able to experience an operating facility and the associated impacts. All of those who attended commented that about the low noise and smell levels.

For all the land that has been acquired and leased, with the exception of land zoned limited development or Crown Lands, Canada Sheep & Lamb intend to clear all acreages that are suited for crop production, with the exclusion of Soil Agricultural Capability soils of Class 6, 7 or Organic. As a condition of the spreading agreements with other land owners, clearing costs of the land will be entirely born by Canada Sheep and Lamb.





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Canada Sheep & Lamb's proposal is not just about the building of a lamb finishing facility, it is also about investing into the community of Stuartburn and surrounding area. The finishing facility manager is a RM resident, and lives on the same section of land as Mr. & Mrs. Berg. The finishing facility and abattoir will create approximately 55 full time jobs in addition to seasonal work during the growing season for crop production and harvesting. With the creation of additional jobs in the area and increased need for arable acres in close proximity to the operation, it is anticipated that property values will in fact increase over time simply through increased demand.

Whereas it is difficult to deny that the immediate neighbours such as the Berg and Greaves families will notice that a new livestock facility is in operation, Canada Sheep & Lamb will make considerable effort to minimize the impacts of the proposal on them by maintaining a mature treed shelter belt around the site, and designing and landscaping of the abattoir in a manner which is attractive and complimentary of the area.

The involvement of the Canadian Food Inspection Agency (CFIA) in the abattoir design and operation, dictates that cleanliness requirements and plant operation both internal and external to the building are such that food products are protected. In addition to cleaning and disinfection, this also encompasses such items as dust control and site grooming. Accessibility of the site for the transfer of live and processed meat products is critical to the long term viability of this proposal and is of high importance to Canada Sheep & Lamb. In instances where the municipality is unable to care for and maintain the roadways in a suitable condition, Canada Sheep & Lamb after consulting with the municipality, will apply their resources to improve and maintain the access to the site at all times throughout the year.

Similar to the manner in which the CFIA regulates the operation of the abattoir, Manitoba Conservation & Water Stewardship regulates the livestock production and manure management aspects of the finishing facility in order to achieve environmental protection. The requirement for completion and filing of an annual manure management plan and source water testing and reporting for groundwater resources used within the facility are an example of regulatory requirements in place to ensure that the environment is protected. In addition to regulatory monitoring, Manitoba Conservation & Water Stewardship also have the ability to enact enforcement action should the situation warrant. Under such a situation, it falls upon the operation to take the necessary corrective measures and incur the costs to attain compliance.





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Response to Concerns Expressed by Neighbours:

J&L Berg - NW28-3-8E

Mr. Berg had his listed property listed for sale at the time Canada Sheep & Lamb first considered SW28-3-8E for construction of the proposed development. Canada Sheep & Land offered Mr. Berg what they believed was a fair price to purchase the land based on the property's assessed value, but were declined. Canada Sheep & Land did not counter offer, as higher offers for the land would ultimately impact the assessed value of other properties in the area, and eventually raise the property taxes for everyone. Mr. Berg committed his adjacent property at NW28-3-8E to Canada Sheep & Lamb for spread acres indicating he was eager to receive the composted manure. During this entire exchange Canada Sheep & Lamb had explained to Mr. Berg exactly what the development entailed and the long term plans.

Of all neighbours, Mr. and Mrs. Berg are likely to be those most impacted by Canada Sheep & Lamb's proposal in terms of odours and noise levels, owing to the close proximity to their residence and location immediately northwest of the finishing facilities. With regard to his concerns for surface water pollution, Canada Sheep & Lamb's proposal proposes drastic steps to separate manure from rain water, by building a roof over the entire pen area. Moreover, groundwater beneath the pens will be protected via a concrete floor for the pens. No other finishing facility in Manitoba features such extensive surface and ground water protection measures. All manure will be composted, which is another measure that will significantly reduce odours, minimize flies at the site, and results in a fertilizer that is stable and unlikely to leach nutrient into the sandy soils which are prevalent in the immediate area.

Manure from the facility will be transported away from the production site to adjacent parcels of land designated to receive manure. As a solid product this manure and bedding will be hauled by truck and stored in a windrow which after a period of storage will be turned and mixed to achieve the desired composting action. Sufficient manure equivalent to the amount that the parcel of land can receive as organic fertilizer will be all that is stored and processed on a particular site. Additional sites will be utilized to disperse the manure in the appropriate proportions as determine from soil testing and cropping intentions under the requirements of a manure management plan. Soil testing will be conducted as a means of monitoring nutrient levels in the soils and limiting them such that impacts to groundwater do not occur. Storage of manure in the same location will not occur in subsequent years as it is expected that a single parcel of land will only receive manure every third or fourth year.





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The cemetery located in close proximity to the site exists on land owned by Canada Sheep & Lamb. Discussion have been had with the cemetery committee and municipality in this respect and it has been mutually agreed upon that access and use of the property will be sustained as currently existing and that Canada Sheep & Lamb will respectfully honor the use of the property and its visitors.

J. Greaves - W16-3-8E & SE29-3-8E

These parcels of land are now removed from the application. For the record, after consultation with MAFRI crops and soils specialists, Canada Sheep & Lamb's business plan included the clearing of all land suitable for spreading, at their costs. It is unfortunate that this detail was either not conveyed, or was forgotten in the discussions with the owners of these lands.

Residence mistaken as a Cabin: the application does not list the existence of a cabin, nor does it appear as a cabin on the site plans. The information on residence locations was taken from aerial photographs dated as June 18, 2013.

Small business: the information from Mrs Greaves indicates that the property on SE29-3-8E is in fact a small business; TRC members reviewing the land designation and properties did point out that two subdivisions were missed, along with a mobile home that was the object of a development permit application in 2014 that did not appear on the 2013 aerial photographs; these were added to the application. However, there was no indication that a new residence was permitted on SE29-3-8E.

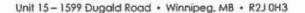
1) Air quality: the design of this finishing facility is above and beyond that of any other feedlot in use in Manitoba. The finishing facility design includes a roof over all pens areas, and pens feature a concrete floor. Whereas it is obvious that the operation of the finishing facility will generate some odours and perhaps dust, the wind rose for the site suggests that predominant winds are generally from the NNW and the NW, otherwise winds would generally come from the SSE, S and SE; only north winds, occurring about 10% of the time, would carry odours to residences on W16-3-8E. In spite of the closer proximity, the small business on SE29-3-8E would be impacted by odours even less often, as winds are from due E or EEN are less than 5% of the time over the year. This pattern generally applies to all seasons. Wind roses are the best meteorological data available to evaluate by frequency of occurrence of malodours, if any, from any livestock operation.

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- 2) Water table: Southeast Manitoba is renowned for its plentiful groundwater reserves. The water use at this livestock operation is substantially less that for some other operations, like medium sized dairy or hog operations. Based on the projected usage by the operation (> 5600 igpd) a Water Rights License will be required and subsequently obtained. With regards to the impact on the water table, a hydrological study will be conducted to determine the impacts as part of the licensing process. The hydrogeology in this area of the southeast is such that groundwater wells extracting water below 100' often yield pumping rates between 30 and 60 imperial gallons/minutes; the drinking water requirements as well as water for the abattoir and employee's quarters will be substantially less than such high water yield capacity for wells.
- 3) Noise pollution and pests: It is not expected that noise levels will be any greater than those for other types of livestock operations; given the size of the livestock, entering and exiting the facility the noise from the livestock is expected to be significantly less than for a cattle feedlot, for example. Other noises, during daytime, will result from farm equipment use, and will not exceed normal levels for such equipment. The concern about flies is legitimate. Livestock operations are favourable to the reproduction of common flies. However, since there has been a dairy operation situated just north of the site, the presence of common flies should not be a new occurrence in the area. Canada Sheep & Lamb will control flies on the livestock, and flies control measure can be implemented for the manure compost piles, if required. It should be noted that proper composting of organic material such as lamb manure generates sufficient temperatures into the piles, which are regularly turned, to kill flies and larvae. Owing to sanitary impetus, flies will be controlled in the vicinity of the abattoir.
- 4) Rare species Orchids: as indicated, we have contacted the Manitoba Conservation Data Centre to inquire about rare species that could be impacted. While the Data Centre did not have any specific record for this site, we recognize that some sensitive fauna or flora could exist at the site. Mrs. Greaves is invited to contact Manitoba Conservation Data Centre and report the existence of orchids in the area, and disclose their location. If these orchids are in fact part of the native flora of Manitoba, efforts will be made to either protect their immediate habitat, or else attempt to relocate the established stand, if possible.
- 5) Mass mortality plan: while it is premature to invest capital for consultants to develop a mass mortality management plan, at the project application stage for consideration as a conditional use, Canada Sheep & Lamb is committed to drafting such a plan once the conditional use of the property is granted, as indicated in the proposal. The proposal cites rendering, hauling to a Manitoba Conservation and Water Stewardship approved landfill and large scale composting as viable alternatives for this purpose. The management of mass mortalities is regulated under the Livestock Manure and Mortalities Management Regulation 42/98, and Canada Sheep & Lamb intends to report any such mass mortality and to cooperate with Manitoba Conservation and





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Water Stewardship to dispose of any deceased animals in a pre-approved, environmentally sound manner.

- 6) Road degradation: road repairs are under the jurisdiction of the RM. With the understanding that slaughter will be carried out on-site, the only livestock hauling traffic will be for the 35 kg lambs trucked to the facility for finishing and processed meat leaving the facility in various size trucks depending on the end user of the product. While some feed trucks will inevitably use Franko Road, this will not be a daily traffic and all measures will be taken to avoid damaging Franko Road, for the mutual benefit of Canada Sheep & Lamb, who needs access to PTH 12, and residents alike. Where applicable, road restrictions will be observed. This new operation will be the source of increased tax revenues for the RM, and Canada Sheep & Lamb is hoping that some of these additional tax revenues will be devoted to maintaining Franko Road for everyone's benefits.
- 7) Cemetery: Canada Sheep & Lamb is most respectful of Manitoba residents who have passed away. There will be no composted manure applied within 10 m of any marked resident burial site or marked cemetery. Sheep manure does not carry as much odours as some of the more pungent manures; moreover, all lamb manure will be composted, which will further reduce any remaining odour as composted manure will be land applied. Mrs Greaves does not indicate the location of her family's cemetery; assuming that it is on SW16-3-8E, odours and noise from the feedlot situated to the south will be greatly attenuated and infrequent, for the same reasons as explained above.
- 8) New residence relocated on SW29-3-8E: if required by the TRC panel, Canada Sheep & Lamb will arrange for an exact measurement of distance between the new residence recently moved to the site, and the proposed west edge of the feedlot.
- 9) Concerns about exceeding conditional use animal units size: while it is undeniable that Mr. Smith had made a mistake in undertaking an unapproved expansion of his facilities in the RM of Hanover, it is also clear that the RM exercised its powers and imposed a large fine to Mr. Smith and Canada Sheep & Lamb. In the process of remediating this mistake, Canada Sheep & Lamb has learned considerably and this knowledge has been included into this proposal.

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L. Shologin - SW33-3-8E (NW top corner)

- Waste storage: The lamb manure will be composted after removal from the pens, and only non-odorous composted manure will be field applied. Typically, the composted manure would be field stored only in the quantity required for that particular field, and only when immediate land application is not practical (e.g. during winter months).
- 2) Well capacity: Again, southeast Manitoba is renowned for its plentiful groundwater reserves. The water use at this livestock operation is substantially less than for some other operations, like medium sized dairy or hog operations. The hydrogeology in the general area is such that groundwater wells extracting water below 100' often yield pumping rates between 30 and 60 imperial gallons/minutes.
- 3) Surface water contamination: while it is true that occasionally the southeast experiences heavy rains, the coarse (sandy) nature of the soils in the area allows for rapid infiltration, which helps, along with the ditch network, to drain excess surface water away from land. As far as pollution risks, the finishing facility design includes a roof over all pens areas, and pens feature a concrete floor; all efforts are made to separate rain water from manure in this design, as soggy pen situations is detrimental to the health and growth of small lambs. Very little risk of surface water pollution exist in association with this proposal. As far as contamination of surface wells, shallow wells are more likely to be polluted by residential septic fields or ejector systems, as contaminants are deposited continually in the immediate vicinity of residential wells.
- 4) Liquid waste: the feedlot will not produce any liquid waste manure is managed in the solid form only.
- 5) Composting: composting is a biological process wherein the growth of aerobic bacteria is facilitated by frequent compost windrow turning to aerate the piles. These bacteria consume the organic matter in the livestock manure, and tie the nutrients into more stable organic matter. After composting is finished, the entire pile is ready for land application, or field storage during winter months. All bacteria and organic matter is therefore removed from the site and spread in accordance with a manure management plan as per the Livestock Manure and Mortalities Management Regulation MR42/98.
- 6) Phosphorus levels in fields: all fields listed in the Manure Application Field Characteristics Table had to be soil tested in order to determine the existing levels of phosphorus and nitrogen. Only fields with less than 60 ppm of phosphorus can be used for land application of livestock manure. All fields identified for composted manure application will provide greater crop yields as a result of composted manure application as crop needs exceed the levels of phosphorus and





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nitrogen currently available in these fields. Many fields are very deficient in phosphorus and nitrogen.

- Odours: Both separation distance and the presence of trees is known to attenuate the intensity of livestock odours, but this effect is difficult to measure and highly depends on each livestock and residential situations. Malodours are largely resulting from manure having excessive moisture content, as it results from the anaerobic bacteria (which thrive in low oxygen situations) that would develop when manure is wet, as is typically the case with liquid manure. Odour production from the pens will be kept to a minimum as the roof over the pens will avoid situation of soggy manure. Similarly, as the manure is removed from the pens it will be composted, an aerobic process. Odour generation from this aspect of manure management will be minimized both at the site as well as during land application. It should be noted that composted sheep manure remains a very popular fertilizer source for gardeners, and is available for purchase at Walmart, RONA, Peavy Mart, and most garden centres in Winnipeg and elsewhere across Canada. Nevertheless, there will be some odours produced from the lambs, however not nearly to the same intensity as similarly sized hog or dairy operations utilizing liquid manure handling systems. The windrose at the site suggest Mr. Shologin's residence, situated at the northwest corner of SW33-3-8E, may be inconvenienced by some odours from the finishing facility located slightly over 1 mile south when winds are from the south, that is approximately 15% of the time. While it remains difficult to quantify the odour level that could be reaching Mr. Shologin's house, it should be less than odours coming from dairy, cattle or hog operations of the same size, as these all feature anaerobic manure situations or liquid manure management systems.
- 8) Road traffic: Since slaughter of grown lambs will be carried out on-site, the only livestock hauling traffic will be for the feeder lambs trucked to the finishing facilities and processed meat products. Highway trucks and trailers are expected to be used for the transport of young stock and processed meat product shipments. While some feed trucks will inevitably use Franko Road, this will not be a daily traffic. This new operation will be the source of increased tax revenues for the RM, and Canada Sheep & Lamb is hoping that some of these additional tax revenues will be devoted to maintaining Franko Road to allow for continuous use by Canada Sheep & Lamb and its neighbours. Should this not be sufficient, Canada Sheep and Lamb will commit their own resources to maintaining and improving the roadway system.
- 9) Impact on taxes: Appreciation of land value as a result of the emergence of a sizeable livestock operation occurs when the operation's business plan includes the acquisition of a large land base for its operation. In this case, Canada Sheep & Land is instead offering a supply of one of the best compost materials available to neighbouring livestock farmers. Many farmers have recognized the opportunity and were pleased to engage in a mutual agreement with Canada Sheep & Lamb to accept the composted manure to fertilize prairies and pastures, and improve some of their land to annual crops. Consequently, property taxes should be directly affected; the



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added tax base resulting from the appraisal of Canada Sheep & Lamb's facilities may even provide the RM with the capacity to freeze the tax roll for some years.

- 10) Spreading acres: the proposal is listing all land that was inventoried either as owned, lease, or subject to a spreading agreement. The Livestock Manure and Mortalities Management Regulation MR42/98 requires that operations with more than 300 animal units, as is the case for Canada Sheep & Lamb's proposed operation, file a yearly manure management plan. The plan requires identification of all land where composted manure would be spread; a soil test report must be submitted for each field identified on the plan. Operators have to submit a spreading confirmation form, which lists only those fields where manure was actually applied, as typically operators identify more land than required in the plan, to allow flexibility in spreading when either seeding plans change or weather conditions limit access to certain fields. While manure management plan information may not be accessed by the public due to The Freedom of Information and Protection of Privacy Act, neighbours can always request a copy of either the manure management plan or the spreading confirmation form for the current year from Canada Sheep & Lamb.
- 11) Location: When the property of a rural resident such as Mr. Shologin is entirely surrounded by land zoned "Agriculture Zone –A1", it can only be a shock to find out that the land is being acquired for the purpose of carrying on some form of intensive agricultural production. Canada Sheep & Lamb's proposal meets all the zoning and setback requirements set out in the Rural Municipality of Stuartburn. Canada Sheep & Lamb's proposal includes out of the ordinary facility design and a manure management system that will mitigate to a strict minimum odour nuisance and environmental impacts, if any. The abattoir, also part of the proposal, will in itself reduce road traffic on Franko Road versus moving market weight lambs to an alternate location. For these reason, Canada Sheep & Lamb will have very little, if any, impacts on Mr. Shologin's property and lifestyle.



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Mr & Mrs Hosty, Zhoda, MB (Roll #187000.000)

All that can be commented on in respect to this letter against any medium to larger scale agricultural enterprise, crop based or livestock based, is that all things being equal, odour and surface water concerns with the Canada Sheep & Lamb proposal owing to composting all lamb manure will result in a lesser source of nuisance odours and surface water concerns than for most other types of livestock operation with the same number of animal units.

Mrs E. Wade - location of residence not disclosed.

Mrs. Wade merely states her categorical opposition to the proposed lamb finishing facility. As she did not identify a specific concern, no response can be made.