

Decision Summary BA20006

This document summarizes my reasons for issuing Approval BA20006 under the *Agricultural Operation Practices Act* (AOPA). Additional reasons are in Technical Document BA20006. 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 April 17, 2020, Titan Land & Cattle Ltd. (Titan) submitted a Part 1 application to the NRCB to expand an existing beef CFO. The Part 2 application was submitted on May 19, 2020. On May 25, 2020, I deemed the application complete.

The proposed expansion involves:

- Increasing livestock numbers from 8,500 to 12,000 beef finishers
- Constructing a solid manure storage pad – irregular rectangular shape 275 m x 79 m x 185 m x 170 m
- Constructing catch basin 4 – 200 m x 12 m x 2.4 m deep
- Constructing catch basin 5 – 150 m x 15 m x 2.5 m deep
- Expanding catch basin 2 – total dimension 80 m x 22 m x 3 m deep
- Permit previously expanded catch basin 3 – total dimension 236 m x 60 m x 4.47 m deep
- Decommissioning part of existing feedlot pen I3

Titan also included in their application that they are installing roller compacted concrete (RCC) over top of their grandfathered clay lined pens which does not require a permit. The applicant is reminded that when installing RCC, the existing clay liner must not be compromised.

The purpose of increasing the catch basin capacity is to accommodate for the addition of RCC (RCC increases the surface runoff coefficient).

During the application process, an unauthorized expansion to catch basin 3 that was completed in 2019 was identified and NRCB compliance staff were notified. Part of this application is to bring this unauthorized activity into compliance. As seen in Technical Document BA20006, the expansion to catch basin 3 meets liner requirements under AOPA.

Under AOPA, this type of application requires an approval. This is one of several types of “permits” issued under AOPA. For an explanation of the different types and when each one applies, see www.nrcb.ca.) Though the application proposes an increase in livestock numbers, no extra pen space is proposed given that RCC in the existing feedlot pens will facilitate greater animal density.

a. Location

The existing CFO is located at N½ 16-53-14 W5M (feedlot on NE 16 and the proposed solid manure storage pad on NW 16) in Yellowhead County, roughly 9 km south of the Hamlet of Peers, Alberta. The terrain is rolling with the feedlot sloping to the northeast, northwest and west

and the solid manure storage pad sloping to the east and southeast. The nearest common body of water is a seasonal drainage that runs west and east of the feedlot with catch basin 3 being the closest at approximately 69 metres from the seasonal drainage.

b. Existing permitted facilities

The CFO was originally permitted by Yellowhead County on March 20, 1995 under development permit #D95-013. This permit allowed the construction and operation of an 8,500 head beef feedlot. The CFO's deemed facilities are listed in the appendix of Approval BA20006. The CFO's grandfathered status is explained in Appendix F, attached.

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 specified distance is 3 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. Yellowhead County is an affected party (and therefore also a directly affected party) because the proposed expansion is located within its boundaries.

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

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

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

The NRCB published notice of the application in The Weekly Anchor on May 25, 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 Yellowhead County, Alberta Health Services (AHS), Alberta Environment and Parks (AEP), and Alberta Transportation. One hundred and sixty-two courtesy letters were sent to people identified by Yellowhead County as owning or residing on land within the affected party radius.

3. Responses from the municipality and referral agencies

I received responses from Yellowhead County, AHS, AEP and Alberta Transportation.

Mr. Charles Wells, planning and development officer, provided a written response on behalf of Yellowhead County. As noted in section 2, Yellowhead County is a directly affected party.

Mr. Wells stated that the application to expand the CFO is consistent with the policies of the county's municipal development plan (MDP). The application's consistency with Yellowhead County's MDP is addressed in Appendix A, attached.

Mr. Wells also noted that the CFO and lands within 1,600 m surrounding the CFO are zoned Rural District. It was also noted that the existing CFO is located within the Rural Policy Area under the MDP (which supports agricultural use) and that there are no statutory planning documents in the area.

Mr. Wells also listed the setbacks required by Yellowhead County's land use bylaw (LUB) and noted that the site does not meet the minimum setback requirement of 30 m from the undeveloped road allowance which is considered to be existing non-conforming. The proposed catch basin expansions are within the CFO footprint and the solid manure storage pad meets the setback requirements under the LUB.

Ms. Christine Gilham, a public health inspector / executive officer, sent a response on behalf of AHS. Ms. Gilham stated that well ID 2033032, located at the portable home, is measured to be located approximately 50 metres from the proposed solid manure storage pad. The applicant stated to AHS, while copying the NRCB, that they would maintain the 100 m setback to the house as requested by AHS. Ms. Gilham also recommended Titan to sample water well ID 456684 located by the office building, in a determined frequency for chemical and bacteriological parameters on to ensure potability. Other comments included the protection from runoff to nearby natural water courses. As explained in section 5 below, I assessed the risk of the existing and proposed CFO facilities, (including the runoff control catch basins and all of the CFO's facilities) and determined that they pose a low risk to both groundwater and surface water.

In a phone conversation with Derrick Alexander with AEP, he provided the following comments: currently the CFO is licensed to 25.6 million gallons of water per year. If they are running 12,000 finishers with 9 gallons of water per day per animal for 365 days a year, they would require 39.2 million gallons of water. Once they increase their animal numbers over the allotted water allocation (25.6 million gallons/yr), they are required to apply for additional water licensing. He also requested that the applicant applies to AEP to have their name changed on their license from AJL Farms to Titan Land and Cattle. The producer is reminded by way of this decision that they are responsible to obtain the appropriate water licensing as required and to contact AEP to make the requested changes.

The NRCB also received a written response from Mr. Nuzhat Butt, a development & planning technologist with Alberta Transportation. Mr. Butt stated that a roadside development permit is required since the proposed development is located within the control zone of Highway 16. I forwarded the response to the applicant who since submitted an application to Alberta Transportation.

4. Responses from other directly affected parties

The NRCB received 2 responses from 4 individuals.

Of the two responses, one party (two individuals) owns or resides on land within the 3.0 mile

radius for affected persons. Because of their location within this radius, they are presumed to be directly affected by the application.

The second party (two individuals) does not own or reside on land within the 3.0 mile radius for affected persons. I consider this party to be not directly affected by the approval application. Appendix B sets out my reasons for this determination.

The directly affected party raised concerns regarding:

- Size of operation
- Increase in odours and negative impact on air quality
- Surface water contamination
- Groundwater quality and usage
- Property values
- Road use and traffic
- Wildlife and disposal of deads
- Cumulative effects

These concerns are addressed in Appendix C.

5. Environmental risk screening of existing and proposed facilities

As part of my review of this application, I assessed the risk to surface water and groundwater posed by the CFO's existing and proposed manure storage facilities. I used the NRCB's environmental risk screening tool for this purpose (see NRCB Operational Policy 2016-7: *Approvals*, part 8.13). The tool provides for a numeric scoring of risks, which can fall within either a low, moderate, or high risk range. (A complete description of this tool is available under CFO/Groundwater and Surface Water Protection on the NRCB website at www.nrcb.ca.)

All of the CFO's existing and proposed facilities pose a low potential risk to groundwater and surface water. (The CFO's existing facilities are listed in the appendix to Approval BA20006.)

6. Other factors considered

The application meets all relevant AOPA requirements, with the terms and conditions summarized in part 7.¹

In addition, the proposed expansion is consistent with the land use provisions of Yellowhead 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 expansion:

- Meets the required AOPA setbacks from all nearby residences (AOPA setbacks are known as the "minimum distance separation" requirements, or MDS)
- Meets the required AOPA setbacks from 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

1. For a summary of these requirements, please see the [2008 AOPA Reference Guide](http://www.nrcb.ca/about/documents), available on the NRCB website at www.nrcb.ca/about/documents.

- Meets AOPA groundwater protection requirements for the design of floors and liners of manure storage facilities and manure collection areas

I also determined that the proposed solid manure storage pad is located within the required AOPA setback from an existing water well. However, as explained in Appendix D, this solid manure storage pad warrants an exemption from the 100 metre water well setback due to the well's construction and location cross-gradient from the solid manure storage pad. There is also three other water wells within 100 metres of the existing feedlot pens (see page 8 of Technical Document BA20006). I assessed the risk of these feedlot pens in relation to these water wells and determined they pose a low potential risk to groundwater and surface water. Since these facilities are grandfathered under the municipal permit and are considered low risk, an exemption or variance is not required under the act.

I also determined that a spring is located inside the existing feedlot pen I3 (see page 8 and 10 of Technical Document BA20006) which is within the required AOPA setback from a spring. However, as part of this application, the applicant proposed to remove a portion of this existing feedlot pen and to construct a berm between the remaining pen and the spring which diverts runoff to the northeast, away from the spring. This serves as additional protection of the spring. I therefore grant an exemption from the 100 metre setback to a spring as explained in Appendix D.

In addition, I assessed the effects of the proposed expansion 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 the directly affected parties' concerns have been adequately addressed. I also presume that the application's effects on the economy and community are acceptable, and that the proposed expansion is an appropriate use of land. Under NRCB policy, these presumptions are based on the application's consistency with the land use provisions of the municipal development plan. (See NRCB Operational Policy 2016-7: *Approvals*, part 8.7.3.) After considering the concerns from the directly affected party, comments from the referral agencies, and the feedback from Yellowhead County, I find these presumptions are not rebutted.

7. Terms and conditions

Approval BA20006 specifies the new permitted livestock capacity as 12,000 beef finishers, and permits the construction of the solid manure storage pad, catch basin 4, catch basin 5, the expansion of catch basin 2, and the use of the already expanded catch basin 3 as listed above.

Approval BA20006 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 BA20006 includes conditions that:

- Set a deadline of November 30, 2023 for the approved construction to be completed
- Requiring Titan to immediately contact the NRCB if the water table is encountered during construction of the catch basins
- Prohibit Titan from letting manure contaminated runoff enter the newly constructed catch basins, or placing manure on the solid manure storage pad until the facilities have been inspected by the NRCB following their construction
- Require part of existing feedlot pen I3 to be decommissioned

- Require Titan to construct and maintain in good working order a berm between a portion of the existing feedlot pen I3 and the spring to prevent surface water run-on and runoff

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

a. Conditions carried forward from previously issued permits

For clarity, and pursuant to NRCB policy, I consolidated the following permit with Approval BA20006: municipal development permit #D95-013 (see NRCB Operational Policy 2016-7: *Approvals*, part 10.5). Consolidating permits generally involves carrying forward all relevant terms and conditions in the existing permits into the new permit, with any necessary changes or deletions of those terms and conditions, and then cancelling all existing permits once the new permit is issued. This consolidation is carried out under section 23 of AOPA, which enables approval officers to amend AOPA permits on their own motion.

Therefore, in addition to containing the new terms and conditions summarized above, Approval BA20006 includes all existing terms and conditions in municipal development permit #D95-013, except the terms and conditions noted below. Construction conditions that are being carried forward and that have been met are identified and included in an appendix to the new approval.

Pursuant to section 23 of AOPA (approval officer amendments), I have determined that conditions #5 - 9 from municipal development permit #D95-013 should be deleted and therefore are not carried forward to Approval BA20006. My reasons for deleting these conditions are provided in Appendix E.

8. Conclusion

Approval BA20006 is issued for the reasons provided above, in the attached appendices, and in Technical Document BA20006.

Titan's deemed approval, including municipal development permit #D95-013, are therefore cancelled, unless Approval BA20006 is held invalid following a review and decision by the NRCB's board members or by a court, in which case the deemed approval will remain in effect.

September 15, 2020

(Original signed)

Julie Wright
Approval Officer

Appendices:

- A. Consistency with the municipal development plan
- B. Determining directly affected party status
- C. Concerns raised by directly affected party
- D. Exemptions from water well and spring setbacks
- E. Explanation of conditions in Approval BA20006
- F. Grandfathering determination

APPENDIX A: Consistency with the municipal development plan

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

Titan’s CFO is located in Yellowhead County and is therefore subject to that county’s MDP. Yellowhead County adopted the latest revision to this plan on September 2013, under Bylaw 15.13. The CFO is located in an area referred to in the MDP as Rural Policy Area.

The relevant MDP policies are identified and discussed below.

Section 6.2.2 Rural Policy Area states that “New or expanded confined feeding operations, subject to the Agricultural Operation Practices Act and locational criteria will be supported in this policy area, away from residential and other non-compatible uses.” This CFO is located within the Rural District Policy Area, the proposed expansion meets the “technical and locational” requirements of AOPA and the county’s response supports the expansion of Titan’s CFO.

Section 6.4 addresses the Rural Policy Area.

Section 6.4.1 described the County’s goals as “to protect “Better Agricultural Lands” from the impacts of fragmentation created by residential and other non-agricultural development...”. I interpret this section to support agricultural operations, including CFOs, and is a suitable land use in this area.

Section 6.4.1 further states: “CFOs are an intensive form of agri-industry that have impacts on neighbouring land uses and pose a high risk of conflict. Potential negative impacts of these operations must be taken into account by the [NRCB] when determining whether a CFO will be approved.” This policy is likely not a land use provision as it calls for site-specific, discretionary judgements. Therefore, this policy is not relevant to my MDP consistency determination as required under section 20(1) of AOPA.

Section 6.4.2(f) states: “encourage the siting of [CFOs] in areas which will not result in land use conflicts, and does not result in concentration of [CFOs] in a single area.” This policy is likely not a land use provision as it calls for site-specific, discretionary judgements. Therefore, this policy is not relevant to my MDP consistency determination required by section 20(1) of AOPA.

Section 6.4.3(j) states that “[CFOs] or manure storage facilities requiring an authorization or registration under [AOPA], will be supported subject to” 6.4.3(j)(i-xv). There appears to be no corresponding section for approvals under AOPA. However, since this application is for an approval, I followed up with the county to inquire about the intent of this section and why

approvals were not included. Charles Wells, development officer for Yellowhead County, explained that there were some clerical errors in the 2013 MDP relating to CFOs in the Rural Policy Area. He stated there was supposed to be two separate subsections regarding approvals and authorization/registrations, similarly to the Agricultural Policy Area Section 6.3.3(h). As per Mr. Wells clarification, Section 6.4.3(j)(i-viii) address approvals under AOPA while section 6.4.3(j)(ix-xv) address authorizations and registrations. I interpreted section 6.4.3 accordingly as follows.

The following subsections under section 6.4.3(j) relate to approvals:

i. The site is not within 0.8 km of any institutional, commercial, recreational or residential uses or lands designated for such uses;

Under NRCB policy, approval officers should not consider MDP provisions that rely on or change the minimum distance separation (MDS) formulas or MDS requirements under AOPA (See also Operational Policy 2016-7: *Approvals*, part 8.2.5). Regardless, Titan's CFO is not located within the 0.8 km setback from institutional, commercial, recreational or residential uses or lands designated for such uses. The nearest neighbour as seen in Technical Document BA20006 is located approximately 1,185 metres away, exceeding the required 800 metre setback.

ii. The site is not within 0.8 km of any [natural heritage feature, including] watercourse, water bodies, and lakes, etc.;

As mentioned above, section 6.4.3(j) had some clerical errors and was supposed to mimic what was written in section 6.3.3(h) which includes the text "...natural heritage feature, including..." As such, the square brackets show my interpretation of this subsection to include natural heritage features.

The county's bylaws or regulations do not define what 'natural heritage feature' is, neither has it been identified on any county maps. Through discussions with Yellowhead County's development officer (Mr. Wells), he indicated that the county was not able to find a definition for this term and said it appears to be an oversight that should be rectified within their MDP. However, water body is defined in the Land Use Bylaw (LUB) as "the bed and shore of a river, stream, lake, creek, lagoon, swamp, marsh, or other natural body of water whether it contains or conveys water continuously or intermittently". The development officer also acknowledged that the definition of water body in the LUB, if applied to the MDP, is problematic and could result in an unintended denial as this definition would in essence sterilize a large portion of the county even though their MDP encourages the siting of CFOs (see my discussion on the LUB below).

I found that, in previous NRCB decisions on applications in Yellowhead County (e.g. BA09012, BA08003), the approval officers determined that the MDP setback and parcel size policies were in relation to new CFOs. Together with the comments above, previous MDP consistency determinations; the lack of clarity of the respective section; and required site-specific, discretionary determinations, this policy is likely not a "land use provision" and I therefore will not consider these sections to be relevant to my MDP consistency determination as required by section 20(1) of AOPA. I observe that, the proposed MSFs meets AOPA's setback to a water body and also meet all other AOPA technical requirements.

iii. The site is not within 3.2 km of an Urban Municipality or Hamlet;

This subsection provides a minimum distance separation setback between CFOs and an urban municipality or hamlet. Because of the similarities with the setback discussed above, the same rationale applies to these setbacks. Therefore, as discussed above, I have determined that this setback is not relevant to my MDP consistency determination. I consider it to be a test or condition related to the construction of, or the siting for, a CFO that is based on or directly modifies the AOPA MDS requirement.

Regardless, Titan's proposed CFO expansion would meet the 3.2 km setback to an urban municipality or hamlet.

iv. The site is not located west of Range 17;

This application is not located within this CFO restriction area and therefore this policy does not apply to this CFO.

v. The parcel size of the facility is no less than 60 acres in area;

This provision is likely not a land use provision because it refers to specifics in respect to a site of a CFO, rather than the use of a specific land. At any rate, the quarter sections on which the CFO is located meets this requirement.

vi. The site is located to minimize the odour impacts on surrounding residences;

The NRCB views this policy as a "test or conditions" related "to the site" for a CFO, and therefore excluded from my MDP consistency determination under section 20(1.1) of AOPA.

This policy is likely not a land use provision because it requires site-specific, discretionary determinations (see NRCB Operational Policy 2016-7, *Approvals 8.2.5*). Therefore, this policy is not considered to be relevant to the MDP consistency determination required by section 20(1) of AOPA. At any rate, the application meets AOPA's required MDS to all neighbouring residences which objectively formulates acceptable distance for odours and nuisances.

vii. The cumulative impacts of the operation have been assessed in context with any other proposed or existing confined

viii. feeding operation in the area, in order to prevent an accumulation or concentration of confined feed operation uses in a single area.

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

For these reasons, I conclude that the application is consistent with the land use provisions of Yellowhead County's MDP. The county's response supports my conclusion.

I also have determined that the LUB is not directly integrated into the MDP. Section 1.2 of the MDP states "that the MDP is not a regulatory document; it is a framework that is intended to guide decision-making, bylaw development and investment for the future. The County's Land Use Bylaw serves as the regulatory document for all land use decision making." Section 6.2 states "Detailed planning regulation in the white area (privately owned) is provided through relevant [ASP] and the County's [LUB]." Throughout the rest of the document, LUB is mentioned

in terms of guidance for subdivision, commercial and industry development generally. Section 15.3 also states "Implement the policies contained within this Plan [MDP] through the Land Use Bylaw,". From the above mentioned sections, these describe the land use planning document interrelationships and guidance in development. There is no direct correlation to intensive livestock operations or agricultural practices and no integration of the LUB into the particulars of the MDP itself. The county's LUB also defines CFOs as "means a [CFO] as defined by the [AOPA]" and states in section 15 that CFOs or MSFs under AOPA do not require a permit under the county. Therefore, I interpret that the county recognizes that the NRCB has permitting authority over CFOs and MSFs under AOPA and as such, the LUB will not be part of my consideration of consistency of the application with the land use provisions of the MDP.

APPENDIX B: Determining directly affected party status

The following individuals own or reside on land within the “affected party radius,” as specified in section 5(c) of the Agricultural Operation, Part 2 Matters Regulation:

- David and Janet Bulmer
SE 10-53-14 W5M

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.

The following individuals who submitted a response to the public notice 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 expansion (*Ijtsma*, RFR 2011-05, page 3):

- Andrew and Doris Sinclair
NE 25-53-13 W5M

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.)

The concerns from this party (the Sinclairs) were generally in regard to air quality, emissions, odours, cumulative effects, spreading lands, contaminating ground water, and runoff.

I note that the two individuals who submitted a joint statement are located over 9 miles away from the CFO which is over three times the 3.0 mile affected party radius. As a result, the chain of causality, the probability of the alleged effects, the expected impact of the effects and the severity of the effects do not meet the burden of showing that they are directly affected by the application by establishing the elements of this test. As such, they will not be considered directly affected parties in my review of this application. However, the majority of the concerns raised by these individuals are the same as the concerns raised by the directly affected party. Those concerns are discussed in Appendix C below.

APPENDIX C: Concerns raised by directly affected party

1. Concerns from directly affected party

The directly affected party (David and Janet Bulmer) raised a number of issues in their statements of concern. The issues are summarized and listed below, together with my analysis and conclusions.

Size of operation – increase levels of confinement and concentration resulting in an increase in manure production

Approval officer's conclusion:

AOPA does not prescribe where a CFO should be located or how much land is required in order to build a CFO. AOPA stipulates only that the location must be consistent with the county's MDP, which is the county's planning document, and that it must meet the required minimum distance separation from neighboring homes.

As explained previously, the CFO meets AOPA's MDS requirements. MDS is a means for mitigating nuisance impacts for neighbours to a CFO. Despite the MDS requirement being met, it is possible that neighbouring residences may experience odours and other potential airborne related nuisances from the CFO from time to time. 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 reporting line (1-866-383-6722 or 310-0000). An NRCB inspector will follow up on the concern.

In terms of the increase manure production, the applicant provided more than the required land base requirements for manure spreading for the increase in livestock numbers as seen in Technical Document BA20006. Having said that, sections 24, 25, and 27 of the Standards and Administration Regulation (SAR) lay out the requirements for the land application of manure. In very general terms, a person cannot cause a risk to the environment by land applying manure, including to surface water and groundwater. The regulations establish required setbacks for manure spreading near water bodies, water wells, springs, and related features. These setbacks are dependent on slopes and if the land is tilled, and must be assessed on a field by field basis. The regulations also include nutrient loading limits to ensure that the soil is not overloaded with nutrients. The proposed solid manure storage pad and catch basins, and the unauthorized expansion to catch basin 3 also meet the protective liner requirements under section 9(5) of SAR which provides protection to groundwater.

Increase in odours and negative impact on air quality - increase in odours from the CFO, negative impact on air quality such as greenhouse gases and airborne particles, and decrease in quality of life

Approval officer's conclusions:

AOPA uses the MDS to mitigate odours and nuisance concerns of which the proposed expansion meets the MDS requirements to neighbouring residences. AOPA does not have any requirements for greenhouse gases and other atmosphere airborne substances. As per NRCB policy, I referred the application to Alberta Health Services (AHS). (See NRCB Operational Policy 2016-7: Approvals, Section 8.8.) In their response to the application, AHS did not raise any concerns related to air quality or airborne substances from the proposed CFO expansion or need for a plan to prevent them.

Despite the above, the air quality concerns are relevant to my consideration of “effects on the community” and the environment. As explained in part 6 of the decision summary, above, following NRCB policy, I presumed that the effects of the proposed expansion on the community are acceptable because the application meets AOPA MDS requirements and the land use provisions of the municipal development plan.

As explained previously, the CFO meets AOPA’s MDS requirements. MDS is a means for mitigating nuisance impacts, such as air quality, for neighbours to a CFO. Titan’s CFO is situated outside of the required MDS of 942 m to existing residences – the closest neighbouring residence to the Titan’s beef CFO is located 1,185 m away. The respondents’ residence is located 3,154 m away from the existing CFO which is over 3 times the required MDS.

Despite the MDS requirement being met, it is possible that neighbouring residences may experience odours and other potential airborne related nuisances from the CFO from time to time. Often, any issues that arise relating to the operation of a CFO, and other disagreements, 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 the operation is complying with AOPA, they may contact the NRCB through its toll free 24 hour reporting line (1-866-383-6722 or 310-0000). An NRCB inspector will follow up on the concern.

Surface water contamination – concerns of surface water being contaminated with nitrogen, chemicals, bacteria, antibiotics, steroids, and growth hormones

Approval officer’s conclusions:

As noted in this decision summary and in Technical Document BA20006, the proposed CFO expansion, including the existing facilities, pose a low potential risk to surface water. AOPA’s Standards and Administration Regulation addresses the protection of surface water by stipulating requirements for manure spreading and the construction of manure storage facilities. This application meets all of those requirements.

Sections 24, 25, and 27 of the Standards and Administration Regulation (SAR) lay out the requirements for the land application of manure. In very general terms, a person cannot cause a risk to the environment by land applying manure, including to surface water and groundwater. The regulations establish required setbacks for manure spreading near water bodies, water wells, springs, and related features. These setbacks are dependent on slopes and if the land is tilled, and must be assessed on a field by field basis. The regulations also include nutrient loading limits to ensure that the soil is not overloaded with nutrients.

AOPA has requirements to protect groundwater and surface water. The setback requirements from springs, water wells, and common bodies of water are set out in 7(1) of the Standards and Administration Regulation, which prohibits the construction of a manure storage facility or manure collection area less than 100 m from a spring or water well and less than 30 m from a common body of water. “Common body of water” is a defined term in the legislation.

During my site visits, I did not see any common bodies of water within 30 m of the proposed CFO facilities. I also verified this distance by reviewing available air photos. I observed one spring, located in a grandfathered feedlot pen. In their application, Titan

proposed to shut down part of a pen and construct a berm to protect the spring. When assessing the risk the CFO poses to this spring, I have determined that an exemption from the 100 m setback to a spring is warranted as explained in Appendix D. The proposed solid manure storage pad does not meet the required 100 metre setback to a water well. However, results of a water well setback exemption screening indicate that an exemption to the setback is warranted. There is also three other water wells within 100 metres of the existing feedlot pens (see page 8 of Technical Document BA20006). I assessed the risk of these feedlot pens in relation to these water wells and determined they pose a low potential risk to groundwater and surface water. Since these facilities are grandfathered under the municipal permit and are considered low risk, an exemption or variance is not required under the act. New water wells, if any should be installed at the CFO, should be located more than 100 metres away from manure collection and storage facilities.

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 reporting line (1-866-383-6722 or 310-0000). The call will be followed up on by an NRCB inspector. Neighbours and concerned parties can also call any NRCB office during regular business hours if they have questions about permit conditions or ongoing AOPA operational requirements.

Groundwater quality and usage – concerns of leaching into the groundwater table contaminating aquifers and affecting water supplies

Approval officer's conclusions:

As noted in the decision summary above, and documented in Technical Document BA20006, the proposed CFO facilities meet all AOPA technical requirements related to groundwater protection. AOPA requirements provide an acceptable level of protection. Nevertheless, 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 concluded that the level of potential groundwater risk posed by these facilities is low.

Regulations under AOPA set nutrient application limits to prevent the soils from being overloaded with nitrogen and minimize the potential for groundwater to be impacted by manure constituents (Standards and Administration Regulation, sections 24 and 25). AOPA also requires operators to test soils on farmland to which manure is applied for salts and nitrogen at least every three years, and to make these records available for inspection by the NRCB.

Alberta Environment and Parks (AEP) is responsible for licensing and monitoring the supply of groundwater in the province. The water licensing process includes an opportunity for neighbours to provide input. Therefore, for efficiency and to avoid inconsistent regulation, NRCB approval officers generally do not consider water supply concerns when reviewing AOPA permit applications, other than ensuring that applicants sign one of the water licensing declarations listed in the Part 2 application form. (This declaration is on page 12 of Technical Document BA20006.)

Titan's application included a signed declaration indicating that they were uncertain if additional licensing is required for their existing CFO. I forwarded the application to AEP for their information and response. As seen in part 3 of the decision summary, AEP provided comments in regards to having their name changed on their license from AJL Farms to Titan Land and Cattle and indicated that if they use more than 25.6 million gallons per year, they would require additional water licensing. The applicants are reminded to contact AEP to obtain the appropriate licensing prior to increasing animal numbers.

Property values – depreciation in value to properties in the vicinity due to expansion of the feedlot

Approval Officer's conclusion:

In several review decisions, the NRCB's board members have stated that concerns regarding effects on land or 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.")

As explained in Appendix A above, Titan's CFO expansion is considered a suitable land use in the MDP's Rural Policy Area.

Road use and traffic

Approval Officer's conclusion:

Traffic on Highway 16 and county roads may increase as a result of the expanding CFO. Yellowhead County did not raise concerns regarding a potential increase in traffic, dust or maintenance costs due to this development. This application was also referred to Alberta Transportation (AT). AT determined that a permit would be required. This response was forwarded to the applicant and they are currently working with AT to obtain the appropriate permits.

Wildlife and disposal of deads -- Impacts to wildlife, disposal of deceased livestock and an increase in scavengers

Approval officer's conclusions:

Wildlife resources in Alberta are not within the regulatory mandate under AOPA. Rather, they are managed under the *Wildlife Act* by Alberta Environment and Parks while habitat and other landscape related issues which may influence wildlife are covered under numerous other acts and regulations. It is possible that the CFO and its proposed expansion would have an effect on local wildlife and that there may be a change in the number of scavengers in the area.

Dead animal disposal is regulated directly by AF's Regulatory Services Branch, under the *Animal Health Act* (see NRCB Operational Policy 2016-7: Approvals). Given AF's regulatory role, concurrent oversight of dead animal disposal by the NRCB would be inefficient and might lead to inconsistency with AF's requirements.

Cumulative effects – related effects on the community and economy

Approval Officer's conclusion:

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. The NRCB's board members have directed approval officers to ignore this factor 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.)

In addition, within AOPA, both MDS and soil nutrient loading requirements are effective ways to mitigate or minimize the potential for cumulative effects. AOPA and its regulations do not specify or contain requirements relating to other land uses (such as natural habitat for wildlife, fishing), as long as the "appropriate use of land" has been considered. I considered that land adjacent to a CFO does not have future development restrictions under AOPA, and that this application meets the land use provisions of the MDP of Yellowhead County. Considering all those things, I conclude that the use of the subject land for a CFO is an appropriate use.

APPENDIX D: Exemptions from water well and springs setbacks

Water well setbacks

According to the application, three water wells within 100 metres of the existing grandfathered feedlot pens (see page 8 of Technical Document BA20006). I assessed the risk of these feedlot pens in relation to these water wells and determined they pose a low potential risk to groundwater and surface water. Since these facilities are grandfathered under their municipal permit and are considered low risk, an exemption or variance is not required under the act.

There is also one water well located about 63 metres from the proposed solid manure storage pad. I have confirmed this information by site visit and through the review of satellite imagery.

Because of this proximity, the applicant's proposed solid manure storage pad conflicts with a regulation under AOPA, which prohibits the construction of manure storage facilities (MSFs) within 100 metres of water wells.² However, the regulation allows approval officers to grant an exemption from this prohibition. I must therefore consider whether an exemption is appropriate in this instance.

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

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

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

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

- How the well was constructed
- Whether the well is being properly maintained
- The distance between the well and the proposed MSF
- Whether the well is up- or down-gradient from the MSF and whether this gradient is a reasonable indication of the direction of surface and groundwater flow between the two structures

These presumptions and considerations are based on NRCB Operational Policy 2016-7: *Approvals*, part 8.7.1.

² Standards and Administration Regulation, Alta. Reg. 267/2001, section 7(1)(b).

Based on information provided by the applicant and from the Alberta Environment and Parks (AEP) water well database, water well ID# 2022032 is located approximately 63 metres south of from the proposed solid manure storage pad. The total depth of the well is 30.5 metres. The water well drilling report indicates that the well has a driven and bentonite seal with an unknown thickness, and the depth to the open interval starts at 24.4 metres below ground. Information on the subsurface lithology of the well shows that there is a 4.6 metre thick protective clay layer overlaying a 4 metre thick shale layer above alternating sandstone and shale layers. I identified the most conservative uppermost groundwater resource to be at a depth of 9.8 metres.

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.³

In this case, the results of the water well exemption screening tool suggest that an exemption is likely.

Based on the above, I am prepared to grant an exemption to the 100 m water well setback requirement for the proposed solid manure storage pad.

Spring setbacks

There is one spring is located within existing deemed feedlot pen I3 (as seen on page 8 and 10 of Technical Document BA20006) which is within the required AOPA setback for a manure collection area from a spring (section 7(1)(a) Standards and Administration Regulation). I have confirmed this information by site visit and through the review of satellite imagery.

Because of the spring’s location, the applicant has proposed as part of this application to decommission a portion of this existing feedlot pen and to construct a berm as additional protection.

As seen in part 5 of the decision summary, all existing facilities are considered low potential risk to both groundwater and surface water. Through this risk screening process, I included details about the spring which inevitably increased the risk score but it still maintained a low risk level to both surface water and groundwater. Since the existing facilities are considered low potential risk to the spring and all proposed facilities are outside the 100 metre setback, an exemption is warranted for this 100 metre setback to the existing feedlot pens. However, since the applicant proposed to decommission a portion of a pen and construct a berm as additional protection, conditions have been included to decommission a portion of pen I3 in accordance with Technical Guideline Agdex 096-90, “Closure of Manure Storage Facilities Manure Collection Areas” and to construct and maintain in good working order a berm between the spring and a portion of feedlot pen I3 to prevent surface water run-on and runoff.

³ A complete description of this tool is available under CFO/Groundwater and Surface Water Protection on the NRCB website at www.nrcb.ca.

APPENDIX E: Explanation of conditions in Approval BA20006

Approval BA20006 includes several conditions, of which some are not being carried forward from municipal development permit #D95-013, discussed below, and some construction conditions from municipal permit #D95-013 are being carried forward (see section 2 of this appendix).

Approval BA20006 includes several conditions, discussed below:

1. New conditions in Approval BA20006

a. Construction above the water table

Section 9(3) of the Standards and Administration Regulation under the *Agricultural Operation Practices Act* (AOPA) prohibit construction of a manure collection area with a protective layer if its bottom is less than one metre above the water table at the site “at the time of construction.”

Based on this information, the proposed catch basins and solid manure storage pad meet the one metre requirement of section 9(3). 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.

b. Construction Deadline

Titan proposes to complete construction of the proposed new catch basins and solid manure storage pad by September 2023. This time-frame is considered to be reasonable for the proposed scope of work. To allow for three full construction seasons, the deadline of November 30, 2023 is included as a condition in Approval BA20006.

c. Post-construction inspection and review

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 manure or manure contaminated runoff is placed in the newly constructed facilities. Approval BA20006 includes a condition stating that Titan shall not place manure on the manure storage portions of the new solid manure storage pad or allow manure contaminated runoff to enter the new catch basins until NRCB personnel have inspected the facilities and confirmed in writing that they meet the approval requirements.

d. Decommissioning of facility

Titan proposes to decommission a portion of existing feedlot pen I3 (as seen on page 8 and 10 of Technical Document BA20006). A condition has been included in Approval BA20006 requiring the facility to be decommissioned within a year of the issue date of this permit in accordance with Technical Guideline Agdex 096-90, “Closure of Manure Storage Facilities Manure Collection Areas”. A worksheet documenting the decommissioning must be provided to the NRCB following the completion of this decommissioning.

e. Construction of berm

Titan has committed to constructing a berm between the spring and a portion of the existing

feedlot pen I3 as mentioned above. A condition has been included in Approval BA20006 requiring the permit holder to construct and maintain in good working order a berm between the spring and a portion of feedlot pen I3 to prevent surface water run-on and runoff.

2. Conditions not carried forward from municipal development permit #D95-013

5. Site is to be maintained in a clean and orderly manner.
6. The removal of garbage and waste is the responsibility of the owner/developer.

Conditions 5 and 6 cover operational aspects that are covered by other regulatory bodies and pieces of legislation. Regulations listed in these conditions fall under the jurisdiction of Alberta Health and Yellowhead County. The NRCB's current practice in writing AOPA permits is to require compliance with existing legislation as a general permit term rather than list it in a separately-numbered condition. Under NRCB policy, the conditions will therefore be deleted and not carried forward. (See NRCB operational Policy 2016-1: Amending Municipal Permit Conditions, part 2.1).

7. Shall comply with all conditions as required by the Alberta Health and the Health Inspector.
8. Shall comply with all conditions as required by Alberta Environmental Protection.

Condition 7 and 8 – there were no conditions from Alberta Health or Alberta Environmental Protection associated with this municipal development permit. With the absence of these specific conditions, I read this as the CFO would have to follow all applicable legislation administered by AHS and AEP. However, I have considered the comments that AHS has provided in regards to this new application and forwarded the response to the applicant for their information. After discussions with AHS and Titan, the applicant has indicated they are working with AHS and following their recommendations. Since these recommendations are in relation to AHS regulations, I'm not including additional conditions which are out of AOPA's purview. As such, these conditions will therefore be deleted and not carried forward.

9. The operator shall conduct the livestock operation in accordance with the Code of Practice adopted by the Alberta Cattle Feeders Association.

This condition likely refers to the Code of Practice (1982 Confinement Livestock Facilities Waste Management Code of Practice issued by Alberta Agriculture and Alberta Environment); the requirements under AOPA are essentially the revisions to the Code of Practice. This condition is considered redundant, therefore, I am deleting and replacing it with the statement *the permit holder shall comply with the requirements of the Agricultural Operational Practices Act (AOPA) and the regulations passed pursuant to that act.*

APPENDIX F: Grandfathering determination

The CFO was originally permitted by Yellowhead County on March 20, 1995 under development permit #D95-013. This permit allows the construction and operation of a beef CFO with 8,500 head. This development permit is a deemed (i.e. grandfathered) approval under section 18.1(1)(b) of AOPA. The CFO's deemed facilities are listed in appendix of Approval BA20006.

The applicant is not claiming any capacity above what was authorized by #D95-013. Accordingly, because the CFO was constructed pursuant to a development permit issued before January 1, 2002, there was no requirement to notify anyone under section 11 of AOPA's Administrative Procedures Regulation.

Under section 18.1(2)(b), the CFO's deemed capacity is the capacity authorized by the CFO's development permit. Therefore, the CFO has a deemed capacity of 8,500 beef finishers.