

Decision Summary LA21048

This document summarizes my reasons for issuing Authorization LA21048 under the *Agricultural Operation Practices Act* (AOPA). Additional reasons are in Technical Document LA21048. 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.

Under AOPA this type of application requires an authorization. For additional information on NRCB permits please refer to www.nrcb.ca.

1. Background

On September 21, 2021, Kasko Cattle Co. Ltd. (Kasko) submitted a Part 1 application to the NRCB to construct a stand-alone catch basin (130 m x 70 m x 2.6 m). This catch basin is intended to store catch basin contents generated at a nearby grandfathered feedlot. The site the proposed catch basin is proposed on does not have any associated permitted livestock.

The Part 2 application was submitted on September 22, 2021 and was deemed complete the same day.

a. Location

The proposed catch basin is located at NW 9-6-19 W4M in the County of Warner, roughly 4 km south of the Village of Stirling. The terrain is generally flat to slightly undulating with local runoff gathering in small depressions and sloughs.

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.

A copy of the application was sent to the County of Warner, which is the municipality where the catch basin is to be 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), Alberta Transportation, and the Raymond Irrigation District.

I received responses from AHS and Alberta Transportation. Neither raised concerns relating to the site of the proposed catch basin.

4. Municipal Development Plan (MDP) consistency

I have determined that the proposed construction is consistent with the land use provisions of the County of Warner'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 clay liners of manure storage facilities and manure collection areas

With the terms and conditions summarized in part 8, and the conditions included in Authorization LA21048, the application meets all relevant AOPA requirements.

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." The County of Warner is an affected party (and directly affected) because the proposed facility is located within its boundaries.

Mr. Shawn Hathaway, CAO of the County of Warner, provided a written response on behalf of the County of Warner. Mr. Hathaway stated that the application is consistent with the County of Warner's land use provisions in their municipal development plan and that council had no concerns with the application. The application's consistency with the County of Warner's municipal development plan is addressed in Appendix A, attached.

7. Environmental risk of facilities

As part of my review of this application, I assessed the applications ability to meet and exceed AOPA requirements. As the proposed catch basin meets or exceeds all of AOPA' requirements, I presume it poses a low risk to the environment. For discussion around the NRCB's risk screening policies see NRCB Operational Policy 2016-7: Approvals, part 8.13.

8. Terms and conditions

Authorization LA21048 permits the construction of the proposed catch basin.

Authorization LA21048 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 LA21048 includes conditions that generally address a construction deadline, document submission, construction inspection, and the potential for the water table to be encountered during construction. For an explanation of the reasons for these conditions, see Appendix B.

9. Conclusion

Authorization LA21048 is issued for the reasons provided above, in the attached appendices, and in Technical Document LA21048.

November 9, 2021

(Original signed)
Joe Sonnenberg
Approval Officer

Appendices:

- A. Consistency with the municipal development plan
- B. Explanation of conditions in Authorization LA21048

APPENDIX A: Consistency with the municipal development plan

Under section 22 of the *Agricultural Operation Practices Act* (AOPA), an approval officer may grant an application for an authorization only if the approval officer finds that the application is consistent with the land use provisions of the applicable municipal development plan (MDP).

Kasko's proposed stand alone catch basin is located in the County of Warner and is therefore subject to that county's MDP. The county adopted the latest revision to this plan in November, 1999, under Bylaw #804-99, which pre-dates Part 2 of AOPA that came into force in 2002.

As relevant here, section 4.1.5 of the MDP states that, "[i]n general, [land] uses will be encouraged to locate in areas discussed below...." Sub-section 4.1.5(c) then states that "intensive agriculture":

- [Is] generally accepted everywhere in the county within the principles of minimum distance separation and the land use bylaw, particularly in the irrigated areas of the county,
- [Should] have regard for the minimum distance separation calculation,
- [Should] ensure compliance with land use bylaw and any other regulation.

Section 4.1.5(c) relies on the county's land use bylaw (LUB), which is Bylaw #866-08 and which post-dates Part 2 of AOPA. Due to the age of the MDP, it is necessary to consider the LUB in order to interpret the municipalities planning documents. Under that bylaw, the subject land is currently zoned as Extensive Agriculture. CFOs are not listed as either a permitted, discretionary or prohibited land use under this zoning category.

Under sections 14 and 42 of the LUB, a land use is prohibited if it is not listed as either permitted or discretionary and is not "reasonably similar" to a listed permitted or discretionary land use. In fact, the LUB does not list CFOs as permitted or discretionary land uses in any other district, and the LUB expressly prohibits CFOs in four zoning districts. (See Schedule 2, prohibited uses for the following districts: Grouped Country Residential; Urban Fringe; Urban Fringe – Agriculture; and Hamlet Transitional/Agricultural.)

The LUB does not expressly allow CFOs (above the AOPA permit threshold) anywhere in the county, though several LUB provisions address the suitability of developments near existing CFOs and of dwellings on and subdivisions of, CFO lands. (See LUB, ss. 28(l), 47(c), and Sched. 4, s. 2.) This is likely because after Part 2 of AOPA came into effect in 2002, the county recognized it no longer had permitting authority. Two other LUB provisions refer to the NRCB's authority over CFOs above the AOPA permit threshold. (LUB Sched. 13, ss. 2(b) and 3(a). Kasko's proposed construction is not precluded by any of these CFO-specific provisions, and it meets the LUB setbacks that are applicable to any type of development.)

Viewed together, these LUB omissions and references to CFOs suggest that the county did not intend to preclude CFOs in the Extensive Agriculture district. Rather, the county omitted listing CFOs as either permitted/discretionary or prohibited, simply due to the county's recognition that, after AOPA came into effect, the county no longer had permitting authority over CFOs. This interpretation is supported by the first bullet in section 4.1.5(c) of the MDP which states that "intensive agriculture" is generally "accepted everywhere in the county..." This statement would be meaningless if the county had meant to preclude CFOs in the Extensive Agriculture district, because that district comprises the vast majority of the lands in the county.

Two of the bullets in section 4.1.5(c) of the MDP refer to the “minimum distance separation” (MDS). The MDP does not define this term, so it is reasonable to define it by reference to the MDS requirements under AOPA. As noted in part 5 above, the proposed construction meets these MDS requirements.

The third bullet in section 4.1.5(c) refers to compliance with “any other regulation.” This is likely not a “land use provision,” for purposes of the MDP consistency requirement under AOPA. At any rate, no party, including the county, has identified “any other regulation” that has not been met.

For these reasons, I conclude that the application is consistent with the land use provisions of the County of Warner’s MDP, and with the county’s LUB. This conclusion is supported by the county’s response to the referral letter.

APPENDIX B: Explanation of conditions in Authorization LA21048

Authorization LA21048 includes several conditions, discussed below:

a. Construction above the water table

Section 9(2) 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 available information, the proposed catch basin likely meets the one metre requirement of section 9(2). However, because the height of the water table can vary over time, a condition is included requiring Kasko to cease construction and notify the NRCB immediately if the water table is encountered during construction.

b. Groundwater protection requirements

Kasko proposes to construct the catch basin with a 1 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, Kasko 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 one metre thick compacted soil liner must not be more than 5×10^{-7} cm/sec.

In this case, the lab measurement was 4.73×10^{-8} cm/sec. With the required ten-fold modification, the expected field value is 4.73×10^{-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 assurance that the as-built catch basin adequately protects groundwater, Authorization LA21048 includes a condition requiring Kasko to provide a completion report certifying that the catch basin was constructed with the protective layer material as that used for hydraulic conductivity testing and that the catch basin was constructed according to the proposed procedures and design specifications.

c. Construction Deadline

Kasko proposes to complete construction of the proposed new catch basin by December 30, 2022. This time-frame is considered to be reasonable for the proposed scope of work. The deadline of December 30, 2022 is included as a condition in Authorization LA21048

d. Post-construction inspection and review

The NRCB's general practice is to include conditions in new permits to ensure that the new or expanded facilities are constructed according to the required design specifications. Accordingly, Authorization LA21048 includes conditions requiring:

- a. Kasko to provide a completion report certifying that the catch basin was constructed with the same liner material as that used for hydraulic conductivity testing and that the catch basin was constructed according to the proposed procedures and design 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 manure impacted runoff is placed in the newly constructed facility. Authorization LA21048 includes a condition stating that Kasko shall not place manure contaminated runoff in the catch basin until NRCB personnel have inspected the catch basin and confirmed in writing that it meets the authorization requirements.