



TECHNICAL REVIEW COMMITTEE

**A TECHNICAL REVIEW REPORT
PREPARED FOR**

**THE RURAL MUNICIPALITY
OF PRAIRIE VIEW**

**MONARCH COLONY
FARMS LTD.**

NW ¼ 35-17-27 WPM

TRC 12 – 061

January 7, 2020

A. INTRODUCTION – THE TEAM

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

- Agriculture and Resource Development (ARD): Livestock Environment, Nutrient Management and Business Development Specialists, Agricultural Engineer, and Veterinarians, Habitat Mitigation and Wildlife Land Specialist, Regional Wildlife Manager, Groundwater Specialist, Land-Water Specialist
 - Municipal Relations (MR): Community Planners
 - Infrastructure (MI): Development Review Technologists, Engineering and Operations Division; Development Review Officers, Water Management and Structures Division
 - Conservation and Climate (CC): Environment Officer, 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

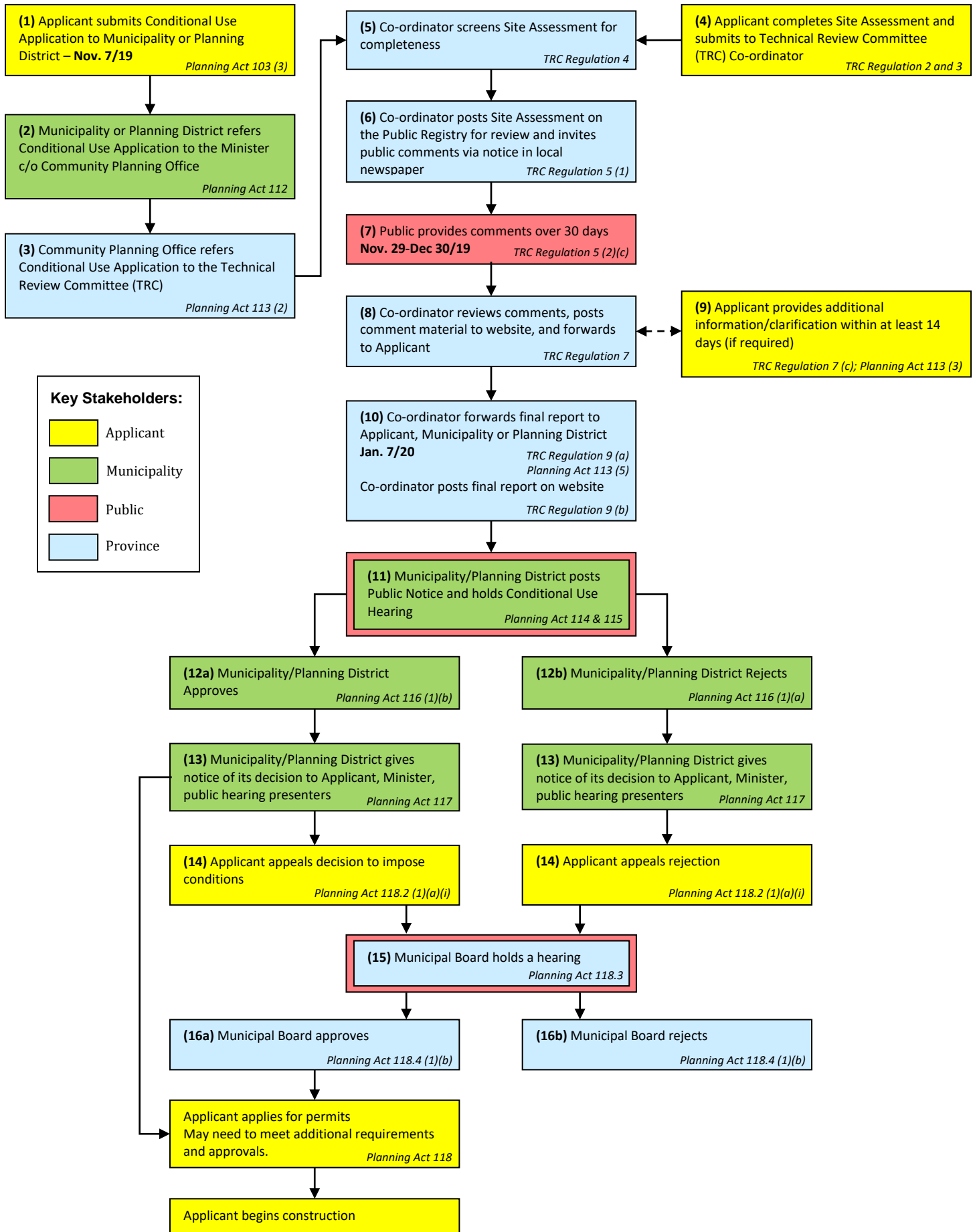
To provide objective, highly credible, technically-based assessments that:

- 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

(November 1, 2019)



B. DESCRIPTION OF PROPOSED LIVESTOCK OPERATION

To view a detailed description, go to:

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

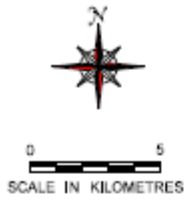
Applicant: Monarch Colony Farms Ltd.

Site Location: NW 35-17-27 WPM.

Proposal: To establish a dairy operation of 288 mature cows, lactating and dry (576 Animal Units) within an animal confinement facility.

This will involve the following:






- Constructing barn for 288 mature dairy cows
- Using an earthen manure storage structure and steel tank(s)
- Consuming 9,867 imperial gallons of water per day (from a public pipeline)
- Composting mortalities
- Using the truck haul routes as shown in Maps below

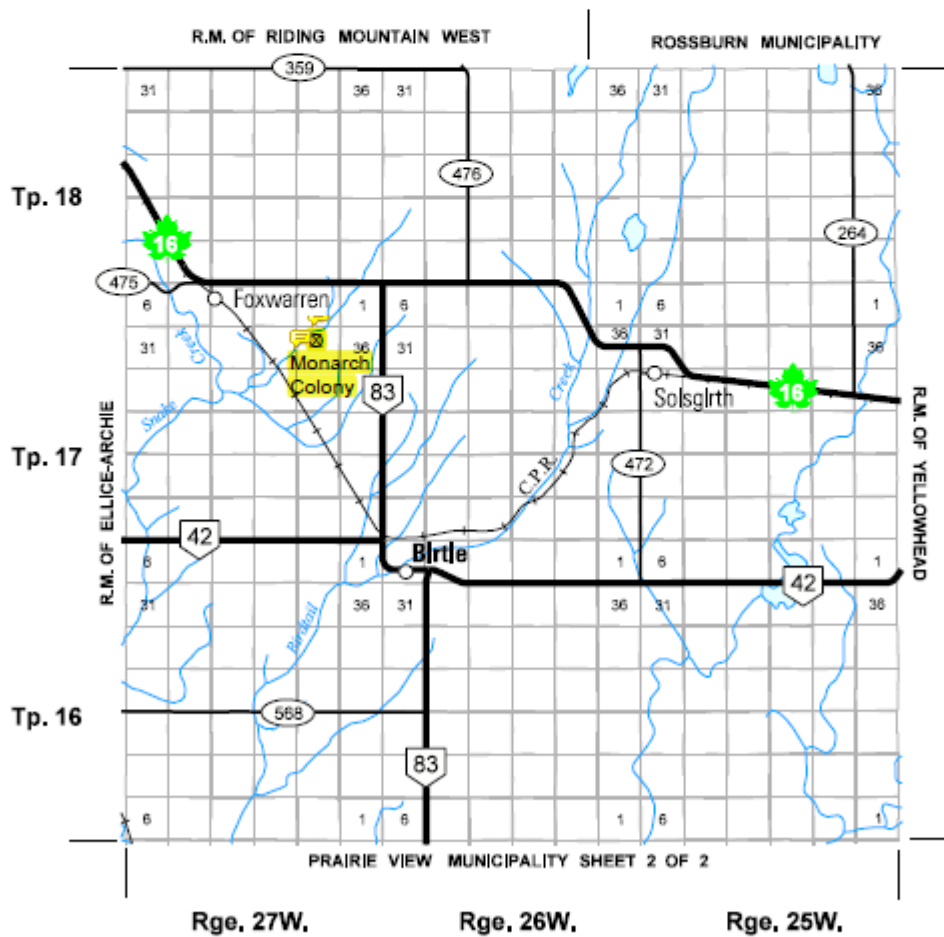
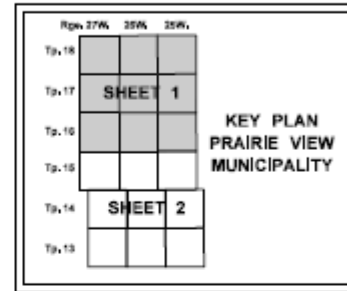


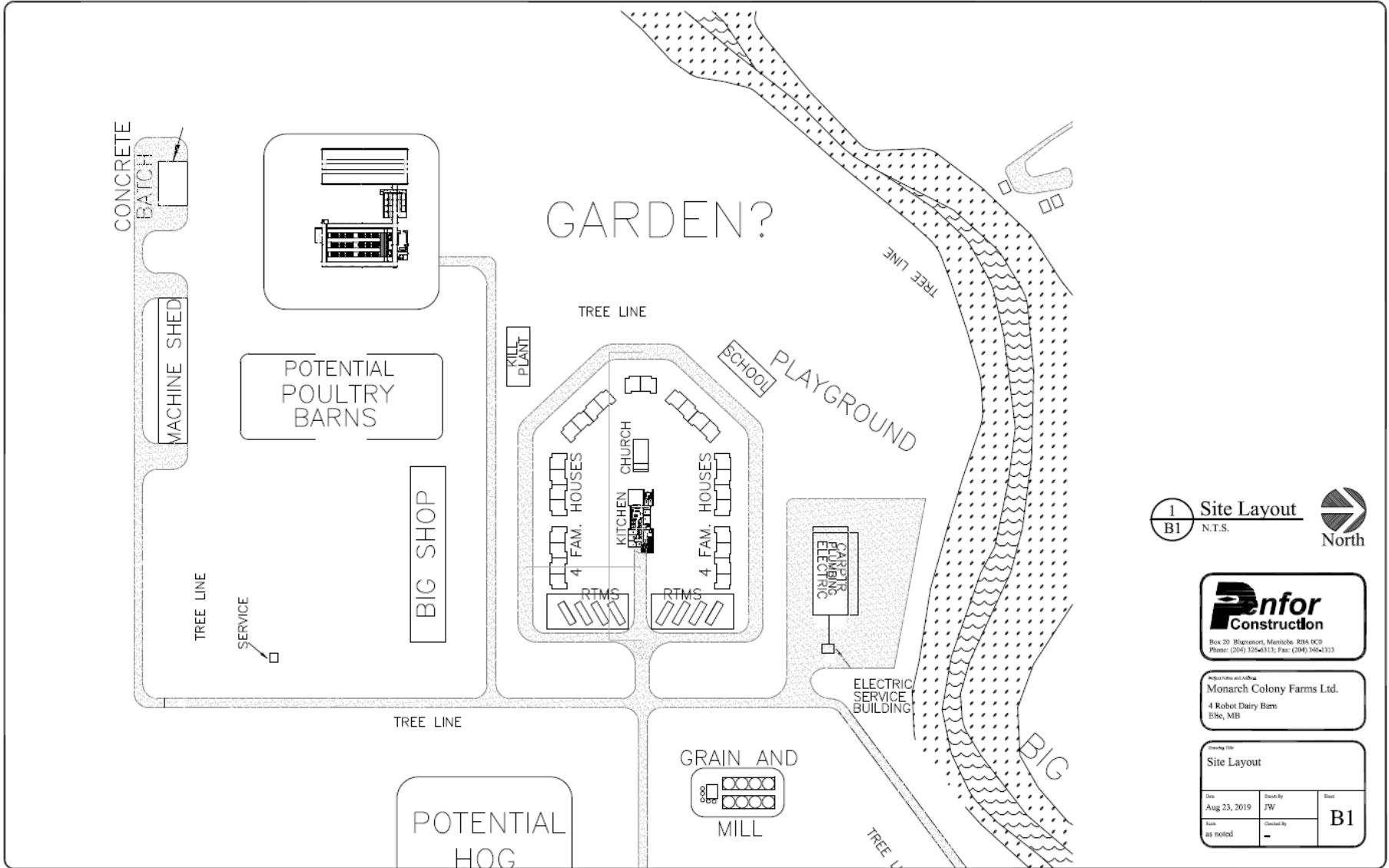
PRAIRIE VIEW MUNICIPALITY

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

LEGEND

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





1
B1

Site Layout
N.T.S.

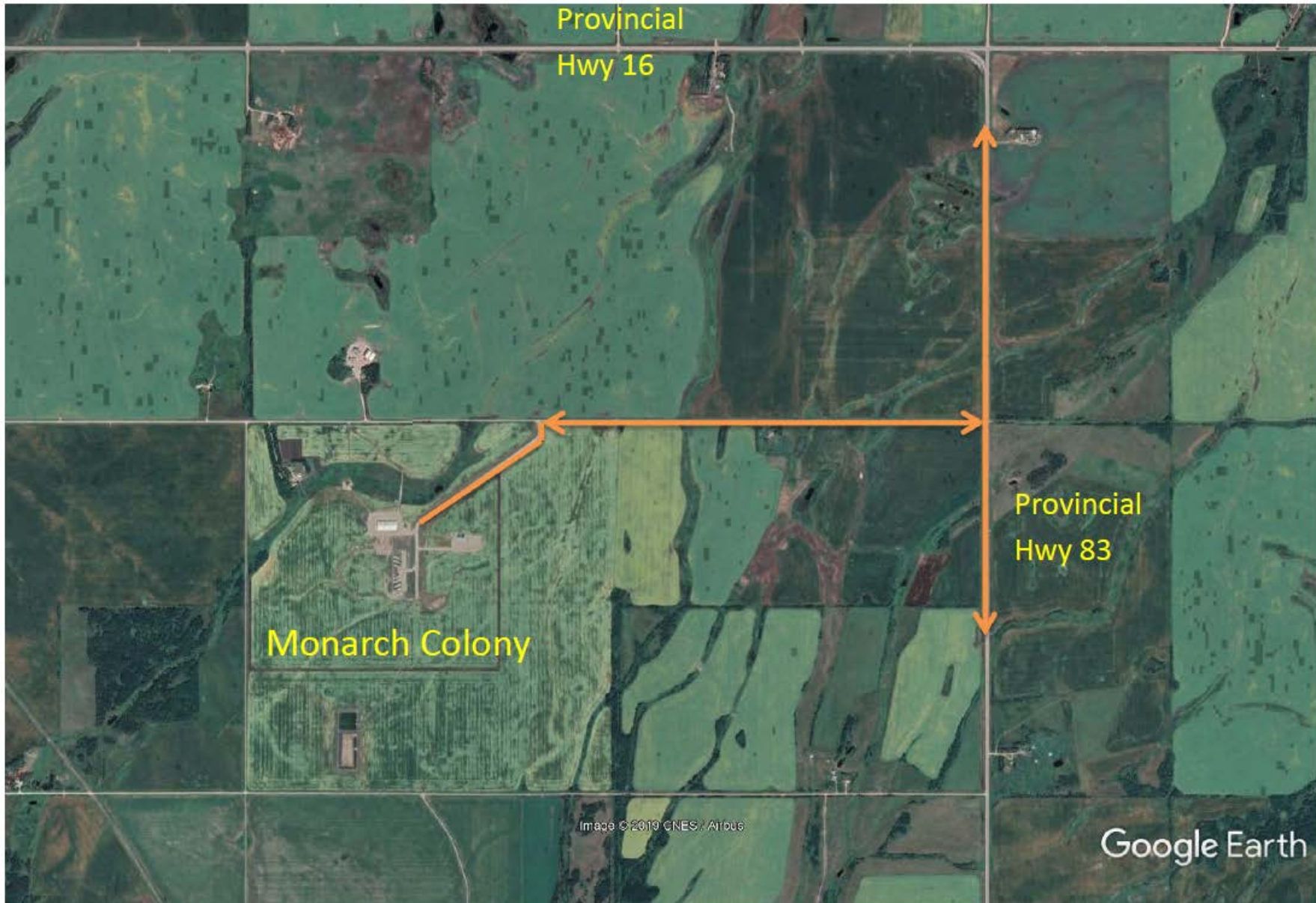


Penfor Construction
 Box 20 Blenheim, Manukau 804 DC0
 Phone: (06) 326-1111; Fax: (04) 364-1111

Monarch Colony Farms Ltd.
 4 Robot Dairy Bam
 Eke, MB

Drawing Title: Site Layout

Date: Aug 23, 2019	Drawn By: JW	Scale: As noted	Sheet: B1
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Monarch Colony - Truck Haul Route

C. SITE ASSESSMENT OVERVIEW

Assessment Overview Table

Provincial Technical Overview of TRC 12-061 – Monarch Colony Farms Ltd			
Items Provided by Project Proponent	Confirmed	Related Existing Provincial Safeguards	Dept
1. Submitted complete Site Assessment	X	The proposal is consistent with provincial requirements for a livestock operation.	MR
2. Clearly defined the project as an Animal Confinement Facility	X	Each of the barns being proposed are in excess of 6,458 sq. ft. (600 sq/m) and will therefore require a Building Permit from the Office of the Fire Commissioner.	MR
3. Proposed Project Site Physical Suitability	X	Detailed soil survey indicates that Monarch Colony Farms Ltd is located on land that has been mapped as Agriculture Capability Class 2 (prime agricultural land) and Class 5.	ARD
4. Proposed Project Site Flood Risk Potential	X	No concerns	MI
5. Identified 9,867 imperial gallons /day required for proposed operation	X	Under the Water Rights Act, all operations using more than 25 000 litres (5,499 Imperial gallons) of water per day must hold a Water Rights Licence. There is currently no Water Rights Licence issued at this site. Therefore, based on our understanding of the proposed project, a Water Rights Licence will be required.	CC
6. Proposed measures to meet storage and application regulations for manure	X	A permit to construct the proposed manure storage facility must be obtained, prior to initiating any of the construction work, in accordance with the Livestock Manure and Mortalities Management Regulation. An application for a permit to construct the manure storage must be submitted to Environmental Approval Branch of Conservation and Climate (EABDirector@gov.mb.ca). Design guidelines and application forms are available at: https://www.gov.mb.ca/sd/waste_management/livestock_program/index.html .	CC

Provincial Technical Overview of TRC 12-061 – Monarch Colony Farms Ltd

Items Provided by Project Proponent	Confirmed	Related Existing Provincial Safeguards	Dept
7. Proposed Project Site with suitable mortalities disposal methods (composting)	X	The proponent has indicated that mortalities will be dealt with by composting. This is an acceptable disposal method under the LMMMR. In the event of mass mortalities, Manitoba Conservation and Climate will be contacted for disposal. More specific information is included in the Livestock Manure and Mortalities Management Regulation and at: https://www.gov.mb.ca/sd/waste_management/livestock_program/index.html .	CC
8. Proposed Project Site with acceptable odour control measures	X	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.	ARD
9. Proposed Project Site that meets development plan and zoning by-law requirements	X	<u>Mid-West Planning District Development Plan By-law No. 2-2018</u> designates the NW ¼ SEC. 35-17-27WPM as "RURAL POLICY AREA". <u>RM of Prairie View Zoning By-law No. 2018-15</u> indicates the NW ¼ SEC. 35-17-27WPM is zoned "AG" – Agricultural General Zone. A conditional Use Order must be obtained from the RM of Prairie View and a <u>validated</u> Development Permit must be obtained from the Mid-West Planning District prior to commencement of construction.	MR

Provincial Technical Overview of TRC 12-061 – Monarch Colony Farms Ltd

Items Provided by Project Proponent	Confirmed	Related Existing Provincial Safeguards	Dept
10. Proposed Project Site that is a sufficient distance from native prairie, Wildlife Managements Areas and Crown Land	X	This proposal is approximately 3.5 km from a Wildlife Management Area and does not identify the use of Crown Land, or adjacent to Crown land.	ARD
11. Proposed spreadfields that are sufficient and suitable for manure spreading	X	Monarch Colony Farms Ltd requires approximately 777 acres of suitable land for manure application. Monarch Colony Farms Ltd has satisfied the Provincial land requirement by providing 1040 suitable acres. A detailed explanation of the land assessment can be found in the appendix.	ARD
12. Proposed spreadfields with sufficient minimum setback 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.	ARD
13. Proposed Spreadfields that have been secured by spread agreements	X	All of the land is owned by Monarch Colony Farms Ltd.	ARD
14. Proposed Spreadfields that meet development plan and zoning by-law requirements	X	All lands identified for manure spreading are designated "RURAL POLICY AREA" and are zoned "AG" Agricultural General Zone. Said land use designation and municipal zoning district (above) allow spreading of manure associated with newly siting and/or expanding livestock operations.	MR

Provincial Technical Overview of TRC 12-061 – Monarch Colony Farms Ltd

Items Provided by Project Proponent	Confirmed	Related Existing Provincial Safeguards	Dept
15. Proposed trucking routes and access points that may impact Provincial Roads or Provincial Trunk Highways	X	<p>The subject property has frontage along a municipal road and the truck haul route will utilize existing municipal road connecting onto PTH 83. We do not anticipate a significant increase in use.</p> <p>Please be advised that any structures placed within the controlled area of PTH 16 and PTH 83 (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.</p> <p>The placements of temporary drag lines or any other temporary machinery/equipment for manure application within the right-of-way of PTH 16 and PTH 83 requires permission from our regional office in Brandon. Please contact the Regional Planning Technologist (Brian Hickman) at (204) 726-6822 or Brian.Hickman@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 16 and PTH 83 (125 feet from the edge of the right-of-way).</p>	MI
16. Proposed trucking routes – local roads	X	Under <i>The Planning Act</i> , municipalities as a condition of approval may require the proponent 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 Provincial Waterways in the project area.	MI

Provincial Departments

- ARD – Agriculture and Resource Development
- CC – Conservation and Climate (formerly Sustainable Development)
- MI – Manitoba Infrastructure
- MR – Municipal Relations

D. PUBLIC COMMENTS & DISPOSITIONS

No public comments were received.

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 Brandon Community 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 Brandon Community Planning Office); and
 - c) every person who made representation at the hearing.

Council is welcome to contact Manitoba Conservation and Climate - 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.

That as per Section 118.2(2)(b), an applicant may appeal the following decisions of a board or council to the Municipal Board:

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.

F. TECHNICAL REVIEW COMMITTEE MEMBERS

Name	Department	Title	Telephone
Don Malinowski Chair	Municipal Relations	Senior Planner Community Planning Branch	945-8353
Petra Loro	Agriculture and Resource Development	Livestock Environment Specialist Agri-Resource Branch	918-0325
Shannon Beattie	Conservation and Climate	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

Agriculture and Resource Development Land Base Requirements for Monarch Colony Farms Ltd. Clay Sawka and Petra Loro

In areas of lower livestock intensity such as the RM of Prairie View, 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 assumes that more land can be brought into the Monarch Colony Farms Ltd manure management plan, should it be necessary in the future. The land requirement calculation takes into consideration typical feeding and nutrient excretion rates for dairy as well as realistic, long-term crop yields from the Manitoba Agricultural Services Corporation (MASC). The land assessment for Monarch Colony Farms Ltd is based on 288 mature cows (lactating and dry) plus all of the calves and replacement stock.

Land suitability is determined using soil testing for phosphorus and soil survey to establish the agriculture capability. Soil tests must be below 60 ppm Olsen P to be considered suitable. According to detailed soil survey, the agriculture capability of the land ranges from Class 2 to Class 5. Class 1 to 5 soils are considered suitable for manure application. The associated limitations are primarily wetness (W), slope (T) and droughtiness (M).

According to the above criteria, Monarch Colony Farms Ltd requires approximately 777 acres of suitable land for manure application based on the nitrogen. This is likely a very conservative estimate as it was assumed that only 10% of the nitrogen would be lost via volatilization. Monarch Colony Farms Ltd has satisfied the Provincial land requirement by providing 1040 suitable acres.

Appendix B

Manitoba Agriculture and Resource Development

Staff in the Water Science and Watershed Management Branch have reviewed the site assessment for the Monarch Colony Farms Ltd proposal in the RM of Prairie View and have the following comments:

- Nutrient management that avoids excess loss of nutrients to surface waters 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 either inject or incorporate all solid manure within 48 hours of broadcast. Injection of manure at appropriate rates poses lower environmental risk than other manure application methods. When manure is broadcast, immediate incorporation reduces losses of nitrogen via ammonia-volatilization and reduces the risk of N and P losses in runoff to surface waters. When incorporation is not possible (e.g. application to established perennial forage such as alfalfa), application timing can minimize runoff risk by avoiding periods when runoff risk is high. For example, broadcast manure between the first and second cuts of alfalfa, avoiding application when heavy rains are forecast or when soils are saturated or frozen and during the last few weeks before the soil freezes in fall.
- 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. Application of liquid manure with injection will reduce N losses compared to broadcast methods and is encouraged whenever possible.
- 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 1,141 acres may be required for the long-term environmental sustainability of the operation. The proponent has identified 1,070 acres for manure application. Application to meet crop N requirements is estimated to use 777 acres. A total of 1,141 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 (Bi

Carb) soil test levels so as to prevent excessive P buildup when applying manure at rates above P balance (P removal by harvested crops).

- The Draft Report identifies that the water use for livestock operation is from an existing and a new proposed well on the property at NW of section 35-17-27W. The provincial water well database shows one production well associated with the proposed livestock operation. The database indicates that there are wells present within the spread field locations. 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 Agriculture and Resource Development for each well sealed. Information on well sealing and the sealed well report are available from Agriculture and Resource 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.