

## Decision Summary BA20002

This document summarizes my reasons for issuing Registration BA20002 under the *Agricultural Operation Practices Act* (AOPA). Additional reasons are in Technical Document BA20002. 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 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 a registration. For additional information on NRCB permits please refer to [www.nrcb.ca](http://www.nrcb.ca).

### 1. Background

On January 20, 2020, Alieda Farms Ltd. (Alieda Farms) submitted a Part 1 application to the NRCB to construct a new dairy Confined Feeding Operation (CFO). An extension to submit the part 2 was granted on June 1, 2020 with a new deadline of January 20, 2021.

The Part 2 application was submitted on January 9, 2021. On May 28, 2021, I deemed the application complete.

The proposed livestock numbers are:

- 160 milking cows (plus associated dries and replacement)

The proposed CFO facilities are as follows:

- Dairy barn – 76 m x 21 m
- Calf barn – 24 m x 17 m
- Heifer barn – 49 m x 21 m
- Dry cow barn – 24 m x 21 m
- Solid manure storage pad – 20 m x 30 m
- Synthetic lined liquid manure storage – 58 m x 54 m x 4.5 m

The application also notified the NRCB of the proposed construction of a milk house with office and storage (18 m x 6 m). 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 NE 10-49-27 W4M in Leduc County, roughly 4.5 km from Calmar AB. The terrain is relatively flat sloping to the SE with a seasonal drainage approximately 150 m from the proposed facilities.

### 2. Notices to affected parties

Under section 21 of AOPA, the NRCB notifies (or directs the applicant to notify) all parties that are “affected” by a registration 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 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 0.5 mile (805 m) from the CFO
- all persons who own or reside on land within the greater of 0.5 mile (805 m) or the minimum distance separation for the land on which the CFO is located

The land zoning on which the CFO is located would require a minimum distance separation of 322 metres. Therefore, the notification distance is 0.5 miles. (The NRCB refers to this distance as the “notification distance.”)

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

The NRCB gave notice of the application by public advertisement in the Leduc Representative newspaper on May 28, 2021. The full application was posted on the NRCB website for public viewing. As a courtesy, 13 letters were sent to people identified by Leduc County as owning or residing on land within the notification distance.

### **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).

Dennis Urban, an inspector, replied on behalf of AF. Mr. Urban requested that Alieda Farms communicate with AF prior to and during construction of the proposed dairy barn. Alieda Farms has been made aware of this request.

No response from AHS was received.

No response to the application was received from AEP however, a response was received in regards to a follow-up with AEP in relation to a concern expressed in a response to the application (see Appendix B for more details).

### **4. Alberta Land Stewardship Act (ALSA) regional plan**

Section 22(9) 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 Leduc 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 water wells, springs, and common bodies of water
- 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 9, the application meets all relevant AOPA requirements.

## 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.” Leduc County is an affected party (and directly affected) because the proposed CFO is located within its boundaries.

Mr. Ata Muhammad, a planner with Leduc County, provided a written response on behalf of Leduc County. Mr. Muhammad stated that the application is consistent with Leduc County’s municipal development plan land use provisions. The application’s consistency with Leduc County’s municipal development plan, is addressed in Appendix A, attached.

Mr. Muhammad also indicated that the setbacks required by the county’s land use bylaw (LUB) are met and that the applicant would need to work with the County’s Public Works and Engineering department for the proposed driveway access.

Apart from municipalities, an owner or occupant of land within the notification distance may request to be considered “directly affected.” The NRCB received responses from 3 parties.

All of the people who submitted responses own or reside on land within the 0.5 mile notification distance for affected persons. Because of their location within this distance, and because they submitted a response, they are presumed to be directly affected parties. (See NRCB Operational Policy 2016-7: Approvals, part 6.2)

The directly affected parties raised concerns regarding odour, property line setbacks, the proposed dugout size and location, potential flooding, cattle fencing, run on and runoff controls, and lagoon seepage.

These concerns are addressed in Appendix B.

## 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 monitoring for the facility. In this case a determination was made monitoring is required.

## 9. Terms and conditions

Registration BA20002 specifies the permitted livestock capacity as 160 milking cows (plus associated dries and replacements) and permits the construction of the following facilities:

- Dairy barn – 76 m x 21 m
- Calf barn – 24 m x 17 m
- Heifer barn – 49 m x 21 m
- Dry cow barn – 24 m x 21 m
- Solid manure storage pad – 20 m x 30 m
- Synthetic lined liquid manure storage – 58 m x 54 m x 4.5 m

Registration BA20002 contains terms that the NRCB generally includes in all AOPA registrations, 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, Registration BA20002 includes conditions that generally address construction deadlines, document submission, and construction inspection. For an explanation of the reasons for these conditions, see Appendix C.

## 10. Conclusion

Registration BA20002 is issued for the reasons provided above, in the attached appendices, and in Technical Document BA20002.

September 7, 2021

(Original signed)

Nathan Shirley  
Approval Officer

## Appendices:

- A. Consistency with the municipal development plan
- B. Concerns raised by directly affected parties
- C. Explanation of conditions in Registration BA20002

## APPENDIX A: Consistency with the municipal development plan

Under section 22 of AOPA, an approval officer may only approve an application for a registration or amendment of a registration 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 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 8.2.5.)

Alieda Farms CFO is located in Leduc County and is therefore subject to that county’s MDP. The county adopted the latest revision to this plan on June 23, 2019, under Bylaw #08-19.

Section 4.3.0.2 of the MDP lists planning objectives and policies for the county’s four agricultural areas. (The locations of these areas are shown on Map 4 of the MDP.) The existing CFO is in Area South Central/East. The MDP provisions applicable to Alieda Farms CFO are discussed below.

Section 4.3.0.2(c) states that the purpose of Agricultural Area South Central/East is “to provide for a broad range of agriculture including confined feeding operations. This area currently has a number of dairy operations that will be adversely impacted by significant increases in population and/or development.” This is likely a general guiding principle and is not considered a valid land use provision, therefore it’s not relevant to my decision.

Section 4.3.2 states that the county supports the development and expansion of CFOs provided the operation is compatible with the surrounding land uses. More specifically, section 4.3.2.1 states support for new or expanded CFOs provided the operation:

- a. does not create adverse impacts on environmentally significant lands;*
- b. has a satisfactory access;*
- c. is located within Agricultural Areas A, B or C,*
- d. is carried out in accordance with generally accepted farming practices regarding the storage, disposal and spreading of manure and the disposal of animal carcasses; and*
- e. meets the minimum setback distances to urban communities and residential development as regulated by the Agricultural Operation Practices Act.*

Section 4.3.2.1 (a) is likely not a land use provision because it requires site-specific, discretionary determinations (see NRCB Operational Policy 2016-7, *Approvals* 8.2.4). Therefore, this policy is not relevant to the MDP consistency determination required by section 22(1) of AOPA. At any rate, the application meets the technical and locational requirements of AOPA and is not located in the “environmentally significant area study”.

Section 4.3.2.1 (b) is considered outside the mandate of AOPA. Additionally the county did not raise concern regarding this matter. The applicant is reminded that they must comply with applicable Transportation requirements and the county advised that the applicant needs to contact them in regards to road use planning.

Section 4.3.2.1 (c) is met as the proposed CFO and the application are located in Agricultural Area C.

Section 4.3.2.1 (d) This part is likely not considered a “land use provision,” as it is likely a CFO-related “test” under section 22(2.1) of AOPA. At any rate, the applicant has provided proof that they have access to adequate spreading lands for manure management. The applicant must also adhere to all AOPA requirements including nutrient management on lands to which manure is applied.

Section 4.3.2.1 (e) the application meets the required minimum distance separation as set out by AOPA.

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

## APPENDIX B: Concerns raised by directly affected parties

The following individuals are presumed to be “directly affected” by the application. (See NRCB Operational Policy 2016:7 – *Approvals*, part 6.2.). Therefore, they qualify for directly affected party status because they submitted a response to the application and they own or reside on land within the “affected party radius,” as specified in section 5(c) of the Agricultural Operation, Part 2 Matters Regulation:

- Todd and Charmaine Weldon  
SE 15-49-27 W4M
- Jeff Gauf  
SE 10-49-27 W4M

The directly affected parties raised several issues in their responses. The issues are summarized and listed below, together with my analysis of those concerns and my conclusions.

The directly affected parties raised the following concerns: nuisance odours, property line setbacks, the proposed dugout size and location, groundwater protection from seepage, potential flooding and surface water run on and runoff controls, cattle fencing.

**Odours and air quality** – A concern was raised over the negative effects of odours and the negative impacts on air quality and quality of life.

**Approval officer’s conclusion:**

AOPA’s minimum distance separation (MDS) is a means for mitigating odour and other nuisance impacts from CFOs. Alieda Farms exceeds the required MDS to neighbouring residences.

**Groundwater quality** – There was concern raised regarding leakage of manure contaminants from CFO facilities would reduce groundwater quality.

**Approval officer’s conclusion:**

As noted in the decision summary above, and in Technical Document BA20002, the proposed CFO facilities meet all AOPA technical requirements. Several of these requirements are designed to prevent or minimize manure leakage from CFO facilities and thus to prevent manure from reaching and contaminating groundwater. It is therefore presumed that the manure collection and storage facilities will not create a risk to groundwater.

**Potential flooding and surface water quality** – There was concern raised about effects on surface water quality from manure contaminated runoff from CFO facilities as well as the proposed development causing potential flooding on neighbouring land.

**Approval officer’s conclusion:**

As noted in the decision summary above, and further documented in Technical Document BA20002, the proposed CFO meets all AOPA technical requirements. Several of these requirements are designed to protect surface water. Because the proposed CFO meets these requirements, it is not considered to pose a material risk to surface water.

There was concern that the proposed development may block drainage from a property to the south causing their land to flood. In my review of air imagery as well as onsite follow-

up it appears that the surface water from the proposed property drains into a draw (low area) between the two properties. The proposed CFO is not located in and does not block this drainage path, so surface drainage is unlikely to be affected. Additionally all manure is contained in approved facilities and prevented from contaminating surface water.

I reached out to Alberta Environment and Parks (AEP) with the concern who replied that *Water Act* approval exemptions for surface water may apply to CFOs. The applicant has been working closely with AEP to date in regards to water licensing as well as dugout creation and they are made aware to continue this relationship as they develop the location.

**Setbacks to property lines and dugout location** – Concern was raised about the precise location of the proposed development in regards to property setbacks as well as a question about the specific location of the applicant new dugout.

**Approval officer's conclusion:**

The applicant has provided an updated map with the setbacks from both side and front property lines (this map has been added to technical document BA20002). Leduc County also indicated that the proposed development meets the County's setback requirements.

In the updated map provided (Technical document BA20002) the applicant has drawn on the location of the new dugout for the neighbour's understanding. The approval of this dugout is outside of the AOPA mandate.

**Cattle fencing** – A question was asked enquiring if the applicant will ensure good cattle fencing is used to keep cattle on their property to help protect the neighbour's private dugout.

**Approval officer's conclusion:**

In response, the applicant indicates they are planning on using indoor facilities for their cattle. They also stated they understand the concern for the quality of the neighbour's dugout and want to ensure they don't want to cause any damage.

Often, any issues that arise relating to the operation of a CFO and other disagreements can be resolved through good communication between neighbours and the CFO operator and the NRCB encourage this between landowners. Additionally, complaints about CFO-related issues can be reported to the NRCB's 24 hour response line (1-866-383-6722) and will be followed up on by an NRCB inspector within 24 hours. The operator must adhere to all applicable regulations.

## **APPENDIX C: Explanation of conditions in Registration BA20002**

Registration BA20002 includes several conditions, discussed below:

### **a. Construction Deadline**

Alieda Farms proposes to complete construction of the proposed new facilities by December 2025. This time-frame is considered reasonable. Therefore, the deadline of December 1, 2025 is included as a condition in Registration BA20002.

### **b. Leakage Detection System**

As noted in Decision Summary BA20002 and Technical Document BA20002, the proposed liquid manure storage poses a low potential risk to groundwater. However, based on the presence of coarse-grained soils dispersed at varying depths throughout the site as identified in the water wells on site, I determined it necessary for Alieda Farms to monitor the synthetically lined liquid manure storage to detect if the synthetic liner leaks. Failure of the liner could be a potential source of groundwater contamination. A condition is included requiring Alieda Farms to conduct leakage detection monitoring and reporting for the proposed liquid manure storage.

### **c. Post-construction inspection and review**

The NRCB's general practice is to include conditions in new permits to ensure that the new facilities are constructed according to the required design specifications. Accordingly, Registration BA20002 includes conditions requiring:

- a. the concrete used to construct the liner of the manure collection and storage portion of the dairy barn, solid manure storage pad, calf barn, heifer barn, and dry cow barn to meet the specification for category B (liquid manure shallow pits), category C (solid manure – wet), and category D (solid manure – dry), as applicable, in Technical Guideline Agdex 096-93 “Non-Engineered Concrete Liners for Manure Collection and Storage Areas.”
- b. Alieda Farms to provide documentation to confirm the specifications of the concrete used to construct the manure storage and collection portions of the dairy barn, solid manure storage pad, calf barn, heifer barn, and dry cow barn.
- c. A written completion report for the synthetic lined liquid manure storage, signed by a qualified third party certifying that the synthetic lined liquid manure storage has been constructed in accordance with the liner manufacturer's requirements. At a minimum, the report must confirm that the liquid manure storage is constructed in the approved location; confirm the size of the synthetic lined liquid manure storage, including depths below grade; and confirm that the synthetic liner was installed in accordance with the liner manufacturer's requirements, including under membrane surface preparation and proper sealing of any seams.

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. Registration BA20002 includes conditions stating that Alieda Farms shall not place livestock or manure in the manure storage or collection portions of the dairy barn, solid manure storage pad, calf barn, heifer barn, dry cow barn or manure in the synthetic lined liquid manure storage until NRCB personnel have inspected each facility and confirmed in writing that they meet the registration requirements.