

Decision Summary RA20032

This document summarizes my reasons for issuing Approval RA20032 under the *Agricultural Operation Practices Act* (AOPA). Additional reasons are in Technical Document RA20032. 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 June 10, 2020, Hutterian Brethren Church of Starland (Starland Colony) submitted a Part 1 application to the NRCB to construct a new dairy confined feeding operation (CFO). The Part 2 application was submitted on June 11, 2020. On June 17, 2020, I deemed the application complete.

The proposed CFO involves:

- Permitting 200 milking cows (plus associated dries and replacements)
- Constructing a dairy barn with an attached bull barn and pump room (165.4 m x 43.8 m)
- Constructing a dry cow shed (176.8 m x 57.9 m)
- Constructing a synthetically lined liquid manure storage facility (96 m x 42 m x 4.9 m)

Under AOPA, this type of application requires an approval.

Starland Colony's previously existing dairy barn, located approximately 15 kilometres north east of Morrin, Alberta, was lost to a fire in December, 2019. This application is to reconstruct that facility at a new location.

Starland Colony had previously applied for these facilities on a different land location approximately 1.1 km to the north east under application RA20001. Starland Colony withdrew this application before a decision was issued.

a. Location

The proposed CFO is located at NW 15-33-21 W4M in Starland County, roughly 3.6 km southwest from Rumsey, Alberta. The terrain is undulating. Several wetlands and water bodies are identified on the proposed site, with the closest common body of water (Feature "A" in Technical Document RA20032) located approximately 218 metres south west of the synthetically lined liquid manure storage, which is the closest proposed facility.

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 persons 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 0.5 miles. (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. Starland County is an affected party (and therefore also a directly affected party) because the proposed CFO 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 Drumheller Mail on June 17, 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 Starland County, Alberta Health Services (AHS), Alberta Environment and Parks (AEP), Alberta Agriculture and Forestry (AF), and Canadian Natural Resources Limited (CNRL). Six courtesy letters were sent to people identified by Starland County as owning or residing on land within the affected party radius.

3. Responses from the municipality and referral agencies

I received responses from Starland County, Alberta Environment and Parks, and Alberta Agriculture and Forestry. No responses were received from AHS or CNRL.

Mr. Glen Riep, a development officer with Starland County, provided a written response on behalf of Starland County. As noted in section 2, Starland County is a directly affected party.

On June 30, 2020, Mr. Riep submitted an email asking for an extension to provide comments to this application. He explained that with the reduced council meetings due to summer schedules, as many council members and staff are on holidays. He also requested that landowners receive an extension due to farming operations, and out of country travel.

On July 6, 2020 I responded to Mr. Riep and indicated that, consistent with NRCB policy, Starland County could request an extension as they are a municipality. I requested that Mr. Riep submit a formal written request. I also indicated that if members of the public had concerns regarding the submission date, they should contact me directly as these requests are assessed on a case-by-case basis.

On July 10, 2020, I received the official request for an extension from Mr. Riep, on behalf of Starland County. In the letter, Mr. Riep indicated that they require additional time to prepare a response due to meeting restraints, and the availability of staff and council. Mr. Riep indicated

that the Municipal Planning Commission was set to meet on July 22, 2020, and planned to review the application. Mr. Riep requested an extension until the end of July.

On July 13, 2020, I submitted a written response to Mr. Riep indicating that I would extend the deadline for submissions to Starland County until July 31, 2020. This extension applied only to Starland County's submission.

On July 31, 2020, I received the written response to the application from Mr. Riep. In his response, he states that Starland County has the same concerns with application RA20032 as they had submitted with their response to application RA20001. Mr. Riep's response specifies several points of the MDP, and discusses the land use bylaw. Mr. Riep's response did not specifically state if the application is, or is not consistent with Starland County's MDP. The response listed three specific concerns Starland County has with the application, and strongly recommended that I deny the application. These points, and the application's consistency with the land use provisions of Starland County's MDP, are addressed in Appendix A, attached. Mr. Riep's response identified three additional concerns that are not related to land use planning. I've addressed these concerns in Appendix D, attached.

On July 31, 2020 and on August 13, 2020, I emailed Mr. Riep and requested a copy of the Land Use Bylaw #1125 (dated August 22, 2019) that was referenced in his response. I also inquired if the Municipal Planning Commission had comments they would like to submit, as per his July 10, 2020 extension request. At the time of this decision, I have not received a response.

Ms. Laura Partridge, a water administration officer with Alberta Environment and Parks, responded on AEP's behalf. In her response Ms. Partridge indicated that no licensing exists for NW 15-33-21 W4M. She questioned if water was being diverted from other licenses Starland Colony holds. She concluded that if they were not diverting, then additional licensing and supporting groundwater evaluation report are required. In a follow up conversation, the applicant told me that they intend to drill a water well and obtain a water license for the location of their proposed CFO; however, if there is not adequate water available, they will proceed with applying to divert water from their already-held water licenses on nearby lands. The applicant is reminded by way of this decision that they are required to obtain sufficient water licensing as stated under the *Water Act*.

Mr. Tom Pack, an inspector with Alberta Agriculture and Forestry, responded on AF's behalf. Mr. Pack indicated that he has no concerns with the application, and that he will work with the producer during construction of the facility.

4. Responses from other directly affected parties

The NRCB received 48 responses to the application notice. Two of these submissions were received after the submission deadline in the notice. One late submission was accepted and one declined for reasons set out in Appendix B.

Of the 48 submissions, three were from individuals or parties who own or reside on land within the 0.5 mile radius for affected persons. Because of their location within this radius, they are presumed to be directly affected by the application. None of the other individuals or parties are considered to be directly affected by this application. Appendix B sets out my reasons and explanations for these determination.

The directly affected parties raised concerns regarding groundwater supply and potential contamination, potential surface water contamination, odour, distance to Rumsey, proximity to

the exclusion zone, why the previous site was not rebuilt, a lack of a geotechnical report, future colony expansions, proximity to a historic archeological site, light and noise pollution, flies, dead animals, potential loss of rental income, traffic and dust nuisances.
(see Appendix C for further details)

5. Environmental risk screening of proposed facilities

As part of my review of this application, I assessed the risk to surface water and groundwater posed by the CFO's proposed manure storage and collection facilities. Given the concerns about surface and groundwater, I asked one of the NRCB's Environmental Specialists to assist me in completing the risk assessment.

We 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.)

The Environmental Specialist's results found that all of the CFO's proposed facilities pose a low potential risk to groundwater and surface water. I have reviewed his assessment, and agree with his findings.

6. Other factors considered

The application meets all relevant AOPA requirements, with the terms and conditions summarized in part 7.

In addition, I determined that the proposed CFO is consistent with the land use provisions of Starland County'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 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 water wells, 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 and collection facilities

In addition, I assessed the effects of the proposed CFO on the environment. Consistent with NRCB policy, I presumed that these effects are acceptable because the application meets all of AOPA's technical requirements and in my opinion, the directly affected parties' concerns have been adequately addressed. I also presumed that the application's effects on the economy and community are acceptable, and that the proposed CFO is an appropriate use of land. Under NRCB policy, these presumptions are based on the application's consistency with the municipal development plan. (See NRCB Operational Policy 2016-7: *Approvals*, part 8.7.3.) Having considered the information provided in the application, my observations from the site visits,

submissions of the municipality, referral agencies, and directly affected parties, I find these presumptions are not rebutted.

When reviewing this application, I received technical assistance from Scott Cunningham, NRCB Environmental Specialist.

7. Terms and conditions

Approval RA20032 specifies the new permitted livestock capacity as 200 milking cows (plus associated dries and replacements) and permits the construction of the dairy barn (with an attached bull barn and pump room), dry cow shed, and synthetically lined liquid manure storage.

Approval RA20032 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 RA20032 includes conditions that:

- Set a deadline of December 31, 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 dairy barn (with attached bull barn and pump room) to meet the specification for category B (liquid manure shallow pits) and category C (solid manure – wet) in Technical Guideline Agdex 096-93 “Non-Engineered Concrete Liners for Manure Collection and Storage Areas”
- Require the concrete used to construct the liner of the manure collection and storage portion of the dry cow shed to meet the specification for category C (solid manure – wet); 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.
- Require submission of a completion report for the synthetically lined liquid manure storage
- Prohibit Starland Colony from placing manure or livestock in the dairy barn (with attached bull barn) or dry cow shed, or placing manure in the synthetically lined liquid manure storage facility, or pump room, until the facilities have been inspected by the NRCB following their construction
- Require that a berm be constructed to control run off from the dry cow shed

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

8. Conclusion

Approval RA20032 is issued for the reasons provided above, in the attached appendices, and in Technical Document RA20032.

September 21, 2020

(Original Signed)
Lynn Stone
Approval Officer

Appendices:

- A. Consistency with the municipal development plan
- B. Determining directly affected party status
- C. Concerns raised by directly affected parties
- D. Concerns raised by Starland County
- E. Explanation of conditions in Approval RA20032

APPENDIX A: Consistency with the municipal development plan

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

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 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.”)

Starland Colony’s proposed CFO is located in Starland County and is therefore subject to that county’s MDP. Starland County’s website lists an MDP dated October 9, 2019 under Bylaw #1142.

The status of the MDP is unclear as Starland County’s website, at the time of issuing this permit, lists it as a “draft” MDP. The MDP does not contain the introduction detailing the readings in council, and when it was officially passed. No signature from the County’s CAO was included in the MDP. In previous correspondence with Starland County (with respect to application RA20001), Mr. Riep indicated that their MDP does not contain signatures. He did, however, send me copies of Starland County’s county council minutes indicating that on October 9, 2019, motions were carried for Bylaw 1142 to be established, have first reading, and that a public hearing be held on October 23, 2019, and the October 23, 2019 minutes indicating that the second and third readings were held and passed. Given Mr. Riep’s responses, and without a version marked final on the county website, I will consider the “draft” MDP dated October 9, 2019, as being current and in place.

Section 6.1 of the MDP is a residential policy and details that extensive agriculture is the predominate use of land in the County, and that nuisances (smell, dust, noise) may be disagreeable. CFOs are governed by the NRCB, and any complaints should be directed to the appropriate department.

While this is not a land use provision, it does provide a general guideline as to how the County encourages its residents to work with, and discuss their concerns with the NRCB.

Section 8.0 applies directly to CFOs. The introductory paragraph outlines the NRCB’s role in CFOs and their development, and quotes AOPA as to what an approval officer must consider. It also discusses the intent of section 8.0 to minimize conflict from incompatible land uses, and to provide separation between CFOs and environmentally significant areas and hazard areas. This section specifies Map 6: Confined Feeding Operations Restricted Areas, which displays the policies outlined in section 8. Finally, the introduction states that the goal is to protect and enhance conforming CFOs and the quality of life of residents by providing a buffer to limit negative impacts between incompatible land uses. It further states that the goal is to ensure that new or expanded CFOs are away from areas where contamination risk of groundwater, and development of other resources, are “eminent”.

This section is general in nature, and states the underlying goals and intents in the subsequent points.

8.1 states that the following policies have been thoroughly researched, and that NRCB approval officers, CFO developers, and operators shall abide by the following policies.

This subsection is general in nature, and provides a guideline for subsequent subsections.

8.2 defines “urban areas” and lists several town and hamlets, including Rumsey. It further states that where grouped country residences are located, they shall be considered an exclusion zone. No new and/or expanding CFOs shall be permitted within the exclusion zone as identified on map 6.

I accept that Rumsey is considered an urban area for the purposes of the MDP. It is difficult to determine what defines a “grouped country residence” as the MDP does not state any parameters such as the number of residences clustered in a defined area. However, I have reviewed the County’s response, land use bylaw and the associated maps and confirmed that the subject site is considered Agricultural. I also reviewed the adjacent lands and found no mention of land designated as Country Residential, or similar. During my site visits and when reviewing aerial photography, I did not observe any residences that may be considered “grouped” in nature. I conclude that the proposed location is not in a grouped country residential exclusion zone.

Map 6 is titled Confined Feeding Operations Restricted Areas/Exclusion Zones, and is attached to the MDP. The map is on a standard 8.5” x 11” sheet of paper, and is scaled to capture the entire county on the single page. In addition to the map displaying a grid of range and township roads, highways, and urban centres, it has overlaid three types of exclusion areas (urban areas, high risk groundwater, very high risk groundwater), five types of hazards, and three areas listed as “confined feeding areas requiring detailed analysis”. I find the map insufficient to adequately assess the subject quarter section of land given the low resolution and complexity of the map.

During the previous application (RA20001), I contacted Mr. Riep on May 21, 2020 and requested a high-resolution version of Map 6. Mr. Riep responded indicating that he acknowledges that the map is difficult to read; however, the original version was lost in the fire that destroyed Starland County’s Administration Office in June of 2018. Mr. Riep indicated that he will attempt to find a better copy. I also contacted Palliser Regional Municipal Services, the planning firm that worked with Starland County to develop their planning documents. Despite several emails, I was unable to obtain a more workable copy of the map from Palliser Regional Municipal Services. On June 4, 2020, Mr. Riep provided me with a copy of “a better map for [me] to identify the area”. The map states that it is from an unlisted date in 2005, and is titled “Municipal Development Plan Figure 1: Confined Feeding Operations Restricted Areas”. I find the 2005 map considerably clearer; however it contains only two of the three exclusion zones from the 2019 Map 6 (absent is the high risk to groundwater). Using a 2005 version of the map to assess the 2019 MDP was not ideal. However, in the absence of a legible, current map, I used the 2005 version to assess CFO exclusion zones set out in Map 6 of the 2019 MDP.

I conclude that the proposed CFO site is not in either of the two exclusion zones (urban areas and very high risk groundwater) listed in the 2005 map. I am unable to conclude definitively whether the proposed CFO is within the high risk groundwater area listed in the 2019 MDP map 6.

Section 8.3 has three sub points, with respect to exclusion zones and Map 6:

8.3 (a) States that the boundary of grouped residential area shall be used for the purpose of determining MDS. If an area structure plan or other document has been established for multi-lot country residential area, the country residential land use district boundary shall be used to determine the minimum distance separation.

8.3 (a) essentially states how MDS shall be measured for country residential areas. The NRCB's board (see *Wyntjes*, Board Decision 2007-11 at 6 et seq.) and Approvals Policy (see the NRCB Operational Policy 2016-7: *Approvals*, part 8.2.5) have made it clear that approval officers should not consider MDP provisions that are based on, but modify and render more stringent, AOPA's MDS requirements. Thus, this policy cannot be considered for purposes of my MDS consistency determination. Regardless, I reviewed the County's Land Use Bylaw's maps and did not find any areas in close proximity to the site designated as country residential.

8.3 (b) states that with the exception of residences in 8.3 (a), setbacks shall be measured from the middle of the defining feature (i.e calculate the setback from the middle of the waterbody/road/ravine).

This policy isn't a specific land use provision, but states how setbacks shall be measured.

8.3 (c) states that any quarter section that touches any area identified on Map 6 is considered part of the exclusion zone.

Using the 2005 map, the proposed CFO site does not touch an exclusion zone.

8.4 states that the minimum distance separation (MDS) as defined in AOPA should be doubled.

This policy modifies the existing calculations for MDS in AOPA. As described in my response to point 8.3 (a) above, the NRCB's board and Approvals Policy have made it clear that approval officers should not consider MDS provisions that modify AOPA's MDS requirements. Thus, this policy cannot be considered for purposes of my MDS consistency determination.

8.5 states that new CFOs shall not be located on an area of "very high risk" of groundwater contamination as determined in the "County of Starland County Groundwater Assessment 1999" or successor thereto.

The proposed site is not located on the "very high risk" exclusion area in the Starland County Regional Groundwater Assessment 1999. It is not clear if this document is still in effect, or if there is a successor. Accordingly, I also considered the 2005 Municipal Development Plan Figure 1: Confined Feeding Operations Restricted Areas map. The proposed site is not on a "very high risk" area. I also reviewed the 2019 Municipal Development Plan Map 6: Confined Feeding Operations Restricted Area/Exclusion Zones. Given the lack of resolution in this map, it is challenging to adequately assess the area in sufficient detail. However, the groundwater risk maps appear to be the same surrounding the proposed site in both the 2005 and 2019 maps. Without evidence to the contrary, the proposed site is not on a "very high risk" exclusion area.

8.6 states that in areas of "high risk" of groundwater contamination, new and expanding CFOs should not be allowed "unless it can be proven that the groundwater contamination risk has been minimized and appropriate mitigation measures have been

taken to prevent possible groundwater contamination in accordance with best practices and scientific methods”.

There are two statements to review in this section; the location of the site, and risk minimization.

In reviewing the first part of this policy, I considered the Starland County Regional Groundwater Assessment 1999, the 2005 Municipal Development Plan Figure 1: Confined Feeding Operations Restricted Areas map, and the 2019 Municipal Development Plan Map 6: Confined Feeding Operations Restricted Area/Exclusion Zones. The 1999 assessment contains a map that shows a high risk groundwater area near Rumsey; however it does not have sufficient detail to determine if the proposed site is on the high risk area. The 2005 map is clearer, and shows that the proposed site is not on a high risk area. While the 2019 map is challenging to adequately assess, the groundwater maps appear to be in the same for the proposed site in the 1999, 2005 and 2019 maps. Without evidence to the contrary, the proposed site is not on a “high risk” exclusion area.

The second part of the policy is precluded from my consideration under section 20(1.1) of AOPA, which precludes an approval officer from considering MDP provisions “respecting tests or conditions related to the construction of, or the site for confined feeding operations or manure storage facility”. However, since the proposed site does not appear to be on a “high risk” area, I consider this policy to be met.

Section 8.7 contains 4 sub points stating that new or expanding CFOs should not be located
(a) within the valley of the Red Deer River, Michichi Creek, Wolf Creek, Farrell Creek,
or any other major creek or river;
(b) within the shores of any recognized lake or within the banks of an inlet creek
(c) within 3.2 kilometers of any recognized recreational area
(d) in areas identified in section 6 which are considered an exclusion zone(s). No new
or expanding CFOs shall be permitted within the exclusion zone(s) in Map 6.

The proposed site is not located in the valley of any of the listed water ways, or in the valleys of any major river or creek. It is not within the shores of any recognized lake or within the banks of an inlet creek. It is not within 3.2 kilometers or any recognized recreational area. As discussed in my response to MDP point 8.2, due to the low resolution and poor clarity of Map 6 in the MDP, I am unable to determine if it is in an exclusion zone. However, Mr. Riep’s response indicated that the 2005 map could be used in place of Map 6. The proposed site is not located in an exclusion zone in the 2005 map.

Section 8.8 lists 10 “Environmentally Significant Areas” (ESAs) in Starland County and states that CFOs should not be allowed within them.

The section does not provide locations for these 10 ESAs, or any other follow up documentation; however, Map 1 in the MDP shows the locations of ESAs of national, provincial, and regional significance. The proposed site is not located in any of the highlighted areas in the map. With the limited information provided about the ESAs, I have no evidence to suggest that the proposed site is located within an ESA. Therefore, I consider that this policy has been met.

8.9 states that CFOs shall not be located within 3.2 kilometers (2 miles) of any urban areas, and that this area shall be considered an exclusion zone. No new or expanding CFOs shall be permitted within the exclusion zone as identified on Map 6.

I accept that Rumsey is considered an urban area (section 8.2 of the MDP), and that a 3.2 kilometer buffer is placed around it. In Starland Colony's previous application (RA20001), I requested more information to clarify how the 3.2 kilometer exclusion zone was to be measured (starting and ending points of the zone). In response, Mr. Riep sent a copy of the 2005 CFO restricted areas map. The proposed site is not located within any exclusion zone on this map. Additionally, I have used aerial photography to evaluate the distance of the proposed site from Rumsey. I found that the proposed site is 3.58 kilometers from Rumsey, when measured from the nearest hamlet residence to the north east boundary of NW 15-33-21 W4M, and approximately 4.14 kilometers when measured from the nearest town residence to the closest manure storage facility. I conclude that the proposed site is located more than 3.2 kilometers from Rumsey, and is not in an exclusion zone. Therefore, I consider this point to be met.

8.10 states that CFOs shall not be located within 3.2 kilometers (2 miles) of any municipal water source. This area shall be considered an exclusion zone, and no new or expanding CFOs shall be permitted within the exclusion zone as identified on Map 6.

The MDP does not state specifically where the municipal water sources are. However, the site is not located within the CFO restricted areas in the 2005 map provided by Starland County. Therefore, I consider this point to be met.

8.11 states that prior to submission of their comments to the NRCB, Starland County will meet with the applicants to discuss the MDP and related documentation.

This policy is not a land use provision. It is procedural in nature by stating guidelines as to how Starland County will communicate with the applicant.

It further adds that:

(a) for those CFOs which require an approval from the NRCB, all liquid manure must be injected;

This is a "test or condition" respecting the application of manure under section 20(1.1) of AOPA, so I am precluded from considering this policy.

(b) the application of all manure that is not covered by (a) above must either involve the notification of adjacent landowners prior to application, or shall follow the guidelines of AOPA

The first part of this point is a "test or condition" under section 20(1.1) of AOPA, which I am precluded from considering. However, all NRCB permits include conditions requiring applicants to follow AOPA and its regulations, which includes manure spreading requirements. Therefore, I consider this point as met.

(c) Manure incorporation shall not be allowed within 3.2 kilometers (2 miles) of any urban or multi-lot country residential boundary

This is a provision regarding the application of manure under section 20(1.1) of AOPA, so I am precluded from considering this policy.

(d) Manure incorporation by direct injection shall be allowed within 1.6 kilometers (1 mile) of an urban or multi-lot country residential boundary

This is a provision regarding the application of manure under section 20(1.1) of AOPA, so I am precluded from considering this policy.

(e) Nutrient management plans shall be required for all CFOs, as well as accompanying soil tests. A copy of all nutrient management plans shall be submitted to the County for their record.

I consider this to be a provision regarding the application of manure. As identified in section 20 (1.1) of the act, I am directed to not consider these provisions. Irrespective, all CFOs are required to abide by the land application, nutrient loading and record keeping requirements set out in AOPA.

(f) odour control devices and methods shall be employed in manure storage facilities

This is a “test or condition” relating to a manure storage facility under section 20(1.1) of AOPA, so I am precluded from considering this policy.

(g) The location of lands for manure incorporation are to be identified and mutually agreed upon between the applicants and the County.

Since the NRCB has jurisdiction over manure and manure application, it is inappropriate for the applicant to provide this to the County. Furthermore, this is considered a “test or condition” under section 20(1.1) of AOPA, so I am precluded from considering this policy.

(h) Spreading of manure on weekends and holidays shall not be permitted.

This is a “test or condition” under section 20(1.1) of AOPA, so I am precluded from considering this policy.

(i) Section 8.11 of the MDP does not contain a sub point (i)

(j) This section states that Starland County requires, as a condition of any registration, approval, or authorization it grants, that the applicant will enter into a road agreement with the County. There are two sub points that state that the agreement must speak to road construction, and/or road maintenance.

I find the wording of this section unclear as to if it applies to a permit that the County grants, or if the policy is intended to apply to NRCB issued permits. Given that the NRCB holds jurisdiction over CFOs, and that the wording reflects the types of permits the NRCB issues (approvals, registrations, and authorizations), I interpret this section as intending to apply to NRCB permits.

The NRCB Board has previously stated that road use agreements are between the developer and the municipality, not the NRCB (see *Zealand Farms*, RFR 2011-02 at 5, *Faberdale*, RFR 2018-12 at 3). Furthermore, this is a not a land use provision, so I am precluded from considering this policy.

8.12 states that the County may initiate a public meeting to inform residents of the CFO application, with an invitation to the NRCB.

This policy isn't a land use provision, so it is precluded from my MDP consistency analysis. Further, like 8.11, this is a procedural direction to the county. I note that neighbouring landowners were advised of the application by way of public notice in the local newspaper, as well as by courtesy letters that were mailed out to those residents who own or reside land within the notification radius.

Section 10 of the MDP is titled "Industrial and Commercial". The introductory intent paragraph specifies that rural industrial and commercial developments include the oil and gas sector, agriculture, and tourism.

Due to the intent statement of section 10 including agricultural developments, I reviewed points 10.1 to 10.11. The section is unclear what is considered an agricultural development. If I considered that CFOs were intended to be an agricultural development under Section 10, several of the policies would be in conflict with Section 8. Given that Section 8 is dedicated to "Confined Feeding Operations", and without evidence to the contrary, it is my opinion that Section 10 of the MDP was not intended to apply to CFOs. Therefore, this section does not apply to my MDP consistency review.

For these reasons, I conclude that the application is consistent with the land use provisions of Starland County's MDP that I can consider.

I've reviewed Starland County's MDP and have identified that there is no clear intent to adopt provisions from the land use bylaw.

APPENDIX B: Determining directly affected party status

Parties within affected party radius

The following three parties own or reside on land within the “affected party radius,” as specified in section 5(c) of the Agricultural Operation, Part 2 Matters Regulation, and submitted statements of concern on or before the deadline:

- Lorne & Sharon Wagstaff, SW 22-33-21 W4M
- Ken & Sharon Goddard, SE 30-33-20 W4M, S ½ 22-33-21 W4M
- John Kowalchuk, SW 15-33-21 W4M

One courtesy letter was sent to Jeannette Kowalchuk and was returned by Canada Post.

Therefore, under NRCB policy, these individuals are presumed to be “directly affected” by the application. (See NRCB Operational Policy 2016-7 – *Approvals*, part 6.2.)

No MDS waivers were required for this application; therefore there are no waiver-related directly affected parties. (See NRCB Operational Policy 2016-7 – *Approvals*, part 6.2.)

Parties outside affected party radius

45 other individuals/parties submitted responses to the public notice, and reside outside of the affected party radius. However, they may still qualify as directly affected parties based on their “exposure to potential nuisances or risks” posed by the proposed CFO (*Ijtsma*, RFR 2011-05, page 3).

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 that:

- A plausible chain of causality exists between the proposed project and the effect asserted;
- The effect would probably occur;
- The effect could reasonably be expected to impact the party;
- The effect would not be trivial; and
- The effect falls within the NRCB regulatory mandate under AOPA. (NRCB Operational Policy 2016:7 – *Approvals*, part 6.3; see also *Ijtsma*, page 4.)

24 individuals/parties who live outside the affected party radius submitted “form letters,” which appeared to be identical copies of the same letter, original author unidentified. One form letter submission (Terry & Nora Allen) was received after the response deadline; however it was sent via Canada Post and was postmarked several days prior to the deadline. As per NRCB policy (NRCB Operational Policy 2016-7 – *Approvals*, Part 7.11), I should accept their statement. The 24 parties who own land or reside outside of the affected party radius and who submitted a “form letter” are:

Submission of form letters, outside affected party radius	
Name	Legal Land Location
Karen Anderson	NW-036-32-21-W4M
Lance & Kendra Kiemele	Street address in Rumsey
Jonathan Kiemele	Street address in Rumsey
Amy Goddard	Street address in Drumheller
Calvin Goddard	Street address in Stettler
Cody Goddard	NE 12-34-21-W4
Cayle M. Griffith	SE 18-34-21-W4
Rebecca Anderson	SE 18-34-21-W4
Richard Eeftens	SE 24-33-21-W4
Bonnie-Jean Perry	NE 24-33-21-W4
Douglas Perry	Street address in Rumsey
Darren Connett	Street address in Rumsey
Joan Goodine	NE 35-32-21 W4
Jess Block	NW 22-33-21 W4 and NW 9-34-20 W4
Stacey Perry	NW 30-33-20 W4
Ross Nason	Street address in Rumsey
Shannon Wilkins	SE 24-33-21 W4
Charles V Brophy	Street address in Rumsey
Leonard Kirkeby	Street address in Rumsey
Gerhard Kirkeby	Street address in Rumsey
Rollie Wilkins	Street address in Rumsey
Carol Kashuba	Unspecified ¼ 24-33-21 W4

Linda Helmer	NW 33-32-21-W4
Terry & Nora Allen	Street address in Rumsey

The form letter detailed concerns about groundwater supply, groundwater contamination, facility odours, odours associated with manure spreading, future colony expansions, and why the previous dairy facility was not rebuilt upon. These concerns are similar in nature to other responses I received, and which are discussed below.

Twenty-one parties reside or own land outside of the 0.5 mile affected party radius (or did not identify a physical address), and submitted responses to the public notice that were not the “form letter.” One submission (Ian Herd) was emailed after the deadline and not considered. The twenty parties are:

Submissions (not form letters), outside directly affected party radius	
Eleanor Richmond	NE 27-33-21 W4M
Cyril & Judith Desjarlais	210031 Range Road 33-3
Shirley Bogle	W ½ 14-33-21 W4
Gayle Todd	W ½ 14-33-21 W4
Linda Goddard	No physical address provided
Robert & Clare Sinclair	No physical address provided
Mary Newton	NE 6-34-21 W4
Patty Steen	Street address in Rumsey
Kent & Jill Holowath	SE 12-33-21 W4
Derek & Claire Krywcun	Street address in Rumsey
Rumsey & District Agricultural Society	Street address in Rumsey
James & Cynthia Krywcun	SW 23-33-21 W4
Pat Holowath	SW 7-33-20 W4
Bob Braaksma	Street address in Rumsey

June Aune	W ½ 14-33-21 W4
Peter Abramenko Estate, c/o Shirley Bogle	SW 27-33-21 W4
Robert & Darlene Sinclair (also submitted a form letter)	NW 13-33-21 W4
Ernie Goddard	SE 30-33-20 W4
Dallas Krywcun	Street address in Rumsey

The parties that reside or own land outside of the 0.5 mile affected party radius raised the following concerns:

Groundwater supply, usage and licensing

Nearly all submissions expressed concern that the CFO’s water usage would reduce and deplete their own water supply.

Alberta Environment and Parks (AEP) is directly responsible for licensing the use of groundwater and surface water under the *Water Act*. As noted in Technical Document RA20032, Starland Colony acknowledges that they are aware that they must obtain adequate licensing. The water licensing process includes an opportunity for neighbours to provide input. Given the AEP’s direct responsibility for water licensing, it is unlikely that a party can be “directly affected” under AOPA based on water supply risks. Furthermore, this alleged effect falls outside of the regulatory mandate of the NRCB under AOPA.

Groundwater contamination

Most parties expressed concern about the possibility of the CFO facilities leaking, potentially contaminating groundwater.

As noted previously, the proposed facilities meet all AOPA technical requirements. Several of these requirements are designed to prevent or minimize manure leakage from CFO facilities and thus to prevent manure from reaching and contaminating groundwater. Because the proposed CFO facilities meet or exceed these requirements, I conclude that the level of groundwater risk posed by these facilities is acceptable.

As noted in the decision summary, I assessed the CFO’s proposed facilities using the NRCB’s environmental risk screening tool (ERST). The assessment found that the proposed facilities pose a low risk to ground and surface water.

The respondents have not provided me with any additional evidence to show that the alleged affect would probably occur. Therefore, I find that the parties are not directly affected based on groundwater contamination risks.

Surface water contamination

Most parties raised concerns about potential surface water contamination. These concerns were largely based upon the proposed liquid manure storage facility and the risk of overflow, as well as runoff from manure spreading lands.

The proposed synthetically lined liquid manure storage facility has been designed to minimize the risk of an overflow. Starland Colony has proposed to construct a liquid manure storage facility that is more than 1.5 times the minimum storage capacity requirements. This additional capacity will allow Starland Colony sufficient time to remove the manure and apply it to their spreading land. Starland Colony has also proposed to construct a 0.5 m berm around the liquid manure storage facility; this is designed to prevent run-on from entering the liquid manure storage facility.

Section 24 of AOPA's Standards and Administration Regulation outlines the requirements for spreading manure. Many of these regulations are designed to protect surface water from the risk of runoff from spreading lands. Starland Colony is required to abide by these regulations.

The respondents have not provided me with any additional evidence to show that the alleged effect would probably occur. Therefore, I find that the parties are not directly affected based on surface water contamination risks.

Odour, dust, and other nuisances

Most parties raised concerns about odour from the facilities and spreading lands, as well as dust, noise and light pollution and other nuisances.

AOPA's minimum distance separation (MDS) is a means for mitigating odour and other nuisance impacts from CFOs. Starland Colony's proposed CFO will be located well outside of the required MDS from other existing residences.

Under all of these circumstances, and based on my experience and the absence of any contrary evidence, I presume that the CFO's odours and other nuisance effects on the parties are not only acceptable, but would probably also be minimal (or non-existent, for some of these parties).

Surface water alteration

Several parties raised concerns about existing surface water flow patterns. The respondents detailed concerns about Starland Colony's current cropping practices and the removal of vegetation. The respondents claim that they have been impacted due to surface water alterations that has resulted in adjacent land becoming damaged or unusable.

The concerns from the parties are serious; however these claims are regarding alterations that have allegedly already taken place. This is prior to Starland Colony applying or intending to develop the site as a CFO. Therefore, I found no causality between the alleged alterations in the past and the proposed CFO development. Furthermore, the alteration of surface water flow falls under the *Water Act* and is the responsibility of Alberta Environment & Parks.

I did not find sufficient evidence to suggest that the proposed CFO development will materially alter surface water flow patterns, and so would not probably occur. Therefore, I find that the parties are not directly affected based upon the issues they raised regarding surface water.

Municipal planning documents

Several parties raised concerns about the application's consistency with the municipal development plan and other planning documents.

These concerns are general in nature and are not an effect. Therefore, there is no evidence to show that the parties, themselves, are directly affected.

The application's consistency with the relevant municipal planning documents is discussed in more detail in Appendix A.

Property Values

Many respondents raised concerns about the impact the application would have on both increasing, and decreasing neighbouring property values.

The NRCB's board has consistently stated that concerns regarding effects on property values are "not a subject for [the board's] review under AOPA" or for approval officers' consideration of permit applications. According to the board, impacts on property values are a land use issue which is a "planning matter dealt with by municipalities in municipal development plans..." *Zealand Farms*, RFR 2011-02, p.5; see also, e.g. *Pigs R Us Inc.*, RFR 2017-11, p. 6 (stating that effects on land values are "not a relevant Board consideration when the development is consistent with the MDP's land use provisions.")

The parties have not provided evidence showing that any effect would probably occur, that it would be more than minor, or that the effect on property values could reasonably be expected to impact them specifically. Therefore, there is no evidence to show that the parties are directly affected in relation to their property values.

Archeological Assessment

Several parties requested that an archaeological assessment be completed as the proposed site is close to the Rumsey Cairn historic site.

Archaeological assessments are outside of the scope of AOPA. The parties did not provide evidence to show how the proposed site will impact the historical site, which appears to be nearly two miles away. Therefore, I find it unlikely that the parties are directly affected by this claim. However, in response to these concerns, the applicant obtained an approval under the *Historical Resources Act*.

Lack of information provided in the application

Several parties questioned the completeness of the application. Many suggested that a geotechnical report was required, and not provided.

The applicant has proposed to use concrete liners in the barn and dry cow shed, and a synthetic liner for the liquid manure storage facility. A soils investigation report (geotechnical report) is not required for concrete and synthetic liners.

In my view, this concern does not identify an effect alleged to flow from the lack of a geotechnical report. No causality or probability of an effect is apparent to me.

Future colony expansions and why the previous facility was not built upon

Many respondents raised concerns about the possibility of future colony expansions at this site. Many questioned why the previous site (that burned down) was not rebuilt on.

While a future expansion might have a future effect on some of these parties, this application is strictly for the proposed dairy facilities. If the applicant intends to increase their permitted livestock numbers in the future, they will be required to go through the AOPA permitting process again. This includes providing public notice, and allowing the public to provide comments on the application.

The applicant is not required under AOPA to rebuild on the previous site.

For the reasons given above, I conclude that none of these 44 parties has met their burden of showing that they are directly affected by the application. That said, most of the concerns raised by these individuals are the same as the concerns raised by the directly affected parties. Those concerns are further discussed in Appendix C.

APPENDIX C: Concerns raised by directly affected parties

The three directly affected parties raised a number of concerns which are listed and summarized below, together with my analysis and conclusions:

- Groundwater supply
- Facility odour
- Spreading odour
- Groundwater contamination
- Surface water contamination
- Future colony expansions
- Traffic, dust, light, noise pollution
- Archaeological assessment
- Flies/dead animals
- Why the old site wasn't rebuilt on
- Distance to Rumsey/distance to exclusion zone
- Lack of geotechnical report
- Loss of rental income

Groundwater supply – all of the directly affected parties raised concerns about groundwater supply, and how the proposed CFO may impact their water resources.

Approval officer's conclusions

As noted in Technical Document RA20032, Starland Colony acknowledges that they are aware that they must obtain adequate licensing. Alberta Environment and Parks (AEP) is directly responsible for licensing the use of groundwater and surface water under the *Water Act*. Part of the licensing process involves ensuring that others using the same aquifer are not impacted by additional water consumption. Neighbours have the opportunity to provide input on the water license as the process includes providing public notice.

In a follow up discussion with Starland Colony, they indicated that they intend to drill a water well or wells near the CFO facilities and obtain licensing. However, if there is not sufficient water available, they may choose to use water that they are already licensed to use on a different location. The applicant is aware that they must be in compliance with the *Water Act*.

Groundwater contamination – most respondents expressed concerns about possible manure contamination into groundwater aquifers.

Approval officer's conclusions

As noted previously, the proposed facilities meet all AOPA technical requirements. Several of these requirements are designed to prevent or minimize manure leakage from CFO facilities and thus to prevent manure from reaching and contaminating groundwater. Because the proposed CFO facilities meet or exceed these requirements, I conclude that the level of groundwater risk posed by these facilities is acceptable.

As noted in the decision summary, I assessed the CFO's proposed facilities using the NRCB's environmental risk screening tool (ERST). The assessment found that the proposed facilities pose a low potential risk to ground and surface water.

Surface water contamination – most respondents expressed concern about manure contaminating nearby surface water bodies.

Approval officer's conclusions

The proposed synthetically lined liquid manure storage facility has been designed to minimize the risk of an overflow. Starland Colony has proposed to construct a liquid manure storage facility that is more than 1.5 times the minimum storage capacity requirements. This additional capacity will allow Starland Colony sufficient time to remove the manure and apply it to their spreading land. Starland Colony has also proposed to construct a 0.5 m berm around the liquid manure storage facility; this is designed to prevent run-on from entering the liquid manure storage facility.

As part of the application, I assessed the risk of the proposed facilities to surface water. Using the NRCB's ERST tool, I found that the proposed site poses a low potential risk to surface water (and groundwater).

Section 24 of AOPA's Standards and Administration Regulation discussed manure application. Sections 24(9) and 24(10) list setbacks for manure application to common bodies of water. Among other regulations, these setbacks are designed to limit the risk of manure-impacted runoff from entering the common bodies of water. The applicant is required to abide by these regulations.

Facility odour, noise, dust, light pollution – most respondents expressed concerns about facility odour and other nuisances.

Approval officer's conclusions

AOPA's minimum distance separation (MDS) is a means for mitigating odour and other nuisance impacts from CFOs. Starland Colony's proposed CFO will be located well outside of the required MDS from other existing residences.

Some of the parties may experience some odours and other nuisance effects from this CFO. However, the frequency of these exposures will likely be limited and of short duration.

Often, any issues that arise relating to the operation of a CFO can be resolved through good communication between neighbours and the CFO operator. However, if a member of the public has concerns regarding a CFO, including whether or not the operation is complying with AOPA, they may contact the NRCB through its toll free response line (1-866-383-6722 or 310-0000). A NRCB inspector will follow up on the concern.

Spreading odour – most respondents expressed concern about experiencing odour on spreading lands.

Approval officer's conclusions

The applicant is required to follow all AOPA requirements; section 24 of the Standards and Administration Regulation discusses manure application.

Subsection 24(1) of this section states that manure must be incorporated within 48 hours of application when it is applied to cultivated land. Incorporating reduces odours by working the manure into the soil. This type of land application of manure is typically limited to once or twice per year, and are typically of short duration. Odours from manure spreading typically do not persist for extended periods of time.

Section 24(5)(a) states that manure does not need to be incorporated after surface application on forages, or on no-till cropland. However, the manure must be applied at least 150 m from any residence. This setback helps mitigate the odour from manure spreading without incorporation.

Complaints about CFOs, including manure spreading and odour, can be reported to the NRCB's 24 hour response line (1-866-383-6722 or 310-0000). A NRCB inspector will follow up on the concern.

Future site expansion & why previous site wasn't rebuilt on – most of the respondents expressed concern that there will be future expansions of the site. They questioned why the previous site was not rebuilt on.

Approval officer's conclusions

This application is strictly for the proposed dairy facilities. If the applicant intends to increase expand in the future, they will be required to go through the AOPA permitting process again. The NRCB's board has stated that they have no authority to evaluate the likelihood of the success of any future expansion applications (*Korova* RFR 2019-06 at p.4). A proposal to increase permitted livestock numbers would include providing public notice, and allowing the public to provide comments on the application.

The applicant is not required under AOPA to rebuild on the previous site.

Archaeological assessment – one respondent requested an archaeological assessment due to the proximity of the proposed CFO site to the Rumsey Cairn. The respondent stated that the Carin was "slightly less than 2 miles away."

Approval officer's conclusions

Archaeological assessments are outside of the scope of AOPA. However, in response to these concerns, the applicant obtained an approval for development of the site under the *Historical Resources Act*. This approval includes several conditions, including requirements to report any historical resources found during development to the appropriate agencies. The applicant is reminded that they are required to follow the conditions of their *Historical Resources Act* approval.

Flies and dead animals - one respondent expressed concerns about flies and the disposal of dead animals.

Approval officer's conclusions

AOPA does not require that I assess or consider dead animal disposal as part of my application review. Dead animal disposal is regulated by the *Animal Health Act* enforced by the Animal Health and Assurance Division of Alberta Agriculture and Forestry. Because they have expertise in this area, the NRCB defers to their knowledge and refers related concerns to them.

Operators are expected to use reasonable measures to control flies at their operation (Standards and Administration Regulation, 20(1)). If necessary, the NRCB can require the operator to adopt a fly control program.

Often, any issues that arise relating to the operation of a CFO can be resolved through good communication between neighbours and the CFO operator. However, if a member of the public has concerns regarding a CFO, including whether or not the operation is complying with AOPA,

they may contact the NRCB through its toll free response line (1-866-383-6722 or 310-0000). A NRCB inspector will follow up on the concern.

Distance to Rumsey/distance to exclusion zone – one party expressed concern that the proposed site is close to Rumsey and close to the exclusion zone area in the MDP.

Approval officer's conclusions

As discussed in Appendix A, Starland County's MDP provides a 3.2 kilometer buffer or exclusion zone surrounding Rumsey. The proposed site is not within this exclusion zone.

In Technical Document RA20032, I evaluated the minimum distance separation of the site to neighbouring residences. AOPA specifies a minimum distance to neighbouring residences, including for residences on hamlets, towns, or cities (category 4). The proposed site meets all MDS requirements to nearby residences, including to Rumsey.

Lack of geotechnical report – one respondent expressed concerns that a geotechnical report was not provided with the application.

Approval officer's conclusions

The applicant has proposed to use concrete liners in the barn and dry cow shed, and a synthetic liner for the liquid manure storage facility. A soils investigation report (geotechnical report) is not required for concrete and synthetic liners.

Lack of rental income – one respondent expressed that he felt that they may lose a tenant due to odour and traffic.

Approval officer's conclusions

As previously discussed in this appendix, AOPA's minimum distance separation (MDS) is a means for mitigating odour and other nuisance impacts from CFOs. Starland Colony's proposed CFO will be located well outside of the required MDS from other existing residences.

The proposed CFO is approximately three times the MDS to the residence in question.

The directly affected party's concerns about the possible loss of a tenant due to traffic concerns will be addressed in the next concern listed.

The directly affected party may experience some odours and other nuisance effects from this CFO. However, the frequency of these exposures will likely be limited and of short duration. Furthermore, the directly affected party has not provided any evidence that the odours will prompt his tenant (or any other tenant) to vacate the residence.

Often, any issues that arise relating to the operation of a CFO can be resolved through good communication between neighbours and the CFO operator. However, if a member of the public has concerns regarding a CFO, including whether or not the operation is complying with AOPA, they may contact the NRCB through its toll free response line (1-866-383-6722 or 310-0000). A NRCB inspector will follow up on the concern.

Traffic – two directly affected parties raised concerns about the increase in traffic as a result of the proposed site

Approval officer's conclusions

Traffic on the county roads may increase as a result of the development of this CFO. The county controls local roads and did not raise concerns regarding a potential increase in traffic due to this development. Furthermore, the directly affected parties did not provide evidence showing how the alleged effect would impact them, and how it would be more than a minimal effect.

APPENDIX D: Concerns raised by Starland County

Glen Riep, a development officer with Starland County, responded on the County's behalf. In his response, in addition to comments related to municipal planning, Mr. Riep identified three specific concerns regarding the proposed site.

Manure waste – the response identified that the storage, spreading, and incorporation of manure is of concern. He also identified that the listed spread lands have surface water bodies.

Approval officer's conclusions

As noted previously, the proposed facilities meet all AOPA technical requirements. Several of these requirements are designed to prevent or minimize manure leakage from CFO facilities and thus to prevent manure from reaching and contaminating groundwater. Because the proposed CFO facilities meet or exceed these requirements, I conclude that the level of groundwater risk posed by these facilities is acceptable.

The proposed liquid manure storage facility has been designed to minimize the risk of an overflow. Starland Colony has proposed to construct a liquid manure storage facility that is more than 1.5 times the minimum storage capacity requirements. This additional capacity will allow Starland Colony sufficient time to remove the manure and apply it to their spreading land. Starland Colony has also proposed to construct a 0.5 m berm around the liquid manure storage facility; this is designed to prevent run-on from entering the liquid manure storage facility.

As part of the application, I assessed the risk of the proposed facilities to surface water. Using the NRCB's ERST tool, I found that the proposed facilities pose a low potential risk to surface water.

Section 24 of AOPA's Standards and Administration Regulation regulates manure application. Sections 24(9) and 24(10) list setbacks for manure application to common bodies of water. These setbacks are designed to limit the risk of manure-impacted runoff from entering the common bodies of water. The applicant is required to abide by these regulations.

Ground water sustainability – the response expressed concern about how much groundwater is intended to be used by the site, and how the diversion will impact surrounding residents.

Approval officer's conclusions

As noted in Technical Document RA20032, Starland Colony acknowledges that they are aware that they must obtain adequate licensing. Alberta Environment and Parks (AEP) is directly responsible for licensing the use of groundwater and surface water under the *Water Act*. Part of the licensing process involves ensuring that others using the same aquifer are not impacted by additional water consumption.

In a follow up discussion with Starland Colony, they indicated that they intend to drill a water well or wells near the CFO facilities and obtain licensing. However, if there is not sufficient water available, they may choose to use water that they are already licensed to use on a different location. The applicant is aware that they must be in compliance with the *Water Act*.

Future development – the response expressed concern that the application does not include details about future development of livestock facilities.

Approval officer's conclusions

This application is strictly for the proposed dairy facilities. If the applicant intends to expand the CFO site in the future, they will be required to go through the AOPA permitting process again. This includes providing notice Starland County. Starland County would then have the opportunity to provide comments on the application.

APPENDIX E: Explanation of conditions in Approval RA20032

a. Construction Deadline

Starland Colony proposes to complete construction of the proposed new dairy barn, dry cow shed, and synthetically lined liquid manure storage facility manure storage by December, 2023. This time-frame is considered to be reasonable for the proposed scope of work. The deadline of December 31, 2023 is included as a condition in Approval RA20032.

b. Construction above the water table

Section 9(2) of the Standards and Administration Regulation under the AOPA) prohibits construction of a manure storage facility if the bottom of its liner is less than one metre above the water table at the site “at the time of construction.”

Based on the information available before construction, the proposed synthetically lined liquid manure storage 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 applicant to cease construction and notify the NRCB immediately if the water table is encountered during construction.

c. 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 RA20032 includes conditions requiring:

- Starland Colony to provide documentation to confirm the specifications of the concrete used to construct the manure storage and collection portions of the dairy barn (with attached bull barn and pump room) and the dry cow shed.
- A construction completion report, certifying that the manure collection portions of the new synthetic lined liquid manure storage facility were constructed as per their application and the manufacturer’s requirements

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 RA20032 includes conditions stating that Starland Colony shall not place livestock or manure in the manure storage portions of the new dairy barn (with attached bull barn) and the dry cow shed nor place manure in the synthetic lined liquid manure storage facility or pump room until NRCB personnel have inspected the facilities and confirmed in writing that they meet the approval requirements.

d. Secondary containment for outside areas of the dry cow shed

A condition will be included requiring the applicant to construct a secondary containment system (berm) surrounding the dry cow shed. The berm must be high enough that any potential runoff or manure from the shed will be contained before runoff reaches a surface water body.