

## Decision Summary LA20046

This document summarizes my reasons for issuing Registration LA20046 under the *Agricultural Operation Practices Act* (AOPA). Additional reasons are in Technical Document LA20046. 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.

### 1. Background

On November 4, 2020, Shady Lane Breeder Farm Inc. (Shady Lane) submitted a Part 1 application to the NRCB to establish a new 8,000 chicken layer (plus associated pullets) CFO using existing facilities. These facilities were previously used to house a below AOPA threshold goat dairy CFO. The goat dairy ceased operation and the facilities will be converted into an 8,000 chicken layer (plus associated pullets) poultry CFO. The proposal also includes the extension of one of the barns (barn 2).

The Part 2 application was submitted on November 20, 2020. On December 2, 2020, I deemed the application complete.

Under AOPA, this type of application requires a registration.

#### a. Location

The proposed CFO is located at NE 20-9-26 W4M in the Municipal District (MD) of Willow Creek, roughly six km north of the Town of Fort Macleod. The terrain is flat at the immediate site of the barns with a steep slope in the west and a sharp drop to Willow Creek in the east. Willow Creek runs approximately 95 m along the east side of the proposed CFO.

### 2. Notices to affected parties

Under section 21(1) of AOPA, the approval officer must notify all “affected parties” of a registration application. Section 5 of AOPA’s Part 2 Matters Regulation lists the categories of municipalities that are affected parties. These categories include the municipality where the proposed CFO is located. The MD of Willow Creek is an affected party under the Part 2 Matters Regulation, because the CFO is located within its boundaries.

Under section 21(1) of the act, affected parties also include owners and occupants of land that is within the “minimum distance separation” or 0.5 miles from the parcel of land where the CFO is proposed to be located, whichever distance is greater. (The NRCB refers to this distance as the “affected party radius.”)

Under section 21(3) of the act, all affected owners and occupants of land are entitled to provide written submissions regarding whether the application meets the requirements of the regulations under the act. (The NRCB interprets this section as implying that it includes municipalities. See Operational Policy 2016-7: *Approvals*, part 7.11.2.)

Under section 21(2) of the act, affected municipalities are automatically also considered “directly affected” parties. Under section 21(3), all owners or occupiers of land who are affected parties may apply for a determination as to whether they are directly affected parties. However, under NRCB policy, all affected parties 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.

All directly affected parties are entitled to request that the NRCB’s board members review the approval officer’s decision on the registration application.

The NRCB published notice of the application in the Macleod Gazette on December 2, 2020 and posted the full application on the NRCB website for public viewing. The NRCB also emailed referral letters and a copy of the application to the MD of Willow Creek; Alberta Health Services (AHS); Alberta Environment and Parks (AEP); and Alberta Transportation. Twelve courtesy letters were sent to people identified by the MD of Willow Creek 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 MD of Willow Creek, AEP, and Alberta Transportation. No response was received from AHS, individuals or other non-government parties.

Ms. Cindy Chisholm, a development officer with the MD of Willow Creek, provided a written response on behalf of the MD of Willow Creek. As noted in section 2, the MD of Willow Creek is a directly affected party.

Ms. Chisholm stated that the application is consistent with the MD of Willow Creek’s municipal development plan. The MD of Willow Creek’s other concerns are that the site might be located within an environmentally significant area of regional significance and possibly in a flood plain. Those concerns, and the application’s consistency with the MD of Willow Creek’s municipal development plan, are addressed in Appendix A, attached.

Ms. Chisholm also listed the setbacks required by the MD of Willow Creek’s land use bylaw (LUB) and noted that the application meets these setbacks.

The NRCB also received a written response from Jeff Gutsell, a hydrogeologist with AEP and Leah Olson, a development and planning technologist with Alberta Transportation.

Mr. Gutsell stated in his response that there are no existing surface or groundwater diversion authorizations for this land location. He continued to state that this CFO is within the LNID district and might therefore have access to water through the LNID. Mr. Gutsell encouraged the applicant to evaluate water availability prior to populating the barns and to contact him if additional diversions are needed. Because water allocations are solely under the jurisdiction of AEP, I will not further discuss this topic. However, a copy of this response has been forwarded to the applicant for his information and action.

In her response, Ms. Olsen stated that a permit is required from her department. Alberta Transportation’s response has been forwarded to the applicant for his information and action. The applicant has since contacted the department and a permit has been issued.

#### **4. Environmental risk screening of existing and proposed facilities**

As part of my review of this application, I assessed the risk to surface water and groundwater posed by the CFO's existing and proposed manure storage facilities. I used the NRCB's environmental risk screening tool for this purpose (see NRCB Operational Policy 2016-7: *Approvals*, part 8.13). The 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](http://www.nrcb.ca).)

All of the CFO's proposed facilities pose a low potential 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 CFO is consistent with the land use provisions of the MD of Willow Creek's municipal development plan and with the MD of Willow Creek's land use bylaw. (See Appendix A for a more detailed discussion of the county's planning requirements.)

With respect to the act's technical requirements, 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 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 chicken layer barns (existing parts and expansion) are located within the required AOPA setback from an existing water well. However, as explained in Appendix B, these barns warrant an exemption from the 100 metre water well setback due to the well's construction and location from the barns. As precaution, a condition will be added, requiring water well monitoring as discussed in Appendix B

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.

#### **6. Terms and conditions**

Registration LA20046 specifies the permitted livestock capacity as 8,000 chicken layers (plus associated pullets), permits the use of the four existing barns, and the expansion of barn #2.

Registration LA20046 also 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 LA20046 includes conditions that:

- Set a deadline of April 1, 2022 for the approved construction to be completed
- Require water well monitoring and reporting
- Require written confirmation that the concrete used for the manure collection and storage areas meets the required specifications.
- Prohibit Shady Lane from placing manure or livestock in the chicken layer barns until the extension of barn 2 has been inspected by the NRCB

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

## **7. Conclusion**

Registration LA20046 is issued for the reasons provided above, in the attached appendices, and in Technical Document LA20046.

January 22, 2021

(Original signed)  
Carina Weisbach  
Approval Officer

## **Appendices:**

- A. Consistency with the municipal development plan
- B. Exemptions from water well setbacks and monitoring requirements
- C. Explanation of conditions in Registration LA20046

## APPENDIX A: Consistency with the municipal development plan

Under section 22 of AOPA, an approval officer may approve an application for a registration only if the approval officer finds that the application is consistent with the “land use provisions” of the applicable municipal development plan (MDP).

The NRCB interprets the term “land use provisions” as covering MDP policies that provide generic directions about the acceptability of various land uses in specific areas and that do not call for discretionary judgements relating to the acceptability of a given confined feeding operation (CFO) development. (See NRCB Operational Policy 2016-7: *Approvals*, part 8.2.5.) Under this interpretation, the term “land use provisions” also excludes MDP policies that impose procedural requirements. In addition, 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.”).

Shady Lane’s CFO is located in the MD of Willow Creek and is therefore subject to that district’s MDP. The MD of Willow Creek adopted the latest revision to this plan on August 2019, under Bylaw #1841.

Section 2 – Agriculture of the MDP points out that agriculture is a predominant land use in the MD while it is important to balance other interests. It continues to state that one of the main objective of the MDP is to mitigate the siting of CFOs to minimize conflicts with adjacent land uses. Policy 2.3 than continues to state that the MD shall establish guideline with regards to the NRCB for the regulation an approval of CFOs within the MD. These guidelines are found in section 9.

Section 9.2 of the MDP directs the NRCB to consider six provisions. These are quoted below (in italics); each one is followed by my discussion of how the provision related to this application. The requested considerations are:

*(a) The cumulative effect of a new approval on any area near other existing CFO’s/ILO’s*

This policy is likely not a “land use provision,” as it calls for project-specific, discretionary judgements about the types of cumulative effects that should be considered and the acceptable maximum levels of each of those effects. For this reason, I do not consider the MDP provision to be relevant to my MDP consistency determination.

*(b) Environmentally significant areas contained in the Municipal District of Willow Creek: Environmentally Significant Areas in the Oldman River Region report*

Shady Lane proposed CFO seems to be within or very close to the Lower Willow Creek area that is designated as of provincial significance in the referenced report (Map 1 of the report). The designation is based on diverse riparian areas that serve as habitat for diverse bird communities and deer. However, the immediate location of the proposed CFO is not within the riparian area due to its elevated location in respect to the creek.

The report also assessed the planning area for major physical constraints such as flood plains, unstable slope potential, and areas of artesian flow. The map shows that the CFO site meets two of these categories for hazard: flood plain (see further discussion in (e) below) and artesian flow. There is one flowing shot hole on the northeast corner of the northwest quarter of this

section, but none are reported to be located on the quarter section where the CFO will be located.

Because the subject area is not identified as of environmental significance at a higher level, I determined that the application is consistent with this provision.

*(c) Providing notice to adjacent landowners including applications for registration or authorization*

This is likely not a “land use provision” because of its procedural focus and thus I do not consider it to be relevant to my MDP consistency determination. At any rate, as explained above, the NRCB sent out courtesy letters to people identified by the MD of Willow Creek as owning or residing on land within the affected party radius of 0.5 miles, and gave public notice in the Fort Macleod Gazette. The application therefore met the notification requirements of AOPA. (See also Operational Policy 2016-8: *Approvals*, part 6).

*(d) Applying minimum distance separation calculations to all country residential development*

I interpret “minimum distance separation” as referring to the minimum distance separation (MDS) requirements in section 3 and Schedule 1 of the Standards and Administration Regulation under AOPA. There is no country residential development located within the MDS Shady Lane’s CFO and the application meets AOPA’s MDS requirements.

*(e) Restricting development in the flood plain, floodway, the flood way fringe and flood prone, or hazard lands within or adjacent to any watercourse within the MD; and*

As discussed in Technical Document LA20014, Shady Lane’s new CFO meets the AOPA setbacks to common bodies of water but could be located in or very close to a known flood plain according to the ‘MD of Willow Creek Environmentally Significant Areas, February 1989’-report, Map 2. Because the map in this report is rather coarse, it cannot be determined in all certainty. However, in the MD of Willow Creek’s response, Ms. Chisholm acknowledged that the site is one meter above the 2014 flood level. At my site visit, I observed that there is a significant elevation difference between the creek bed and the top of the bank. In addition, there is an extended, lower laying area to the east, on the other side of Willow Creek, that significantly widens the flow channel during flood events. Based on these observations, I determined that the site is not located within the flood plain and that the application is consistent with this aspect of the provision.

*(f) Restricting development in any wetland or riparian area*

The proposed facilities in this application are already constructed facilities that have previously been used to house livestock, albeit below threshold of requiring an AOPA permit. In addition, they are not located in a wetland or riparian area. This provision is therefore met by the application.

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

In my view, the Land Use Bylaw is clearly incorporated in the MDP in several sections throughout the MDP including section 15.5 which states:

*The Development Authority shall require the NRCB to take into consideration the policies adopted in this plan and the Land Use Bylaw, when issuing an approval.*

Therefore, I also considered the application's consistency with this document. Under the MD of Willow Creek's Land Use Bylaw (#1826 consolidated to Bylaw No. 1849), the subject land is currently zoned as Rural General. CFOs are not listed as prohibited, permitted, or discretionary land use under this zoning. Ordinarily, a land use bylaw intends to preclude land uses that are not listed as permitted or discretionary (and that do not meet any other relevant criteria). However, the land use bylaw lists "intensive livestock operations" (ILOs), defined essentially as CFOs below AOPA's permit thresholds, as a discretionary use within areas zoned Rural General. Therefore, I interpret the omission of CFOs from the lists of permitted and discretionary land uses as simply the municipality's recognition that, since AOPA came into effect in 2002, the NRCB is responsible for permitting CFOs above AOPA thresholds.

As for the lot size restriction, section 2(4) of the Rural General part of the bylaw states that the "parcel size shall remain the same size for which the development approval was originally issued." Since CFOs are not listed in the LUB, it is my interpretation that the lot restrictions are intended to apply to ILOs that are permitted by the municipality, and are not intended to apply to CFOs above AOPA's permit thresholds. Apart from that, this application is for the conversion of an existing ILO (intensive livestock operation) into a CFO.

Section 3 of the Rural General part of the bylaw lists several setbacks. The proposed chicken barns meet the 75 ft road setback required under that section. For these reasons, I conclude that the application is consistent with the land use bylaw.

## **APPENDIX B: Exemptions from water well setbacks and monitoring requirements**

According to my observation, one water well is located within 58 metres of barn 4 and 98 m from barn 1.

Because of this proximity, the applicant's use of the existing barns as an above threshold CFO conflicts with a regulation under AOPA, which prohibits the use (and construction) of manure storage facilities (MSFs) within 100 metres of water wells.<sup>1</sup> However, the regulation allows approval officers to grant an exemption from this prohibition for proposed facilities before the facilities are built, not already constructed ones. I must therefore consider whether an exemption is appropriate in this instance. Although there are existing facilities (as described above), these facilities are not grandfathered and are therefore considered 'new' facilities.

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

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

warranted.<sup>2</sup> This tool consists of a two-stage risk screening process; each stage provides a 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 well in question, well 291327, is downslope from the proposed MSF and the direction of groundwater flow from the MSF is toward the well. The formation log reports two water bearing layers. The upper layer, consisting of sand and gravel, is at a depth of 2.44 m and the lower layer, consisting of gravel and boulders, at a depth of 13.72 m below ground. The well is drilled into the lower water bearing gravel and boulder layer and has a driven and bentonite seal that reaches into this layer. There is a 5.79 m thick clay layer, described as gray hard clay, between the two water bearing layers. Additional protection of the groundwater resource is provided by the concrete liner of the barns. The well is located in front of the residence and is well protected from any manure contaminated runoff reaching the well.

The well scored 8 in the first stage of the risk screening process described above.

Based on this risk score, an exemption from the 100 metre setback to this well, under section 7 of the regulation, is warranted for the proposed expansion to the barns.

While an exemption from the 100 metre water well setback is warranted, to provide further protection for users of the water well, an exemption is granted on the condition that the applicant must test the well.

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<sup>2</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 Registration LA20046**

Registration LA20046 includes several conditions, discussed below:

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

Under section 9(2) of AOPA's Standards and Administration Regulation, the bottom of a manure storage facility (MSF) must be at least one metre above the water table "at the time of construction."

Based on this information, the proposed barn extension meets the one metre requirement of sections 9(2). However, because the height of the water table can vary over time, a condition is included requiring the applicant to cease construction and notify the NRCB immediately if the water table is encountered during construction.

### **b. Water well monitoring requirement**

Although an exemption for the 100 m setback to a water well is granted, as a precaution a groundwater monitoring condition will be added requiring the permit holder to sample and test raw groundwater, according to water well monitoring requirements prescribed by the NRCB in writing. The NRCB may, based on the monitoring results and at its discretion, revise those requirements from time to time, in writing.

### **c. Construction deadline**

Shady Lane proposes to complete construction of the proposed new chicken layer barn #2 extension by April 1, 2021. This time-frame is somewhat short for the proposed scope of work. The deadline of April 1, 2021 is therefore extended to April 1, 2022 and is included as a condition in Registration LA20046.

### **d. 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, Registration LA20046 includes conditions requiring:

- Shady Lane to provide documentation to confirm the specifications of the concrete used to construct the manure storage and collection portions of the chicken layer barn extension.

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.

Registration LA20046 includes a condition stating that Shady Lane shall not place livestock or manure in the manure storage portions of the new chicken layer barn extension until NRCB personnel have inspected the chicken layer barn extension and confirmed in writing that it meets the registration requirements.