

## Decision Summary RA24019

This document summarizes my reasons for issuing Authorization RA24019 under the *Agricultural Operation Practices Act* (AOPA). Additional reasons are in Technical Document RA24019. 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 December 1, 2023, an NRCB inspector issued Compliance Directive CD 23-04, requiring Westcoast Holsteins Ltd. to reline their existing double cell earthen liquid manure storage (EMS) in order to mitigate the risk posed to the environment.

The EMS was constructed prior to 2002, when the NRCB became the regulator for CFOs in Alberta. As such, the NRCB does not have any engineering data on the EMS construction, nor any borehole log information for the monitoring wells (up to 2005).

In 2018, three groundwater monitoring wells were installed around the double cell EMS. Groundwater results collected from the monitoring wells have reported elevated chloride and nitrate-N, which are indicator parameters of manure constituents. In June 2020, the NRCB Science and Technology (sci-tech) division reviewed the 2020 leak detection data obtained from that year and recommended that the file be presented to the NRCB Monitoring Review Team (MRT). The chair of the MRT recognized the environmental concerns and recommended that a discussion should be had with the operator regarding relining or reconstructing the EMS so that an AOPA approved liner would be present.

On April 19, 2024, Westcoast Holsteins Ltd. (Westcoast Holsteins) submitted a Part 1 application to the NRCB to modify a manure storage facility (MSF) at an existing dairy CFO.

The Part 2 application was submitted on September 9, 2024. On September 10, 2024, I deemed the application complete.

The proposed modification involves:

- Relining the existing double cell EMS into a synthetically lined liquid manure storage (LMS) – 106.7 m x 45.7 m x 6.1 m deep (each cell)

The proposed modification of this facility is intended to mitigate the identified risk of the existing facility. There is no proposed increase in livestock numbers.

### **a. Location**

The existing CFO is located at NW 35-42-25 W4M in Ponoka County, roughly 2 miles east of the town of Ponoka, Alberta. The terrain slopes gently to the east and south.

### **b. Existing permits**

The CFO is already permitted under Approval RA05006 and Authorizations RA10058, RA10058A, RA19028 and RA19043A.

## **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 1.5 miles (2,414 m) from the CFO

None of the CFO facilities are located within 100 m of a bank of a river, stream, or canal.

A copy of the application was sent to Ponoka 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 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 and Pipelines Ltd. and Battle River Power Coop. as they are utility right of way holders.

I did not receive any responses.

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

I have determined that the proposed modification is consistent with the land use provisions of Ponoka 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 modification:

- Meets the required AOPA setbacks from all nearby residences, with an exemption under section 3(5)(c) of the Standards and Administration Regulation (AOPA setbacks are

known as the “minimum distance separation” requirements, or MDS). The proposed relining of the existing liquid manure storage is within the footprint of the existing CFO, within the same distance to the closest neighboring residence, 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 protective liners 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 exemption that is required to address the AOPA requirements around water well setbacks is 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.

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

Ms. Robin Dubitz, a development officer with Ponoka County, provided a written response on behalf of Ponoka County. Ms. Dubitz stated that the application is consistent with Ponoka County’s land use provisions of the municipal development plan (MDP). The application’s consistency with Ponoka County’s MDP is addressed in Appendix A, attached.

Ms. Dubitz also listed the setbacks required by Ponoka County’s land use bylaw (LUB) and noted that the application meets these setbacks.

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

New MSF which clearly meet or exceed AOPA requirements may be assumed to pose a low risk to surface and groundwater. There may be circumstances where, because of the proximity of a shallow aquifer, porous subsurface materials, or surface water systems an approval officer may require groundwater monitoring or an exemption for the facility. Due to the proximity of the proposed synthetically lined LMS to a water well, an exemption will be required. Additionally, there is an existing groundwater monitoring condition under Approval RA05006, and that condition is still in effect.

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 9.17.

In this case, the risks posed by Westcoast Holsteins' existing CFO facilities were most recently assessed in 2019 using the ERST. According to that assessment, the existing EMS was found to pose a high potential risk to groundwater, and the dairy barn was found to pose a moderate potential risk to groundwater. Both facilities pose a low potential risk to surface water. The remaining CFO facilities were all found to pose a low potential risk to groundwater and surface water. Due to the proposed synthetic relining of the EMS, I conducted a new ERST for this facility. I found that lining the existing EMS with a synthetic liner decreased the risk this facility poses to groundwater and is subsequently determined to be low.

Aside from the proposed relining of the EMS, the circumstances have not changed since the 2019 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 EMS to be synthetically relined is 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 well construction, maintenance, and the proposed synthetic relining of the facility.

## **9. Terms and conditions**

Authorization RA24019 permits the relining of the existing double cell EMS into a synthetically lined LMS.

Authorization RA24019 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 RA24019 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 RA24019 is issued for the reasons provided above, in the attached appendices, and in Technical Document RA24019.

Authorization RA24019 must be read in conjunction with Westcoast Holsteins' previously issued Approval RA05006 and Authorizations RA10058, RA10058A, RA19028, and RA19043A which remain in effect.

January 8, 2025

(Original signed)  
Sarah Neff  
Approval Officer

## **Appendices:**

- A. Consistency with the municipal development plan
- B. Exemption from water well setbacks
- C. Explanation of conditions in Authorization RA24019

## **APPENDIX A: Consistency with the municipal 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.

“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).

Westcoast Holsteins’ CFO is located in Ponoka County and is therefore subject to that county’s MDP. Ponoka County adopted the latest revision to this plan in September 2023, under By-law 6-08-MDP.

Section 2 of the MDP contains eight numbered policies that relate to applications for CFOs under AOPA. These eight policies are discussed below.

Under policy 2.1, the County “encourages” the development of CFOs to add value to crop production and provide “more employment and income per acre of land”. However, policy 2.1 also states that the environment and neighbours’ rights “must be protected”. This policy likely isn’t a “land use provision,” but it provides a general context for interpreting and applying the other policies in section 2.

Policy 2.2 states the County’s “belie[f] that very large CFOs are inappropriate in this part of Alberta and requests the NRCB not to allow them here.” This policy defines “very large” as “more than ten times” the threshold for approvals in the Part 2 Matters Regulation under AOPA. In this case, a “very large” dairy CFO would have over 2,000 milking cows. This policy likely isn’t a “land use provision”. Nevertheless, Westcoast Holsteins’ CFO operates at 724 milking cows, and the application does not propose an increase in animal numbers or footprint. The application is therefore consistent with this policy.

Policy 2.3 has two parts. The first part lists four setbacks and two exclusion zones for new CFOs. Westcoast Holsteins’ CFO is an existing CFO; therefore, these policies do not apply to this application.

The second part of policy 2.3 calls for “very strict conditions on manure handling and storage” in the Chain Lakes and Maskwa Creek watersheds. This policy likely isn’t a “land use provision” because it calls for discretionary judgements about what conditions are “very strict”.

In addition, this policy may well be precluded from my consideration under section 22(2.1) of AOPA, which precludes an approval officer from considering MDP provisions “respecting tests

or conditions related to the construction of or the site for a confined feeding operation or manure storage facility” and regarding the land application of manure. Regardless, the existing CFO meets AOPA’s technical requirements for manure handling and storage and those requirements are arguably “very strict.” Therefore, the existing CFO would be consistent with this section if the section applied.

Policy 2.4 calls for the NRCB to “set strict rules for the timely incorporation of manure spread within a mile of any urban municipality or rural residence.” This is a “test or condition” respecting application of manure under section 22(2.1) of AOPA, so I am precluded from considering this policy. At any rate, Westcoast Holsteins’ CFO will be subject to the Standards and Administration Regulation under AOPA. This regulation provides rules for the land application of manure, including timely incorporation in specified circumstances.

Policy 2.5 precludes the siting of CFOs within two miles of “any lake” unless the “regulators” are “convinced” that the CFO’s manure management system is “fail-safe”, and the CFO poses “no reasonable risk of contamination of the lake.” There are no lakes within 2 miles of the existing CFO, and therefore, the existing CFO would be consistent with this section if the section applied.

Policy 2.6 precludes new or expanded CFOs where there is “any risk that runoff will contaminate domestic water supplies.” Policy 2.6 likely is not a “land use provision” because it calls for discretionary judgements about acceptable risks (on its face, “any risk” is a low-risk threshold, but the threshold is presumably more than “minor” or “insignificant”). At any rate, the application is not for a new or expanding CFO, so this policy does not apply.

Policy 2.8 states that “where a new CFO is proposed, the MDS should be contained entirely within land owned by the operator of the CFO...” This is not a land use provision, but rather a “test or condition” that relates to minimum distance separation (MDS), so I am precluded from considering this policy. Additionally, this application is for an existing CFO and therefore this section does not apply.

Lastly, policy 2.11 states that the County “may develop policies to reduce the nuisance caused by the spreading of manure near residences,” including ones that require the immediate incorporation of manure and limits on the timing or rate of manure application. I am unaware of any manure application policies that the County has developed under policy 2.11. At any rate, section 22(2.1) of AOPA precludes me from considering policy 2.11 because it relates to manure application.

For these reasons, I conclude that the application is consistent with the land use provisions of Ponoka County’s MDP that I may consider. As noted above, the County’s response did not raise any concerns with the application, which supports my conclusion.

## APPENDIX B: Exemption from water well setbacks

### 1. Water Well Considerations

The proposed synthetically lined LMS is to be located less than 100 m from a water well. I have confirmed that one water well is located approximately 90 m from it during a site visit and via aerial imagery. 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) and, if required, a groundwater monitoring program is implemented.

The potential risks of direct aquifer contamination from the MSF are presumed to be low if the applicant's proposed MSF 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 proposed synthetic relining of the EMS

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

#### **Water well 40136:**

Based on information provided by the applicant and from the Alberta Environment and Protected Areas (EPA) water well database, the water well located approximately 90 m south of the proposed synthetically lined LMS is likely EPA water well ID #40136. This well is reported to have been installed in 2002 and has a perforated or screened zone from 30.5 m to 36.6 m, and from 60.9 m to 67.1 m below ground level across stratigraphy. The well has an above ground casing and is used for domestic and non-domestic purposes. The well's log identifies a protective clay layer from 0.91 m to 30.8 m below ground level. The well has a driven seal from ground surface to 32 m below ground level. The well appeared to be in good condition at the time of my site inspection and the area surrounding the well was mounded. The casing was protected by a welded steel cage and the well appears to be up-gradient of the 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 RA24019.

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<sup>1</sup> 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).



Under the regulation, an approval officer may require a groundwater monitoring program of the water well(s) in question. In my view, given meeting AOPA technical requirements and low potential risk to groundwater posed by the proposed LMS, water well monitoring is not required. A groundwater monitoring condition is still in effect under Approval RA05006.

Based on the above, I am prepared to grant an exemption to the 100 m water well setback requirement for the synthetically lined LMS.

## **APPENDIX C: Explanation of conditions in Authorization RA24019**

Authorization RA24019 includes several conditions, discussed below:

### **a. Construction above the water table**

Section 9(3) of the Standards and Administration Regulation under the *Agricultural Operation Practices Act* (AOPA) requires the bottom of the liner of a manure storage facility or manure collection area to be not less than one metre above the water table of the site “at the time of construction.”

Based on the information provided with the application, the proposed relining of the existing double cell EMS into a synthetically lined LMS may not meet the one metre requirement of section 9(3). However, because the height of the water table can vary over time, the lack of adequate depth to water table indicated in Westcoast Holsteins report does not mean that there will be an inadequate depth at the time of construction. To address this variability and ensure that the depth requirement is met at the time of construction, a condition is included requiring Westcoast Holsteins to cease construction and notify the NRCB immediately if the water table is encountered during construction.

### **b. Construction Deadline**

Westcoast Holsteins proposes to complete the relining of the EMS by July 1, 2025. This timeframe is considered to be reasonable for the proposed scope of work and takes into consideration the timeline set out in Compliance Directive CD 23-04. The deadline of July 1, 2025, is included as a condition in Authorization RA24019.

### **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 RA24019 includes conditions requiring:

- a. A written construction completion report for the relining of the existing double cell EMS into a synthetically lined LMS. The report must be stamped and signed by a “professional engineer,” as defined in the Standards and Administration Regulation, and must include:
  - the final dimensions, side slopes and depth below grade of the LMS,
  - confirmation that the bottom of the liner was constructed no less than 1 metre above the water table,
  - confirmation of the water table level at the time of the liner installation; and
  - confirmation that the liner installed was a 60 mil HDPE enviro liner, and that the liner was installed in accordance with the liner manufacturer’s requirements, including preparation of the bed on which the synthetic liner is placed and proper sealing at all seams

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 RA24019 includes a condition stating that Westcoast Holsteins shall not place manure in the manure storage or collection portions of the synthetically lined LMS until NRCB personnel have inspected the facility and confirmed in writing that it meets the authorization requirements.