

Decision Summary RA20026

This document summarizes my reasons for issuing Authorization RA20026 under the *Agricultural Operation Practices Act* (AOPA). Additional reasons are in Technical Document RA20026. All decision documents and the full application are available on the Natural Resources Conservation Board (NRCB) website at www.nrcb.ca under Confined Feeding Operations (CFO)/CFO Search. My decision is based on the act and its regulations, the policies of the NRCB, the information contained in the application, and all other materials in the application file.

1. Background

On May 1, 2020, Mark Astner, and Manna Farms Ltd. (Manna Farms) submitted a Part 1 application to the NRCB to construct a new round earthen liquid manure storage (EMS) (radius of 27 m x 4.5 m deep), and to convert the clay liner of two existing hog barns into concrete liners (57 m x 21.6 m each) at an existing swine CFO. The conversion of the two existing hog barns from solid manure system into liquid manure system includes building 16 manure collection pits underneath each barn (2.4m x 26.5 m x 0.6 m each). The Part 2 application was submitted on June 5, 2020. On June 8, 2020, I deemed the application complete. On June 12, 2020, the applicant updated his application to reflect changes into the conversion from a solid to liquid manure system.

There is no proposed increase in livestock.

Under AOPA, this type of application requires an authorization. (This is one of several types of “permits” issued under AOPA. For an explanation of the different types and when each one applies, see www.nrcb.ca.)

a. Location

The existing CFO is located at NE 8-44-21 W4M in Camrose County, roughly 1.5 km west of Little Beaver Lake and approximately 2.0 km northwest of Ferintosh. The terrain is generally undulating with a predominant slope to the south.

b. Existing permitted facilities

The CFO is currently permitted under NRCB Registration RA04039. This registration allows the construction and operation of a 3,000 feeder hog CFO. The CFO’s existing permitted facilities are listed in Registration RA04039.

2. Notices to affected parties

Under section 21 of AOPA, notice of an authorization application must be provided to municipalities that are “affected” by the application. Section 5 of AOPA’s Part 2 Matters Regulation lists the categories of municipalities that are affected parties. These categories include the municipality where the existing CFO is located. Under section 21(2) of the act, all affected municipalities are automatically also “directly affected” parties. The NRCB interprets section 21(3) as allowing affected municipalities to provide written submissions regarding whether the application meets the requirements of the regulations under the act. (See Operational Policy 2016-7: *Approvals*, part 7.11.2.)

Camrose County is both an affected and directly affected party because the proposed modification to the CFO is located within its boundaries.

On June 8, 2020, the NRCB emailed referral letters and a copy of the application to Camrose County, Alberta Health Services (AHS), and Alberta Environment and Parks (AEP). On June 12, 2020, the NRCB emailed an updated copy of the application to the County, AHS, and AEP.

3. Responses from the municipality and referral agencies

I received responses from the County and AEP. No response was received from AHS.

Ms. Kim MacMurray, a development officer with Camrose County, provided a written response on behalf of the county. As noted in section 2, Camrose County is a directly affected party.

Ms. MacMurray stated that the application complies with the county's municipal development plan (MDP). Additionally, she indicated that the CFO site, and all lands within 1,600 m of the CFO, are zoned as Agricultural and Lake Resort in the county's land use bylaw (LUB). She also listed the setbacks required by Camrose County's LUB, and indicated that the applicant must ensure that the new facilities meet these requirements.

The application's consistency with Camrose County's MDP and LUB are addressed in Appendix A, attached.

Ms. Laura Partridge, a senior water administration officer with AEP, sent an email, to the applicant and the NRCB, indicating that the operator has sufficient water licencing under the *Water Act*.

4. Environmental risk screening of existing and proposed facilities

When reviewing new authorization applications for an existing CFO, NRCB approval officers normally assess the CFO's existing buildings, structures, and other facilities, using the NRCB's environmental risk screening tool to determine the level of risk they pose to surface water and groundwater. This tool provides for a numeric scoring of risks, within either a low, moderate, or high risk range. (A complete description of this tool is available under CFO/Groundwater and Surface Water Protection on the NRCB website at www.nrcb.ca.) However, if those risks have previously been assessed, the approval officer will not conduct a new assessment, unless site changes are identified that require a new assessment, or the assessment was done with a previous version of the risk screening tool and requires updating. See NRCB Operational Policy 2016-7: *Approvals*, part 8.13.

In this case, the risks posed by Manna Farms' existing CFO facilities were assessed in 2005 and 2009. The assessments indicated that the risk to groundwater was low.

Since the 2005 and 2009 risk assessments, the NRCB has adopted a new version of the ERST tool. For this reason, I re-assessed the risks posed by the CFO's existing facilities. My re-assessment found that the existing CFO facilities pose a low risk to groundwater and surface water.

I also assessed the proposed new EMS and the conversion of the two hog barns, using the NRCB's risk screening tool, and determined that they pose a low risk to groundwater and surface water.

5. Other factors considered

The application meets all relevant AOPA requirements, with the terms and conditions summarized in part 6.

In addition, the proposed construction is consistent with the land use provisions of Camrose County's municipal development plan and with its land use bylaw. (See Appendix A for a more detailed discussion of the county's planning requirements.)

With respect to the act's technical requirements, the proposed construction:

- Meets the required AOPA setbacks from all nearby residences (AOPA setbacks are known as the "minimum distance separation" requirements, or MDS)
- Meets the required AOPA setbacks from water wells, springs and common bodies of water
- Has sufficient means to control surface runoff of manure
- Meets AOPA groundwater protection requirements for the design of floors and liners of manure storage facilities

6. Terms and conditions

Authorization RA20026 permits the construction of the new round EMS, and the conversion of two hog barns from solid system to liquid system (including the construction of manure collection pits underneath the two barns.

Authorization RA20026 also contains terms that the NRCB generally includes in all AOPA authorizations, including terms stating that the applicant must follow AOPA requirements and must adhere to the project descriptions in their application and accompanying materials.

In addition to the terms described above, Authorization RA20026 includes conditions that:

- Set a deadline of November 30, 2021 for the approved construction to be completed
- Require submission of an engineer's completion report for the new round EMS
- Require the concrete used to construct the liner of the manure collection and storage portion of the two converted hog barns to meet the specification for category B (liquid manure shallow pits) in Technical Guideline Agdex 096-93 "Non-Engineered Concrete Liners for Manure Collection and Storage Areas"
- Require written confirmation from a qualified third party that the concrete used for the manure collection and storage areas meets the required specifications.
- Prohibit Manna Farms from placing manure or livestock in the converted hog barns, and manure in the new round EMS until the facilities have been inspected by the NRCB following their construction

For an explanation of the reasons for these conditions, see Appendix B.

7. Conclusion

Authorization RA20026 is issued for the reasons provided above, in the attached appendices, and in Technical Document RA20026.

Authorization RA20026 should be read in conjunction with previously issued Registration RA04034, which remains in effect.

July 8, 2020

(Original Signed)
Francisco Echegaray, P.Ag.
Approval Officer

Appendices:

- A. Consistency with the municipal development plan
- B. Explanation of conditions in Authorization RA20026

APPENDIX A: Consistency with the municipal development plan

Under section 22 of AOPA, an approval officer may approve an application for an authorization only if the approval officer finds that the application is consistent with the “land use provisions” of the applicable municipal development plan (MDP).

The NRCB interprets the term “land use provisions” as covering MDP policies that provide generic directions about the acceptability of various land uses in specific areas and that do not call for discretionary judgements relating to the acceptability of a given confined feeding operation (CFO) development. (See NRCB Operational Policy 2016-7: *Approvals*, part 8.2.5.) Under this interpretation, the term “land use provisions” also excludes MDP policies that impose procedural requirements. In addition, section 22(2.1) of the act precludes approval officers from considering MDP provisions “respecting tests or conditions related to the construction of or the site” of a CFO or manure storage facility, or regarding the land application of manure. (These types of MDP provisions are commonly referred to as MDP “tests or conditions.”)

Manna Farms’ CFO is located in Camrose County and is therefore subject to that county’s MDP. Camrose County adopted the latest revision to this plan on April 12, 2016, under Bylaw 1372

As relevant here:

Policy 4.3.7 of the MDP states: “applications for new or expanding CFOs shall meet the Agricultural Operations Practices Act.” As discussed in section 6 above, the application meets all relevant AOPA requirements.

Policy 4.3.8 states: “At the discretion of County Council, large CFOs shall be prohibited in the County.” This policy likely is not a “land use provision” because it calls for discretionary judgements about the size of the CFO.

Policy 4.3.9 states: “Development of new or expanding CFOs shall not be supported within 3,219 m (2 miles) of the City of Camrose, 3,219 m (2 miles) from any recreational lake, or 1,610 m (1 mile) from any other urban municipality or hamlet as outlined in the IDP.” Manna Farms’ CFO is located within 1,500 m of the Little Beaver Lake. The MDP does not define “expansion,” so I will use the definition in the Part 2 Matters Regulation under AOPA. Section 1(1)(d)(i) of that regulation defines an “expansion” as the construction of additional facilities to confine more livestock. Manna Farms’ application does not involve confining more livestock, so I conclude that it is not an “expansion” under this definition. Therefore, the MDP policies relating to CFO “expansions” do not apply to Manna Farms’ application.

For these reasons, I determined that the application is consistent with the land use provisions of Camrose County’s MDP. The response from the development officer, on behalf of Camrose County, supports my conclusion.

In my view, the MDP clearly intends to incorporate Camrose County’s Land Use Bylaw (LUB) # 1373 (see NRCB Operational Policy 2016-7: *Approvals*, part 8.2.3), section 1.5 of the MDP states that “the County’s LUB serves as the regulatory document for making all land use related discussions”. Accordingly, I considered the LUB. Under the LUB, the subject land is currently zoned Agricultural (A) District. Under section 702.2 of the bylaw, CFOs are included in a list of “discretionary” land uses for that zoning category. NRCB policy states that approval officers will presume that an application is consistent with a LUB if the bylaw lists the proposed

development as either a permitted or discretionary use (See Operational Policy 2016-7: Approvals, part 8.3).

APPENDIX B: Explanation of conditions in Authorization RA20026

Authorization RA20026 includes several conditions, discussed below:

a. Groundwater protection requirements

Manna Farms proposes to construct the new EMS with a 4.75 metre thick naturally occurring protective layer. Section 9 of AOPA's Standards and Administration Regulation specifies a maximum hydraulic conductivity for this type of protective layer in order to minimize leakage.

Manna Farms measured the hydraulic conductivity of the protective layer by installing a monitoring well (or water table well) at the time of borehole drilling. This approach provides an adequate representation of the protective layers proposed to be used to protect the groundwater resource.

The regulations provide that the actual hydraulic conductivity of a 10 metre thick naturally occurring protective layer must not be more than 1×10^{-6} cm/sec.

In this case, the in situ measurement was 9.3×10^{-8} cm/sec. This value is below the maximum value in the regulations. Therefore, the proposed naturally occurring protective layer meets the hydraulic conductivity requirement in the regulations.

To provide additional assurance that the as-built round EMS adequately protects groundwater, Authorization RA20026 includes a condition requiring Manna Farms to provide an engineer's completion report certifying that the EMS was constructed with the protective layer material as that used for hydraulic conductivity testing and that the EMS was constructed according to the proposed procedures and design specifications.

b. Construction Deadline

Manna Farms proposes to complete construction of the proposed new round EMS and the conversion of the two hog barns by June 2020. In my opinion, a construction schedule that allows at least two construction seasons is more practical and realistic for the proposed development. Therefore, Authorization RA20026 includes a condition stating a deadline of November 30, 2021.

c. Post-construction inspection and review

The NRCB's general practice is to include conditions in new or amended permits to ensure that the new or expanded facilities are constructed according to the required design specifications. Accordingly, Authorization RA20026 includes a condition requiring:

- the concrete used to construct the liner of the manure collection and storage portion of the converted hog barns to meet the specification for category B (liquid manure shallow pits) in Technical Guideline Agdex 096-93 "Non-Engineered Concrete Liners for Manure Collection and Storage Areas."
- Manna Farms to provide written confirmation, signed by a qualified third party, that the concrete used for the manure collection and storage area meets the required specifications.

The NRCB routinely inspects newly constructed facilities to assess whether the facilities were constructed according to their required design specifications. To be effective, these inspections must occur before livestock or manure are placed in the newly constructed facilities.

Authorization RA20026 includes conditions stating that Manna Farms shall not place livestock or manure in the manure storage portions of the converted hog barns, or manure in the new round EMS, until NRCB personnel have inspected them and confirmed in writing that they meet the authorization requirements.