

## Decision Summary RA21008

This document summarizes my reasons for issuing Authorization RA21008 under the *Agricultural Operation Practices Act* (AOPA). Additional reasons are in Technical Document RA21008. All decision documents and the full application are available on the Natural Resources Conservation Board (NRCB) website at [www.nrcb.ca](http://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.

Under AOPA this type of application requires an authorization. For additional information on NRCB permits please refer to [www.nrcb.ca](http://www.nrcb.ca).

### 1. Background

On January 21, 2021, Alex Steeneveld on behalf of Marleentje Steeneveld and High Field Farm Ltd. (High Field Farm) submitted a Part 1 application to the NRCB to construct an addition to the parlour barn (17 m x 10 m) at an existing dairy CFO. This addition will be constructed attached to the southwest corner of the parlour barn, and will accommodate cattle requiring additional care.

The Part 2 application was submitted on March 15, 2021. On March 16, 2021, I deemed the application complete.

#### a. Location

The existing dairy CFO is located at NE 3-41-27 W4M in Lacombe County, roughly 3.2 km west of Lacombe, Alberta. The terrain of the site is gently undulating, generally sloping to the east.

#### b. Existing permits

The CFO is already permitted under Approval RA16046 which allows a dairy CFO with 300 milking cows (plus dries and replacements). The CFO's permitted facilities are listed in an appendix of Approval RA16046

### 2. Notices to affected parties

Under section 21 of AOPA, the NRCB notifies all parties that are "affected" by an authorization application. Section 5 of AOPA's Part 2 Matters Regulation defines "affected parties" as:

- the municipality where the CFO is located or is to be located
- in the case where part of a CFO is located, or is to be located, within 100 m of a bank of a river, stream or canal, a municipality entitled to divert water from that body within 10 miles downstream

A copy of the application was sent to Lacombe County, which is the municipality where the CFO is located.

### **3. Notice to other persons or organizations**

Under NRCB policy, the NRCB may also notify persons and organizations the approval officer considers appropriate. This includes sending applications to referral agencies which have a potential regulatory interest under their respective legislation.

Referral letters and a copy of the complete application were emailed to, Alberta Health Services (AHS), Alberta Environment and Parks (AEP), and Alberta Agriculture and Forestry (AF).

I received responses from AHS, AEP, and AF.

Mr. Quentin Schatz, an AHS environmental health officer/executive officer, indicated that AHS has no concerns with this application.

Ms. Laura Partridge, a senior water administration officer with AEP, indicated that no additional water licensing is required at this time.

Mr. Stephan Desilets, inspections manager, responded on behalf of AF acknowledging receipt of the application, and provided the name of the inspector assigned to the CFO. AF did not provide any other comments.

### **4. Municipal Development Plan (MDP) consistency**

I have determined that the proposed construction is consistent with the land use provisions of Lacombe County's municipal development plan. (See Appendix A for a more detailed discussion of the county's planning requirements.)

### **5. AOPA requirements**

With respect to the technical requirements set out in the regulations, the proposed construction:

- Meets the required AOPA setbacks from all nearby residences (AOPA setbacks are known as the "minimum distance separation" requirements, or MDS) with an exemption under Section 3(5)(c) of the Standard and Administration Regulation (The proposed construction is within the footprint of the existing CFO and there is no proposed increase to the annual amount of manure produced).
- Meets the required AOPA setbacks from 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/protective layers of manure storage facilities and manure collection areas

With the terms and conditions summarized in part 9, the application meets all relevant AOPA requirements. The exemptions that are required to address the AOPA requirements around the proposed construction within the 100 metre setback from existing water wells are discussed in the following parts of this decision summary.

### **6. Responses from municipality**

Directly affected parties are entitled to a reasonable opportunity to provide evidence and written submissions relevant to the application, and are entitled to request an NRCB Board review of the approval officer's decision. Not all affected parties are "directly affected" under AOPA.

Municipalities that are affected parties are identified by the act as “directly affected.” Lacombe County is an affected party (and directly affected) because the proposed facility is located within its boundaries.

Ms. Allison Noonan, planning services administrative assistant with Lacombe County, provided a written response on behalf of the county. Ms. Noonan stated that the application is consistent with Lacombe County’s municipal development plan (MDP). The application’s consistency with Lacombe County’s MDP is addressed in Appendix A, attached.

Ms. Noonan also indicated that the application meets the setbacks required by Lacombe County’s land use bylaw (LUB).

## **7. Environmental risk of facilities**

New MSF/MCA which clearly meet or exceed AOPA requirements are automatically assumed to pose a low risk to surface and groundwater. However, there may be circumstances where, because of the proximity of a shallow aquifer, or porous subsurface materials, an approval officer may require monitoring for the facility. In this case a determination was made and monitoring is not required.

When reviewing a new authorization application for an existing CFO, NRCB approval officers assess the CFO’s existing buildings, structures, and other facilities. In doing so, the approval officer considers information related to the site and the facilities, as well as results from the NRCB’s environmental risk screening tool (ERST). The assessment of environmental risk focuses on surface water and groundwater. The ERST provides for a numeric scoring of risks, which can fall 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](http://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 supported 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 High Field Farm’s existing CFO facilities were assessed in 2016 using the ERST. According to that assessment, all the facilities posed a low potential risk to surface water and most of the existing facilities scored low potential risk for groundwater; however, the free stall barn and the manure receiving pit scored moderate risk for groundwater.

This moderate risk to groundwater is due to the facilities close proximity to a water well. The risk assessment is documented in Technical Document RA16046, and explained in Appendix D of Decision Summary RA16046. The risks posed by these two facilities was addressed by a monitoring condition included in Approval RA16016, that condition is still valid and in effect.

The circumstances have not changed since that assessment was done. As a result, a new assessment of the risks posed by the CFO’s existing facilities is not required.

## **8. Exemptions**

I determined that the proposed addition to the parlour barn is located within the required AOPA setback from two water wells. As explained in Appendix B, an exemption to the 100 metre water well setback is warranted due to the construction and location of the water wells from the proposed addition to the parlour barn.

## **9. Terms and conditions**

Authorization RA21008 permits the construction of the addition to the parlour barn.

Authorization RA21008 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 RA21008 includes conditions that generally address a construction deadline, document submission and construction inspection. For an explanation of the reasons for these conditions, see Appendix C.

## **10. Conclusion**

Authorization RA21008 is issued for the reasons provided above, in the attached appendices, and in Technical Document RA21008.

Authorization RA21008 must be read in conjunction with NRCB previously issued Approval RA16046 which remain in effect.

April 23, 2021

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

## **Appendices:**

- A. Consistency with the municipal development plan
- B. Exemptions from water wells setbacks
- C. Explanation of conditions in Authorization RA21008

## **APPENDIX A: Consistency with the municipal development plan**

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

This does not mean consistency with the entire MDP. In general, “land use provisions” cover MDP policies that provide generic directions about the acceptability of various land uses in specific areas.

High Field Farm’s CFO is located in Lacombe County and is therefore subject to that county’s MDP. Lacombe County adopted the latest revision to this plan on April 8, 2021, under Bylaw 1238/17. As relevant here:

Section 3.3.1 states that “All lands in the County shall be deemed to be agricultural lands unless otherwise designated by the Municipal Development Plan, an approved statutory or non-statutory plan, the Land Use Bylaw, or provincial legislation.”

I consider this section to be a procedural in nature and not a valid land use provision. However, it does provide insight for the interpretation of the remaining portions of the MDP and land use bylaw (LUB).

Section 3.9.1 of the county’s MDP states that the “County shall provide input on applications for confined feeding operations to the Natural Resources Conservation Board (NRCB) under the *Agricultural Operations Practices Act*. The county’s support is subject to the following:

a) No new confined feeding operation shall be permitted less than 1.6 kilometres (1 mile) from the boundary of:

- i) a town, village, summer village or hamlet;
- ii) an area developed or designated for multi-lot residential use; or
- iii) a provincial or municipal park or recreation area, or other area used or intended to be used for a recreational facility development,

except that where provincial regulations require a larger setback distance, that distance shall apply.

Further restriction on the development of confined feeding operations may apply as directed by an Intermunicipal Development Plan or other local plan approved by Council.”

High Field Farm’s application is for a construction on an existing CFO; regardless the CFO is located outside any of these 1.6 km setbacks.

As for section 3.9.1’s reference to intermunicipal development plans (IDP) or other plans approved by the county’s council, this CFO is not located within land identified as part an IDP or any other plans.

For these reasons, I conclude that the application is consistent with the land use provisions of Lacombe County’s MDP. This conclusion is consistent with the county’s written response to the application.

In my view, under sections 1.3.4 and 3.3, the MDP clearly intends to incorporate Lacombe County's LUB #1237/17 (see NRCB Operational Policy 2016-7: *Approvals*, part 8.2.3). Accordingly, I considered the LUB.

Under that bylaw, the subject land is currently zoned as Agricultural "A" District. CFOs are not listed as either a permitted or discretionary use within that zoning category. However, section 3.2(2)(j) of the LUB states that CFOs do not require a development permit. I interpret this provision as meaning either that the county intended CFOs to have the same effective status as listed permitted uses, or that the county simply does not intend to address CFOs in its LUB (given that the NRCB's permitting role since AOPA came into effect in 2002). Under either interpretation, the proposed CFO does not conflict with the LUB.

## APPENDIX B: Exemptions from water wells setbacks

### 1. Water Well Considerations

The proposed addition to the parlour barn is to be located less than 100 m from two water wells. I have confirmed that two water wells are located approximately 5 m and 70 m, respectively, from it during a site visit. This is in conflict with the section 7(1)(b) of the *Standards and Administration Regulation* (SAR). Section 7(2) allows for exemptions if, before construction, the applicant can demonstrate that the aquifer into which the water well is drilled is not likely to be contaminated by the manure storage facility (MSF)/manure collection area (MCA), or if required by an approval officer a groundwater monitoring program is implemented.

Under the regulation, one basis for granting an exemption is if the approval officer implements a groundwater monitoring program of the water wells in question.

One basis for granting an exemption is if the “aquifer into which the well is drilled is not likely to be contaminated” by the proposed MSF or MCA.

Section 7(2) of the SAR states that the 100 m setback to a water well does not apply if the MSF/MCA is not likely to contaminate the aquifer into which the water well is drilled and if required by an approval officer, a groundwater monitoring program is implemented.

The potential risks of direct aquifer contamination from the MSF/MCA are presumed to be low if the applicant’s proposed MSF/MCA meets AOPA’s technical requirements to control runoff and leakage. Approval officers also assess whether the water well itself could act as a conduit for aquifer contamination.

In this case, I felt the following factors were relevant to determine the risk of aquifer contamination via the water wells:

- a. How the wells were constructed
- b. Whether the wells are being properly maintained
- c. The distance between the wells and the proposed MSF/MCA
- d. Whether the wells are up- or down-gradient from the MSF/MCA and whether this gradient is a reasonable indication of the direction of surface and groundwater flow between the two structures

These presumptions and considerations are based on NRCB Operational Policy 2016-7: Approvals, part 8.7.1.

The water wells:

Based on information provided by the applicant and from the Alberta Environment and Parks (AEP) water well database, the water well located approximately 5 m west of the proposed addition to the parlour barn is likely AEP water well ID # 0290744. This well is reported to have been installed in 1998 and has a perforated or screened zone from 24.3 m to 42.7 m below ground level across stratigraphy. The well has an above ground casing. This well is used for non-domestic purposes. I note that in my conversations with the applicant, the water well is only used presently for the dairy. The well’s log identifies protective layer of 3.9 m of shale covering a sandstone layer. The well has a bentonite seal from ground surface to 26.8 m below ground level. The well appeared to be in good

condition at the time of my site inspection and its casing was protected by a welded steel cage. The well is cross-gradient of the CFO and MSF.

The second water well is located approximately 70 m southwest of the proposed addition to the parlour barn is likely AEP water well ID # 0292667. This well is reported to have been installed in 1999 and has a perforated or screened zone from 33.5 m to 42.7 m below ground level across stratigraphy. The well has an above ground casing. This well is used for domestic purposes. The well's log identifies cumulative protective shale layers adding to 10.4 m covering a sandstone layer. The well has a bentonite seal from ground surface to 26.8 m below ground level. The well appeared to be in good condition at the time of my site inspection and its casing was protected by a welded steel cage. The well is up-gradient of the CFO and MSF.

The NRCB has developed a "water well exemption screening tool," based on the factors listed above, to help approval officers assess the groundwater risks associated with a nearby water well.<sup>1</sup>

In this case, the results of the water well exemption screening tool suggest that an exemption is likely, as seen in Technical Document RA21008. However, to provide further protection for users of the water wells, a condition was included under Approval RA16046 requiring the applicant to test the wells annually, this condition is in effect.

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1. A complete description of this tool is available under CFO/Groundwater and Surface Water Protection on the NRCB website at [www.nrcb.ca](http://www.nrcb.ca).

## **APPENDIX C: Explanation of conditions in Authorization RA21008**

### **1. New conditions in Authorization RA21008**

#### **a. Construction Deadline**

High Field Farm proposes to complete construction of the proposed new addition to the parlour barn by September 30, 2021. In my opinion, a construction schedule that allows at least two full construction seasons is more practical and realistic for the proposed development. Therefore, the deadline of November 30, 2022 is included as a condition in Authorization RA21008.

#### **b. 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 RA21008 includes a condition requiring:

- a. the concrete used to construct the liner of the manure collection and storage portion of the addition to the parlour barn to meet the specification for category C (solid manure – wet) in Technical Guideline Agdex 096-93 “Non-Engineered Concrete Liners for Manure Collection and Storage Areas.”
- b. High Field Farm to provide evidence or written confirmation from 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, and to reduce risk to the operator, these inspections must occur before livestock or manure are placed in the newly constructed facilities. Authorization RA21008 includes a condition stating that High Field Farm shall not place livestock or manure in the manure storage or collection portions of the new addition to the parlour barn until NRCB personnel have inspected it and confirmed in writing that it meets the authorization requirements.