

## Decision Summary RA21040

This document summarizes my reasons for issuing Authorization RA21040 under the *Agricultural Operation Practices Act* (AOPA). Additional reasons are in Technical Document RA21040. 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 July 9, 2021, 556232 Ontario Ltd, operated by Stuart and Rosemary Vander Ploeg (the Vander Ploegs) submitted a Part 1 application to the NRCB to construct a dry cow/young stock barn (100 m x 35 m) and a solid manure storage pad (30 m x 30 m) at an existing dairy CFO.

The purpose of the proposed barn is to better manage the replacement herd at the dairy.

The Part 2 application was submitted on February 24, 2022. On March 1, 2022, I deemed the application complete.

#### a. Location

The CFO is located at NE 5-43-24 W4M in Ponoka County, roughly 9 km east of the Town of Ponoka, Alberta. The terrain is gently undulating with a general slope to the west.

#### b. Existing permits

The CFO is permitted under Approval RA04005D.

### 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 mile (1,610 m) from the CFO

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 Health Services (AHS); Alberta Environment and Parks (AEP); and Alberta Agriculture, Forestry and Rural Economic Development (AFRED).

I received responses from AHS and AEP.

Mr. Gordon Watt, an AHS environmental health officer/executive officer, indicated that AHS has no concerns with this application and included comments under the *Public Health Act* that the applicant must follow.

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

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

I have determined that the proposed construction 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 construction:

- 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 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 8, the application meets all relevant AOPA requirements.

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

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

Municipalities that are affected parties are identified by the act as "directly affected." Ponoka County is an affected party (and directly affected) because the proposed facilities are located within its boundaries.

Mr. Peter Hall, the assistant chief administrative officer with Ponoka County, provided a written response on behalf of Ponoka County. As noted in section 2, Ponoka County is a directly affected party.

In his response, Mr. Hall indicated that there are no issues or concerns with the proposal. The application's consistency with the county's municipal development plan (MDP) is addressed in Appendix A, attached.

## **7. Environmental risk of 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 facilities. In this case a determination was made and monitoring is not required.

When reviewing a new authorization application at 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, within either a low, moderate, or high-risk range. (A complete description of this tool is available under CFO/Groundwater and Surface Water Protection on the NRCB website at [www.nrcb.ca](http://www.nrcb.ca).) However, if those risks have previously been assessed, the approval officer will not conduct a new assessment, unless site changes are identified that require a new assessment, or the assessment was supported with a previous version of the risk screening tool and requires updating. See NRCB Operational Policy 2016-7: Approvals, part 8.13.

In this case, the risks posed by the Vander Ploegs' existing CFO facilities were assessed in 2010. The assessment indicated that the potential risks to surface water and groundwater were low.

Since the 2010 risk assessment, the NRCB has adopted a new version of the ERST. For these reasons, I reassessed the risks posed by the CFO's existing facilities. My reassessment found that the existing facilities pose a low risk to surface water and groundwater.

## **8. Terms and conditions**

Authorization RA21040 permits the construction of a dry cow/young stock barn and a solid manure storage pad.

Authorization RA21040 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 RA21040 includes conditions that generally address construction deadlines, document submission and construction inspections. For an explanation of the reasons for these conditions, see Appendix B.

## **9. Conclusion**

Authorization RA21040 is issued for the reasons provided above, in the attached appendices, and in Technical Document RA21040.

Authorization RA21040 must be read in conjunction with NRCB previously issued Approval RA04005D which remains in effect.

May 3, 2022

(original signed)  
Francisco Echegaray, P.Ag.  
Approval Officer

### **Appendices:**

- A. Consistency with the municipal development plan
- B. Explanation of conditions in Authorization RA21040

## **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.

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.)

The Vander Ploegs’ CFO is located in Ponoka County and is therefore subject to that county’s MDP. Ponoka County adopted the latest revision to this plan on October 2018, under Bylaw #6-08 MDP.

Sections 2.1 to 2.8 of the MDP deal with CFOs. I have reviewed these sections, and find that these provisions generally apply to new or expanded CFOs. The MDP does not define “expansion,” so I will use the definition in the Part 2 Matters Regulation under AOPA. Section 1(1)(d)(i) of that regulation defines an “expansion” as the construction of additional facilities to confine more livestock. The Vander Ploegs’ application does not involve confining more livestock, so I conclude that it is not an “expansion” under this definition. Therefore, the MDP policies relating to CFO “expansions” do not apply to the Vander Ploegs’ application. Irrespective, the application meets the policies for expanded CFOs.

For these reasons, I conclude that the application is consistent with the land use provisions of Ponoka County’s MDP. This conclusion is supported by the county’s non-objection to the application.

In my view, under sections 1.4, 1.6, 4.10, 17.5 and in Appendix A, the MDP clearly intends to incorporate Ponoka County’s Land Use Bylaw (LUB) # 7-08 (see NRCB Operational Policy 2016-7: *Approvals*, part 8.2.3). Accordingly, I considered the LUB. Under that bylaw, the subject land is currently zoned as agricultural. CFOs are listed as a permitted land use within this land use zoning, provided that they hold the required authorization (or permit) under AOPA. As noted in part 1 of this decision summary, The Vander Ploegs’ CFO has been permitted under NRCB Approval RA04005D.

## **APPENDIX B: Explanation of conditions in Authorization RA21040**

Authorization RA21040 includes several conditions, discussed below:

### **a. Groundwater protection requirements**

The Vander Ploegs propose to construct the new solid manure storage pad and the straw pack area of the dry cow/young stock barn with a 0.5 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.

To demonstrate compliance with this standard, the Vander Ploegs provided lab measurements of the hydraulic conductivity of the materials that will be used to construct the compacted soil liner.

Lab measurements of hydraulic conductivity are made in a precisely controlled setting and are typically based on a small soil sample. Therefore, the NRCB generally multiplies lab-measured hydraulic conductivity values by a factor of 10 to reflect the potential variability in actual liner materials and conditions that can reasonably be expected to be achieved in the field.

The regulations provide that the actual hydraulic conductivity of a 0.5 metre thick compacted soil liner must not be more than  $5 \times 10^{-7}$  cm/sec.

In this case, the lab measurement was  $1.7 \times 10^{-8}$  cm/sec. With the required ten-fold modification, the expected field value is  $1.7 \times 10^{-7}$  cm/sec. This expected value is below (better than) the maximum value in the regulations. Therefore, the proposed liner meets the hydraulic conductivity requirement in the regulations.

To provide additional assurance that the as-built solid manure storage pad and the straw pack area of the dry cow/young stock barn adequately protects groundwater, Authorization RA21040 includes a condition requiring the Vander Ploegs to provide an engineer's completion report certifying that the solid manure storage pad and the straw pack area of the dry cow/young stock barn were constructed with the same liner material as that used for hydraulic conductivity testing and that they were constructed according to the proposed procedures and design specifications.

### **b. Construction Deadline**

The Vander Ploegs propose to complete construction of the proposed solid manure storage pad and the dry cow/young stock barn by the fall of 2025. This time-frame is considered to be reasonable for the proposed scope of work. The deadline of November 30, 2025 is included as a condition in Authorization RA21040.

### **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 RA21040 includes conditions requiring:

- a. the concrete used to construct the liner of the manure collection and storage portion of the dry cow/young stock 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." The Vander Ploegs 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. Authorization RA21040 includes conditions stating that the Vander Ploegs shall not place livestock or manure in the manure storage or collection portions of the dry cow/young stock barn, or place manure on the solid manure storage pad, until NRCB personnel have inspected them and confirmed in writing that they meet the authorization requirements.