

## Decision Summary BA21018

This document summarizes my reasons for issuing Authorization BA21018 under the *Agricultural Operation Practices Act* (AOPA). Additional reasons are in Technical Document BA21018. 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 an authorization. For additional information on NRCB permits please refer to [www.nrcb.ca](http://www.nrcb.ca).

### 1. Background

On September 10, 2021, Tuxedo Farms Ltd. (Tuxedo Farms) submitted a Part 1 application to the NRCB to convert an old milking parlor into a calf pen area and a calf nursery area at an existing dairy and beef confined feeding operation (CFO).

The Part 2 application was submitted on September 13, 2021. On September 14, 2021, I deemed the application complete.

The proposed construction involves:

- Constructing calf pen area – 40 m x 9 m
- Constructing calf nursery area – 15 m x 6 m

#### a. Location

The existing CFO is located at S½ 2-61-26 W4M in Westlock County, roughly 9 km northeast of the Town of Westlock, Alberta. The terrain is relatively flat, sloping to the east towards Lebeaus Lake located approximately 1 km to the northeast of the CFO.

#### b. Existing permits

The CFO is currently permitted under Approval BA19009. This permit allows the operation of a dairy and beef CFO with 420 milking cows (plus associated dries and replacements) and a feedlot with the capacity for 1,600 beef finishers.

## 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 from the CFO

A copy of the application was sent to Westlock 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 and Forestry (AF). No response was received from AEP.

Ms. Lu Wang, a public health inspector, provided a response on behalf of AHS. Ms. Wang asked about odor and pest control (nuisance impacts), if they meet AOPA setback requirements, and if the proposed calf barn would pose any risks to the existing water wells on site. Since this application is not for an increase in livestock numbers, there should be no increase in nuisance impacts. The proposed construction also meets AOPA MDS setback requirements to neighbouring residences with an exemption. As mentioned in part 7 below, the facilities meet AOPA requirements and therefore pose a low potential risk to groundwater and surface water.

AOPA regulations protect water wells, in part, by imposing requirements to reduce the risk of surface runoff from the manure storage facilities. Tuxedo Farms has proposed the calf pen area and calf nursery area to be under roof with concrete liners which exceeds the act's groundwater protection requirements. With manure being contained in a barn and under roof, no manure will come into contact with precipitation and therefore there will be no impact on runoff. AOPA also protects water wells by requiring manure storage facility setbacks (100 m, though the act also allows Approval Officers to exempt this) from wells. The proposed facilities are located within 100 metres of one well. However, an exemption from the setback is warranted, as discussed in Appendix B.

Mr. Dennis Urban, an inspector with AF, sent a response stating that AF has no concerns with the application.

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

I have determined that the proposed construction is consistent with the land use provisions of Westlock 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 nearby residences, with three exceptions (AOPA setbacks are known as the "minimum distance separation" requirements, or MDS). An exemption has been used for the proposed facilities since they are located within the existing CFO footprint and there is no increase in livestock numbers or to the annual amount of manure produced (see Part 8 below and Technical Document

BA21018).

- 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 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. The exemption that is required to address the AOPA requirements around water well setbacks are discussed in the following parts of this decision summary and Appendix B, attached.

## **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. Not all affected parties are "directly affected" under AOPA.

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

The application was sent to Westlock County on September 14, 2021. On October 12, 2021, I sent a follow up email to the county to ask if they would be submitting any comments to the application. As of October 20, 2021, no comments had been received by the NRCB.

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

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 8.13.

In this case, the risks posed by Tuxedo Farms' existing CFO facilities were assessed in 2011. Since these facilities were scored with an old version of the ERST, they were reassessed in 2015. The EMS permitted under Authorization BA18013 was assessed in 2018 and the dairy barn extension, calf barn, and heifer barn permitted under Approval BA19009 was assessed in 2019. According to those assessments, the facilities posed a low risk to surface water and groundwater.

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.

I also assessed the conversion of the old milking parlor into a calf pen area and a calf nursery area, using the NRCB's risk screening tool, and determined that they all pose a low risk to groundwater and surface water.

## **8. Exemptions**

I determined that the proposed calf pen area and calf nursery area are located within the required AOPA setback from a water well. As explained in Appendix B, an exemption to the 100 metre water well setback is warranted due to the proposed construction of the facilities and the installation of the water well (see Appendix B, attached).

## **9. Terms and conditions**

Authorization BA21018 permits the construction of the calf pen area and calf nursery area.

Authorization BA21018 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 BA21018 includes conditions that address construction deadlines, document submission, and construction inspection. For an explanation of the reasons for these conditions, see Appendix C.

## **10. Conclusion**

Authorization BA21018 is issued for the reasons provided above, in the attached appendices, and in Technical Document BA21018.

Authorization BA21018 must be read in conjunction with NRCB previously issued Approval BA19009 which remain in effect.

October 20, 2021

(Original signed)

Julie Wright  
Approval Officer

## **Appendices:**

- A. Consistency with the municipal development plan
- B. Exemption from water well setback
- C. Explanation of conditions in Authorization BA21018

## 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.)

Tuxedo Farm’s CFO is located in Westlock County and is therefore subject to that county’s MDP. Westlock County adopted the latest revision to this plan in April 2016, under Bylaw #05-2016.

Section 4.1 of the MDP relates to the agricultural area policies.

Policy 4.1.1.3 clarifies that the “primary use” of this area is for both “extensive and intensive agricultural uses and confined feeding operations”. This is considered a general guiding principle and is not considered a land use provision, therefore this is not relevant to my decision. In any respect, this application is consistent with this provision.

Policy 4.1.2.2 states that the county will provide “input” to the NRCB on applications for new or expanded CFOs, based on the “technical and locational merits” of each application. This policy is likely not a land use provision because it requires site-specific, discretionary determinations (see Operational Policy 2016-7, *Approvals*, part 8.2.5). 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.

Policy 4.1.2.2 states further that CFOs and manure storage facilities “must fully satisfy all the requirements and regulations adopted under the Act, specifically the minimum distance separation requirements and land base requirements.” As noted above, the application meets AOPA’s requirements.

Policy 4.1.2.3 states “Minimum distance separations for CFOs shall conform to standards set out in the Agricultural Operations Practices Act.” Together, the use of the term “minimum distance separation” in policies 4.1.2.2 and 4.1.2.3 appear to be a reference to the minimum distance separation (MDS) requirement in section 3 of the Standards and Administration Regulation under AOPA. These MDP policies are likely not relevant to my MDP consistency determination, because these policies are based on AOPA’s MDS requirements. (See also Operational Policy, *Approvals*, part 8.2.5). That said, the CFO meets the MDS requirements with an exemption under AOPA (as seen in this decision and Technical Document BA21018)

and meets all other AOPA technical requirements. Therefore, this application is consistent with these MDP policies.

Policy 4.1.2.4 requires a 2.4 km CFO setback from “corporate boundaries of any urban municipality within Westlock County” or a 0.8 km CFO setback from “Community Areas designated on **Map 7.2.**” To determine whether the Tuxedo Farms’ CFO is within the 2.4 km setback to all of the corporate boundaries of any urban municipality within Westlock County or 0.8 km setback from community areas, I measured from the nearest edge of the CFO’s property line to the property line of the “target” area. Based on this measurement, Tuxedo Farms’ CFO is roughly 4.5 km from the hamlet of Pibroch, Alberta and thus exceeds the required setbacks and is consistent with policy 4.1.2.4 in the MDP. I found that the CFO was not close to any other urban municipality, and not within 0.8 km of a community area designated on Map 7.2.

Policy 4.1.2.5 states that CFOs are “discouraged from locating in environmentally sensitive areas where slope instability and or groundwater contamination may be a concern.” This policy is likely not a land use provision because it requires site-specific, discretionary determinations (see Operational Policy 2016-7, *Approvals*, part 8.2.5). 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.

Policy 4.1.2.6 states that in addition to AOPA, Area Structure Plans (ASP) in Westlock County and MDP policies in respect to CFOs should be followed. The CFO is not located within any ASPs or IDPs at this time.

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

The CFO is also subject to Westlock County’s Land Use Bylaw (LUB) #04-2016. Under that bylaw, the subject land is currently zoned as Agriculture District. CFOs (as defined by AOPA) are listed as discretionary use under this zoning. Under NRCB policy, CFO expansions are considered to be consistent with an LUB if CFOs are listed as either a permitted or discretionary land use for the relevant land use district (See NRCB Operational Policy 2016-7: *Approvals*, part 8.3) However, Section 7.7.1 of the LUB expressly exempts CFOs from municipal control under the LUB, because CFOs are regulated by the NRCB under AOPA.

For these reasons, I conclude that the application is not inconsistent with Westlock County’s LUB.

## APPENDIX B: Exemption from water well setback

### Water Well Considerations

The proposed calf pen area and calf nursery area are to be located less than 100 m from a water well. I have confirmed that water well #254292 is located approximately 5.8 m from both the calf pen and calf nursery areas during a site visit and through a review of satellite imagery. This is in conflict with the section 7(1)(b) of the *Standards and Administration Regulation (SAR)*. Section 7(2) 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). The permit holder may also be required by an approval officer to institute a groundwater monitoring program.

One basis for granting an exemption is if the “aquifer into which the well is drilled is not likely to be contaminated” by the proposed MSF or MCA.

Section 7(2) of the SAR states that the 100 m setback to a water well does not apply if the calf pen area and calf nursery area (MSF/MCA) is not likely to contaminate the aquifer into which the water well is drilled and if required by an approval officer, 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
- 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.

The water well:

Based on information provided by the applicant and from the Alberta Environment and Parks (AEP) water well database, the water well located approximately 5.8 m east of the calf pen area and calf nursery area is likely AEP water well ID #254292. This well is reported to have been installed in 1995 and has a perforated zone from 41.15 m to 61.26 m below ground level across a shale layer. The well casing extends approximately just over 0.6 m above ground, has sufficient ground mounding, and is physically protected by a metal fence around it. This well is used for non-domestic purposes. The well’s log identifies protective layer from ground surface to 6.4 m below ground level. The well has a formation seal from ground surface to 41.15 m below ground level. The well appeared to be in good condition at the time of my site inspection.

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 appropriate as further discussed in Technical Document BA21018.

Based on the above, I am prepared to grant an exemption to the 100 m water well setback requirement for the calf pen area and calf nursery area.

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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).

## **APPENDIX C: Explanation of conditions in Authorization BA21018**

Authorization BA21018 includes several conditions, discussed below:

### **a. Construction Deadline**

Tuxedo Farms proposes to complete construction of the proposed new calf pen area and calf nursery area by February 2022. This time-frame is considered to be reasonable for the proposed scope of work since it's for the conversion of an old milking parlour into calf facilities, however, I am of the opinion that allowing a full construction season for the work is appropriate. A deadline of November 30, 2022 is therefore included as a condition in Authorization BA21018.

### **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 BA21018 includes conditions requiring:

- a. the concrete used to construct the liner of the manure collection and storage portion of the calf pen area and calf nursery area 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. Tuxedo Farms to provide documentation to confirm the specifications of the concrete used to construct the manure storage and collection portions of the calf pen area and calf nursery area.

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 BA21018 includes a condition stating that Tuxedo Farms shall not place livestock or manure in the manure storage or collection portions of the new calf pen area or calf nursery area until NRCB personnel have inspected the facilities and confirmed in writing that it meets the authorization requirements.