



TECHNICAL REVIEW COMMITTEE

**A TECHNICAL REVIEW REPORT
PREPARED FOR**

**THE RURAL MUNICIPALITY
OF ALONSA**

**Eddystone Farm Joint Venture
NE 33-25-12 WPM**

TRC 12 – 057

October 30, 2019

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); Land-Water Specialist, Environment Officer, Habitat Mitigation and Wildlife Land Specialist, Regional Wildlife Manager, Groundwater Specialist, Water Rights Licensing Technologist
- 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)

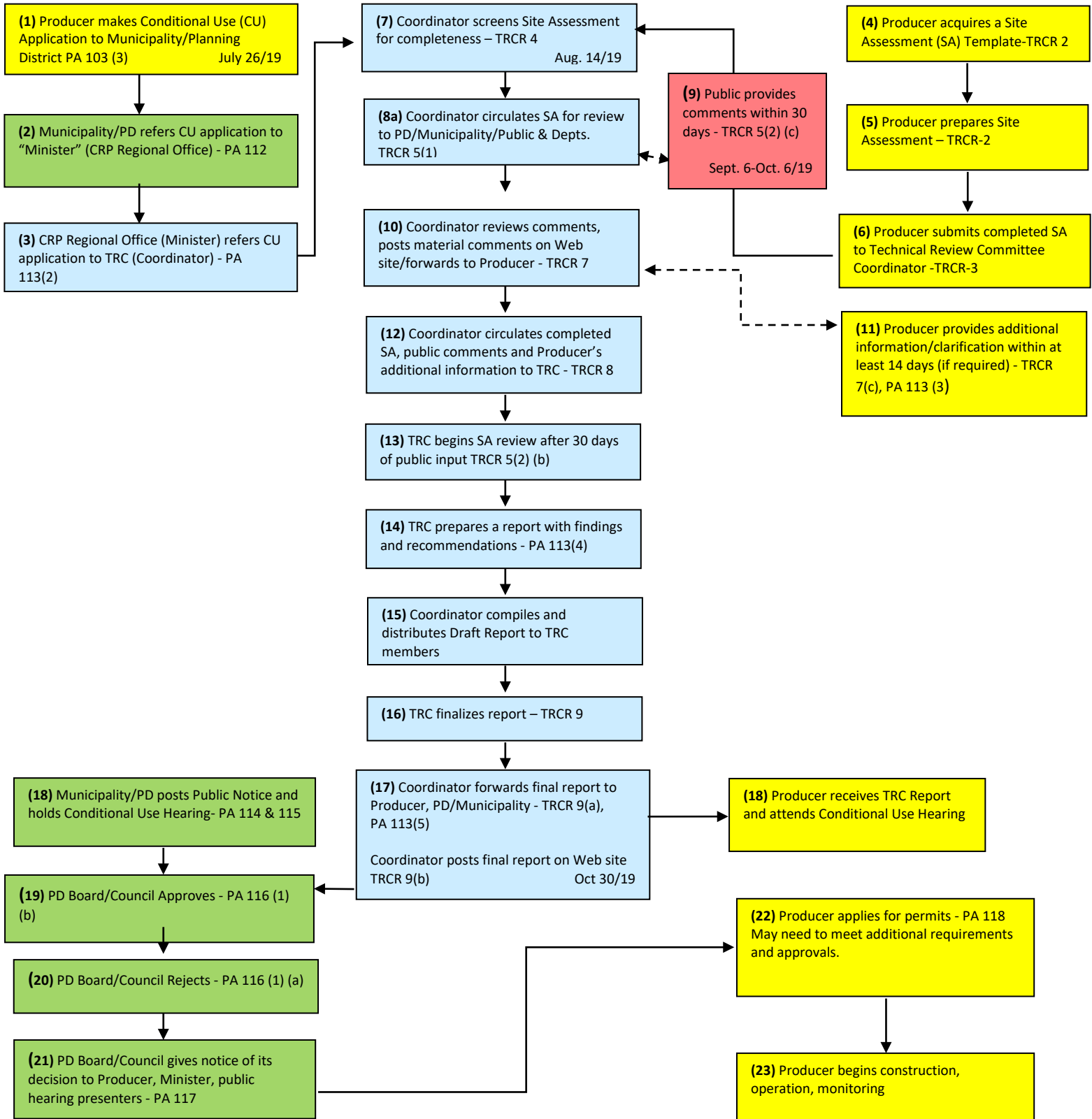
Prime Purpose of TRC Reports

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.

Livestock Technical Review Process



B. DESCRIPTION OF PROPOSED LIVESTOCK OPERATION

To view a detailed description, go to:

<http://www.gov.mb.ca/mr/livestock/index.html>

Applicant: Eddystone Farm Joint Venture

Site Location: NE 33 25-12 WPM.

Proposal: To establish a 9,600 space pig grower and finisher operation (1,373 AU).

This will involve the following:

- Constructing animal confinement facility for pig grower and finisher operation
- Constructing of a two-cell earthen manure storage facility (400-500 day holding capacity)
- Consuming 31,680 imperial gallons of water per day (from a public pipeline)
- Rendering mortalities
- Using the truck haul routes as shown in Maps below







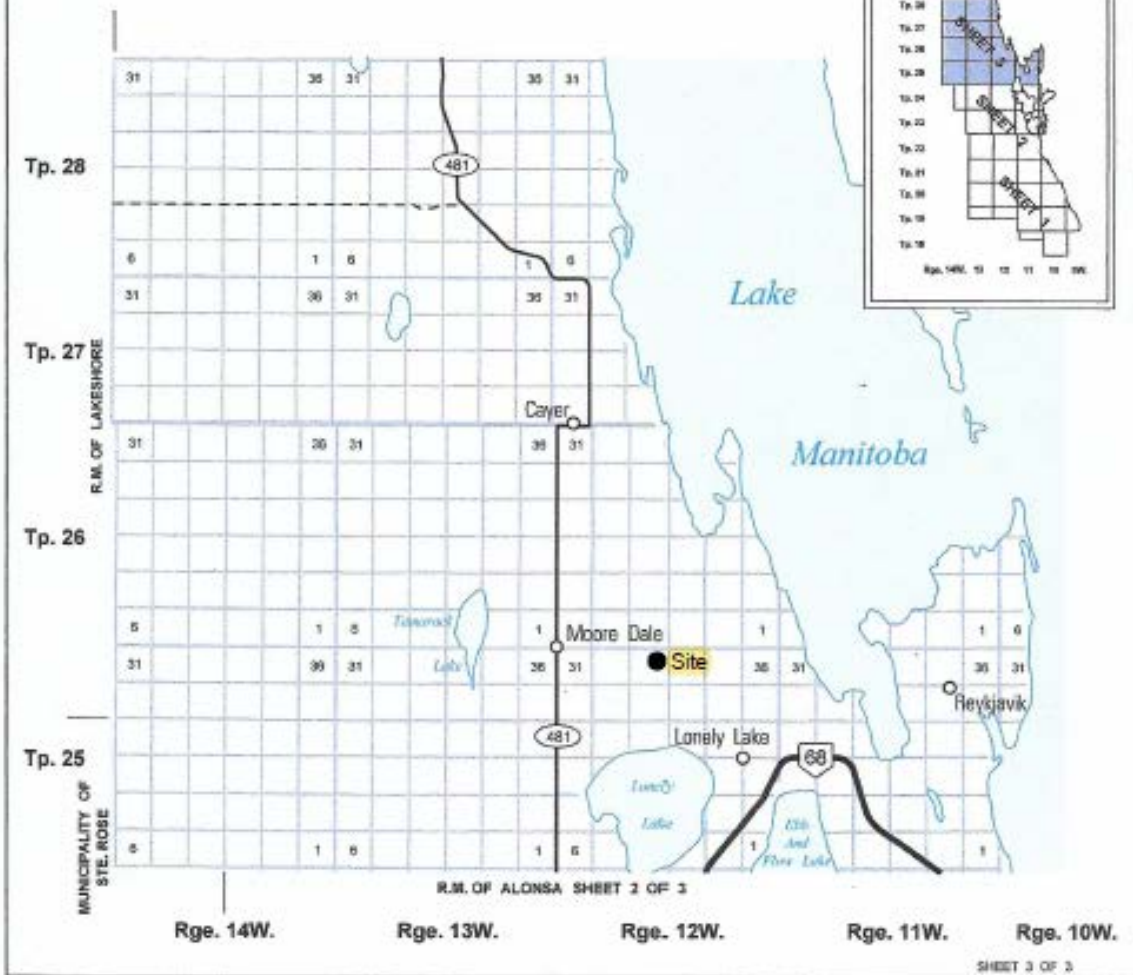
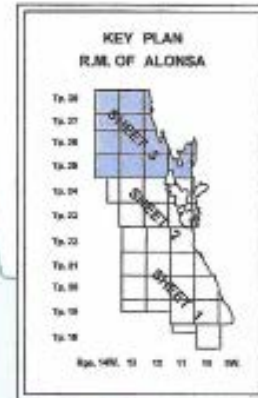
R.M. OF ALONSA

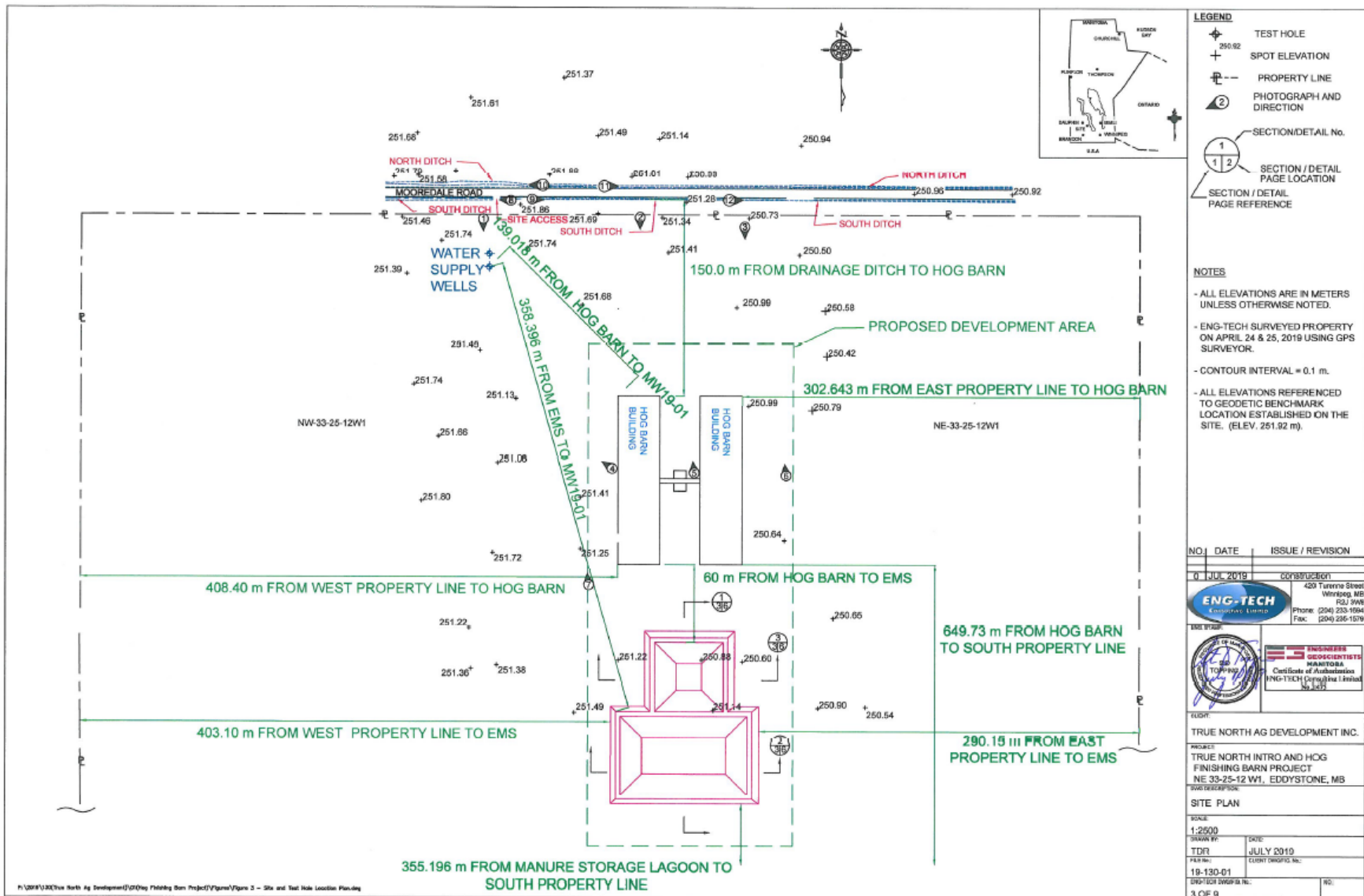
PROVINCE OF MANITOBA
 INFRASTRUCTURE
 HIGHWAY PLANNING AND DESIGN BRANCH
 GEOGRAPHIC & RECORDS MANAGEMENT SECTION
 WINNIPEG
 JANUARY 1, 2015

SITE LOCATION

LEGEND

- PROVINCIAL TRUNK HIGHWAYS 
- PROVINCIAL ROADS 
- MAIN MARKET ROADS 
- Proposed Site** 





LEGEND

- TEST HOLE
- SPOT ELEVATION
- PROPERTY LINE
- PHOTOGRAPH AND DIRECTION
- SECTION/DETAIL No.
- SECTION / DETAIL PAGE LOCATION
- SECTION / DETAIL PAGE REFERENCE

NOTES

- ALL ELEVATIONS ARE IN METERS UNLESS OTHERWISE NOTED.
- ENG-TECH SURVEYED PROPERTY ON APRIL 24 & 25, 2019 USING GPS SURVEYOR.
- CONTOUR INTERVAL = 0.1 m.
- ALL ELEVATIONS REFERENCED TO GEODETIC BENCHMARK LOCATION ESTABLISHED ON THE SITE. (ELEV. 251.92 m).

NO.	DATE	ISSUE / REVISION
0	JUL 2019	CONSTRUCTION

ENG-TECH
 420 Tarrina Street
 Winnipeg, MB
 R2J 3W8
 Phone: (204) 233-1094
 Fax: (204) 235-1079

ENGINEERS
 GEO-SURVEYISTS
 MANITOBA
 Certificate of Authorization
 ENG-TECH CONSULTING LIMITED
 No. 1231

CLIENT: TRUE NORTH AG DEVELOPMENT INC.

PROJECT: TRUE NORTH INTRO AND HOG FINISHING BARN PROJECT
 NE 33-25-12 W1, EDDYSTONE, MB

DATE DESCRIPTION: SITE PLAN

SCALE: 1:2500

DATE: JULY 2019

PROJECT NO.: 18-130-01

CLIENT DRAWING NO.: 3 OF 9







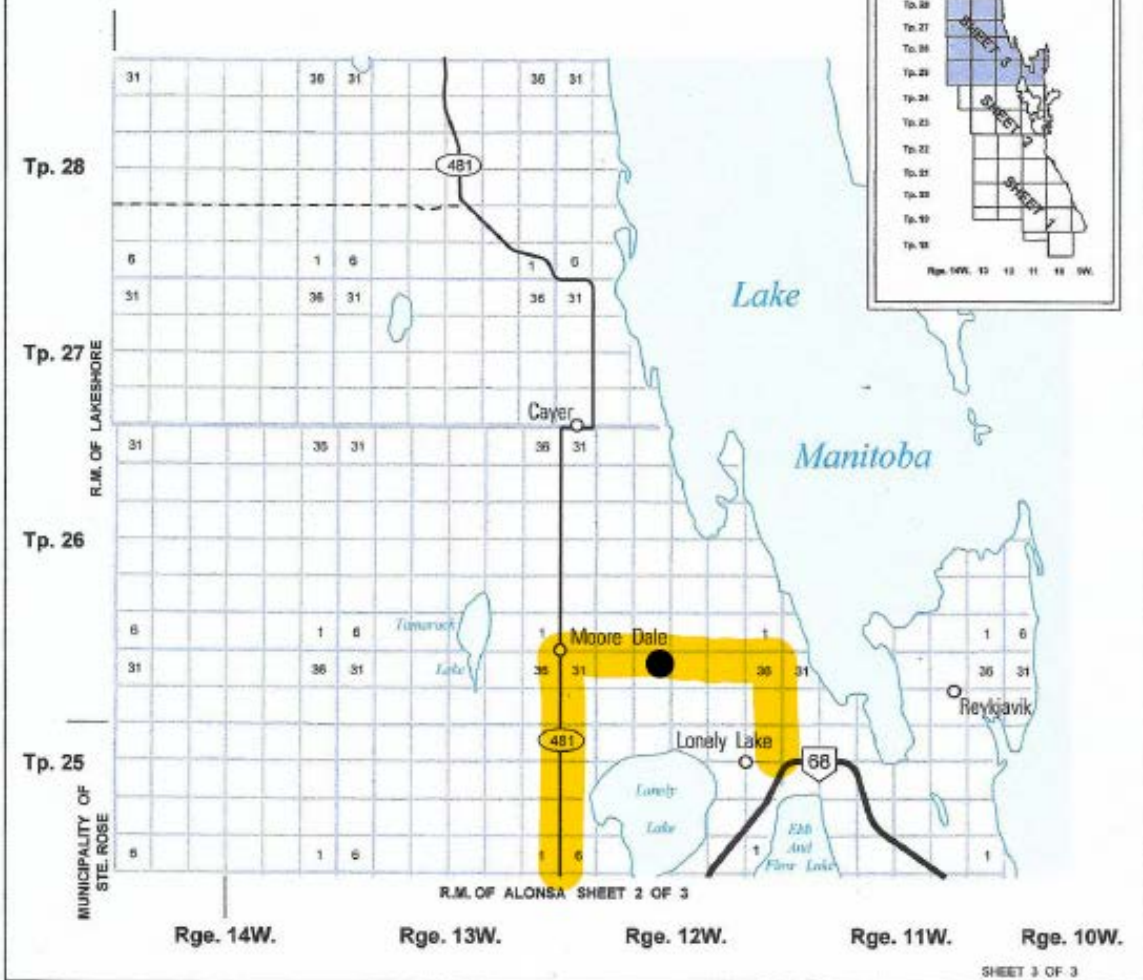
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WINNIPEG
JANUARY 1, 2015

EFJV TRUCK HAUL ROUTE & ACCESS MAP

LEGEND

- PROVINCIAL TRUNK HIGHWAYS 
- PROVINCIAL ROADS 
- MAIN MARKET ROADS 
- TRUCK HAUL & ACCESS ROUTES 



C. SITE ASSESSMENT OVERVIEW

Assessment Overview Table

Provincial Technical Overview of TRC 12-057 - Eddystone Farm Joint Venture:			
Items Provided by Project Proponent	Confirmed	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 (animal confinement facility) 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	According to reconnaissance soil survey (1:126,720), Eddystone Farm Joint Venture is located on agriculture capability Class 4DP-5W land.	Ag
4. Proposed Project Site Flood Risk Potential	X	The proposed barn site is nearby to Lake Manitoba, which is prone to severe overland flooding. However, the barn site was not affected by Lake Manitoba during the 2011 flood, which is the flood of record. Available topographic information for the site indicate that the barn site is above the flood protection level for adjacent areas of Lake Manitoba.	MI
5. Identified 31,680 imperial gallons /day required for proposed operation	X	This project proposal has noted an estimated water usage that will exceed 25 000 litres per day, therefore a Water Rights Licence will be required. The proponent has submitted an Application to Construct a Well and Divert Groundwater, and Groundwater Exploration Permit has been issued for this project. They are currently in good standing with the Water Use Licensing Section.	SD

6. Proposed measures to meet storage and application regulations for manure	X	A permit is required for construction of the proposed manure storage facility. In accordance with the Livestock Manure and Mortalities Management Regulation, the permit must be obtained prior to initiating any of the construction work. An application for a permit must be submitted to Environmental Approval Branch of Sustainable Development. Design guidelines and application forms are available at: https://www.gov.mb.ca/sd/waste_management/livestock_program/index.html .	SD
7. Proposed Project Site with suitable mortalities disposal methods (rendering/composting)	X	The proponent has indicated that mortalities will be dealt with by rendering. This is an acceptable disposal method under the Livestock Manure and Mortalities Management Regulation (LMMMR). In the event of mass mortalities Sustainable Development will be contacted to determine a suitable method of disposal.	SD
8. Proposed Project Site with acceptable odour control measures	X	The proponent has indicated that shelterbelts will be established. Should odour become a problem for neighbouring residents, there is a complaints process under The Farm Practices Protection Act. 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.	Ag
9. Proposed Project Site that meets development plan and zoning by-law requirements	X	<p>The Planning Act requires municipalities to issue development permits for any development on a site. All development must comply with the Zoning By-law and Development Plan. Any proposed development that does not meet the separation distances or setbacks requires Council approval and a public process to vary those requirements.</p> <p>The proposed livestock operation is on lands designated Agriculture pursuant to the RM of Alonsa Development Plan By-Law No. 15-01. The proposal complies with the policies listed under section 4.5 of the Development Plan Policies as it pertains to new livestock operations.</p> <p>The proposed livestock operation is on lands Agriculture pursuant to the RM of Alonsa Zoning By-Law No. 15-02. Livestock operations over 300 AU is a conditional use within the Agriculture zone, and requires a minimum site area of 80 acres and a minimum site width of 600 ft. A conditional use order is required to permit this use.</p>	MR

10. Proposed Project Site that is a sufficient distance from native prairie, Wildlife Managements Areas and Crown Land	X	The distance of this project exceeds 1 mile from non-agricultural Crown Land. Agricultural Crown Lands have been identified for manure application. Manure application on these lands will be required to meet the same manure application requirements that apply across the province.	SD
11. Proposed Spreadfields that are sufficient, and suitable for manure spreading	X	Eddystone Farm Joint Venture requires at least 2620 acres of suitable land for manure application. They have demonstrated with suitable soil tests that they have access to approximately 2653 acres. They have also indicated that they have access to an additional 1595 acres for a total potential land base of 4248 acres. Additional information is available in Appendix A.	Ag
12. Proposed Spreadfields with sufficient minimum setbacks on Spreadfields from natural features (water sources etc.)	X	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 and groundwater. See Appendix B.	SD
13. Proposed Spreadfields that have been secured by spread agreements	X	The proponent has indicated that 2422 acres for manure application are owned by Eddystone Farm Joint Venture and 231 acres are under agreement.	Ag
14. Proposed Spreadfields that meet development plan and zoning by-law requirements	X	All the proposed spreadfields are located in the RM of Alonsa, and are on lands designated Agriculture. They meet the intent of the RM of Alonsa Development Plan By-Law 15-01 Agriculture Policies. All the proposed spreadfields are on lands zoned Agriculture, and complies with the RM of Alonsa Zoning By-Law 15-02.	MR
15. Proposed trucking routes and access points that may impact Provincial Roads or Provincial Trunk Highways	X	The proposed truck haul route will utilize existing municipal roads connecting onto either PTH 68 or PR 481. We don't anticipate a significant increase in use. Manure spreading: please note that any structures placed within the controlled area of PTH 68 or PR 481 (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 or Sheena.DelRosario@gov.mb.ca . The placement of temporary draglines or any other temporary machinery/equipment for manure application within the right-of-way of PTH 68 or PR 481 requires permission from our regional office in Dauphin. Please contact the Regional Planning Technologist (Cheri Percival) at (204)	MI

		622-2377 or Cheri.Percival@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 area of PTH 68 or PR 481 (125 feet from the edge of the right-of-way).	
16. Proposed trucking routes – local roads	X	Under <i>The Planning Act</i> , municipalities as a condition of approval may require Eddystone Farm Joint Venture to enter into a Development Agreement regarding the condition and upkeep of local roads used as truck haul routes.	MR
17. Declared Provincial Waterways	X	There are no declared Provincial Waterways in the immediate vicinity of the proposed work.	MI

Provincial Departments

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

D. PUBLIC COMMENTS & DISPOSITIONS

There were no public comments for this proposal.

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 Dauphin 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;and
 - b) 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 Dauphin Community & Regional Planning Office);and
 - c) every person who made representation at the hearing.

Council is welcome to contact Manitoba Sustainable Development Environmental Approvals Branch or Regional Environmental Compliance and Enforcement staff, with respect to the Livestock Manure and Mortalities Management Regulation (M.R. 42/98) including compliance and enforcement issues.

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	918-0325
Shannon Beattie	Sustainable Development	Policy Analyst Sustainable Resource & Economic Policy Branch	792-6269
Jeff DiNella	Infrastructure	Senior Development Review Technologist Highway Planning and Design Branch	945-2664

Appendix A

Land Assessment

Petra Loro and Clay Sawka

Manitoba Agriculture

Eddystone Farm Joint Venture has met the land requirements for 9600 grower-finisher pigs as follows:

In areas of lower livestock intensity such as the RM of Alonsa, 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 Eddystone Farm Joint Venture manure management plan to balance phosphorus with crop removal, should it be necessary in the future.

In order to determine the land requirements for the proposed Eddystone Farm Joint Venture operation, nitrogen and phosphorus excretion by all of the pigs 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 10-year crop yields from the Manitoba Agricultural Services Corporation (MASC) for the RM of Alonsa.

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. Reconnaissance soil survey is available to determine the agriculture capability of the land. The agriculture capability of the land included in the proposal is predominantly Classes 4DP with depressional areas being 5W. The primary limitations are density (D), stoniness (P) and wetness (W).

Eddystone Farm Joint Venture requires at least 2620 acres of suitable land for manure application. They have demonstrated with suitable soil tests that they have access to approximately 2653 acres. They have also indicated that they have access to an additional 1595 acres for a total potential land base of 4248 acres

Appendix B

Sustainable Development

SD has reviewed the site assessment for the Eddystone Farm Joint Venture proposal in the RM of Alonsa and has the following comments:

- The Eddystone Farm Joint Venture proposal contains and is located adjacent to Agricultural Crown lands. Local knowledge of the area suggests that the Crown land parcels are dissected by wet runs throughout due to ridge and swale topography consistent with the area on the west side of Lake Manitoba. In these areas, lands are poorly or imperfectly drained and may be subject to flooding. These considerations will need to be reflected when the operation submits its annual manure management plan.

- 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 and in other waterbodies across the province (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.

- For most crops, manure contains an excess of phosphorus (P) compared to nitrogen (N) and as a result, application at N-based rates causes a buildup of soil P. Practices which reduce N losses from the manure improve the N:P ratio in the manure and help slow P buildup when manure is applied at N-based rates. The proponent is planning to apply the liquid manure with injection which will reduce N losses compared to broadcast methods.

- The proposal identifies plans to construct a two-cell lagoon for manure storage. When properly managed, a two-cell lagoon will allow for better utilization of manure nutrients than a single-cell lagoon. When application of nutrients is limited to crop requirements, there is a reduced risk of nitrogen and phosphorus loss to surface and groundwater.

- 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 and groundwater.

- 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 (P balance). 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 4,061 acres may be required for the long-term environmental sustainability of the operation. The proponent has identified 2,653 acres

for manure application. Application to meet crop N requirements is estimated to use 2,620 acres. Application at 2 times the crop removal of P is estimated to use 2,030 acres (4,061 acres is estimated to achieve P balance with current crop choices and yield potential).

- As phosphorus levels build up in soils, the concentration of phosphorus in runoff to surface waters increases. It is important to rotate manure application across all spread fields and whenever possible focus manure applications on fields with low Olsen-P soil test levels so as to prevent excessive P buildup when applying manure at rates above P balance (P removal by harvested crops).
- The site assessment identifies one well on the property and proposes a new well at NE section 33-25-12W. The provincial water well database does not show any wells on the proposed property. However, there are other wells present within the spread field boundaries. If there are unused water wells on the site or spread fields then these should be properly sealed. Information on well sealing and well sealing reports are available from Sustainable Development (204-945-6959) or https://www.gov.mb.ca/sd/water/groundwater/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.
- For a proposed new well, the Well Standards Regulation under The Groundwater and Water Well Act (<https://web2.gov.mb.ca/laws/statutes/ccsm/g110e.php>) should be consulted. The regulation requires a minimum 100 metre separation distance between a well and confined livestock areas or manure storage facilities. During manure spreading the set back distances to all groundwater features as prescribed under The Environment Act Livestock Manure and Mortalities Management Regulation should be considered as a minimum distance.