



TECHNICAL REVIEW COMMITTEE

**A TECHNICAL REVIEW REPORT
PREPARED FOR THE**

Rural Municipality of La Broquerie

10006601 MANITOBA INC. (FEHR FARM)

NE 1/4 17-6-8 EPM

TRC 12-115

July 30, 2025

A. INTRODUCTION – THE TEAM

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

Agriculture (AGR)

- Agri-Resource Engineer
- Business Development Specialists
- Veterinarians
- Agri-Ecosystem Specialists

Natural Resources and Indigenous Futures (NRIF)

- Crown Lands Manager
- Fish Habitat Specialist
- Habitat Mitigation Biologist

Environment and Climate Change (ECC)

- Environmental Engineer
- Environment Officer
- Water Rights Licensing Technologist
- Land-Water Specialist
- Groundwater Specialist

Manitoba Transportation and Infrastructure (MTI)

- Senior Development Review Technologist
- Senior Flood Protection Planning Officer

Municipal and Northern Relations (MNR)

- Community Planners

And any other specialist or department that may have an interest or is consulted during the TRC process.

THE TECHNICAL REVIEW COMMITTEE (TRC) REPORT

Purpose of TRC Reports

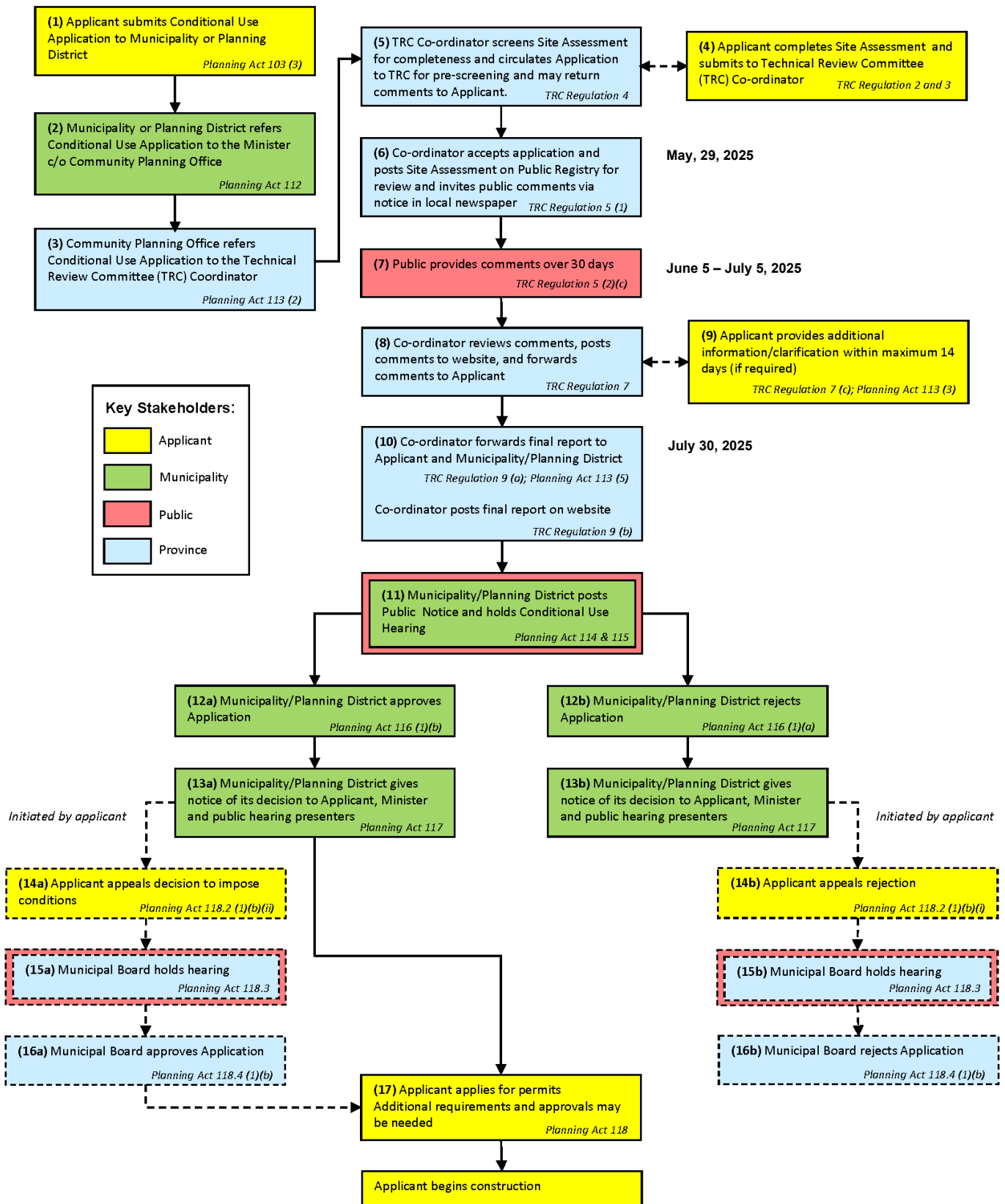
To provide objective, credible, technically-based assessments that:

- a) Enable municipal councils or planning district boards to make informed decisions regarding Conditional Use applications;
- b) Create common stakeholder understanding regarding livestock proposals, their 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 councils/boards and proponents; and
- e) Represent 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, measure and safeguards.

Should a municipal council or planning district board provide conditional approval of a 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. As of November 1, 2019, a proponent may appeal a council/board's rejection of their application or appeal a condition imposed on the approval of a council/board to the Municipal Board.

Livestock Technical Review Process

(June 19, 2024)



B. DESCRIPTION OF PROPOSED LIVESTOCK OPERATION

Further information may be found at https://www.gov.mb.ca/mr/livestock/public_registries.html

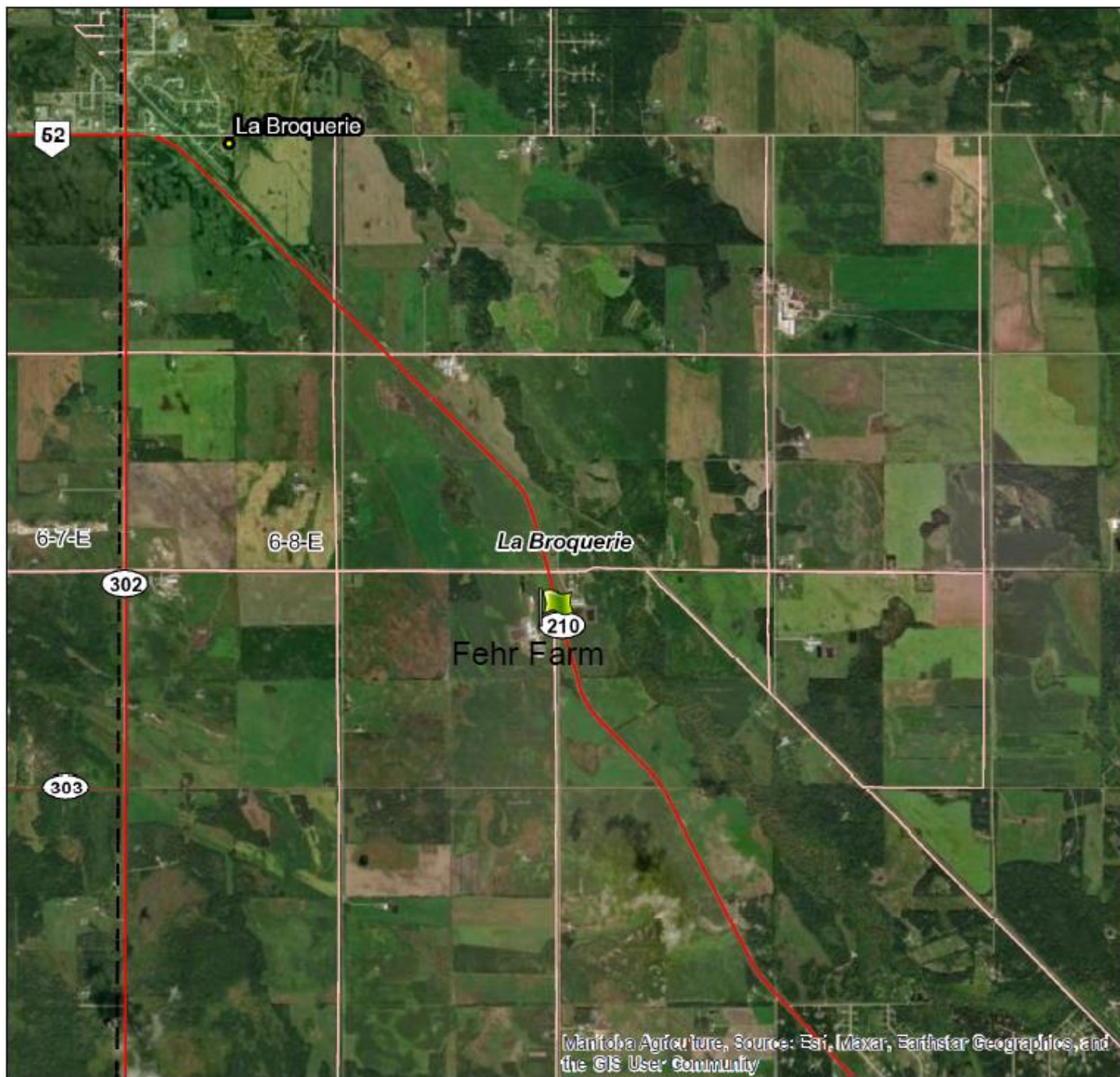
Applicant: 10006601 Manitoba Inc. (Fehr Farm)

Site Location: NE ¼ 17-6-8 EPM (Refer to map below)

Proposal: The applicant seeks to expand an existing dairy operation. The proposal involves increasing the number of mature cows (lactating and dry) including associated livestock from 280 to 375 animals, representing an increase from 560 to 750 Animal Units.

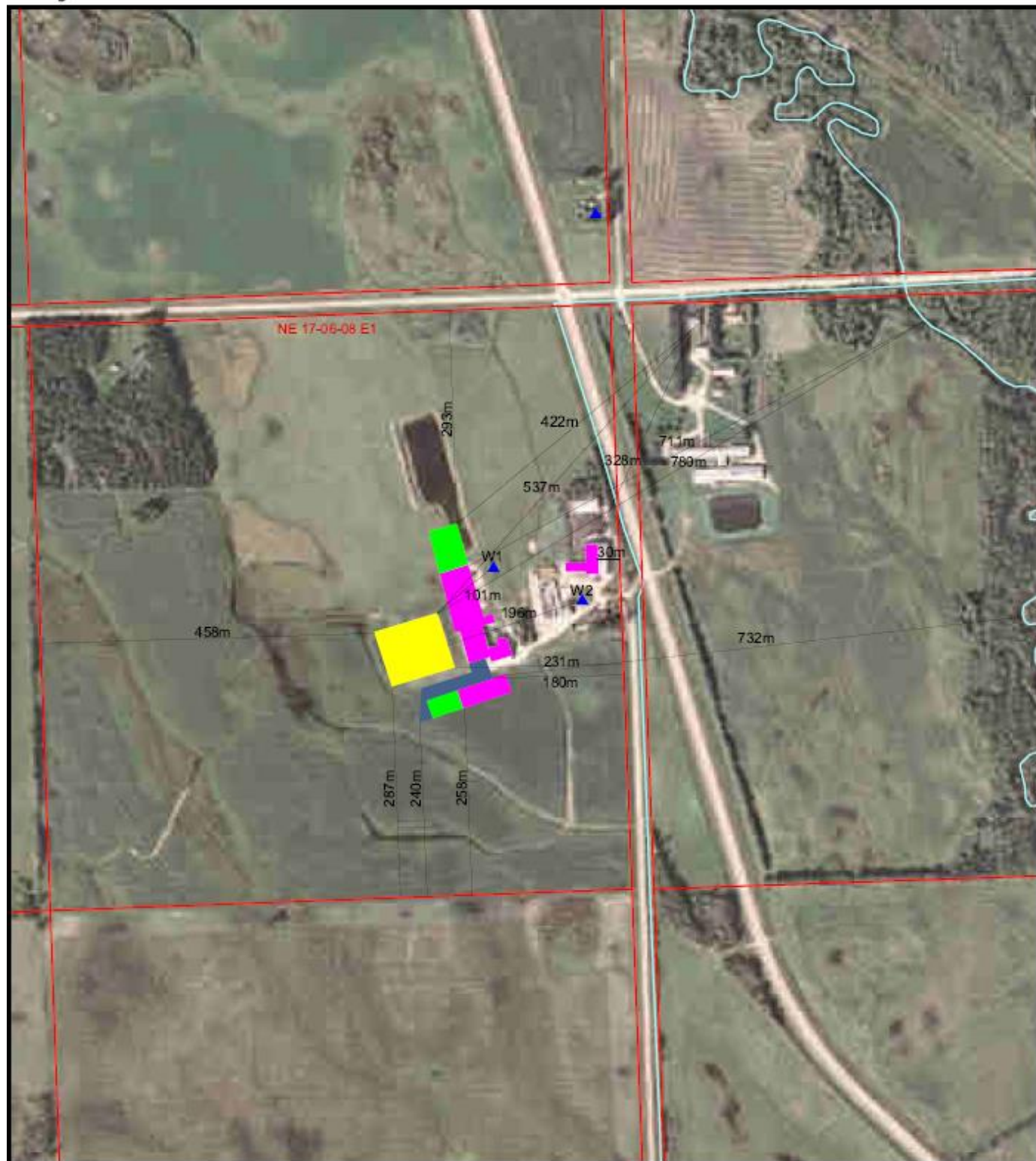
This will involve the following:

- Expansion of one dairy and one heifer barn, an exercise area, and the continued use of three other barns as is;
- Use of existing earthen manure storage as is and field manure storage;
- Estimated maximum daily water use of 30,882 imperial gallons from an existing well;
- Composting of mortalities; and
- Truck haul routes as shown in map below.



Location Map

Fehr Farm Project Site Plan



0 0.1 Miles
1:7000

▲ Wells
Barns
Existing Barns
Proposed Exercise Yards
Proposed Barns
Lagoon
Drainage

Data Sources:
Fields drawn by Tone Ag in consultation with landowner, and subject to change.
Orthophotos are 1:60,000 from Manitoba Land Initiative website
Highways are from Manitoba Highways and Transportation 1:60,000 map 1994
Sections are from Manitoba Land Initiative website

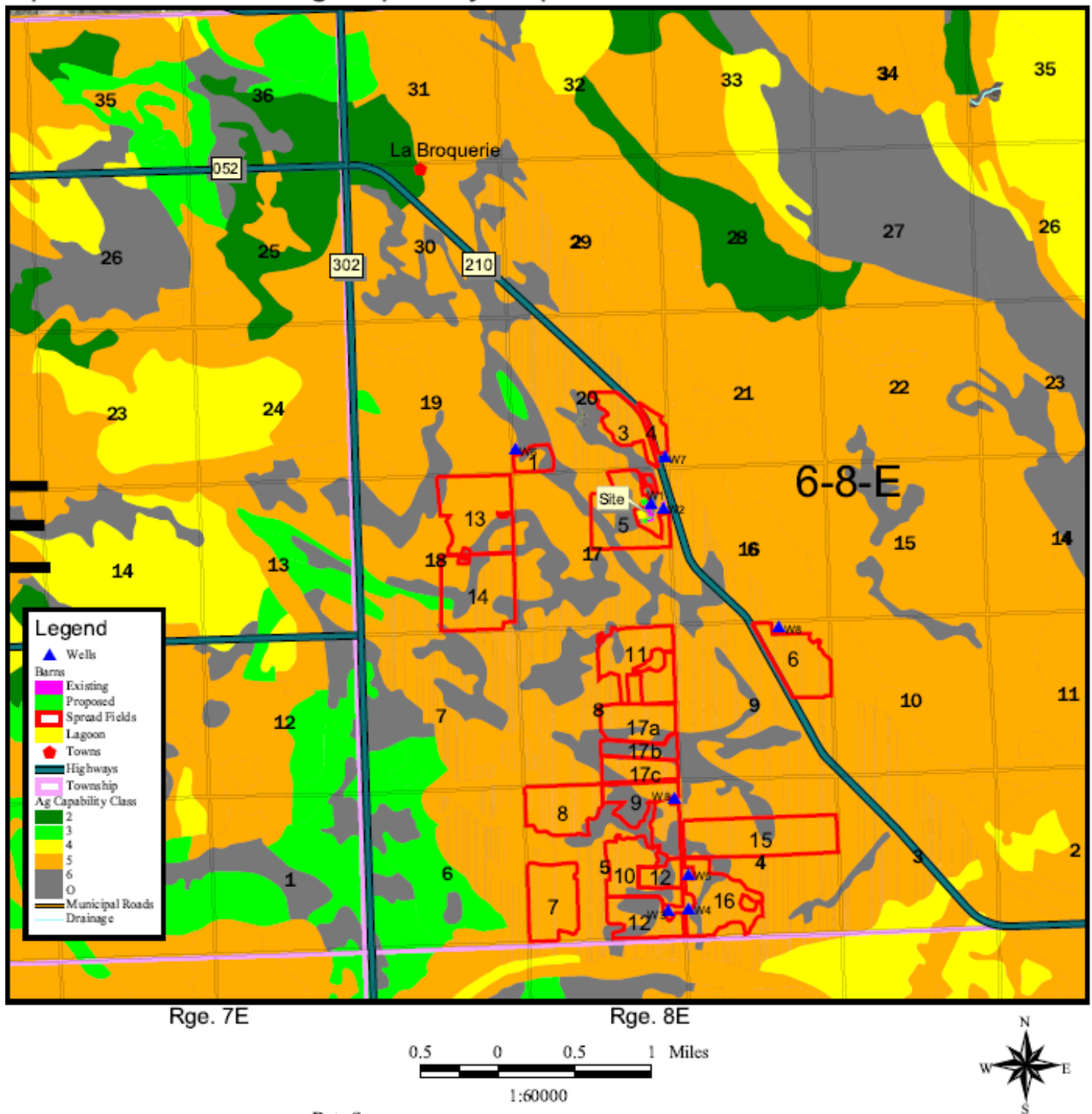


2025-04-25



Site Map

Fehr Farm Spread Fields and Ag Capability Map



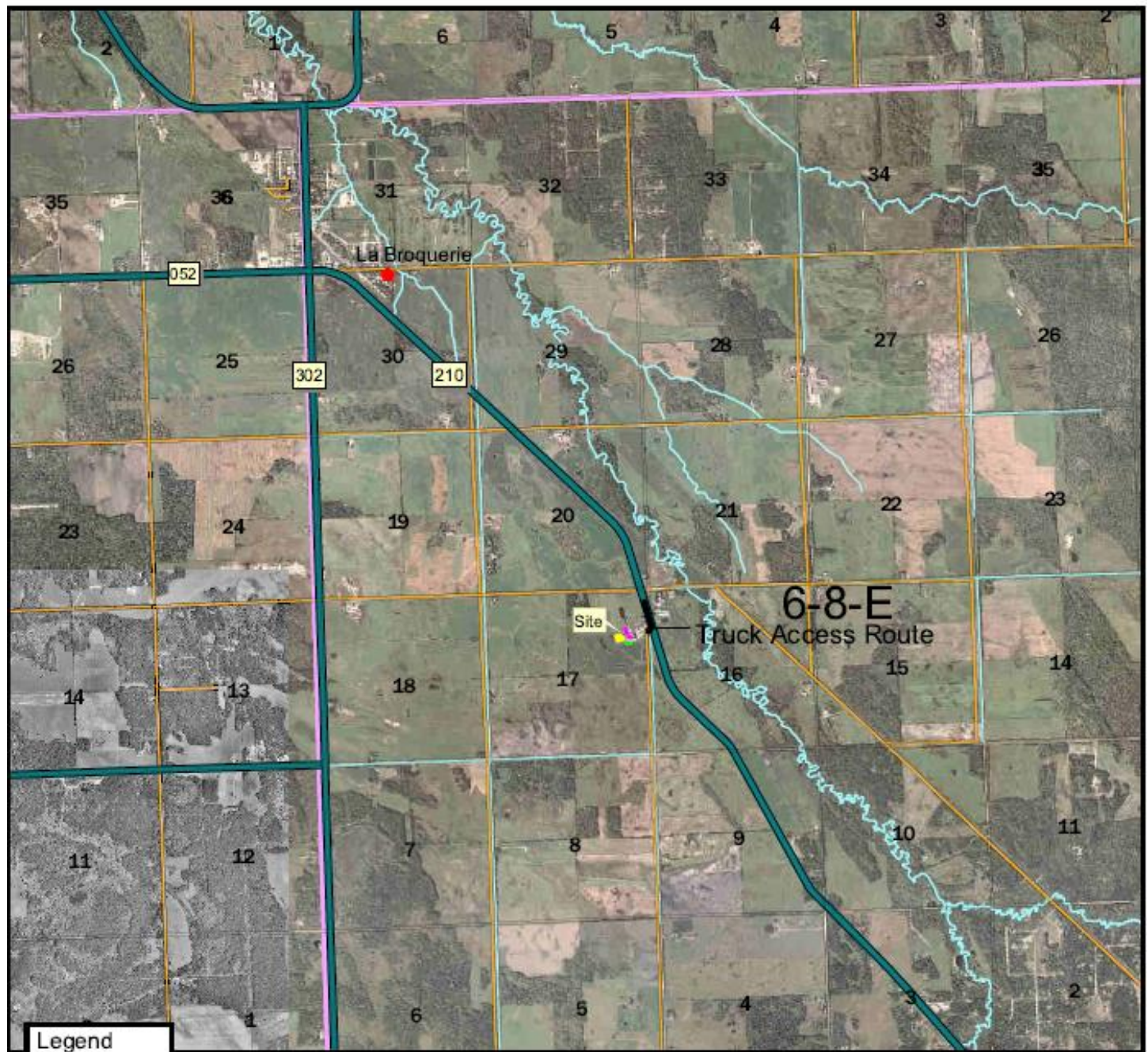
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Map created by Jordan Karpinchick
Tone Ag Consulting
Box 557
St. Pierre, Manitoba
R0A 1V0
Tel: (204) 433-7189
Fax: (204) 433-3335
www.toneag.com
2025-04-16

Spread Field Map

Fehr Farm

Truck Haul Route and Access Point



Legend

- Burns
- Existing
- Proposed
- Lagoon
- Towns
- Highways
- Townships
- Municipal Roads
- Drainage

Rge. 7E

Rge. 8E

0.5 0 0.5 1 Miles

1:60000



Data Sources:

Fields and irrigation areas drawn by Tone Ag in consultation with landowner, and subject to change.
 Orthophotos are 1:60,000 from Manitoba Land Initiative website
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 2025-03-14

Truck Haul Route Map

C. SITE ASSESSMENT OVERVIEW

Related Section in the Site Assessment		Related Provincial Requirements and Safeguards	Dept.
1	Description of Operation and Nature of Project	<p>The Planning Act requires that that an application to approve a conditional use for a livestock operation involving 300 or more Animal Units must be referred to the Livestock Technical Review Committee (TRC) for review.</p> <p>The RM of La Broquerie Development Plan By-law No. 6-2018 states that new or expanding livestock operations 400 Animal Units or greater in size shall be listed as a conditional use in the Zoning By-law and will require a technical review.</p> <p>10006601 Manitoba Inc. (Fehr Farm)'s application is for an expanding dairy operation of more than 400 Animal Units. As such, it has been referred to the TRC for review.</p> <p>The Technical Review Committee Regulation 119/2011 requires an applicant to submit a completed site assessment.</p> <p>The TRC has received and accepted for review a complete site assessment from 10006601 Manitoba Inc. (Fehr Farm), including all information necessary to review the application.</p>	MNR
2	Type and Size of Operation	Fehr Farm is seeking Conditional Use approval from the Rural Municipality of La Broquerie to expand their dairy operation to 375 mature cows, including associated livestock. The total Animal Units would be 750.	AGR
3	Animal Confinement Facilities	<p>Dairy barn – 23,400 square feet will be added to the existing dairy barn.</p> <p>Heifer barn – 17,500 square feet will be added to the existing heifer barn.</p> <p>Outdoor area – 26,000 square foot outdoor exercise yard will be constructed.</p>	MNR
4	Confined Livestock Areas	<p>The applicant will build a new confined livestock area (CLA). Under the Livestock Manure and Mortalities Management Regulation, the applicant must:</p> <ul style="list-style-type: none"> • If the CLA will house more than 300 Animal Units, obtain a permit from Environment and Climate Change before building the CLA. • Ensure the CLA does not pollute surface water, a surface watercourse, groundwater, or soil. • Locate the CLA at least 100 m from any surface watercourse, sinkhole, spring, well, or the operation's boundaries. • Remove manure at least once per year and store or land-apply. 	ECC
5	Project Sites Unsuitable for Development	The proposed CLA is not located in Nutrient Management Zone N4 or a Nutrient Buffer Zone. Existing manure storages which are not altered (used as is) are not part of this review.	ECC
6	<p>Water Source:</p> <p>Existing Well</p> <p>Water Requirements of <u>30,882</u> imperial gallons per day</p>	An application for a Water Use Rights Licence has been submitted by the proponent for this project so the Water Use Licensing Section has no concerns.	ECC

Related Section in the Site Assessment		Related Provincial Requirements and Safeguards	Dept.
7	Development Plan	<p>The Planning Act requires that development plans include a livestock operation policy that guides zoning by-laws dealing with livestock operations.</p> <p>The Planning Act requires that municipalities issue a development permit before any development takes place on a site. All development must comply with the Zoning By-law and Development Plan. Any proposed development that does not comply with required separation distances or setbacks must obtain Council approval following public hearing to vary those requirements.</p> <p>The site of the proposed livestock operation, located in the NE ¼ 17-6-8 EPM in the RM of La Broquerie, is designated Rural 1 Policy Area (Development Plan By-law No. 6-2018) The proposal complies with Development Policies 3.4.3 Livestock Operation Policies.</p> <p>Within areas designated Rural 1 Policy Area, new and expanding livestock operations 400 AU or greater in size shall be listed as a conditional use in the Zoning By-Law and requires a technical review.</p>	MNR
8	Zoning By-Law	<p>The site of the proposed operation is zoned “RG” Rural General Zone (RM of La Broquerie Zoning By-law No. 7-2028) with a minimum site area requirement of 80 acres and a minimum site width requirement of 600 feet.</p> <p>The proposed operation complies with the Zoning By-law as the site area is 144 acres and site width is greater than 600 feet. The nearest residence on an adjacent property appears to be greater than 1,640 feet from the earthen manure storage, and no designated residential or recreational areas are within 6,561 feet from the earthen manure storage.</p>	MNR
9	Separation Distances	<p>The proposed expansion from 560 AU to 750 AU remains within the 401-800 AU category in Table 2 of the RM of La Broquerie Zoning By-Law, meaning that separation distances will be unchanged from what they are currently. Those separation distances are:</p> <ul style="list-style-type: none"> - 500m (1,640 ft) from single residence to earthen manure storage facility. - 250m (820 ft) from single residence to animal housing facility and non-earthen manure storage facility. - 2000m (6,561 ft) from designated residential or recreational area to earthen manure storage facility or feedlot. - 1330m (4,364 ft) from designated residential or recreational area to animal housing facility and non-earthen manure storage facility. <p>Measurements appear to indicate that no variance orders for separation distances are required.</p>	MNR

Related Section in the Site Assessment		Related Provincial Requirements and Safeguards	Dept.
10	Abandoned Wells	<p>The proposal identifies that the water use for the proposed livestock operation is from the existing well located at NE-17-6-8E; and the proponent is not aware of any abandoned wells present on the project site or spread fields. If any abandoned wells are found, they should be properly sealed if not in use and a sealed well report must be filed with Manitoba Environment and Climate Change, Groundwater Management Section. For information on well sealing and submission of reports, contact Manitoba Environment and Climate Change at (204) 945-6959 or: https://www.gov.mb.ca/water/groundwater/wells_groundwater/index.html.</p> <p>A well drilling professional should seal all but the most basic wells. A list of currently licensed well drilling professionals can also be accessed from the above web page.</p> <p>Under the Livestock Manure and Mortalities Management Regulation (LMMMR), a minimum 20-metre setback from any well, spring or sinkhole must be maintained during manure spreading, or 15-metres if a permanent vegetative buffer is in place.</p>	ECC
11	Water Control Works	<p>There are no new water control works proposed. If water control works are proposed, an authorization under the Water Rights Act is required.</p> <p>Note #1 - Any filling or draining of regulated wetlands (Class 3, 4 or 5) constitutes the construction of water control works.</p> <p>Note #2 – Class 6, 7 and Unimproved organic soils (ag capability) cannot be drained.</p>	ECC
12	Manure Type and Storage: Solid and liquid manure	<p>The applicant will store solid manure as field storage. Under the Livestock Manure and Mortalities Management Regulation, the applicant must:</p> <ul style="list-style-type: none"> • Locate the manure at least 100 m from any surface watercourse, sinkhole, spring, or well. • Ensure the manure does not pollute surface water, groundwater, or soil. • Land-apply the stored manure the following year. <p>The applicant will use an existing manure storage for liquid manure that is registered or was constructed under permit. Under the Livestock Manure and Mortalities Management Regulation, the applicant must:</p> <ul style="list-style-type: none"> • Ensure there is sufficient capacity to store all manure through the winter. • Maintain the structural integrity of the storage 	ECC
13	Mortalities disposal methods identified: Composting	<p>The applicant will compost mortalities. Under the Livestock Manure and Mortalities Management Regulation, the applicant must:</p> <ul style="list-style-type: none"> • Ensure the composting does not pollute surface water, groundwater, or soil. • Locate the composting site at least 100 m from any surface watercourse, well, or the operation's boundaries. • Ensure the composting facilities and process are acceptable to the director. 	ECC

Related Section in the Site Assessment		Related Provincial Requirements and Safeguards	Dept.
14	Setback Distances from Manure, Livestock, and Mortalities to Water and Operation Boundaries	The applicant has indicated that all setback distances meet minimum requirements set out in the Livestock Manure and Mortalities Management Regulation.	ECC
15	Building in Designated Flood Areas	<p>This property is not within a Designated Flood Area.</p> <p>There are areas on the property which are at risk of flooding in the event of a 200-year flood on the Seine River. We would also note that La Broquerie Drain is adjacent to several of the spread fields. Any activities which have the potential to impact the provincial water infrastructure will require a provincial water infrastructure permit. This permit must be obtained prior to undertaking any activities which have the ability to impact the provincial water infrastructure.</p>	MTI
16	Odour control measures (project site)	<p>Fehr Farm has indicated that shelterbelts will be planted. 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.</p>	AGR
		<p>The applicant has indicated that there is currently no lagoon cover and that a shelterbelt will be planted.</p> <p>The La Broquerie Development Plan states that proponents and operators of livestock operations will be required to develop facilities and conduct their operations in a manner which reduces the production of offensive odours and the potential for pollution of soils, groundwater and surface water in compliance with the Livestock Manure Management and Mortalities Regulation, the Nutrient Management Regulation, and other Provincial Acts and Regulations. All new and expanding operations, as of the date of the adoption of this Development Plan may be required to incorporate the following:</p> <ul style="list-style-type: none"> a) The establishment of shelterbelts; b) The establishment of covers on manure storage facilities; c) Confirmation of separation distances and setbacks by a Manitoba Land Surveyor, if determined necessary by Council; and d) The submission of a copy of any required annual Manure Management Plan as required by the Livestock Manure and Mortalities Management Regulation. 	MNR
17	Land Available for Manure Application	The estimated land requirement for Fehr Farm is 1243 acres for the phosphorus or 744 acres for the nitrogen, whichever is higher. Fehr Farm has satisfied the land requirement by demonstrating that they have access to 1251 suitable acres. Additional details can be found in the appendix.	AGR

Related Section in the Site Assessment		Related Provincial Requirements and Safeguards	Dept.
		The proponent's proposed spread fields are located within the Municipality of La Broquerie. Locations are designated Rural General or Rural Restricted Policy Areas and comply with the respective Livestock Policies (By-Law 6-2018: Policies 3.4.3 1-9). The proposed spread field locations are zoned "RG" Rural General or "RL" Rural Limited Zone and support existing agricultural activity.	MNR
18	Setbacks for Manure Application	Under the Livestock Manure and Mortalities Management Regulation, manure spreading must meet setback distances to all surface watercourse and groundwater features.	ECC
19	Manure Transportation and Application	Please be advised that any structures placed within the controlled area of a Provincial Trunk Highway (PTH) or Provincial Road (PR) (125 ft from the edge of the right-of way) requires a permit from our office. For permit information, please email accessmgmt@gov.mb.ca or call 204-583-2433. Permit information can also be found at https://forms.gov.mb.ca/highway-permits-application/index.html	MTI
		<p>The placement of temporary drag lines or any other temporary machinery/ equipment for manure application within the right-of-way of any PTH or PR requires permission from Manitoba Transportation and Infrastructure's Steinbach Office. Please contact Robert Fender, Regional Planning Technologist, at (204) 346-6266 or Robert.Fender@gov.mb.ca. Please also notify the Regional Planning Technologist for the placement of temporary draglines or other temporary equipment for manure application within the controlled area of a PTH or PR (125 ft from the edge of the right-of-way).</p> <p>Under the Livestock Manure and Mortalities Management Regulation, the applicant must:</p> <ul style="list-style-type: none"> • Operate with an annual manure management plan which includes: <ul style="list-style-type: none"> • Manure type, volume, and nutrient values • Spread field location and soil class • Soil tests showing nitrogen and phosphorus levels • Crops to be grown • Manure application rate • Ensure manure does not pollute groundwater, soil or escape the operation's boundaries. • Follow requirements for the land application of manure, including nitrogen limits and phosphorus thresholds. 	ECC
20	Manure Application on Lands Subject to Frequent Flooding or Inundation	The applicant has indicated that no spread fields are located within the Red River Valley Special Management Area or any other regularly inundated area.	ECC
21	Projected Truck Haul Routes and Access Points	The proposed truck haul route utilizes an existing municipal road connecting onto PR 210. We don't anticipate any significant increase in use	MTI
		<p>The proposed site is accessed by municipal road 44E from PR 210.</p> <p>As per Section 116(2) of The Planning Act, municipalities, as a condition of approval, may require proponent to enter into a development agreement regarding the condition and upkeep of local roads used as truck haul routes.</p>	MNR

Related Section in the Site Assessment		Related Provincial Requirements and Safeguards	Dept.
22	Conservation Data Centre Report	<p>The information provided in the assessment suggest that there will not be any conflicts with species protected under the Endangered Species and Ecosystems Act and/or Species at Risk Act or designated as rare or uncommon by the Manitoba Conservation Data Centre (MBCDC).</p> <p>NRIF's review is based on existing data known to the MBCDC of the Wildlife Branch at the time of the review. These data are dependent on the research and observations of our scientists and reflects our current state of knowledge. An absence of data does not confirm the absence of any rare or endangered species.</p> <p>Many areas of the province have never been thoroughly surveyed, however, and the absence of data in any particular geographic area does not necessarily mean that species or ecological communities of concern are not present. The information should, therefore, not be regarded as a final statement on the occurrence of any species of concern. All future observations of rare or endangered species made by the proponent should be reported to the MBCDC for further review.</p>	NRIF

Provincial Departments: Agriculture (AGR); Environment and Climate Change (ECC); Transportation and Infrastructure (MTI); Municipal and Northern Relations (MNR); Natural Resources and Indigenous Futures (NRIF)

D. PUBLIC COMMENTS AND DISPOSITIONS

No comments were provided by the public to the Livestock Technical Review Committee concerning the proposed expansion of a mixed operation by 10006601 Manitoba Inc. (Fehr Farms).

E. CONCLUSIONS AND RECOMMENDATIONS

Conclusion

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

1. 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
 - i. the applicant,
 - ii. the Minister (c/o the Steinbach Community Planning Office),
 - iii. all adjacent planning districts and municipalities, and
 - iv. 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) publish the notice of hearing in one issue of a newspaper with a general circulation in the planning district or municipality or, when there is no newspaper with a general circulation in the area, post the notice in the office of the planning district or municipality and at least two other public places in the district or municipality; and
 - c) post a copy of the notice of hearing on the affected property in accordance with the Posting Requirements outlined in Section 170 of The Planning Act.
2. Council should specify the type(s) of operation, legal land location, number of animals in each livestock category, total Animal Units, and expiration date (as per Planning Act section 110(1)) in its Conditional Use Order.
3. 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 Steinbach Community Planning Office), and
 - c) every person who made representation at the hearing.
4. Council is requested to include in their resolution and/or Conditional Use Order notification that, as per Section 118.2(1) of The Planning Act, an applicant may appeal the following decisions of a board or council to the Municipal Board:
 - b) for an application for approval of a conditional use made in respect of a large-scale livestock operation,
 - i. a decision to reject the application,
 - ii. a decision to impose conditions.
5. As per Section 118, no development or expansion of a livestock operation that is the subject of an application under Part 7, Division 2 of The Planning Act may take place until
 - a) the application is approved and the applicant complies, or agrees to comply, with any condition imposed on the approval under this Division; and
 - b) the applicant obtains every approval, including any permit or licence, required under an Act, regulation or by-law in respect of the proposed operation or expansion, and complies with, or agrees to comply with, any condition attached to the approval.

6. Council is welcome to contact Manitoba Environment and Climate Change, 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

1. That any additional measures identified through subsequent provincial licencing or permitting in order to minimize any identified risks to health, safety and the environment be undertaken.
2. That as per Section 118.2(2)(b), an applicant may appeal the following decisions of a board or council to the Municipal Board respecting an application for approval of a conditional use:
 - i. a decision to reject the application,
 - ii. a decision to impose conditions.

F. TECHNICAL REVIEW COMMITTEE MEMBERS

Name	Department	Title <i>Branch</i>	Contact
Holly Ervick-Knote	Municipal and Northern Relations	Senior Planner <i>Community Planning Services Branch</i>	204-945-1312 holly.ervick-knote@gov.mb.ca
Petra Loro	Agriculture	Livestock Environment Specialist <i>Sustainable Agriculture Branch</i>	204-918-0325 petra.loro@gov.mb.ca
Julie Froese	Environment and Climate Change	Environmental Livestock Coordinator <i>Environmental Approvals Branch</i>	204-945-7104 julie.froese@gov.mb.ca
Karin Newman	Natural Resources and Indigenous Futures	Habitat Mitigation Specialist <i>Wildlife Branch</i>	karin.newman@gov.mb.ca
Jeff DiNella	Transportation and Infrastructure	Senior Development Review Technologist <i>Highway Planning and Design Branch</i>	204-430-7176

Appendices

Manitoba Natural Resources and Indigenous Futures – Lands and Planning Branch

A review of the information provided suggests there is no impact to Crown land administered under The Crown Lands Act. This review is based on information known to the Lands and Planning Branch as documented in the Crown Lands Registry System.

Manitoba Natural Resources and Indigenous Futures – Fisheries Branch

Fisheries Branch staff have reviewed the proposal and advise that if the proponent adheres to all mitigative measures prescribed by ECC to protect surface waters and riparian habitats, we have no additional concerns with the proposal as described.

Manitoba Agriculture – Sustainable Agriculture Branch

In areas of higher livestock intensity, such as the RM La Broquerie, it is currently the Province of Manitoba's policy to require sufficient suitable land for all of the nitrogen and all of the phosphorus generated by the livestock.

Typical, modern feeding practices for dairy were used to estimate nutrient excretion by the livestock at Fehr Farm. Ten-year Manitoba Agricultural Services Corporation (MASC) crop yield averages in the RM of La Broquerie were used to estimate crop nitrogen uptake and phosphorus removal rates for the crop rotation specified in the proposal.

Land suitability is determined using soil testing for phosphorus and soil survey to establish the agriculture capability. Soils must be below 60 ppm Olsen P to be considered suitable. Semi-detailed soil survey is available in the area to determine the agriculture capability of the land. The soil survey indicates the land contains agriculture capability Classes 3 to 6. The limitations in the area are lack of moisture (M) and wetness (W), typical of wet sands. Classes 1 to 5 are considered suitable for manure application. Some of the fields are mapped as Class 6W. Manure application is prohibited on Class 6W soils because of the severity of the wetness limitation. Any areas Class 6W should be confirmed in the field by the producer or manure management planner and excluded from the manure management plan.

The estimated land requirement for Fehr Farm is 1243 acres for the phosphorus or 744 acres for the nitrogen, whichever is higher. Fehr Farm has satisfied the land requirement by demonstrating that they have access to 1251 suitable acres.

Manitoba Environment and Climate Change – Water Science and Watershed Management Branch

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 2001).

The proponent is planning to apply manure in spring and in fall, partial injection of liquid manure and broadcast and incorporated within 48 hours for solid manure with the exception of established stands of hay and pasture where no incorporation will occur. Injection and broadcast with incorporation will reduce the risk to surface water when compared to broadcast only application methods and spring applications are lower risk than fall applications.

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. Injection or incorporation are practices which reduces N loss when compared to broadcast only application.

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 (P) as a nutrient by which fertilizer application through manure, synthetic fertilizer, and municipal waste sludge to agricultural lands may be limited. Many agricultural soils in Manitoba, especially areas with low livestock intensity, are considered P deficient and therefore, manure is an ideal fertilizer to support crop production. However, manure application can increase soil P over time and other spread fields may need to be added to prevent excessive soil P build up. As excess P levels build up in soils, greater losses occur to surface and ground water. It should be noted that Olsen soil-test P levels of 60 ppm are well above P needs for most crops (over 20 ppm is usually considered agronomically very high). To remain environmentally sustainable over a long-term planning horizon of 25 years or more the proponent acknowledges that 1243 acres may be required for the operation to achieve P balance [P removal equal to P application] with current crop choices and yield potential.

As P levels build up in soils, the concentration of P 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 to maximize the benefits from the P in the manure and to prevent excessive P buildup when applying manure at rates above P balance (P removal by harvested crops).

During manure spreading, setback distances to all groundwater features as prescribed under the Livestock Manure and Mortalities Management Regulation should be considered as a minimum distance.