



TECHNICAL REVIEW COMMITTEE

**A TECHNICAL REVIEW REPORT
PREPARED FOR**

**THE RURAL MUNICIPALITY
OF**

MACDONALD

SUNNYBROOK SWINE INC. SITE 1

S¹/₂ of SE ¹/₄ 4-7-2 EPM

TRC 12 – 045

August 17, 2018
(Revised August 21, 2018)

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, Groundwater Specialist 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

The TRC Process Chart with actual pertinent dates and brief overview:

The Technical Review Process: TRC-12-045 – Sunnybrook Swine-Site 1



B. DESCRIPTION OF PROPOSED LIVESTOCK OPERATION

To view a detailed description, go to

www.gov.mb.ca/ia/programs/livestock/public_registries.html

Applicant: Sunnybrook Swine Inc. – Site 1

Site Location: S½ of SE ¼ 4-7-2 EPM - Approximately 5 miles (8 km) east of PR 330 and the community of Osborn in the most south east corner of the RM of Macdonald adjacent to the municipal boundaries of the RM of Ritchot and the RM of Morris.

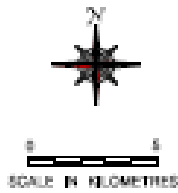
Refer to map below.

Proposal: To expand a current operation from 2850 animals (713 Animal Units/AU) to 5000 animals (1250 AU) within an animal confinement facility.

This will involve the following:

- Construction of a new barn (120 feet x 600 feet)
- All livestock to be housed indoors
- Earthen manure storage structure has between 400 and 500 days of storage
- Consuming 35,750 imperial gallons of water per day (from a dugout - 600 ft. x 300 ft. x 16 ft.)
- A new dugout is to be added to store additional water
- Rendering mortalities
- Using the truck haul route as shown below

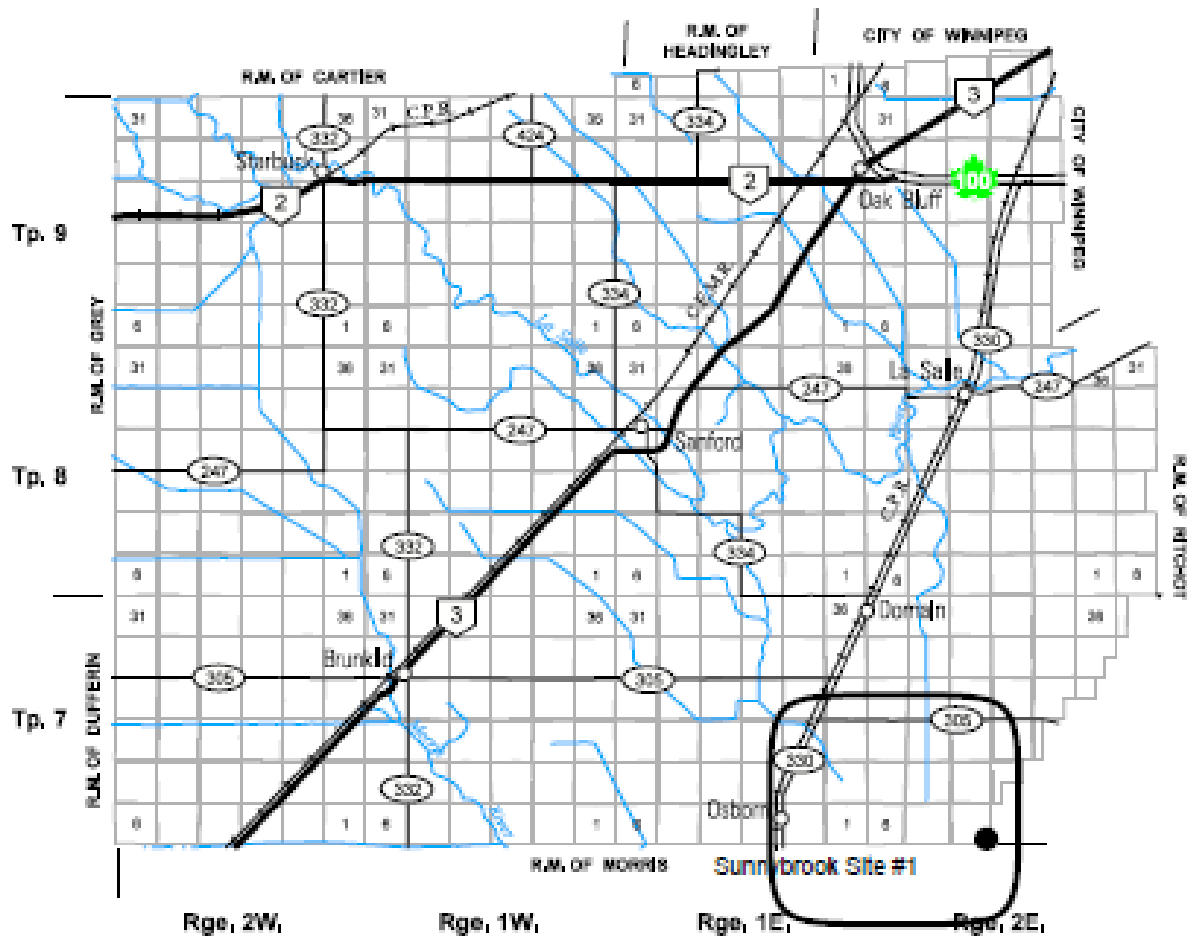
R.M. OF MACDONALD



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

LEGEND

| | | | |
|---------------------------------|--|--------------------|--|
| TRANS-CANADA HIGHWAY | | ACCESS ROADS | |
| PROVINCIAL TRUNK HIGHWAYS | | RAILWAYS | |
| PROVINCIAL ROADS | | | |



SHEET 1 of 1



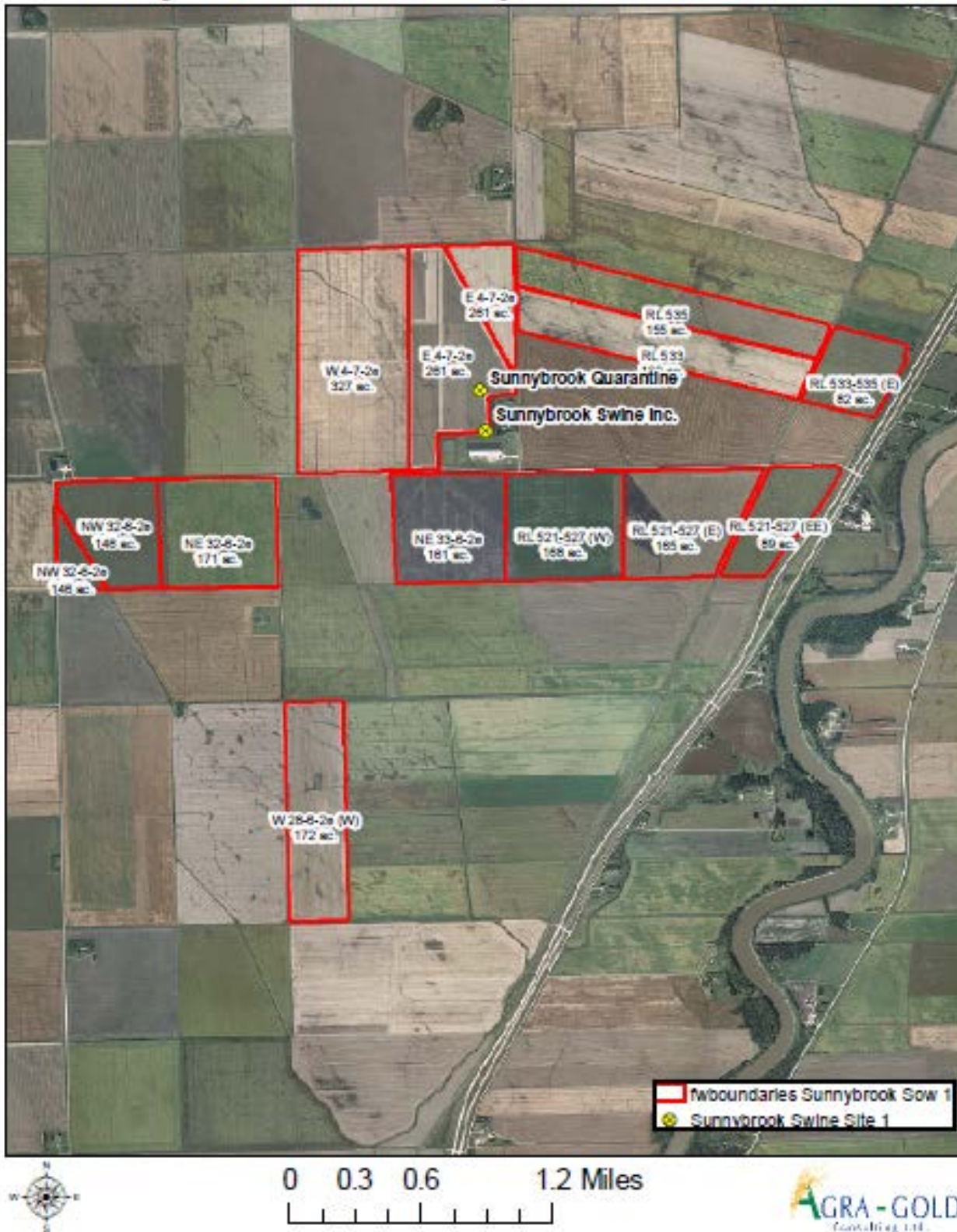
Proposed Truck Route



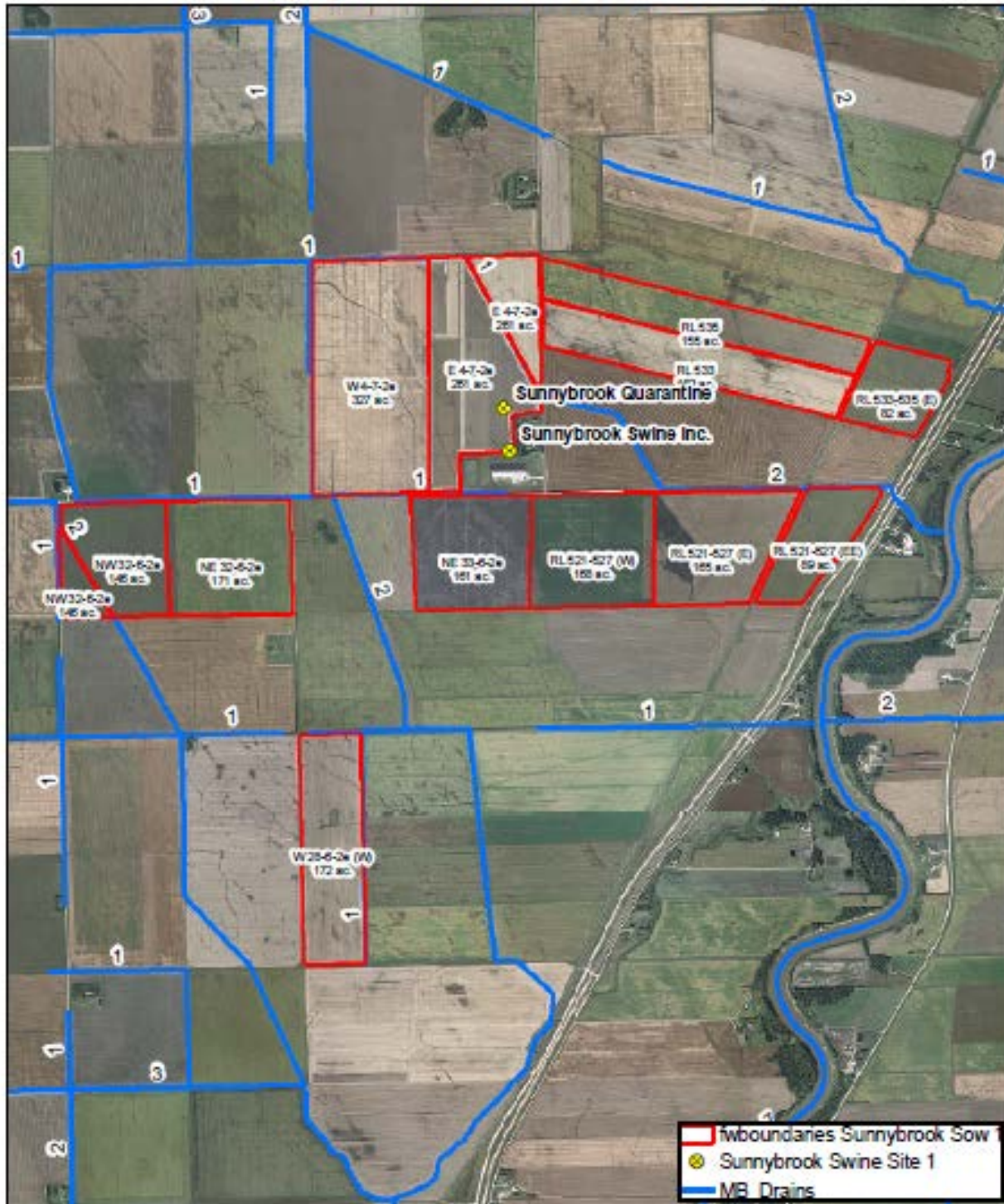
Sunnybrook Sow 1 - Land Use



Sunnybrook Swine 1 - Spread Field Boundaries



Sunnybrook Swine 1 - Drains



C. SITE ASSESSMENT OVERVIEW

Assessment Overview Table

| Provincial Technical Overview of TRC 12-045 -Sunnybrook Swine Inc.- Site 1 | | | |
|--|------------------------|---|-------------|
| 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 | Reconnaissance soil survey indicates that the proposed sow (farrow to wean) operation is located on prime agricultural land (agriculture capability Class 2 and 3). The proposed expansion includes plans to construct a new earthen manure storage structure for the liquid manure. Environmental Approvals Branch of Manitoba Sustainable Development should be contacted regarding the regulatory requirements for constructing a manure storage facility. | 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 35,750 imperial gallons of water/day required for proposed operation | X | Sunnybrook Swine already has a Water Rights License, but must apply for an amendment for their increased water need. | SD |
| 6. Proposed measures to meet storage and application regulations for manure | X | Any applicable permit or annual submissions under the Livestock Manure and Mortalities Management Regulation would be processed by Environmental Approvals Branch of Sustainable Development. Sunnybrook Swine Inc. – Site 1 must submit annual Manure Management Plans (MMP), as prescribed under the Livestock Manure and Mortalities Management Regulation. The MMP process is administered through the Environmental | SD |

Provincial Technical Overview of TRC 12-045 -Sunnybrook Swine Inc.- Site 1

| Items Provided by Project Proponent | Con- firmed | Related Existing Provincial Safeguards | Dept |
|---|----------------|--|------|
| | | Approvals Branch of Sustainable Development. Details on the requirements for manure management plans, including future soil sampling and analysis requirements, are available at www.gov.mb.ca/sd/envprograms/livestock . | |
| 7. Proposed Project Site with suitable mortalities disposal methods (rendering) | X | Information on disposal is provided in section 9 of the site assessment, which requires Sunnybrook Swine Inc. – Site 1. to select from 4 acceptable methods of disposal. More specific information is included in the Livestock Manure and Mortalities Management Regulation and at http://www.gov.mb.ca/sd/envprograms/livestock . | SD |
| 8. Proposed Project Site with acceptable odour control measures | X | <p>The proponent has indicated that there is an existing shelterbelt, good barn hygiene practices will be used and that manure will be injected. The combination of these strategies will reduce odour from the barns and land application of the manure.</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 site is designated as “GZ” – Green/Agricultural Policy Area in the Macdonald–Ritchot Planning District Development Plan By-law 2-2010. It lies within a Livestock Mutual Separation Distance Management Area within the Development Plan. Livestock Operations within this area require conditional use approval and provincial Technical Review where 300 AU or greater in size, in accordance to The Planning Act.</p> <p>The site is zoned ‘AG’ Agriculture General in the Macdonald Zoning By-law 5/2018 (adopted August 14, 2018). Livestock operations greater than 10 AU are a conditional use. The zoning by-law requires a separation distance of 984’ from a livestock barn to the nearest residence that is not that of the owner or operator of the LO or 5249’ from a livestock barn to a Designated Area. The livestock operation exceeds all the</p> | MR |

Provincial Technical Overview of TRC 12-045 -Sunnybrook Swine Inc.- Site 1

| Items Provided by Project Proponent | Con- firmed | Related Existing Provincial Safeguards | Dept |
|---|------------------------|---|-------------|
| | | separation distances set by the zoning by-law. | |
| 10. Proposed Project Site that is a sufficient distance from native prairie, Wildlife Managements Areas and Crown Land. | X | 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. | SD |
| 11. Proposed Spreadfields that are sufficient, and suitable for manure spreading | X | <p>Sunnybrook Swine – Site 1 has exceeded the Provincial land requirement for 5000 sows (farrow to wean) in the RM of MacDonald. A detailed explanation of the land assessment can be found in the Appendix A.</p> <p>All of the manure will be applied as a fertilizer for crop production. Sunnybrook Swine – Site 1 is in the Red River Valley Special Management Area and, as such, any manure that is applied to tilled land between September 10 and November 10 must be injected or incorporated within 48 hours to reduce the risk of nutrient loss during snowmelt the following spring.</p> <p>The proposal indicates that the services of a manure management planner will be used. Manure management planners must be Professional Agrologists or Certified Crop advisors and must have successfully completed training in manure management planning delivered by the Assiniboine Community College.</p> <p>The proponent has also indicated that a commercial manure applicator will be used to apply the manure. Commercial manure applicators must be trained and licensed in Manitoba. The training is delivered by the Assiniboine Community College and licensing is through Manitoba Agriculture.</p> | Ag |
| 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, which Sunnybrook Swine Inc. – Site 1 has. Section 8.7 required Sunnybrook Swine Inc. – Site 1 to indicate if all setbacks have been observed and excluded from land base calculations.(See Appendix B). | SD |
| 13. Proposed Spreadfields that have been secured | X | The proposal indicates that the land available for manure application is under agreement. | Ag |

Provincial Technical Overview of TRC 12-045 -Sunnybrook Swine Inc.- Site 1

| Items Provided by Project Proponent | Con- firmed | Related Existing Provincial Safeguards | Dept |
|---|------------------------|--|-------------|
| by spread agreements | | | |
| 14. Proposed Spreadfields that meet development plan and zoning by-law requirements | X | All spreadfields are located in agri-related designated and zoned areas. | MR |
| 15. Proposed trucking routes and access points that do not impact Provincial Roads or Provincial Trunk Highways | X | <p>The proposed truck route will utilize municipal road 36N to PTH 75 with an existing access connection onto PTH 75. We don't anticipate a substantial increase in usage.</p> <p>PTH 75 is a Limited Access Highway and has been classified as an expressway. Our department's long range plans for this highway would eliminate all at-grade road and access connections to this highway as well as median openings. These connections would be replaced by grade separated interchanges at selected locations. Traffic on municipal roads and service roads would then be directed to the selected interchange/intersection locations. Prior to this future work it may become necessary to close some local municipal and service road connections to PTH 75 if traffic operations deteriorate.</p> <p>Please be advised that any structures placed within the controlled areas of PR 305 & PR 330 (125 feet from the edge of the right-of-way) require a permit from our office. The contact is Sheena del Rosario at (204) 945-3457 or Sheena.DelRosario@gov.mb.ca. Any structures placed within the controlled area of PTH 75 (250 feet from the edge of the right-of-way) requires a permit from the Highway Traffic Board. Please phone (204) 945-8921 for information regarding such permits.</p> <p>The placements of temporary drag lines or any other temporary machinery/equipment for manure application within the right-of-way of PTH 75, PR 305 and PR 330 requires permission from our regional office in Steinbach. Please contact the Regional Planning Technologist (Robert Fender) at (204) 371-6858 or Robert.Fender@gov.mb.ca. In addition, please notify the Regional Planning Technologist for the placement of temporary draglines or other temporary equipment for manure application within the controlled areas of PTH 75 (250 feet from the edge of the right-of-way), and PR 305 & PR 330 (125 feet from the edge of the right-of-way).</p> | MI |

Provincial Technical Overview of TRC 12-045 -Sunnybrook Swine Inc.- Site 1

| Items Provided by Project Proponent | Con- firmed | Related Existing Provincial Safeguards | Dept |
|--|------------------------|---|-------------|
| 16. Proposed trucking routes – local roads | X | The proposed trucking route is on Road 36 N leading to PTH 75. This road forms a boundary between three Municipalities the RM's of Macdonald, Ritchot and Morris. The RM of Macdonald may enter into a development agreement with the LO for the upgrading and/or ongoing maintenance of the Road. The RM should consider consulting the other Municipalities regarding this arrangement. | MR |
| 17. Declared Provincial Waterways | X | This proposal will not affect any Provincial Waterways. | MI |

Provincial Departments

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

D. PUBLIC COMMENTS & DISPOSITIONS

No Comments Submitted.

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.
- As per Section 114(2) of The Planning Act, at least 14 days before the date of the hearing, Council must:
 - a) send notice of the hearing to
 - (1) the applicant,
 - (2) the minister, (c/o the Portage La Prairie Community & Regional Planning Office)
 - (3) all adjacent planning districts and municipalities, and
 - (4) every owner of property located within three kilometres of the site of the proposed livestock operation, even if the property is located outside the boundaries of the planning district or municipality;
 - b) publish the notice of hearing in one issue of a newspaper with a general circulation in the planning district or municipality; and
 - c) post a copy of the notice of hearing on the affected property in accordance with Section 170 of The Planning Act.
- Council 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 Portage La Prairie Community & Regional Planning Office); and
 - c) every person who made representation at the hearing.

Council is welcome to contact Manitoba Sustainable Development's 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.

F. TECHNICAL REVIEW COMMITTEE MEMBERS

| Name | Department | Title | Telephone |
|-------------------------|-------------------------|--|------------------|
| Don Malinowski Chair | Municipal Relations | Senior Planner Community & Regional Planning Branch | 945-8353 |
| Petra Loro | Agriculture | Livestock Environment Specialist Agri-Resource Branch | 945-3869 |
| Tracey Braun | Sustainable Development | Acting Assistant Deputy Minister (Environmental Approvals Branch) | 945-6658 |
| Jeff DiNella | Infrastructure | Senior Development Review Technologist Highway Planning and Design Branch | 945-2664 |

APPENDICES

Appendix A

Manitoba Agriculture

Sunnybrook Swine Inc. (Sunnybrook Swine – Site 1) Land Assessment August 2018

In areas of lower livestock intensity such as the RM of MacDonald, 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 Sunnybrook Swine – Site 1 manure management plan to balance phosphorus with crop removal, should it be necessary in the future.

In order to determine the land requirements for Sunnybrook Swine – Site 1, nitrogen and phosphorus excretion by the 5000 sows and associated weanlings is compared to nitrogen utilization and phosphorus removal by the proposed crops to be grown. The calculation takes into consideration typical, modern feeding practices for pig production and realistic, long-term crop yields from the Manitoba Agricultural Services Corporation (MASC) for the RM of MacDonald.

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 includes Class 2 and 3. The limitations include salinity (N) and wetness (W). Class 1 to 5 soils are considered suitable for manure application.

Sunnybrook Swine – Site 1 is required to demonstrate that they have access to at least 1554 acres of suitable land for manure application. Sunnybrook Swine – Site 1 has exceeded the Provincial land requirement with the 2069 suitable acres for manure application provided.

Appendix B

Manitoba Sustainable Development

**Staff in the Water Science and Watershed Management Branch
have reviewed the site assessment for Sunnybrook Swine in the RM of
MacDonald and have the following comments:**

- Proper nutrient management applications that avoid excess loss of nutrients to surface waters are needed on lands receiving manure in southern Manitoba because long-term trend analysis of total phosphorus and total nitrogen has shown significant increases in these nutrients in the Assiniboine and Red rivers (Jones and Armstrong 2002).
- The proponent plans to inject all manure. Injection of manure at appropriate rates poses lower environmental risk than other manure application methods. If in the future application to no-till or perennial forage fields occurs, injection will not be possible. In order to reduce the risk of runoff losses, surface 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 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 has acknowledged the setback areas for all water features have been observed and excluded from land base calculations. Setbacks should be clearly communicated to and observed by those involved in manure application 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 such that manure can be applied at no more than 1 times crop P 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 crop P removal. The proponent acknowledges that 3,107 acres may be required for the long term environmental sustainability of the operation with current crop choices and yield potential. The proponent has identified sufficient land (2,069 acres) to apply at 2 times crop P removal (1,554 acres required to apply at 2x crop P removal with current crop choices and yield potentials) and to meet crop N requirements (1,141 acres) which meets regulatory requirements. It is important to rotate manure application across all spread fields so as to prevent excessive P buildup when applying at 2x crop P removal rates.
- If there are unused water wells on the site or spread fields these 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 report are available from Sustainable Development (204-945-6959) or: 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.