

## Decision Summary RA21012

This document summarizes my reasons for issuing Approval RA21012 under the *Agricultural Operation Practices Act* (AOPA). Additional reasons are in Technical Document RA21012. 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 approval. For additional information on NRCB permits please refer to [www.nrcb.ca](http://www.nrcb.ca).

### 1. Background

On February 2, 2021, Meint Rispens on behalf of Diamond M Dairy Ltd., submitted a Part 1 application to the NRCB to expand an existing dairy CFO. The Part 2 application was submitted on February 9, 2021. On February 17, 2021, I deemed the application complete.

The proposed CFO expansion involves:

- Increasing livestock numbers from 225 to 300 milking cows (plus associated dry cows and replacements)
- Constructing an addition to the lactating dairy barn (45.7 m x 18.3 m) and a connecting alley

The connecting alley is an “ancillary structure,” under section 1(1)(a.1) of the *Agricultural Operations, Part 2 Matters Regulation*, because it will not be used to store or collect manure or to confine livestock. Rather, it will act as an extension to the parlour’s holding area. Therefore, under section 4.1 of that regulation, this structure does not need to be permitted under the act.

#### a. Location

The existing CFO is located at SE 8-43-26 W4M in Ponoka County, roughly 9 km west of Ponoka, Alberta. The terrain of the site slopes to the east, towards the Battle River, which is located approximately 390 m from the CFO.

#### b. Existing permits

As the CFO existed on January 1, 2002, the CFO is grandfathered with a deemed registration under section 18.1 of AOPA. That deemed permit allows for the construction and operation of a CFO with a capacity of 140 milking cows (associated replacements and dries also allowed on site). The determination of the CFO’s deemed permit status under section 18.1 of AOPA is explained in Decision Summary RA11002 and in Technical Document RA13035. The deemed facilities are listed in the appendix to the Approval RA14034.

To date, the NRCB has issued multiple permits. Prior to the issuance of Approval RA14034 (on January 15, 2015) the NRCB issued Authorizations RA11002 and RA13035 (on April 29, 2011 and March 20, 2014, respectively). Approval RA14034 cancelled those two prior authorizations but not the deemed registration. Since Approval RA14034 was issued, the NRCB has also issued Authorizations RA15028, RA16018 and RA18042 on June 12, 2015, July 11, 2016 and

July 24, 2018, respectively. Collectively, these NRCB permits and the deemed registration allow Diamond M Dairy to construct and operate a 225 milking cow dairy (with associated replacements and dries also allowed on site) CFO. The CFO's existing NRCB permitted facilities are listed in the Approval RA14034 and Authorizations RA15028, RA16018 and RA18042. A comprehensive listing of the permitted facilities will be included in the Appendix to Approval RA21012.

## **2. Notices to affected parties**

Under section 19 of AOPA, the NRCB notifies (or directs 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:

- 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 person or municipality entitled to divert water from that body within 10 miles downstream
- the municipality where the CFO is located 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 persons who own or reside on land within a specified distance from the CFO, depending on the size of the CFO

For the size of this CFO the specified distance is one mile. (The NRCB refers to this distance as the "affected party radius.")

A copy of the application was sent to Ponoka County, which is the municipality where the CFO is located.

The NRCB gave notice of the application by public advertisement in the Ponoka News on February 17, 2021. The full application was made available for viewing on the NRCB website for public viewing. As a courtesy, 37 letters were sent to people identified by Ponoka County as owning or residing on land within the affected party radius.

## **3. Notice to other persons or organizations**

Under section 19 of AOPA, 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). I also sent a copy of the application to Fortis Alberta Inc., and Gull Lake Deer Creek Gas Coop.

Mr. Gordon Watt, an executive officer/public health inspector with AHS, provided several comments related to the protection of water wells including that any abandoned or un-used wells should be properly decommissioned. He commented that appropriate control measures should be implemented to prevent potential nuisances from impacting nearby residences and businesses, and that deceased livestock should be disposed of in accordance with the Nuisance and General Sanitation Regulations 2003, and any other applicable legislation.

Ms. Laura Partridge, a senior water administration officer with AEP, indicated that additional

licensing is required for the proposed expansion. She did not raise concerns with this application.

I did not receive a formal response from AF, Fortis Alberta Inc., or the Gull Lake Deer Creek Gas Coop.

#### **4. Alberta Land Stewardship Act (ALSA) regional plan**

Section 20(10) of AOPA requires that an approval officer must ensure the application complies with any applicable ALSA regional plan; there is no ALSA regional plan for the area where the CFO is located.

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

I have determined that the proposed CFO expansion 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.)

#### **6. AOPA requirements**

With respect to the technical requirements set out in the regulations, the proposed CFO expansion:

- Meets the required AOPA setbacks from nearby residences, with two exceptions (AOPA setbacks are known as the "minimum distance separation" requirements, or MDS). The owners of those residences have signed written waivers of the MDS requirement to their residences
- 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 and manure collection areas

With the terms and conditions summarized in part 11, the application meets all relevant AOPA requirements with one exemption. That exemption is required to address the AOPA requirements around water well setback requirements that are discussed in part nine and Appendix D of this decision summary.

#### **7. Responses from municipality and other directly affected parties**

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 CFO is located within its boundaries.

I did not receive a response to this application from Ponoka County. The application's consistency with the land use provisions of Ponoka County's municipal development plan is addressed in Appendix A, attached.

Apart from municipalities, any member of the public may request to be considered “directly affected.” The NRCB received responses from four parties consisting of seven individuals and one company.

I was able to reliably determine that two of these parties own or reside on land within the one mile notification radius for affected persons. Because of their location within this radius, and because they submitted a response, they qualify for directly affected party status. (See NRCB Operational Policy 2016-7: Approvals, part 6.2.)

Two of the responding parties did not provide the location of their land ownership and I was unable to confirm if they own or reside on land within the one mile radius for affected persons. Because of this, I am considering neither of these parties to be directly affected by this application. Appendix B sets out my reasons for determining which respondents are directly affected.

The directly affected parties raised concerns regarding water supply and quality, cumulative effects of multiple CFO in the area, manure stockpiling and spreading, municipal roads (along with people and vehicles using them), setback distances to residences, the location of proposed facilities, and the adequacy of rules for this CFO. These concerns are addressed in Appendix C.

The NRCB also considers a person who owns a residence within the MDS of the CFO, and who waives the MDS requirements in writing, to be automatically considered a directly affected (See NRCB Operational Policy 2016-7: Approvals, part 6.2). Eric and Jessica Loveseth and Raymond Cook have provided MDS waivers and are directly affected parties.

## **8. Environmental risk of CFO facilities**

When reviewing a new approval 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 Diamond M Dairy’s existing CFO facilities were assessed in 2014, 2015, 2016, and 2018 using the ERST. According to those assessments, the facilities all pose a low potential risk to surface water and groundwater, with exception to the young stock / heifer pens. Those pens pose a moderate potential risk to surface water and a low potential risk to groundwater. The permit holder was required to submit a written plan to address the potential risk posed by the pen’s to surface water as part of Approval RA14034. The permit holder already has submitted a plan to address the potential risk to surface water. That plan was reviewed by the NRCB, and has already been implemented. Because of this, additional actions are not warranted at this time.

The circumstances have not changed since those assessments were done. As a result, a new assessment of the risks posed by the CFO's existing facilities is not required.

I assessed the lactating cow barn, including its proposed addition. The barn poses a low potential risk to surface water and groundwater.

## 9. Exemptions

I determined that the proposed barn addition is located within the required AOPA setback from two water wells. As explained in Appendix D, an exemption to the 100 m water well setback is warranted due to the barn's location relative to the water wells and how those wells are constructed.

## 10. Other factors

Because the approval application is consistent with the MDP land use provisions, and meets the requirements of AOPA and its regulations, I also considered other factors.

AOPA requires me to consider matters that would normally be considered if a development permit were being issued. The NRCB interprets this to include aspects such as property line and road setbacks related to the site of the CFO. (Grow North, RFR 2011-01 at page 2). Approval officers are limited to what matters they can consider, though, as their regulatory authority is limited. Accordingly, I considered the property line setbacks required by Ponoka County's land use bylaw (LUB). I note that the application meets those setbacks.

The AOPA requires me to consider the effects a proposed CFO or CFO expansion has on natural resources administered by provincial departments. To this end I referred the application to AHS, AEP and AF and the right of way holders noted in part three above. I have received responses from AHS and AEP, neither of which were opposed to the proposed application.

Based on the response from the AEP representative whom I have corresponded with for this application, I am not aware of any statements of concerns for this CFO that were submitted under section 73 of the Environmental Protection and Enhancement Act or section 109 of the Water Act in respect of the subject of this application.

I am not aware of any written decisions before the Environmental Appeals Board (<http://www.eab.gov.ab.ca/status.htm>, accessed April 28, 2021). Further, I am not aware of any written decisions before a director under the Water Act based on my correspondence with representatives of AEP related to this application.

Finally, I considered the effects of the proposed CFO expansion on the environment, the economy, and the community, and the appropriate use of land.

Consistent with NRCB policy (Approvals Policy 8.7.3), I presumed that the effects in the environment are acceptable because the application meets all of AOPA's technical requirements. In my view, this presumption is not rebutted and the directly affected parties' concerns have been addressed (see discussion in Appendix C).

Consistent with NRCB policy (Approvals Policy 8.7.3), if the application is consistent with the MDP then the proposed development is presumed to have an acceptable effect on the economy and community. In my view, this presumption is not rebutted and the directly affected parties'

concerns have been addressed.

I also presumed that the proposed CFO expansion is an appropriate use of land because the application is consistent with the land use provisions of the municipal development plan (See NRCB Operational Policy 2016-7: Approvals, part 8.7.3.). In my view, this presumption is not rebutted.

## **11. Terms and conditions**

Approval RA21012 specifies the total permitted livestock capacity as 300 milking cows (plus associated dry cows and replacements) and permits the construction of the lactating cow barn addition.

Approval RA21012 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 RA21012 includes conditions that generally address construction deadlines, document submission and construction inspection. For an explanation of the reasons for these conditions, see Appendix E.

For clarity, and pursuant to NRCB policy, I consolidated the deemed registration, Approval RA14034 and Authorizations RA15028, RA16018, and RA18042 with Approval RA21012 (see NRCB Operational Policy 2016-7: Approvals, part 10.5). Permit consolidation helps the permit holder, municipality, neighbours and other parties keep track of a CFO's requirements, by providing a single document that lists all the operating and construction requirements. 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. This consolidation is carried out under section 23 of AOPA, which enables approval officers to amend AOPA permits on their own motion. Appendix E discusses which conditions from the historical permits are or are not carried forward into the new approval.

## **12. Conclusion**

Approval RA21012 is issued for the reasons provided above, in the attached appendices, and in Technical Document RA21012.

Diamond M Dairy's deemed registration and NRCB-issued Approval RA14034 and Authorizations RA15028, RA16018, and RA18042 are therefore cancelled, and their content consolidated into this Approval RA21012, unless Approval RA21012 is held invalid following a review and decision by the NRCB's board members or by a court, in which case the previous permits will remain in effect.

April 29, 2021

(Original Signed)  
Jeff Froese  
Approval Officer

## **Appendices:**

- A. Consistency with the municipal development plan
- B. Determining directly affected party status
- C. Concerns raised by directly affected parties
- D. Exemptions from water and well setbacks
- E. Explanation of conditions in Approval RA21012

## APPENDIX A: Consistency with the municipal development plan

Under section 20 of AOPA, an approval officer may only approve an application for an approval or amendment of an approval 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 20(1.1) 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.)

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

Section 2 of the MDP contains 11 numbered “policies” relating to CFOs. Of these, policies 2.7, 2.9, 2.10 and 2.11 are not relevant to this application as they apply to matters under the County’s regulatory mandate not the NRCB’s under the AOPA. The remaining policies in section 2 are discussed below.

Under policy 2.1, the county “encourages” the development of CFOs to add value to crop production and provide “more employment and income per acre of land.” However, the policy also states that the environment and neighbours’ rights “must be protected.” This policy likely isn’t a relevant “land use provision” because it relates broadly to economic development, not CFO siting. Regardless, it provides a general context for interpreting and applying the other policies in section 2.

Policy 2.2 states that it’s the county’s belief that “very large CFOs are inappropriate in this part of Alberta, and requests the NRCB not to allow them here (in Ponoka County).” This policy defines “very large” as “more than ten times” the threshold for approvals in the Part 2 Matters Regulation under AOPA. In this case, the threshold for approvals for dairies are 200 milking cows, so a “very large” dairy CFO in Ponoka County would have at least 2,000 milking cows. This application proposes an increase in livestock from 225 to 300 milking cows (plus associated dry cows and replacements). This does not fit the definition of a “very large” CFO as set out in policy 2.2; the CFO is therefore consistent with this policy.

Policy 2.3 has two parts. The first part states that no *new* CFO shall be established within specified distances to itemised urban developments, watersheds and land within a CFO exclusion zone in an Area Structure Plan (ASP) that has been adopted by bylaw (this CFO is located within Ponoka County’s North-West Ponoka Area Structure Plan which is discussed below). This application is for an expansion at an existing one. For this reason, this part of this policy is not applicable to this application. Regardless, the CFO is not located within the specified distances to the specified urban developments or water sheds.

The second part of policy 2.3 of the MDP calls for “very strict” conditions on manure handling and storage in the Chain Lakes and Maskwa Creek watersheds. This CFO is not located within either of these watersheds. Further, this policy likely is not a “land use provision” because it calls for discretionary judgements about what conditions are “very strict.” In addition, section 20(1.1) of AOPA precludes me from considering MDP provisions “respecting tests or conditions related to the construction of or the site for a confined feeding operation or manure storage facility” and regarding the land application of manure. Even if I did consider this provision, the proposed barn addition meets AOPA’s technical requirements for manure handling and storage and, in my opinion, those requirements are considered to be “very strict.”

Policy 2.4 calls for the NRCB to “set strict rules for the timely incorporation of manure within a mile of any urban municipality or rural residence.” Section 20(1.1) of AOPA precludes me from considering this policy because it relates to the land application of manure. The regulations under AOPA regulate the manure application process, including timely incorporation in specified circumstances (see section 24 of the Standards and Administration Regulation which sets out the manure incorporation requirements under AOPA for different cropping methods).

Policy 2.5 precludes the siting of CFOs within two miles of “any lake” unless the “regulators” are “convinced” that the CFO’s manure management system is “fail-safe” and the CFO poses “no reasonable risk of contamination of the lake.” This existing CFO is not located within two miles of lakes identified in the county’s Land Use Bylaw maps, the North-West Ponoka Area Structure Plan’s maps or MDP.

Policy 2.6 states that CFOs “should not be established or expanded” where there is “any risk that runoff will contaminate domestic water supplies.” This policy likely is not a “land use provision” because it calls for discretionary judgements about acceptable risks. (The policy’s “any risk” test is a low risk threshold, but I read the threshold as more than “minor” or “insignificant.”) The proposed facility meets AOPA’s operational and design requirements, which are designed to minimize the risks to surface water and groundwater. For this reason, this policy is not applicable to this application.

Policy 2.8 applies to new CFOs and uses, but essentially modifies, AOPA’s MDS requirements by measuring the AOPA-derived minimum distance of separation to the edge of an adjacent landowner’s property. This application is not for a new CFO and therefore policy 2.8 is not applicable to this application.

Based on the above, I conclude that the application is not inconsistent with the land use provisions of the Ponoka County’s MDP.

Based on direction in Policy 2.3 of the county’s MDP, discussed above, I reviewed the county’s North-West Ponoka Area Structure Plan. The apparent intent of the ASP is to address conflicting land uses, largely confined feeding operations and incompatible other existing and future land uses. Strategy three of section seven (the plan’s suggested strategy) and Map 5 breaks the plan into two areas. The first is where no new CFOs are allowed, but where existing ones can continue to expand. The second is where new CFOs are allowed and existing ones are allowed to expand. This CFO is located in an area where new CFOs are allowed and existing ones can expand.

In my view, the text of Ponoka County’s MDP also provides a clear intent to incorporate the land use bylaw (LUB), in sections 1.4, 1.6, 4.10, 10.3, 12.1, 17.5 and in Appendix A. Following the NRCB Operational Policy 2016-7: *Approvals*, part 8.2.3, I also considered Ponoka County’s

LUB 7-08-LU. Under that bylaw, the subject land is currently zoned Agricultural (AG). 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 this decision summary, the CFO already holds permits under the AOPA.

## **APPENDIX B: Determining directly affected party status**

The following individuals qualify for directly affected party status because they submitted a response to the application and they own or reside on land within the “affected party radius,” as specified in section 5(c) of the Agricultural Operation, Part 2 Matters Regulation (see NRCB Operational Policy 2016:7 – Approvals, part 6.2):

Bert and Melanie Vleeming (Deer Ridge Holdings), who submitted two responses to the application  
NE 5-43-26 W4M

Robert and Shelagh Hagemenn  
NE 6-43-26 W4M

A person who is not specified in section 5 of the Part 2 Matters Regulation as an affected party can also qualify for directly affected party status. However, they have the burden to demonstrate they are directly affected by the application. The following individuals that submitted a response to the application may fall under this category:

Dan and Cynthia Jensen  
Location of landholding not specified in response to application

Dutchies Welding Ltd. (who submitted three responses to the application)  
Location of landholdings not specified in responses to application

Under NRCB policy, a person has the burden of demonstrating that they are directly affected by an application. In order to meet their burden of proof, the person has to demonstrate all the following five elements (see NRCB Operational Policy 2016:7 – Approvals, part 6.3):

1. A plausible chain of causality exists between the proposed project and the effect asserted;
2. The effect would probably occur;
3. The effect could reasonably be expected to impact the party;
4. The effect would not be trivial; and
5. The effect falls within the NRCB regulatory mandate under AOPA.

The Jensens and Dutchies Welding raised concerns related to:

traffic and behavior on roads, deteriorating road conditions, safety and adequacy of manure spreading equipment, water supply and quality, manure stock piling and spreading, bones in fields, and past concerns with the CFO and its operation

The NRCB does not hold regulatory mandate over traffic on road ways, how a person or persons drive on roads, safety of manure spreading equipment, water quality or quantity or the disposal of deceased livestock (bones in fields). Since these concerns fall beyond the regulatory mandate of the NRCB under the AOPA they will not be discussed further. Despite this, I forwarded these concerns on to representatives of Ponoka County, Alberta Environment and Parks, and Alberta Agriculture and Forestry for their information.

The NRCB holds regulatory authority for manure stockpiling and spreading under AOPA. Despite this, the Jensen’s and Dutchies Welding have not provided me with the specific location

of their residence(s) or landholding(s) relative to the CFO. Based on this, I am unable to establish a chain of causality between the proposed CFO expansion and their concerns that fall within the NRCB's mandate. In addition, the Jensens or Dutchies Welding have not demonstrated that the above concerns would occur or worsen due to an expansion of the CFO, or that the concerns are more than trivial. Using the above factors, I conclude that the Jensens and Dutchies Welding have not met the requirements of the test to be considered directly affected parties.

## APPENDIX C: Concerns raised by directly affected parties

In accordance with the NRCB's Approvals Policy (Operational Policy 2016-7, part 7.4) I provided the applicant with a copy of the responses to the application on March 19, 2021. When I forwarded the responses to the applicant, I provided him with an opportunity to respond. Later in the day on March 19, 2021 Meint and Marjolein Rispens sent me an email indicating that they would not be responding the responses to their application.

The below tables summarize the claimed effects or concerns expressed in response to this application along with identifying the parties who expressed them. My discussion of and conclusions on those concerns follow each set of concerns.

Claimed effect(s) or concern(s)	Respondent(s)
1. Well water supply and quality	B&M Vleeming, R&S Hagemann

### Approval Officer's conclusions

1. The NRCB's Approvals Policy (Operating Policy 2016-7, part 8.10) states that approval officers will not consider water supply concerns when reviewing an AOPA application other than ensuring that the applicant signs a Water Act declaration in their Part 2 application. In this case, the applicant signed a declaration that they want their AOPA application processed separately from the requirements of licensing under the Water Act.

That same part of the Approvals Policy states that water supply related concerns will be forwarded to Alberta Environment and Parks (AEP). I forwarded AEP copies of the concerned responses to this application.

Ms. Laura Partridge, a senior water administration officer with AEP, informed me after I provided her with copies of the responses to the application that an application for additional licensing under the Water Act had been submitted. Ms. Partridge went on to say that there would be an opportunity for the public to submit responses under the *Water Act* after the notice of application for the license was published.

Claimed effect(s) or concern(s)	Respondent(s)
2. Cumulative effect of multiple CFOs owned by same family in area, is adequate land base available for manure spreading	B&M Vleeming, R&S Hagemann

### Approval Officer's conclusions

2. AOPA does not expressly require approval officers to consider the cumulative effects of proposed developments together with those of other existing CFOs or other activities in the area, and the NRCB's Board members have directed approval officers to ignore cumulative effects in their permitting decisions. For example, in a 2011 decision, the Board stated that consideration of cumulative effects is "not within the Board's regulatory mandate. As a statutory decision maker, the Board takes its direction from the authorizing legislation. AOPA does not provide for cumulative effects assessment." (Zealand Farms, RFR 2011-02 at 5.)

Section 24(3) of the Standards and Administration Regulation (SAR) provides four options for nutrient and manure management. This application opted for the fourth option, where an applicant seeks to satisfy an approval officer that they have access to sufficient land base to apply their manure for the first year following the granting of the application.

For this application 279 hectares of land in the black soil zone is required for manure spreading. The applicant has provided information in their application, and a later submitted a manure spreading agreement, indicating that they have access to 355 hectares of land (in the black soil zone) for manure spreading. I reviewed air photos of the proposed manure spreading lands and calculated the available area to account for setbacks to bodies of water, residences, and related features that would be challenging for manure spreading. I identified that 280 hectares of the proposed 355 hectares are available for manure spreading. Based on this, the application meets the land base requirement in section 24(3) of the regulation.

Claimed effect(s) or concern(s)	Respondent(s)
<p><b>3.</b> Manure stock piling and methods of manure spreading, direct injection should be used, manure has not been incorporated within 48 hours of spreading, ignorance of setbacks to residences, water ways, manure has been spread on frozen or snow covered land, manure spreading land should not be used by multiple CFOs</p>	<p>B&amp;M Vleeming, R&amp;S Hagemann</p>

Approval Officer’s conclusions

**3.** AOPA and the SAR do not require the direct injection of liquid manure. Section 27(1) of the SAR protects surface water by requiring a person who spreads liquid manure to keep that manure, and manure impacted runoff, on the land to which the manure was applied (the manure cannot enter a common body of water). Section 24(1) requires manure to be incorporated within 48 hours of application unless doing so would be impracticable (i.e. not able to do so due to extreme weather, essential equipment break down and unable to acquire replacement equipment). Despite this, section 24(5) allows for manure to be applied without incorporation on directly seeded crops (provided that the application occurs at least 150 m from residences). Section 24(7) allows for manure to be applied on frozen or snow covered land (provided that the NRCB grants permission to do so in advance). It should be noted that permission is not typically given outside of exceptional circumstances. Sections 24(9 and 10) lay out required setbacks for manure application in relation fo common bodies of water and water wells; those setback requirements need to be followed.

AOPA and the SAR do not prohibit multiple CFOs from applying manure to the same parcel of land, but it does have nutrient management limits (schedule 3 to the SAR).

Section 5 of the SAR states that short term manure storages can only be used for a brief period (a maximum of seven months in three years). They must be located away from residences (more than 150 metres), out of flood plains, and water bodies (required setback distances are based on the slope of the land towards the water body). If a short term solid manure storage is used, the requirements of this section must be followed.

When followed, all of these AOPA requirements provide protection to environment from short term manure storages, manure spreading, and manure impacted runoff from fields, and over sturation of soil with nutrients from manure.

If a person or party has concerns regarding manure storages, spreading or other CFO-related issues, those concerns can be reported to the NRCB's 24 hour response line (1-866-383-6722) and that call will be followed up on by an NRCB inspector within 24 hours. Neighbours can also call any NRCB office during regular business hours if they have questions about permit conditions or ongoing AOPA operational requirements.

Claimed effect(s) or concern(s)	Respondent(s)
4. Condition of county roads deteriorating due to tractors and manure spreading tanks, associated noise and dust.	B&M Vleeming, R&S Hagemann

Approval Officer's conclusions

4. As noted in the previous appendix, the NRCB does not hold regulatory mandate over traffic on road ways, noise on road ways or associated dust. Since these concerns fall beyond the regulatory mandate of the NRCB under the AOPA they will not be discussed further. Despite this, I forwarded these concerns on to representatives of Ponoka County who hold regulatory mandate over county roads.

Claimed effect(s) or concern(s)	Respondent(s)
5. The minimum distance separation requirement of AOPA should consider local climatic conditions such as prevailing wind directions and updrafts from a river valley.	B&M Vleeming

Approval Officer's conclusions

5. Schedule 1 to the SAR relates to minimum distance separation (MDS) especially how it is measured and calculated. Section 2 of schedule 1 states that MDS is measured from the outside wall of a neighbouring residence to the closest point on a manure storage facility or manure collection area. As applicable here, the distance from the northwest side of the Vleeming residence to the southeast side of the CFO's heifer pen is 655 m. The calculated MDS under section 2(a) of schedule 1 for this residence is 405 m. The CFO exceeds the MDS setback requirement to the Vleeming residence by over 60%.

Section 5(2) of schedule 1 to the SAR discusses a dispersion factor which is part of the MDS calculation. If a dispersion factor other than 1.0 is applied in the MDS calculation the increase or decrease must account for unique conditions such as topographic features and their effect of air dispersion, the effect of natural or constructed screens on wind, and micro-climate.

The Vleemings have stated that there is an updraft from the Battle River valley. They have also stated that strong winds from the northwest direct odours from the CFO to their residence. They suggested that these factors could warrant an expanded MDS to their residence. They have not included specific information to support their claims with their written response to the application's public notice.

Section 5(1) of the schedule states that "[u]nless information is provided to establish otherwise ... the dispersion factor must equal 1.0." Based on the above, I am of the opinion that sufficient information to support the Vleeming's claim has not been provided. For this reason, I am of the

opinion that the Vleeming's have not provided adequate information for me to consider modifying the 1.0 dispersion factor, part of the MDS calculation. As noted previously, the CFO exceeds the required MDS distance by over 60%.

Claimed effect(s) or concern(s)	Respondent(s)
6. No barns, stock yards, or manure storages should be considered to the south of the current operation.	B&M Vleeming

Approval Officer's conclusions

6. In Application RA21012 no barns, stock yards, or manure storages are proposed south of the existing manure storage facilities and manure collection areas at the CFO. The proposed barn addition is to be located on the west side of the existing lactating cow barn (also referred to as the milking barn). If a future application should be filed, I will have to consider that proposal if and when it is filed based on the requirements in effect at that time.

Claimed effect(s) or concern(s)	Respondent(s)
7. this is not a family farm, rather a commercial business and should have applicable restrictions.	R&S Hagemann

Approval Officer's conclusions

7. The AOPA applies to all CFOs, above its permitting thresholds, regardless to ownership (it does not distinguish between family or commercially run operations). The proposed barn addition and CFO expansion meets AOPA requirements with two exceptions (the MDS waivers noted in part seven of this decision summary and the water well setback exemption in the following appendix).

## APPENDIX D: Exemption water well setbacks

The proposed barn addition is to be located less than 100 m from two water wells. I have confirmed this during a site visit and through review of scaled air photos. 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), or if required by an approval officer a groundwater monitoring program is implemented.

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 barn addition, a MSF and 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.

Based on information provided by the applicant and from the Alberta Environment and Parks (AEP) water well database, the water well located approximately eight metres west of the proposed barn addition is likely AEP water well ID 86807. The one 75 m west of the proposed barn addition is likely ID 2088656. Both of these wells are upgradient of the barn addition and have above ground casings.

AEP water well ID 86807 is reported to have been installed in 1974 and has a perforated or screened zone from 61.0 m to 76.2 m below ground level across shale and sandstone layers. This well is reported to be used for domestic purposes. The well’s log identifies protective layer of cemented sand and gravel from 9.1 m to 27.4 m below ground level. The well has a driven seal at an unspecified depth. The well appeared to be in good condition at the time of my site inspection. It was located in an area outside of traffic but did not have any other protection. The well is up-gradient of the proposed barn addition.

AEP water well ID 2088656 is reported to have been installed in 2014 and has a perforated or screened zone from 62.8 m to 74.7 m below ground level across shale and sandstone layers. This well is reported to be used for non-domestic purposes. The well's log identifies protective layers from ground surface of sandy clay and rocks from 4.7 m to 6.7 m and 8.2 m to 11 m below ground level. The well has a bentonite seal from ground surface to 61 m, two shale traps at 60.4 m and 61 m and a drive shoe at 43.6 m. The well appeared to be in good condition at the time of my site inspection and was located next to a drive way that serviced the residence at the CFO.

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 likely as seen in Technical Document RA21012.

Based on the above, I am prepared to grant an exemption to the 100 m water well setback requirement for the dairy barn addition.

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1. 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 E: Explanation of conditions in Approval RA21012**

Approval RA21012 includes several conditions and deletes one condition from Approval RA14034 (see section 2 of this appendix). Construction conditions from historical permits that have been met are identified in the appendix to Approval RA21012.

### **1. New conditions in Approval RA21012**

#### **a. Construction deadline**

Diamond M Dairy proposes to complete construction of the proposed new barn addition by January 15, 2024. This time-frame is considered to be reasonable for the proposed scope of work. The deadline of January 15, 2024 is included as a condition in Approval RA21012.

#### **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 RA21012 includes conditions requiring Diamond M Dairy to provide evidence or written confirmation from a qualified third party that the concrete used to construct the manure collection and storage portion of the barn addition is sulphate resistant and:

- a. has a minimum 56-day compressive strength of 30 MPa in scrape alleys, and;
- b. has a minimum 56-day compressive strength of 32 MPa in pits

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. Approval RA21012 includes a condition stating that Diamond M Dairy shall not place livestock or manure in the barn addition until NRCB personnel have inspected the barn addition and confirmed in writing that it meets the approval requirements.

### **2. Conditions not carried forward from Approval RA14034**

Approval RA14034 included conditions related to the construction of a solid manure storage pad. That pad was not constructed and the applicant has previously indicated that this facility will not be constructed.

Pursuant to section 23 of AOPA (approval officer amendments), I have determined that conditions 2a and 2b (below) from Approval RA14034 should be deleted and therefore are not carried forward to Approval RA21012.

From Approval RA14034:

2. Concrete solid manure storage pad
  - a. The permit holders shall complete construction of the manure collection and storage portions of the concrete solid manure storage pad prior to November 30, 2016. Upon request, this deadline may be extended by the NRCB in writing.
  - b. The permit holders shall not place manure on the concrete solid manure storage pad until the NRCB has inspected the pad.