



**TECHNICAL REVIEW COMMITTEE**

**A TECHNICAL REVIEW REPORT**  
**PREPARED FOR**

**THE RURAL MUNICIPALITY**  
**OF**

**ROSSER**

**ROSSER HOLSTEINS LTD.**  
**SW ¼ 6-12-1 EPM**

**TRC 12 – 041**

**May 14, 2018**

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## A. INTRODUCTION – THE TEAM

The Technical Review Committee (TRC) is supported by the following department personnel:

- Agriculture (Ag); Livestock Environment, Nutrient Management and Business Development Specialists, Agricultural Engineer, and Veterinarians
  - Municipal Relations (MR); Community Planners
  - Infrastructure (MI); Development Review Technologists, Engineering and Operations Division; Development Review Officers, Water Management and Structures Division
  - Sustainable Development (SD); Technical Review Officer, Soils Specialist, Environmental Engineer, Environment Officer, Habitat Mitigation Biologist, Regional Wildlife Manager, Nutrient Management Regulation Supervisor, Groundwater Specialist, Water Rights Licensing Manager and Resource Planner
- and
- Any other specialist or department that may have an interest, which may be consulted during the process.

The Technical Review Coordinator, (Senior Planner, MR) chairs the committee.

## THE REPORT (TRC Process Box 17)

### Prime Purpose of TRC Reports

To provide objective, highly credible, technically-based assessments that:

- a) Enable municipal councils to make informed Conditional Use Permit decisions;
- b) Create a common stakeholder understanding of a livestock proposal, potential impacts and related regulatory requirements and safeguards;
- c) Provide a vehicle/forum that enables the sharing of public concerns and proponent responses;
- d) Offer recommendations to both municipal councils and proponents; and
- e) Represents the fulfillment of the TRC's role as per 116(1)(b)(i) of The Planning Act – to determine, based on available information, that the proposed operation will not create a risk to health, safety or the environment, or that any risk can be minimized through the use of appropriate practices, measures and safeguards

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.

## **THE PROCESS**

- TRC Process Chart with actual pertinent dates and brief overview

# The Technical Review Process: TRC-12-041 – Rosser Holsteins Ltd.



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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)

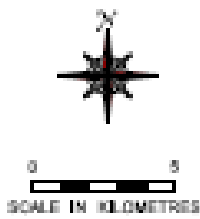
**Applicant:** Rosser Holsteins Ltd.

**Site Location:** Approximately  $\frac{3}{4}$  of a mile (1.2 km) south of the community of Rosser or approximately 6 miles (9.6 km) south of the community of Gross Isle at SW  $\frac{1}{4}$  6-12-1EPM. Refer to map below.

**Proposal:** To expand a current dairy operation from 600 animals (1200 AU) to 1000 animals (2000 AU) within an animal confinement facility. (AU = Animal Units)

This will involve the following:

- Construction of a new 114' x 160' bedding pack barn with drive through feed alley behind existing milking parlor
- No buildings to be replaced or demolished
- A bedding pack pen (55' x 42') only, to be removed and replaced by new wing
- No new Manure Storage facility proposed;
- Use of existing 2 cell earthen manure storage facility (total capacity of 7 million US gallons) at main barn site and use of field storage
- Consuming 40,826 imperial gallons of water per day (from 2 existing wells)
- Composting mortalities
- Site location has permanent site for compositing mortalities
- Using the truck haul routes as shown below

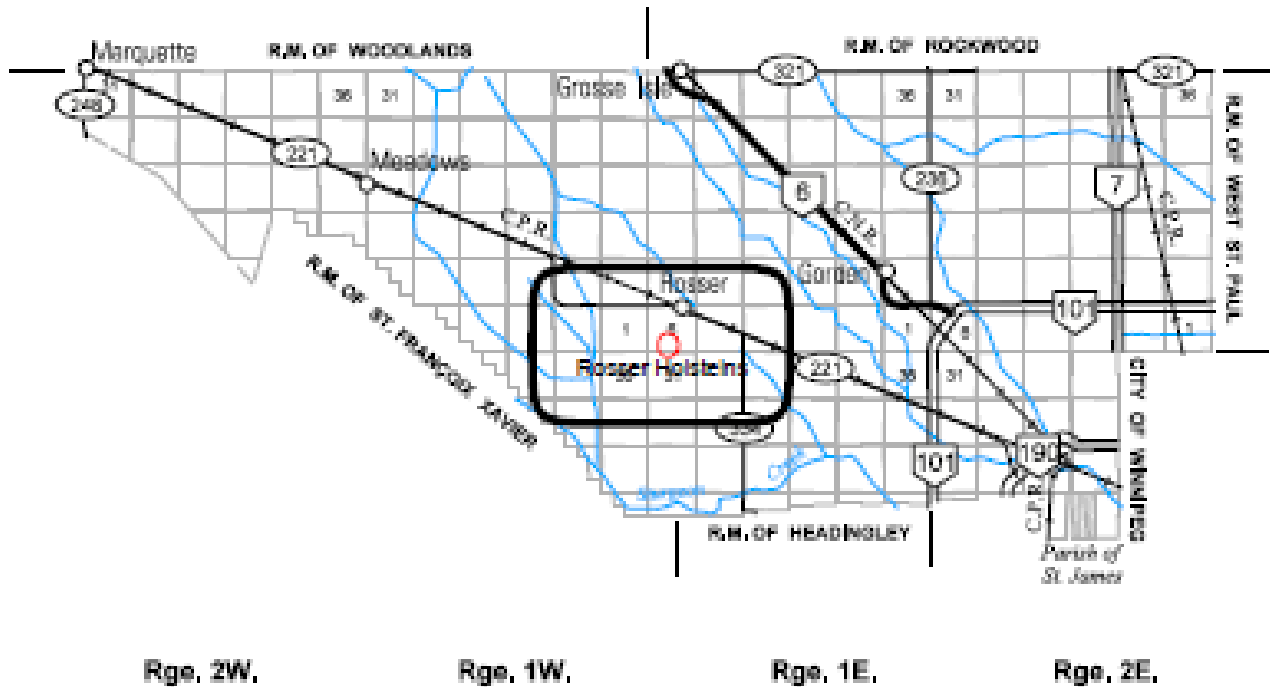


# R.M. OF ROSSER

PROVINCE OF MANITOBA  
 INFRASTRUCTURE  
 HIGHWAY PLANNING AND DESIGN BRANCH  
 GEOGRAPHIC & RECORDS MANAGEMENT SECTION  
 WJN/MS  
 JANUARY 2015

## LEGEND

PROVINCIAL TRUNK HIGHWAYS		ACCESS ROADS	
PROVINCIAL ROADS		RAILWAYS	



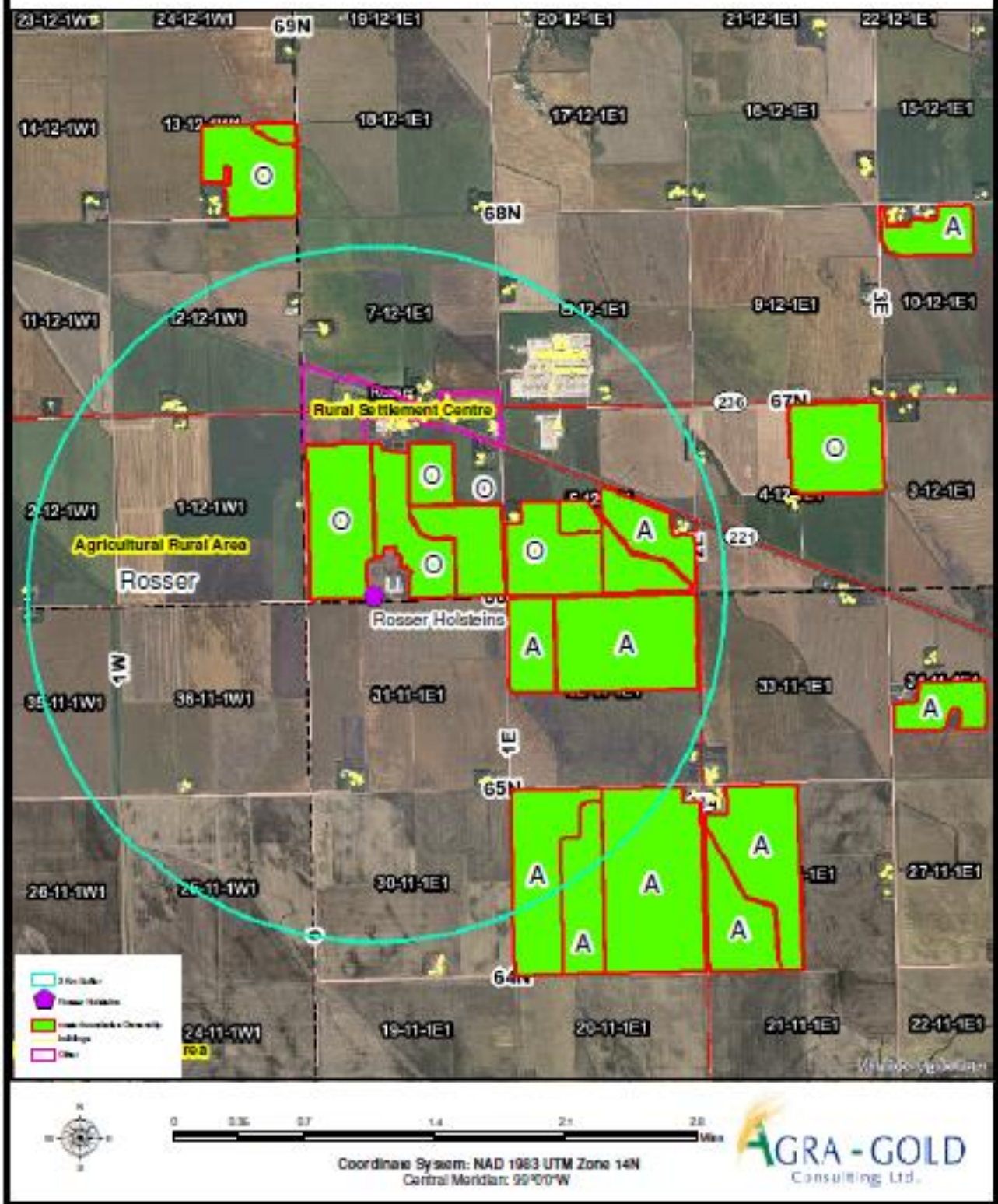
Tp. 12

Tp. 11



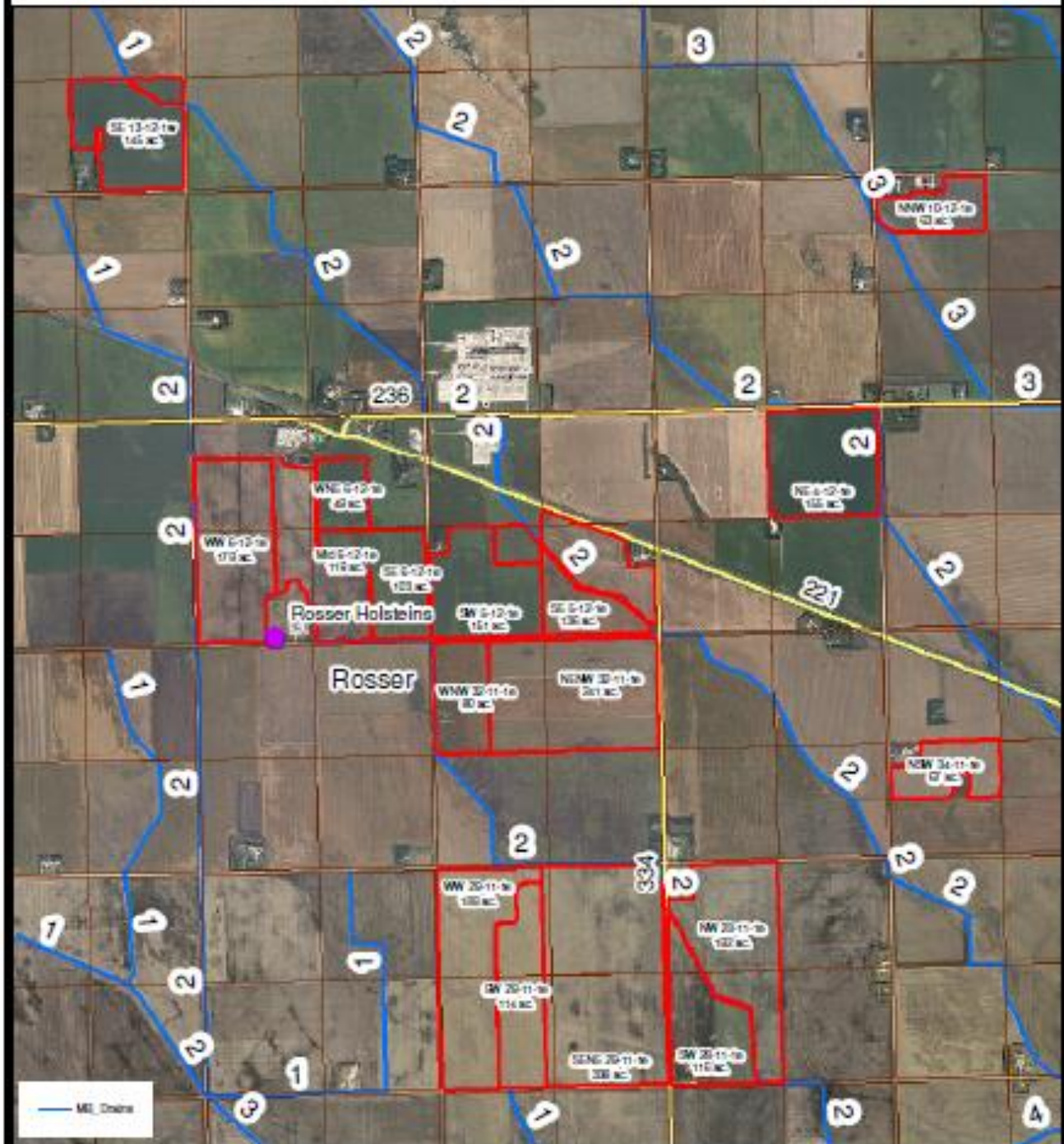
Rosser Holsteins – Truck Haul Route

# Rosser Holsteins - Land Use Map





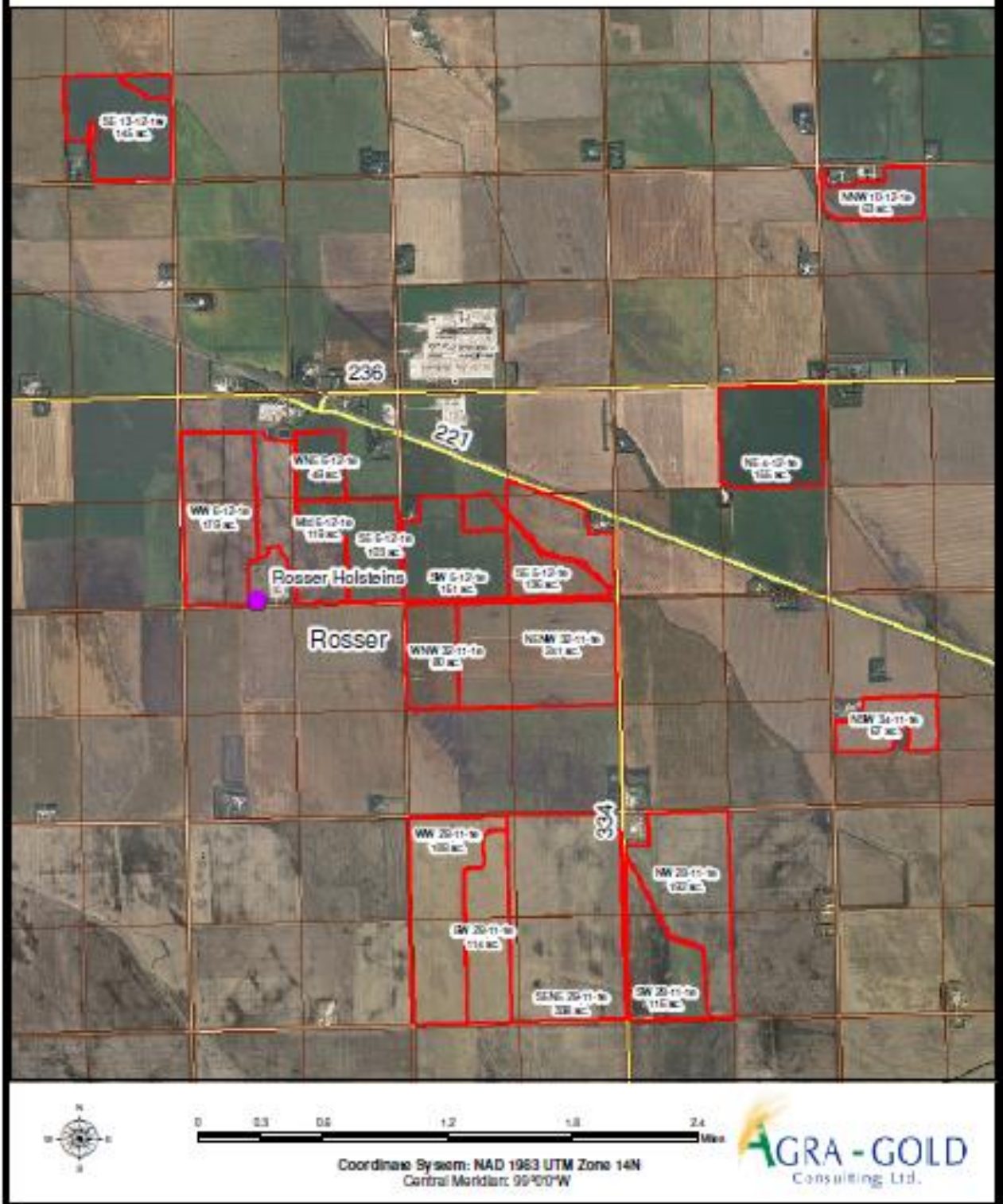
# Rosser Holsteins Drains

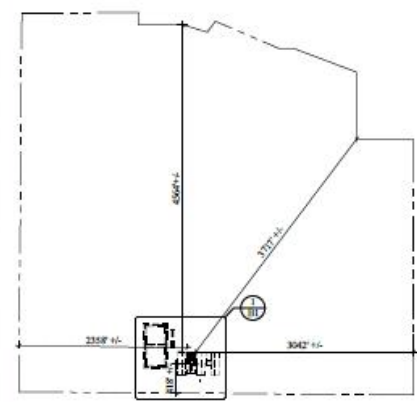
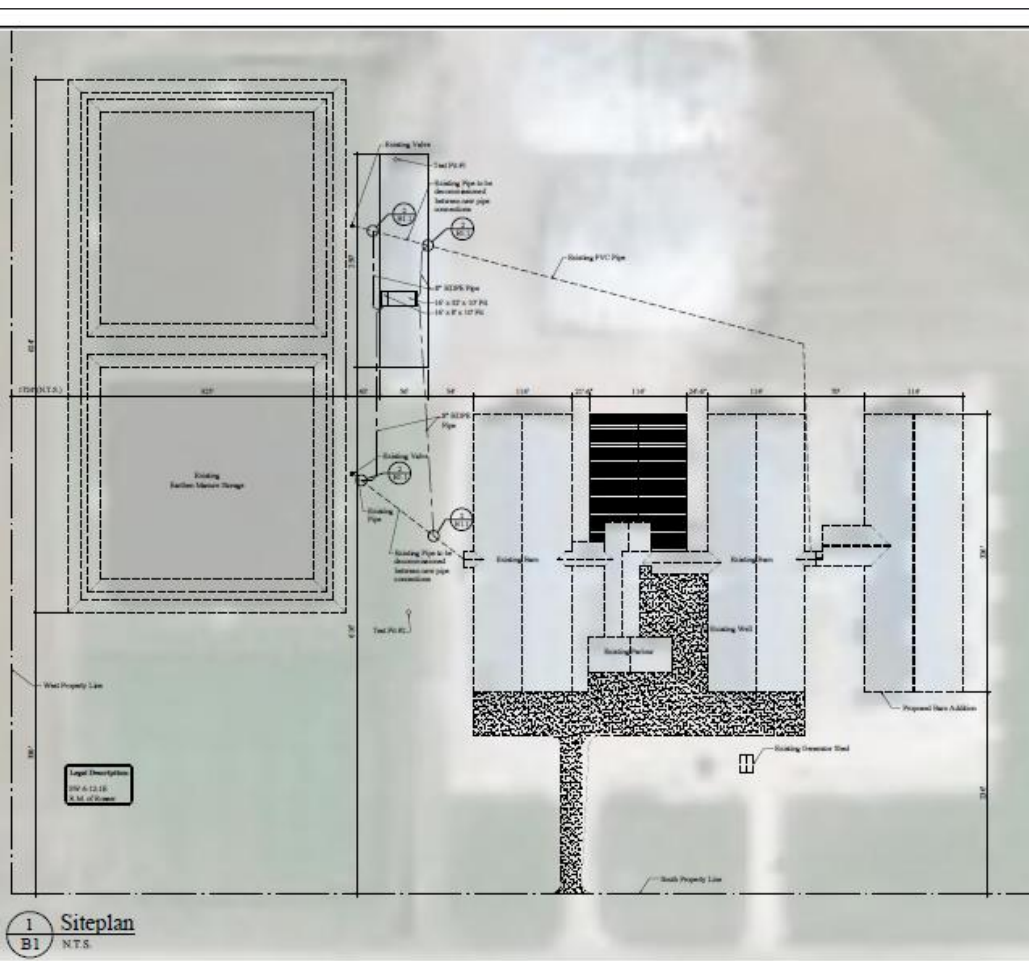


Coordinate System: NAD 1983 UTM Zone 14N  
Central Meridian: 99°00'W



# Rosser Holsteins Spread Fields





**Penfor Construction**  
 Box 30 Hammar, Marquette, MI 49851  
 Phone: (231) 238-4515, Fax: (231) 946-1318

**Rosser Holsteins**  
 Proposed Stowpack Addition  
 Rosser, MI

Site Plan		
Date: Jan. 9, 2018	Drawn by: DD	Sheet: <b>B1</b>
Scale: As noted	Checked by: RD	

## C. SITE ASSESSMENT OVERVIEW

### Assessment Overview Table

Provincial Technical Overview of TRC 12-041 - Rosser Holsteins Ltd:			
Items Provided by Project Proponent	Con- firmed	Related Existing Provincial Safeguards	Dept
1. Submitted complete Site Assessment	X	The proposal is consistent with the Provincial requirements for a Livestock Operation.	MR
2. Clearly defined the project as an Animal Confinement Facility	X	Any barn is in excess of 6,458 sq. ft. each will require a building permit from the Office of the Fire Commissioner.	MR
3. Proposed Project Site Physical Suitability	X	Detailed soil survey indicates that the proposed expansion is on prime agricultural land (agriculture capability Class 2 soils).	Ag
4. Proposed Project Site Flood Risk Potential	X	Water Management, Planning and Standards is not aware of any major, overland flood risk at this location.	MI
5. Identified 40,826 imperial gallons/day required for proposed operation	X	Rosser Holsteins currently holds a valid Water Rights Licence, but must apply for an amendment for their increased water need. The Water Rights Act in Manitoba is one of prior appropriation or 'first in right time first in right', with a prohibition against the use of water without a license, unless the water is being used for domestic purposes and less than 25,000L/day. A licensee is governed by the rights of all pre-established licensees and pre-established domestic users who have priority.	SD
6. Proposed measures to meet storage and application regulations for manure	X	Annual submissions under the Livestock Manure and Mortalities Management Regulation would be processed by Environmental Approvals Branch of Sustainable Development.  The proposed operation would continue to be required to register annual manure management plans. Manure management plans are reviewed by Branch staff for regulatory compliance at the time of submission. As soil nutrients change over time, SD staff cannot dedicate resources to review the spreadfield information and soil tests in this site assessment. However, soil analysis reports are included in the manure management plans. Additional details on the required information for manure management plans, including mandatory sampling depth, soil analysis and completing the form are provided at: <a href="http://www.gov.mb.ca/sd/envprograms/livestock">http://www.gov.mb.ca/sd/envprograms/livestock</a>	SD
7. Proposed Project Site with suitable mortalities disposal	X	Information on disposal is provided in section 9 of the site assessment, which requires the proponent to select from 4 acceptable methods of disposal. More specific information is	SD

**Provincial Technical Overview of TRC 12-041 - Rosser Holsteins Ltd:**

<b>Items Provided by Project Proponent</b>	<b>Con- firmed</b>	<b>Related Existing Provincial Safeguards</b>	<b>Dept</b>
methods (composting)		included in the Livestock Manure and Mortalities Management Regulation and at <a href="http://www.gov.mb.ca/sd/envprograms/livestock">http://www.gov.mb.ca/sd/envprograms/livestock</a> .	
8. Proposed Project Site with acceptable odour control measures	X	<p>The proponent has indicated that the liquid manure undergoes solid-liquid separation in order to re-use the solids for bedding. This reduces the solids in the manure storage facility, resulting in less crusting on the surface of the liquid manure. Crusting of dairy manure is often credited with reducing odours from the manure storage facility.</p> <p>The proponent has also indicated that the liquid manure will be injected. Injection or immediate incorporation of liquid manure reduces odours during land application.</p> <p>Should odour become a problem for neighbouring residents, there is a complaints process under <i>The Farm Practices Protection Act</i>. A person who is disturbed by any odour, noise, dust, smoke or other disturbance resulting from an agricultural operation may make a complaint, 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 nuisance 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.</p>	Ag
9. Proposed Project Site that meets development plan and zoning by-law requirements	X	<p>The proposed livestock operation expansion is on land designated as an Agricultural Rural Area on the South Interlake Planning District Development Plan By-law No. 3/10. The proposal complies with Development Plan policies pertaining to the expansion of an existing livestock operation in the Agricultural Rural Area (policies 3.3.1).</p> <p>Under the RM of Rosser Zoning By-law No. 15-14, the proposed site is zoned as an "AL" Agricultural Limited Zone. Livestock operations are required to have a minimum site area of 80 acres and a minimum site width of 600 ft in the "AL" Zone. The proposed site satisfies these minimum bulk requirements. Livestock operations with greater than 125 Animal Units are considered Conditional uses in the "AL" Agricultural Limited Zone.</p> <p>A livestock operation is required to be developed in accordance with Zoning By-law Section 5.9.</p> <p>According to Table 5-3 of the Zoning By-law, a livestock operation producing between 1,600 to 3,200 Animal Units is</p>	MR

**Provincial Technical Overview of TRC 12-041 - Rosser Holsteins Ltd:**

<b>Items Provided by Project Proponent</b>	<b>Con- firmed</b>	<b>Related Existing Provincial Safeguards</b>	<b>Dept</b>
		<p>required to meet the following minimum mutual separation distances:</p> <ul style="list-style-type: none"> <li>- 9,186 ft. from a designated Rural Settlement Area to an earthen manure storage facility or feed lot; and</li> <li>- 6,135 ft from a designated Rural Settlement Area to an animal confinement facility or non-earthen manure storage facility.</li> </ul> <p>A designated Rural Settlement Area is located within a distance below the minimum separation requirements to an earthen manure storage facility or feed lot and to an animal confinement facility or non-earthen manure storage facility.</p> <p>Variations to vary these mutual separation distances are required from Council to ensure compliance.</p> <p><i>The Planning Act</i> requires municipalities to issue development permits for any development on a site. All development must comply with the Development Plan and Zoning By-law. Any proposed development that does not meet the minimum mutual separation distances require Council approval which involves a public hearing process to vary those requirements.</p>	
<p>10. Proposed Project Site that is a sufficient distance from native prairie, Wildlife Managements Areas and Crown Land.</p>	<p>X</p>	<p>Distances to these features is provided in section 10.5 of the site assessment. Where the distances exceed 1 mile, the department generally has no objection.</p>	<p>SD</p>
<p>11. Proposed Spreadfields that are sufficient, and suitable for manure spreading</p>	<p>X</p>	<p>Rosser Holsteins Ltd has exceeded the land requirement for 1000 mature dairy cows plus associated livestock, as follows:</p> <p>In areas of lower livestock intensity such as the RM of Rosser, it is currently the Province of Manitoba's policy to require sufficient suitable land for all of the nitrogen and half of the phosphorus generated by the livestock. This policy assumes that more land is available and could be brought into the Rosser Holsteins Ltd manure management plan to balance phosphorus with crop removal, should it be necessary in the future.</p> <p>In order to determine the land requirements for Rosser Holsteins Ltd, nitrogen and phosphorus excretion by the dairy cattle are compared to nitrogen utilization and phosphorus removal by the proposed crops to be grown. The calculation takes into consideration typical, modern feeding practices for dairy</p>	<p>Ag</p>

**Provincial Technical Overview of TRC 12-041 - Rosser Holsteins Ltd:**

<b>Items Provided by Project Proponent</b>	<b>Con- firmed</b>	<b>Related Existing Provincial Safeguards</b>	<b>Dept</b>
		<p>production and realistic, long-term crop yields from the Manitoba Agricultural Services Corporation (MASC) for the RM of Rosser.</p> <p>Land suitability is determined using soil testing for phosphorus and soil survey to establish the agriculture capability. All of the lands with soil tests were below 60 ppm Olsen P, as required to be considered suitable. Detailed soil survey is available to determine the agriculture capability of the land. The agriculture capability of the land included in the proposal is all Class 2 and 3 (prime agricultural land). The limitations include lack wetness (W) and salinity (N).</p> <p>Rosser Holsteins Ltd is required to demonstrate that they have access to at least 1318 acres of suitable land for manure application. They have presented 2437 suitable acres for manure application.</p>	
12. Proposed Spreadfields with sufficient minimum setbacks on Spreadfields from natural features (water sources etc.)	X	The proponent is required to demonstrate minimum setback distances listed in section 10.6 of the site assessment.	SD
13. Proposed Spreadfields with sufficient minimum setbacks on spread fields from natural features (water sources etc)	X	Section 8.7 requires the proponent to indicate if all setbacks have been observed from and excluded from land base calculations.	SD
14. Proposed Spreadfields that have been secured by spread agreements	X	The proponent has indicated that the lands available for manure application are both owned and under agreement.	Ag
15. Proposed Spreadfields that meet development plan and zoning by-law requirements	X	<p>The manure spread fields in the RM of Rosser are located on lands designated Agricultural Rural Area in the South Interlake Planning District Development Plan By-law No. 3/10 and meet the intent of policy 3.3.1.</p> <p>The manure spread fields are zoned as "AG" Agricultural General and "AL" Agricultural Limited Zones in the RM of Rosser Zoning By-law No. 15-14. The application of manure is permitted</p>	MR

**Provincial Technical Overview of TRC 12-041 - Rosser Holsteins Ltd:**

<b>Items Provided by Project Proponent</b>	<b>Con- firmed</b>	<b>Related Existing Provincial Safeguards</b>	<b>Dept</b>
		in the "AG" and "AL" Zones.	
16. Proposed trucking routes and access points that may impact Provincial Roads or Provincial Trunk Highways	X	<p>The proposed truck route will utilize existing municipal/Government Road Allowances with an existing Government Road Allowance access connection onto PR 221. We don't anticipate a substantial increase in usage for this existing access connection.</p> <p>Manure spreading: please note that any structures placed within the controlled area of PR 221 or PR 334 (125 feet from the edge of the right-of-way) requires a permit from our office. The contact is Sheena del Rosario at (204) 945-3457. The placement of temporary draglines or any other temporary machinery/equipment for manure application within the right-of-way of PR 221 or PR 334 requires permission from our regional office in Portage. Please contact the Regional Planning Technologist (Denise Stairs) at (204) 871-2239. In addition, please notify the Regional Planning Technologist for the placement of temporary draglines or other temporary equipment for manure application within the controlled area of PR 221 and PR 334 (125 feet from the edge of the right-of-way).</p>	MI
17. Proposed trucking routes – local roads	X	The Municipality may impose, through a development agreement conditions regarding the maintenance and/or construction of local roads, as provided for in The Planning Act and the R.M. of Rosser Zoning By-law No.15-14.	MR
18. Declared Provincial Waterways	X	The proposal will not affect Provincial Waterways.	MI

Provincial Departments

- Ag – Agriculture
- MR –Municipal Relations
- MI – Infrastructure
- SD – Sustainable Development



## D. PUBLIC COMMENTS & DISPOSITIONS

<b>Public Comment Summary</b>	
<b>1. Loris Barsanti Rosser, MB.</b>	<p>Support:</p> <ul style="list-style-type: none"> <li>-I live directly north of the facility in the village and can see the barns from my bedroom window.</li> <li>-Originally the Holtmanns had their operation quite close to the village. To keep the locals happy, they moved the barns to their present location.</li> <li>-They use to have their silage behind my house. Well, they moved that too. Yes, it is better for the operation; but a couple of people probably belly ached.</li> <li>-No odors, no sounds. I am as close as you can get.</li> <li>-What I want you and anyone else who reads this is that the Holtmanns are good neighbors and good business people. They go out of their way to do things right and keep people happy. I have absolutely no complaints about the expansion and support their request. I see it as a benefit to the Municipality of Rosser and the community.</li> </ul>
<b>2. Scott Beaton Resident, Rosser, MB</b>	<p>Support</p> <ul style="list-style-type: none"> <li>-I would like to note my support to the proposed expansion.</li> <li>- I live in the town of Rosser, and as such am one of the neighbors that falls well within the livestock confinement area and associated manure storage buffer.</li> <li>- The Holtmanns have been early adopters of technologies to mitigate risks associated with intensive livestock production systems, and have been respectful of their neighbors and the rules around manure spreading rates and setbacks in my experience. As such, I hope that they are able to expand their operation as they see fit in a manner that is sustainable, and consistent with the goals of our local and provincial governments.</li> <li>-The manure separation system used in the Rosser Holsteins operation is a great example of their willingness to take on responsibility associated with phosphorous loading, and cooperate with government to find a solution to manage surface water quality issues.</li> <li>-It has reduced the solid content in the liquid cells, which has virtually eliminated crusting, and contributes to increased air quality concerns downwind on windy days...I wonder if the inclusion of a multi species, multi row shelterbelt on the north, west, and south side of the existing and future liquid manure storage areas would help to control odour on windy days...</li> <li>-I hope to see earthwork start on Rosser Holsteins expansion in the near future. The Holtmann family have been, and continue to be great neighbors and a pillar in our community.</li> </ul>

<p><b>3. Gisela Nolting, Secretary Treasurer Mei-West Enterprises Inc. Rosser, MB</b></p>	<p>Support</p> <ul style="list-style-type: none"> <li>-No objection to the proposed expansion at Rosser Holsteins Ltd.</li> <li>-We are in favor of the expansion.</li> </ul>
<p><b>4. George Bourgouin, Rosser, MB</b></p>	<p>Concerns</p> <ul style="list-style-type: none"> <li>-Would like to bring attention to Nov 7, 2013 Stonewall Tribune article and also May 5, 2016 article which show a proposal for approximately 100 plus residential dwellings located on the same section of land and less than 1 mile from the barns of the proposed dairy expansion.</li> <li>-The article references a quote that indicates that the properties to be subdivided are owned by farmers that farm immediately beside the property...</li> <li>-I believe it is very irresponsible for anyone to have requested a residential subdivision in 2013, and now on the same parcel of land wants to almost double his animal units from 1200 to 2000 on the same parcel.</li> <li>-Are they developers or farmers? They should make up their minds. There has been lots of cost incurred by this R.M for planners and engineers and all these costs are past on to all rate payers (myself included).</li> <li>-I would like to say that all the blame should not be with this farmer, but rather a large portion should go to our own R.M. from encouraging and allowing cattle farms in with residential. The Town of Rosser was built around farms when only a few homes were in town, not the 100 plus now being proposed.</li> <li>- I am personally not opposed to this expansion, however whatever the rules are they should apply to everybody equally.</li> <li>- I have been opposed to the residential subdivision in the town of Rosser...After all my objections, on Feb 27,2017 SIPD endorsed the Rural Settlement Center of Rosser Secondary Plan Bylaw No. 1-16. This gives Rosser the authority to give 3<sup>rd</sup> Reading to this by-law thereby approving these residential subdivisions.</li> </ul>
<p><b>5. Muriel Broadfoot, Rosser, MB</b></p>	<p>Concerns</p> <ul style="list-style-type: none"> <li>-This is already a very large dairy operation, which has expanded greatly since its start.</li> <li>- We live in the village of Rosser and along with our neighbours have already been adversely affected by the very bad odour from the waste generated by this many animals. At times we are not able to open our windows or be outdoors because of it.</li> <li>-A further expansion which almost doubles the number of animals (or units) would obviously make this situation worse!</li> <li>-I also have real concerns about the possibility of our water sources being contaminated by the increased waste that would be produced. And the almost certain devaluation of our existing residential property values.</li> <li>-The potential problems and possible health risks of living in close proximity to such very large dairy facilities, such as is being proposed, is very well documented.</li> </ul>

**FULL COMMENTS AS SUBMITTED, MAY BE VIEWED ON THE PUBLIC  
REGISTRY AT:**

<http://www.gov.mb.ca/mr/livestock/trc-12-041.html>

**The Proponent did not submit a Response to the Public Comments**

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## **E. CONCLUSIONS & RECOMMENDATIONS**

### **Overall Conclusion**

The information contained in the Site Assessment submitted by the proponent generally meets Provincial requirements. In addition, based on available information it has been determined that the proposed operation will not create a risk to health, safety or the environment, or that any risk can be minimized through the use of appropriate practices, measures and safeguards.

### **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 Selkirk Community & Regional Planning Office)
    - (3) all adjacent planning districts and municipalities, and
    - (4) every owner of property located within three kilometres of the site of the proposed livestock operation, even if the property is located outside the boundaries of the planning district or municipality;
  - b) publish the notice of hearing in one issue of a newspaper with a general circulation in the planning district or municipality; and
  - c) post a copy of the notice of hearing on the affected property in accordance with Section 170 of The Planning Act.
- Council should specify the type(s) of operation, legal land location, number of animals in each livestock category and total animal units in its Conditional Use Order.

- As per Section 117 of The Planning Act, Council must send a copy of its (Conditional Use Order) to
  - a) the applicant;
  - b) the minister (c/o the Selkirk Community & Regional Planning Office); and
  - c) every person who made representation at the hearing.
  
- Variances are required from Council to ensure compliance regarding the mutual separation distance between the earthen manure storage facility and animal confinement facility and the designated Rural Settlement Area of Rosser.

Council is welcome to contact Manitoba Sustainable Development's Technical Review Officer with Environmental Approvals Branch as well as regional Environmental Compliance and Enforcement staff to discuss environmental compliance issues, if applicable, with respect to the Livestock Manure and Mortalities Management Regulation (M.R. 42/98).

### **Recommended Actions to Proponent**

That 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 be undertaken.

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## **F. TECHNICAL REVIEW COMMITTEE MEMBERS**

<b>Name</b>	<b>Department</b>	<b>Title</b>	<b>Telephone</b>
Don Malinowski Chair	Municipal Relations	Senior Planner Community & Regional Planning Branch	945-8353
Petra Loro	Agriculture	Livestock Environment Specialist Agri-Resource Branch	945-3869
Andrea Bergman	Sustainable Development	Technical Review Officer Environmental Approvals Branch	945-4384
Jeff DiNella	Infrastructure	Senior Development Review Technologist Highway Planning and Design Branch	945-2664

## Appendix

In depth analysis from individual commenting department(s)

### **Water Science and Watershed Management Branch – Sustainable Development:**

Staff in the Water Science and Watershed Management Branch have reviewed the site assessment for Rosser Holsteins in the RM of Rosser and have the following comments:

- Proper nutrient management applications that avoid excess loss of nutrients to surface water is 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).
- The proponent plans to inject liquid manure but does not indicate how the solid manure will be land applied. Injection of manure at appropriate rates poses lower environmental risk than other manure application methods. However, the spread fields in annual crops may not be adequate to allow for injection of all the liquid manure. Application of liquid and solid manure to alfalfa is surface broadcast without incorporation due to the perennial nature of the crop. To reduce the risk of runoff losses, the application should not occur to saturated, frozen or snow covered soils or when heavy rainfall is expected within 24 hours. Surface applications of manure are most susceptible to runoff losses of nutrients when runoff events occur within the first week or two after application. Applications to frozen soil or to soil shortly before the soil freezes are therefore much more likely to result in nutrient losses during spring snowmelt – ideally late fall surface applications should occur well ahead of the soil freezing.
- 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. Practices, which minimize N losses from the manure, improve the N: P ratio in the manure and help reduce P buildup when manure is applied at N-based rates.
- The proponent plans to continue to use a two cell lagoon for manure storage. When properly managed this will allow for better utilization of manure nutrients and can reduce the risk of nitrogen and phosphorus loss to surface and groundwater.
- The proponent has acknowledged the setback areas for all water features and have been observed and excluded from land base calculations. Setbacks should be clearly communicated to and observed by those involved in manure applications to minimize the risk of nutrients entering surface waters.
- 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 further build-up in soils. Consequently, sufficient land base must be available for manure to be applied no more than 1 times at crop removal rates. For long-term planning purposes, the proponent needs to have sufficient land available to ensure that manure can be applied at 1 times the crop removal. The proponent acknowledges

that 2636 acres may be required for the long term environmental sustainability of the operation with current crop choices and yield potential. The proponent has identified 2437 acres for manure application, which is sufficient to apply at 2 times crop P removal which meets regulatory requirements but may not meet long term requirements for phosphorus management. It is important to rotate the manure application across all spread fields to prevent excessive P buildup when applying at 2 times crop P removal rates.

- All unused water wells on the site and spread fields shall be properly sealed. A sealed well report must be filed with the Groundwater Management Section of Sustainable Development for each well sealed. Information on well sealing and the sealed well reports are available from Sustainable Development (204-945-6959) or: [http://www.gov.mb.ca/sd/waterstewardship/water\\_quality/wells\\_groundwater/index.html](http://www.gov.mb.ca/sd/waterstewardship/water_quality/wells_groundwater/index.html). All but the most basic wells should be sealed by a well drilling professional. A list of currently licensed well drilling professionals can also be accessed from the above web page. All groundwater features, including water wells, should be given as a minimum, the amount of buffer during manure application as outlined in the regulations.
- The provincial water well database indicates that there have been three wells drilled and completed for this operation (one in 1999 and two in 2005). The provided information indicates that the source water will come from two existing wells. Information regarding the remaining well, whether it is still present or sealing information if it has been sealed, should be provided to the province.