

Decision Summary LA20040

This document summarizes my reasons for issuing Approval LA20040 under the *Agricultural Operation Practices Act* (AOPA). Additional reasons are in Technical Document LA20040. 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.

1. Background

On September 28, 2020, Kings Lake Colony Farming Co. Ltd. (Kings Lake) submitted a Part 1 and Part 2 application to the NRCB to expand an existing multi species CFO by constructing a layer barn (122 m x 24.4 m), increasing chicken layer numbers from 15,000 to 35,000, and increasing chicken pullet numbers from 15,000 to 20,000. On October 13, 2020, I deemed the application complete.

Under AOPA, this type of application requires an approval. (This is one of several types of “permits” issued under AOPA. For an explanation of the different types and when each one applies, see www.nrcb.ca.)

a. Location

The existing CFO is located at SW 35-5-13 W4M in the County of Forty Mile, roughly 16 km southwest of Foremost, Alberta. The terrain is gently undulating.

b. Existing permitted facilities

Kings Lake Colony’s CFO was originally permitted by the County of Forty Mile under development permits #05-01 and #39-01 issued in March 2001 and February 2002, respectively. These permits allowed the construction and operation of a poultry and dairy CFO.

The CFO’s grandfathered status has been discussed in past NRCB decision summaries. Since the AOPA came into effect, the CFO has been issued NRCB Approval LA09014, as well as Authorization’s LA02023, LA05036A, and LA19019.

2. Notices to affected parties

Under section 19 of AOPA, the NRCB is required to notify (or direct the applicant to notify) all parties that are “affected” by an approval application. Section 5 of AOPA’s Part 2 Matters Regulation defines “affected parties” as:

- the municipality where the CFO is or is to be located
- any other municipality whose boundary is within a specified distance from the CFO, depending on the size of the CFO
- all individuals who own or reside on land within a specified distance from the CFO, depending on the size of the CFO

For this application, the distance is one mile. (The NRCB refers to this distance as the “affected party radius.”)

Municipalities that are affected parties are defined by the act to be “directly affected” and are entitled to provide evidence and written submissions. The County of Forty Mile is an affected party (and therefore also a directly affected party) because the proposed expansion is located within its boundaries.

All other parties who receive notice of the application may request to be considered “directly affected.” Under NRCB policy, all individuals who own or reside on land within the affected party radius are presumed to be “directly affected” if they submit a written response to the notice within the prescribed timeline. See NRCB Operational Policy 2016-7: *Approvals*, part 6.2.

Under section 20 of the act, all directly affected parties are entitled to a reasonable opportunity to provide evidence and written submissions regarding the application.

All directly affected parties are also entitled to request an NRCB board review of the approval officer’s decision on the approval application.

The NRCB published notice of the application in the Forty Mile Commentator on October 13, 2020 and posted the full application on the NRCB website for public viewing. The NRCB also emailed referral letters and a copy of the complete application to the County of Forty Mile, Alberta Health Services (AHS), Alberta Environment and Parks (EP), and Alberta Transportation (AT). Four courtesy letters were sent to people identified by the County of Forty Mile as owning or residing on land within the affected party radius.

3. Responses from the municipality, referral agencies, and other parties

I received responses from the County of Forty Mile, EP, and AT. No response was received from AHS or from other parties.

Mr. Nathan Ogden, a planning advisor/ development officer, provided a written response on behalf of the County of Forty Mile. As noted in section 2, the County of Forty Mile is a directly affected party.

Mr. Ogden stated that the application supports the goals listed in the County of Forty Mile’s municipal development plan (MDP). Though no specific concerns relating to the application were raised, Mr. Ogden pointed out that the MDP requires the county to consider the need for dust control, haul roads, or road upgrading. The application’s consistency with the County of Forty Mile’s MDP, is addressed in appendix A, attached. Mr. Ogden also stated the application meets the municipal setback requirements.

Mr. Jeff Gutsell, a hydrogeologist, provided a written response on behalf of EP. Mr. Gutsell requested that Kings Lake confirm they have adequate water allocation for the expansion. Mr. Gutsell’s response to the application notice was forwarded to Kings Lake for their follow up.

Ms. Leah Olsen, a development planning technologist, provided a written response on behalf of AT. Ms. Olsen stated that a permit would not be required from her department.

4. Environmental risk screening of existing and proposed facilities.

When reviewing a new approval application for an existing CFO, NRCB approval officers normally assess the CFO's existing buildings, structures, and other facilities, using the NRCB's environmental risk screening tool to determine the level of risk they pose to surface water and groundwater. This tool 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 done 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 Kings Lake's existing CFO facilities were assessed in 2019. According to that assessment, 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 proposed new layer barn, using the NRCB's risk screening tool, and determined that it poses a low risk to groundwater and surface water.

5. Other factors considered

The application meets all relevant AOPA requirements, with the terms and conditions summarized in part 6.

In addition, the proposed expansion is consistent with the land use provisions of the County of Forty Mile's municipal development plan. (See Appendix A for a more detailed discussion of the county's planning requirements.)

With respect to the act's technical requirements, the proposed expansion:

- 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 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 of manure storage facilities

I also determined that the proposed layer barn is located within the required AOPA setback from two existing water wells. However, as explained in Appendix B, this layer barn warrants an exemption from the 100 metre water well setback due to the wells construction and location upslope from the layer barn.

As required by section 4(1) of the South Saskatchewan Regional Plan (SSRP), I considered that document's Strategic Plan and Implementation Plan and determined that the application is

consistent with those plans. In addition, there are no notices or orders under the Regulatory Details portion of the SSRP that apply to this application.

In addition, I assessed the effects of the proposed expansion on the environment. Consistent with NRCB policy, I determined that these effects are acceptable because the application meets all of AOPA's technical requirements. I also determined that the application's effects on the economy and community are acceptable, and that the proposed expansion is an appropriate use of land. Under NRCB policy, these determinations are based on the application's consistency with the municipal development plan. (See NRCB Operational Policy 2016-7: *Approvals*, part 8.7.3.)

6. Terms and conditions

Approval LA20040 specifies the new permitted livestock capacity as 200 milking cows (plus associated dries and replacements), 35,000 chicken layers, 20,000 chicken pullets, and 750 ducks and permits the construction of the chicken layer barn.

Approval LA20040 also contains terms that the NRCB generally includes in all AOPA approvals, 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, Approval LA20040 includes conditions that:

- Set a deadline of November 30, 2023 for the approved construction to be completed
- Require the concrete used to construct the liner of the manure collection and storage portion of the layer 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”
- Require documentation that the concrete used for the manure collection and storage areas meets the required specifications.
- Prohibit Kings Lake from placing manure or livestock in the layer barn until the barn has been inspected by the NRCB following its construction

For an explanation of the reasons for these conditions, see Appendix C.

a. Conditions carried forward from previously issued permits

For clarity, and pursuant to NRCB policy, I consolidated Approval LA09014 as well as Authorizations LA19019, and LA05036A with Approval LA20040: (see NRCB Operational Policy 2016-7: *Approvals*, part 10.5). Consolidating permits generally involves carrying forward all relevant terms and conditions in the existing permits into the new permit, with any necessary changes or deletions of those terms and conditions, and then cancelling all existing permits once the new permit is issued. This consolidation is carried out under section 23 of AOPA, which enables approval officers to amend AOPA permits on their own motion.

Therefore, in addition to containing the new terms and conditions summarized above, Approval LA20040 includes all existing terms and conditions from Approval LA09014, and Authorizations LA19019, and LA05036A. Construction conditions that have been met are identified and included in an appendix to Approval LA20040.

7. Conclusion

Approval LA20040 is issued for the reasons provided above, in the attached appendices, and in Technical Document LA20040.

Kings Lake's previously issued Approval LA09014 as well as Authorizations LA19019, and LA05036A, are therefore cancelled, unless Approval LA20040 is held invalid following a review and decision by the NRCB's board members or by a court, in which case Approval LA09014 as well as Authorizations LA19019, and LA05036A will remain in effect.

December 2, 2020

(Original signed)
Joe Sonnenberg
Approval Officer

Appendices:

- A. Consistency with the municipal development plan
- B. Exemptions from water well setbacks and monitoring requirements
- C. Explanation of conditions in Approval LA20040

APPENDIX A: Consistency with the municipal development plan

Under section 20 of AOPA, an approval officer may grant an approval only if the approval officer finds that the application is consistent with the “land use provisions” of the applicable municipal development plan (MDP).

King Lake Colony’s confined feeding operation (CFO) is located in the County of Forty Mile and is therefore subject to that county’s MDP. The county adopted the latest revision to this plan on September 2009 under Bylaw 9/2009. The portions of that MDP that are applicable to this application are discussed below.

Part 3.2 of the MDP, titled “Intensive Agriculture”, is most relevant to CFOs. As relevant here, section 3.2(b) of the MDP states that, pursuant to AOPA, the county “may designate areas where confined feeding operations are to be encouraged or discouraged”. Section 3.2(c) then states that CFOs “will be excluded from the areas shown on Figure 3.1 unless otherwise approved by the County”. This section likely refers to *Map 3.1*, titled: Confined Feeding Operation Exclusions Area Map. King Lake Colony’s CFO is not within any of the exclusion zones marked on this map.

One other relevant section is 3.2(d) which states: “The County expects developers to implement those technologies that are most effective at reducing adverse effects on the environment, especially with respect to odour and groundwater contamination.” By referring to acceptable technologies rather than acceptable land uses, this section is likely not a “land use provision” and therefore is likely not relevant to my MDP consistency determination. At any rate, regulations under AOPA require a minimum distance separation to nearby residences, which is a method of reducing conflicts due to nuisance and odour. The regulations also include several requirements to protect groundwater. The application meets or exceeds all AOPA requirements and I therefore conclude that it is consistent with section 3.2(d) of the MDP.

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

The CFO is also subject to the County of Forty Mile Land Use Bylaw #10/2009 (LUB) which is referenced in the MDP. Under that bylaw, the subject land is currently zoned as Agricultural District. CFOs are not listed as either a permitted or discretionary use under this zoning. However, the general purpose of this district is “to permit activities associated with the primary production of agricultural goods and services,” which implicitly includes CFOs. In addition, Schedule B of the LUB, titled “Protection of existing confined feeding operations,” makes it clear that the county contemplates the occurrence of CFOs within the Agricultural District. Based on these provisions, I conclude that the county considered CFOs to be an acceptable land use within the Agricultural District, notwithstanding that CFOs are not expressly listed as either permitted or discretionary land uses.

APPENDIX B: Exemptions from water well setbacks and monitoring requirements

According to the application, two water wells are located within 100 metre(s) of the proposed layer barn. These two wells are already located within 100 m of an existing barn, and were originally addressed by Approval LA09014 with a condition that will be carried forward into Approval LA20040. The wells will be located approximately 35 m and 40 m from the proposed layer barn.

Because of this proximity, the applicant's proposed layer barn conflicts with a regulation under AOPA, which prohibits the construction of manure storage facilities (MSFs) within 100 metres of water wells.¹ However, the regulation allows approval officers to grant an exemption from this prohibition. I must therefore consider whether an exemption is appropriate in this instance.

Under the regulation, the test for granting an exemption is whether the "aquifer into which the well is drilled is not likely to be contaminated" by the proposed MSF. (According to the regulation, when granting an exemption, an approval officer may require the applicant to implement a "groundwater monitoring program.")

The regulation also makes it clear that the applicant has the burden of proving that an exemption is warranted.

In considering whether an applicant has met that burden, approval officers presume that the risks of direct aquifer contamination from the MSF are low if the applicant's proposed MSF meets AOPA's technical requirements to control runoff and leakage. However, when determining whether an MSF that meets AOPA's technical requirements should be exempted from the 100 metre water well setback requirement, approval officers also assess whether water wells that are less than 100 metres from the MSF could act as conduits for aquifer contamination.

Approval officers assess the following factors to determine the risk of aquifer contamination via the water well:

- How the well was constructed
- Whether the well is being properly maintained
- The distance between the well and the proposed MSF
- Whether the well is up- or down-gradient from the MSF 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.

In addition, 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 and to decide whether an exemption from the 100 metre setback to a well is warranted.² This tool consists of a two-stage risk screening process; each stage provides a

¹ Standards and Administration Regulation, Alta. Reg. 267/2001, section 7(1)(b).

² A complete description of this tool is available under CFO/Groundwater and Surface Water Protection on the NRCB website at www.nrcb.ca.

numeric risk “score” based on the information inputted into the tool. The first stage focuses on the well’s construction. If the well scores less than 10 at this stage, the tool suggests granting a setback exemption for the subject facility. If the well scores above 28, the tool recommends denying the exemption. Scores between 10 and 28 require applying the second stage of the screening process, which focuses on the gradient and other factors bearing on the risk of manure runoff or leachate reaching the water well. If the risk score at this stage is over 20, the tool suggests denying the setback exemption to the subject well.

The wells in question are upslope from the proposed MSF and the direction of groundwater flow from the MSF is assumed to be away from the wells. The wells appear to be in good condition, fitted with caps, and are well protected from damage.

Additionally, the new layer barn will be covered by a roof. According to drilling reports for the site, there is also over 60 m of clay till overlying the shallowest layers of shale. The uppermost groundwater resource is located at a depth of over 200 m.

The wells scored 20 and 8 in the first and second stages, respectively, of the risk screening process describe above.

Based on this risk score, an exemption from the 100 metre setback to these wells is warranted.

While an exemption from the 100 metre water well setback is warranted for the new layer barn, a condition requiring the applicant to test the wells has been carried forward from Approval LA09014 due to the proximity of existing barns.

APPENDIX C: Explanation of conditions in Approval LA20040

Approval LA20040 includes several conditions, discussed below, and carries forward all conditions from Approval LA09014 and Authorizations LA19019, and LA05036A

1. New conditions in Approval LA20040

a. Construction Deadline

Kings Lake proposes to complete construction of the proposed new layer barn by November 30, 2023. This time-frame is considered to be reasonable for the proposed scope of work. The deadline of November 30, 2023 is included as a condition in Approval LA20040.

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, Approval LA20040 includes a condition requiring:

- the concrete used to construct the liner of the manure collection and storage portion of the layer 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.”
- Kings Lake to provide documentation to confirm the specifications of the concrete used to construct the manure storage and collection portions of the layer barn.

The NRCB routinely inspects newly constructed facilities to assess whether the facilities were constructed according to their required design specifications. To be effective, these inspections must occur before livestock or manure are placed in the newly constructed facilities. Approval LA20040 includes a condition stating that Kings Lake shall not place livestock or manure in the manure storage portions of the new layer barn until NRCB personnel have inspected the layer barn and confirmed in writing that it meets the approval requirements.