

Decision Summary RA22003

This document summarizes my reasons for issuing Approval RA22003 under the *Agricultural Operation Practices Act* (AOPA). Additional reasons are in Technical Document RA22003. 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.

Under AOPA this type of application requires an approval. For additional information on NRCB permits please refer to www.nrcb.ca.

1. Background

On January 18, 2022, Henry Jaffary, and Nick & Barry Buter on behalf of Buter Farms (Buter Farms) submitted a Part 1 application to the NRCB to construct a new dairy CFO with 250 milking cows (plus associated dries and replacements).

The Part 2 application was submitted on August 10, 2022. On August 18, 2022, I deemed the application complete.

The proposed CFO involves the construction of:

- Dairy barn – 44 m x 118 m
 - Milk house – 27 m x 27 m
 - Manure room – 6 m x 6 m x 2.4 m
- Calf barn – 27 m x 30 m
- Heifer shed – 60 m x 20 m
- Two-cell earthen liquid manure storage (EMS) – 60 m x 32 m x 5 m deep, each cell
- Solid manure pad – 45 m x 18 m

The application also notified the NRCB of the proposed construction of a milk house. This facility is an “ancillary structure,” under section 1(1)(a.1) of the Agricultural Operations, Part 2 Matters Regulation, because it will not be used to store or collect manure or to confine livestock. Therefore, under section 4.1 of that regulation, this structure does not need to be permitted under the act.

a. Location

The proposed CFO is located at SW 27-39-26 W4M in Lacombe County, roughly 6 km east of Blackfalds, Alberta. The terrain is nearly level with a general slope to the south.

2. Notices to affected parties

Under section 19 of AOPA, the NRCB notifies (or directs the applicant to notify) all parties that are “affected” by an approval application. Section 5 of AOPA’s Part 2 Matters Regulation defines “affected parties” as:

- 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 person or municipality entitled to divert water from that body within 10 miles downstream
- the municipality where the CFO is located or is to be located
- any other municipality whose boundary is within a specified distance from the CFO, depending on the size of the CFO
- all persons who own or reside on land within a specified distance from the CFO, depending on the size of the CFO

For the size of this CFO the specified distance is ½ mile. (The NRCB refers to this distance as the “affected party radius.”)

A copy of the application was sent to Lacombe County, which is the municipality where the CFO is to be located. The CFO is not located within 100 m of the bank of the river, stream, or canal.

The NRCB gave notice of the application in the Lacombe Express on August 18, 2022. The full application was made available for viewing during regular business hours and was posted on the NRCB website for public viewing. As a courtesy, four letters were sent to people identified by Lacombe County as owning or residing on land within the affected party radius.

3. Notice to other persons or organizations

Under section 19 of AOPA, 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, Forestry and Rural Economic Development (AFRED).

I also sent a copy of the application to right of ways holders EQUUS and Chain Lakes Gas Co-op Ltd.

I received a response from AHS.

Mr. Quentin Schatz, public health inspector / executive officer, indicated that AHS has no concerns with this application and included comments under the *Public Health Act* that the applicant must follow.

4. Alberta Land Stewardship Act (ALSA) regional plan

Section 20(10) of AOPA requires that an approval officer must ensure the application complies with any applicable ALSA regional plan.

There is no ALSA regional plan for the area where the proposed CFO is to be located.

5. Municipal Development Plan (MDP) consistency

I have determined that the proposed CFO 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.)

6. AOPA requirements

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

- 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 springs, and common bodies of water (see water well setback exemption below)
- Has sufficient means to control surface runoff of manure
- Meets AOPA’s nutrient management requirements regarding the land application 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 11, the application meets all relevant AOPA requirements. The exemptions that are required to address the AOPA requirements around the water well setbacks from some of the proposed facilities are discussed in the following parts of this decision summary.

7. Responses from municipality and other directly affected parties

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 CFO 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), and that the county has no issues or concerns with the proposal. The application’s consistency with Lacombe County’s MDP is addressed in Appendix A, attached.

No responses were received from any other person, organization, or member of the public.

8. Environmental risk of CFO facilities

New CFO facilities 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 surface and/or groundwater monitoring for the facility. In this case a determination was made, and monitoring is not required.

Nonetheless, as part of my review of this application, I assessed the risk to the environment posed by the CFO’s proposed manure storage facilities and manure collection areas. I used the NRCB’s environmental risk screening tool (ERST) to assist in my assessment of risk to surface water and groundwater (see NRCB Operational Policy 2016-7: Approvals, part 8.13). The tool provides for a numeric scoring of risks, which can fall within 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.)

The assessment indicated that the potential risks to surface water and groundwater were low.

9. Exemptions

I determined that the proposed dairy barn, calf barn, solid manure pad and heifer shed are located within the required AOPA setback from water wells. As explained in Appendix B, an exemption to the 100 metre water well setback is warranted due to the barns and shed being contained, and the construction of the water wells.

10. Other factors

Because the approval application is consistent with the MDP land use provisions, and meets the requirements of AOPA and its regulations, I also considered other factors.

AOPA requires me to consider matters that would normally be considered if a development permit were being issued. The NRCB interprets this to include aspects such as property line and road setbacks related to the site of the CFO. (Grow North, RFR 2011-01 at page 2). Approval officers are limited to what matters they can consider though as their regulatory authority is limited.

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

I have considered the effects the proposed CFO may have on natural resources administered by provincial departments. AEP has not made me aware of statements of concern submitted under section 73 of the Environmental Protection and Enhancement Act or section 109 of the Water Act in respect of the subject of this application. Furthermore, the application meets AOPAs technical requirements.

I am not aware of any written decision of the Environmental Appeals Board for this location (<http://www.eab.gov.ab.ca/status.htm>, accessed October 14, 2022).

Finally, I considered the effects of the proposed CFO on the environment, the economy, and the community, and the appropriate use of land. In doing so, I had before me information in the application, views from referral agencies and Lacombe County, and my own observations from a site visit.

Consistent with NRCB policy (Approvals Policy 8.7.3), I presumed that the effects on the environment are acceptable because the application meets all of AOPA's technical requirements (with the exemption to water wells). In my view, this presumption is not rebutted.

Consistent with NRCB policy (Approvals Policy 8.7.3), if the application is consistent with the MDP then the proposed development is presumed to have an acceptable effect on the economy and community. In my view, this presumption is not rebutted.

I also presumed that the proposed CFO is an appropriate use of land because the application is consistent with the land use provisions of the municipal development plan (See NRCB Operational Policy 2016-7: Approvals, part 8.7.3.). In my view, this presumption is not rebutted,

and I note that the County of Lacombe's response also states that the application is consistent with their MDP.

11. Terms and conditions

Approval RA22003 specifies the permitted livestock capacity as 250 milking cows (plus associated dries and replacements). Approval RA22003 permits the construction of the:

- dairy barn (with a milk house and a manure room),
- calf barn,
- heifer shed,
- two-cell EMS, and
- solid manure pad

Approval RA22003 contains terms that the NRCB generally includes in all AOPA approvals, 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, Approval RA22003 includes conditions that generally address construction deadlines, document submission and construction inspections. For an explanation of the reasons for these conditions, see Appendix C.

12. Conclusion

Approval RA22003 is issued for the reasons provided above, in the attached appendices, and in Technical Document RA22003.

October 19, 2022

(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 Approval RA22003

APPENDIX A: Consistency with the municipal development plan

Under section 20 of AOPA, an approval officer may only approve an application for an approval or amendment of an approval 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.

Conversely, “land use provisions” do not call for discretionary judgements relating to the acceptability of a given confined feeding operation (CFO) development. Similarly, section 20(1.1) 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.”) “Land use provisions” also do not impose procedural requirements on the NRCB. (See NRCB Operational Policy 2016-7: Approvals, part 8.2.5.)

Buter Farms’ proposed 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 (updated on April 14, 2022), 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.”

This provides insight for the interpretation of the remaining portions of the MDP.

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.”

Buter Farms’ proposed 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, the proposed CFO is located outside the plan boundaries of the Lacombe County-Town of Blackfalds IDP, or any other local 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.

APPENDIX B: Exemptions from water and wells setbacks

1. Water Well Considerations

The proposed dairy barn, calf barn, solid manure pad, and heifer shed are to be located less than 100 m from three water wells. I have confirmed during a site visit that three water wells are located between 30 m and 70 m from the proposed dairy barn, calf barn, solid manure pad and heifer shed. This is in conflict with the section 7(1)(b) of the *Standards and Administration Regulation (SAR)* under AOPA.

Section 7(2), however, 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), and, if required, 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 well:

- a. how the well was constructed;
- b. whether the well is being properly maintained;
- c. the distance between the well and the proposed MSF/MCA; and
- d. whether the well is 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.

Water well #1:

Based on information provided by the applicant and from the Alberta Environment and Parks (AEP) water well database, the water well located approximately 30 m, 45 m, and 70 m south of the calf barn, dairy barn, and the solid manure pad, respectively, is likely AEP water well ID # 99420. This well is reported to have been installed in 1973 and has a perforated or screened zone from 25.3 m to 41.2 m below ground level across stratigraphy. The well was installed with an above ground casing and is located inside a shed. This well is used for non-domestic purposes. The well's log identifies a protective layer from ground surface to 25.3 m below ground level. The well has a driven seal. The well appeared to be in good condition at the time of my site inspection and its casing was protected by a shed. The well is cross-gradient of the CFO and MSF.

Water well #2:

Based on information provided by the applicant and from the Alberta Environment and Parks (AEP) water well database, the water well located approximately 60 m and 80 m south of the calf barn and the dairy barn, respectively, is likely AEP water well ID # 160553. This well is reported to have been installed in 1968 and has a perforated or screened zone from 27.4 m to 36.6 m below ground level across stratigraphy. The well

was installed with an above ground casing and is located inside a shed. This well is used for domestic and non-domestic purposes. The well's log identifies a protective layer from ground surface to 14 m below ground level. The well has an unknown seal. The well appeared to be in good condition at the time of my site inspection and its casing was protected by a shed. The well is cross-gradient of the CFO and MSF.

Water well #3:

Based on information provided by the applicant and from the Alberta Environment and Parks (AEP) water well database, the water well located approximately 70 m south of the heifer shed is likely AEP water well ID # 285385. This well is reported to have been installed in 1996 and has a perforated or screened zone from 36 m to 48.2 m below ground level across stratigraphy. The well was installed with an above ground casing. This well is used for non-domestic purposes. The well's log identifies a protective layer from ground surface to 27.4 m below ground level. The well has a bentonite seal from surface to 30.5 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 plastic shed. The well is cross-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.¹ This tool is useful in gauging the level of protection of groundwater because we use the tool to determine if a water well is going to be impacted when an exemption is considered.

In this case, the results of the water well exemption screening tool suggest that an exemption is likely for all three water wells as seen in Technical Document RA22003.

Based on the above, I am prepared to grant an exemption to the 100 m water well setback requirement for all three water wells from the dairy barn, calf barn, solid manure pad and heifer shed.

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

APPENDIX C: Explanation of conditions in Approval RA22003

Approval RA22003 includes several conditions, discussed below:

a. Groundwater protection requirements

Buter Farms proposes to construct the new earthen liquid manure storage (EMS) with a 1 metre thick compacted soil liner. Section 9 of AOPA's Standards and Administration Regulation specifies a maximum hydraulic conductivity for this type of liner in order to minimize leakage.

Buter 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 1.48×10^{-7} cm/sec. This value is below the maximum value in the regulations. Therefore, the proposed naturally occurring protective layer can meet the hydraulic conductivity requirement in the regulations.

To provide additional assurance that the as-built EMS adequately protects groundwater, Approval RA22003 includes a condition requiring Buter 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

Buter Farms proposes to complete construction of the proposed new facilities by June 2025. This time-frame is considered to be reasonable for the proposed scope of work. The deadline of June 30, 2025 is included as a condition in Approval RA22003.

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, Approval RA22003 includes conditions requiring:

the concrete used to construct the liner of the manure collection and storage portion of the dairy barn, calf barn, solid manure pad and heifer shed to meet the specification for category B (liquid manure shallow pits); category C (solid manure – wet), and category D (solid manure – dry) in Technical Guideline Agdex 096-93 "Non-Engineered Concrete Liners for Manure Collection and Storage Areas." Buter Farms shall 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. Approval RA22003 includes conditions stating that Buter Farms shall not place livestock or manure in the manure storage or collection portions of the new dairy barn, calf barn heifer shed, and not place manure in the new EMS and solid manure pad, until NRCB personnel have inspected them and confirmed in writing that they meet the approval requirements.