

Decision Summary LA24021

This document summarizes my reasons for issuing Authorization LA24021 under the *Agricultural Operation Practices Act* (AOPA). Additional reasons are in Technical Document LA24021. 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 authorization. For additional information on NRCB permits please refer to www.nrcb.ca.

1. Background

On April 23, 2024, Merlin Bevans (Bevans) submitted a Part 1 application to the NRCB to construct an extension to the existing dairy barn and a new calf/heifer barn at an existing dairy CFO.

The Part 2 application was submitted on June 6, 2024, and I deemed the application complete the same day.

The proposed construction involves:

- Constructing an L shape extension to existing dairy barn – total dimensions of the barn: 45.72 m x 30.58 + 30.58 m x 12.2 m
- Constructing a new heifer barn – 18.3 m x 30.5 m

The proposed new calf/heifer barn is located on the footprint of the existing milking cow pen, sick barn and calf barn 2. Prior to construction, these facilities will need to be decommissioned (removed).

There is no proposed increase in livestock. Currently the milking cows are partly housed in outside pens. The new barn allows to keep the milking cows permanently indoors.

Under AOPA, this type of application requires an authorization.

a. Location

The existing CFO is located at SE 7 & SW 8-3-25 W4M in Cardston County, roughly 0.5 km southwest of the Town of Cardston. The terrain is slightly undulating with a general slope to the northeast. An unnamed drain runs along the west-northwest side of the existing facilities, and then bends towards the east. This drain is collected by an unnamed tributary that flows into Layton Creek.

b. Existing permits

The CFO is grandfathered with a deemed registration under section 18.1 of AOPA. This deemed registration allows the construction and operation of an 85 dairy cow (plus associated

dries and replacements) CFO. The CFO's deemed facilities are listed in the appendix of Authorization LA19018A.

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
- any other municipality whose boundary is within a notification distance. In this case, the notification distance is 0.5 miles (804 m) from the CFO

None of the CFO facilities are located within 100 m of a bank of a river, stream or canal. However, it is close to an unnamed drain that flows into a creek. At any rate, the Town of Cardston and Cardston County have both been notified of this application.

A copy of the application was sent to Cardston County, which is the municipality where the CFO is located, and to the Town of Cardston which has a boundary within the notification distance for the CFO.

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 Environment and Protected Areas (EPA), Alberta Agriculture and Irrigation (AGI), and Alberta Transportation and Economic Corridors (TEC).

I also sent a copy of the application to ATCO Gas & Pipelines because they are Right of Ways holders on this land.

A response was received Ms. Leah Olson, a development/planning technologist with TEC who stated that a permit is not required.

No other responses were received.

4. Municipal Development Plan (MDP) consistency

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

I have determined that the proposed construction is also consistent with the land use provisions of the intermunicipal development plan (IDP) between Cardston County and the Town of Cardston. (See Appendix A for a more detailed discussion of the relevant 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 expansion to the barn is within the footprint of the existing CFO).
- Meets the required AOPA setbacks from water wells, springs, and common bodies of water with an exemption
- 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 and manure collection areas

The variances that are required to address the AOPA requirements around setback to surface water bodies and water wells are discussed in the following parts of this decision summary.

6. Responses from municipalities

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.

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

Mr. Joe Thomas, a project manager/development officer, with Cardston County, provided a written response on behalf of Cardston County. Mr. Thomas stated that the application is consistent with Cardston County’s land use provisions of the municipal development plan. The application’s consistency with Cardston County’s municipal development plan is addressed in Appendix A, attached.

The Town of Cardston is also a directly affected party because it is within notification distance and the CFO is within an area covered by the intermunicipal development plan between the Town of Cardston and Cardston County. The NRCB did not receive a response from the Town on this application.

7. Environmental risk of facilities

New MCAs which clearly meet or exceed AOPA requirements may be assumed to pose a low risk to surface and groundwater. The information on this file supports the assumption that risks to groundwater and surface water are low.

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.) 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 9.17.

In this case, the risks posed by Merlin Bevans' existing CFO facilities were assessed in 2019 using the ERST. According to that assessment, the facilities posed a low potential risk to surface water and groundwater. Two facilities, the dry cow pens and the milking cow pens scored moderate to risk to surface water. The dry cow pens have been decommissioned, and the milking cow pens are proposed to be decommissioned prior to building the new calf/heifer barn.

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. In addition, the dry cow pens that posed a moderate risk to surface water have been decommissioned.

8. Exemptions

I determined that the proposed dairy barn extension and the heifer barn are located within the required AOPA setback from a water well. As explained in Appendix B, an exemption to the 100 m water well setback is warranted due to construction of the facilities (concrete liner) and location of the well upslope from both facilities. A water well monitoring condition is in place (Authorization LA19018A) and will remain in effect.

I also determined that the proposed dairy barn extension and the heifer barn are located within the required AOPA setback from a common body of water. As explained in Appendix B, an exemption to the 30 m setback is warranted because both facilities are under roof and no manure contaminated runoff is expected to leave the dairy barn extension and the heifer barn, effectively protecting the common body of water from contamination.

9. Terms and conditions

Authorization LA24021 permits the construction of the dairy barn extension and new heifer barn.

Authorization LA24021 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 LA24021 includes conditions that generally address construction deadlines, monitoring, document submission, construction inspection, and decommissioning. For an explanation of the reasons for these conditions, see Appendix C.

10. Conclusion

Authorization LA24021 is issued for the reasons provided above, in the attached appendices, and in Technical Document LA24021.

Authorization LA24021 must be read in conjunction with Merlin Bevans's deemed Registration and Authorization LA19018A which remain in effect.

August 12, 2024

(Original signed)

Carina Weisbach
Approval Officer

Appendices:

- A. Consistency with the municipal development plan
- B. Exemptions from natural water and well(s) setbacks
- C. Explanation of conditions in Authorization LA24021

APPENDIX A: Consistency with the municipal development plan and intermunicipal development plan

Under section 22 of AOPA, an approval officer may only approve an application for an authorization or amendment of 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.

However, in Board Decision 2022-02 Double H Feeders Ltd., the NRCB Board directed approval officers away from a narrow reading of section 20 of AOPA. An approval officer should determine an application’s consistency with not just the MDP, but also the IDP (if one applies). Given changes to the hierarchy of statutory plans under the *Municipal Government Act*, the Board suggested that ignoring an applicable IDP could lead to absurd outcomes in the event of a conflict between an MDP and an IDP.

“Land use provisions” do not call for discretionary judgements relating to the acceptability of a given confined feeding operation (CFO) development. Similarly, 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.”). “Land use provisions” also do not impose procedural requirements on the NRCB. (See NRCB Operational Policy 2016-7: *Approvals*, part 9.2.7.)

Bevans’ CFO is located in Cardston County and is therefore subject to that county’s MDP. Cardston County adopted the latest revision to this plan in March 2001, Bylaw No. 466.2001 (amendment of Bylaw No. 448/99).

Section 4 of the MDP – titled ‘Municipal Planning Policy’ – establishes the land use policies that serve as guidance for development within the county’s boundaries. The introductory statement of section 4.1 states that agriculture is the predominant land use in the county and that it is imperative to protect agricultural endeavours. Section 4.1 then discusses planning issues unrelated to CFOs. The MDP’s only direct references to CFOs (called “intensive livestock operations”) are in terms of CFO (parcel) subdivisions and limiting development near existing CFOs rather than vice versa (section 4.6.20).

Although section 4.8 (environmental considerations) does not specifically refer to CFOs, it provides policies for all developments in environmentally significant areas identified in the report: “Environmentally Significant Areas in the Oldman River Region: MD of Cardston”. Bevans’ CFO is not within an environmentally sensitive or significant area identified in that report.

Section 4.10 (Fringe areas) provides guidance for any developments within urban “fringe areas”. Bevans’ existing CFO facilities are located in an urban fringe area identified in the MDP. No new CFO’s are allowed to be developed within urban fringe areas. However, Bevans’ dairy operation is an existing CFO which is allowed to continue to operate in the urban fringe area. This interpretation is supported by Mr. Thomas’ statement.

For these reasons, I conclude that the application is consistent with the land use provisions of Cardston County's MDP.

In addition, under the Approvals Policy at 8.2.3, approval officers are to consider land use provisions in another "statutory plan" (as defined in the *Municipal Government Act*) if the MDP cross-references it. Although the IDP post-dates the MDP by several years, the MDP seems to indicate sections 3.1, 3.5, and 4.3.1 that there is a clear anticipation of a Town-County IDP. Therefore, the CFO is also subject to the IDP between Cardston County and the Town of Cardston. The latest revision to this plan was adopted in November 2007 under Cardston County Bylaw No. 763-2021 and Town of Cardston Bylaw No. 1697.

Relevant sections pertaining CFOs can be found in Section 5.2.

Section 5.2.1 to 5.2.6 are more general in nature and not specific for CFOs.

Section 5.2.7 speaks on the establishment of a CFO exclusion zone to ensure the sustainability and future growth of the Town of Cardston and to provide a buffer from the noxious and odorous nature of CFOs and continues with Section 5.2.8 by stating that the establishment of CFOs within this zone are prohibited.

Bevans is within the CFO exclusion zone, however, it is a existing dairy and not a new CFO. This application is therefore consistent with this provision.

Section 5.2.9 refers to the application of manure within the CFO exclusion area and states that the Standards and Administration Regulations of AOPA shall be applied.

As stated in section 22(2)(2.1), the consistency determination of an application with applicable MDP/IDP provision excludes provisions respecting the application of manure. I can therefore not consider this provision. Having said that, Bevans is obligated to adhere to AOPA and its regulations as stated in the opening paragraph of this permit.

Section 5.2.10 speaks on the required amendment of all planning documents for consistency purposes and refers to the planning matters between the town and the county rather than being a land use provision. I will therefore not consider this section but have determined that the CFO exclusion zone established in the IDP applies.

For these reasons, I conclude that the application is consistent with the land use provisions of Cardston County's MDP and Cardston County's IDP with the Town of Cardston.

APPENDIX B: Exemption from water well and common body of water setbacks

1. Water Well Considerations

The proposed dairy barn extension and the heifer barn are to be located less than 100 m from a water well. I have confirmed that one water well is located approximately 35 m from the dairy barn extension and 75 m from the heifer barn during a site visit. This conflicts with 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 collection area (MCA), and, if required, a groundwater monitoring program is implemented.

The potential risks of direct aquifer contamination from the MCA are presumed to be low if the applicant's proposed 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. Whether the well is up- or down-gradient from the MCA and whether this gradient is a reasonable indication of the direction of surface and groundwater flow between the two structures
- d. The liner of the proposed facility

These presumptions and considerations are based on NRCB Operational Policy 2016-7: Approvals, part 9.10.2.

The water well:

Based on information provided by the applicant and from the Alberta Environment and Protected Areas (EPA) water well database, the water well located approximately 35 m southeast of the dairy barn expansion and 75 m from the heifer barn is likely EPA water well ID # 299134. This well is reported to have been installed in 2002 and has a perforated or screened zone from 12.2 m to 24.4 m below ground level across stratigraphy. The well was installed with an above ground casing. This well is used for domestic purposes. The well's log identifies protective layer or layers from 2.7 m to 11 m below ground level. The well has a driven and bentonite seal from ground surface to 12 m below ground level (across the 2 layers). The well appeared to be in good condition at the time of my site inspection. The well is up-gradient of the CFO and MCA.

A water well exemption screening has not been redone because the risk of the proposed barns to the well are presumed to be less than those by the decommissioned dry cow pens and the exemption is warranted. However, the condition implemented in Authorization LA19018A to monitor this water well remains.

2. Common Body of Water Considerations

The proposed dairy barn extension and the heifer barn are to be located less than 30 m from an unnamed drainage channel which is considered a common body of water (CBW), and is therefore in conflict with section 7(1)(c) of the SAR. Section 7(3) allows for exemptions if the owner or operator demonstrates, before construction, that the natural drainage for the facility or area is away from the CBW, or a berm or other secondary containment is constructed which would protect the CBW from contamination. See NRCB Operational Policy 2016-7: Approvals, part 9.10.4.

In this case, both structures are fully covered and no manure or manure contaminated runoff can leave the facilities.

Based on the above I am of the opinion that an exemption for the 30 m setback to a CBW is warranted.

APPENDIX C: Explanation of conditions in Authorization LA24021

a. Construction deadline

Merlin Bevans proposes to complete construction of the proposed new dairy barn extension and new heifer barn by December 31, 2026. This timeframe is considered to be reasonable for the proposed scope of work. The deadline of December 31, 2026, is included as a condition in Authorization LA24021.

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 LA24021 includes conditions requiring:

- a. the concrete used to construct the liner of the manure collection and storage portion of the dairy barn and the heifer barn to meet the specification for category D (solid manure – dry) in Technical Guideline Agdex 096-93 “Non-Engineered Concrete Liners for Manure Collection and Storage Areas.”
- b. Merlin Bevans to provide evidence or written confirmation from a qualified third party that the concrete used for the manure collection and storage areas meets the required specifications.

The NRCB routinely inspects newly constructed facilities to assess whether the facilities were constructed in accordance with the permit requirements. To be effective, these inspections must occur before livestock or manure are placed in the newly constructed facilities. Authorization LA24021 includes conditions stating that Merlin Bevans shall not place livestock or manure in the manure storage or collection portions of the dairy barn extension and new heifer barn until NRCB personnel have inspected the dairy barn extension and new heifer barn and confirmed in writing that they meet the authorization requirements.

c. No change in livestock numbers

As noted in part 1 above, Merlin Bevans proposed to enlarge their dairy barn with the extension. This could enable Merlin Bevans to increase their current livestock numbers above their permitted capacity of 85 milking cows (plus associated dries and replacements). However, Merlin Bevans has not requested to increase that permitted capacity. To ensure that Merlin Bevans does not exceed the current permitted capacity, a condition is included in Authorization LA24021 stating that Merlin Bevans must keep a monthly record of the number and type of livestock on site and provide that record to the NRCB upon request. All records must be kept for a period of two years.

d. Decommissioning

Bevans proposed the new heifer barn to be partially on the existing footprint of the calf barn, sick barn and partially on the milking cow pen. These areas will have to be decommissioned by removing all manure prior to starting construction of the heifer barn. I therefore included a condition that requires Bevans to decommission these areas according to Technical Guideline Agdex 096-90 for solid manure storage facilities with a low risk to groundwater and surface water.