

## Decision Summary LA19004

This document summarizes my reasons for issuing LA19004 under the *Agricultural Operation Practices Act* (AOPA). Additional reasons are in Technical Document LA19004. All decision documents and the full application are available on the Natural Resources Conservation Board (NRCB) website at [www.nrcb.ca](http://www.nrcb.ca) under Confined Feeding Operations (CFO)/CFO Search. My decision is based on the act and its regulations, the policies of the NRCB, the information contained in the application, and all other materials in the application file.

### 1. Background

On January 25, 2019, Pieter Wessels, on behalf of P & H Wessels Farms Ltd. submitted a Part 1 application to the NRCB to construct a new beef confined feeding operation (CFO). The Part 2 application was submitted on January 31, 2019. On February 20, 2019, I deemed the application complete.

In this application, Pieter Wessels initially applied to convert their existing seasonal feeding and bedding site on SW 4-8-26 W4M to a CFO and construct a catch basin to control runoff on this quarter. He also applied to construct new CFO pens and a second runoff control catch basin on the adjacent quarter NW 33-7-26 W4M.

The land identified in the application as NW 33-7-26 W4M is currently owned by Beekman Farms Ltd, who has authorized Pieter Wessels in writing to apply for the permit at this location (See Page 3 of Technical Document LA19004). Beekman Farms Ltd. will also be included as a co-permit holder.

The proposed construction in the initial application involved:

- Increasing livestock numbers from 0 to 5000 beef finishers
- Constructing two catch basins – 40 m x 40 m x 5 m (NW 33-7-26 W4M) and 34 m x 30 m x 4 m (SW 4-8-26 W4M)
- Constructing two rows of feedlot pens –190 m x 223 m (NW 33-7-26 W4M) and 185 m x 90 m (SW 4-8-26 W4M)

On July 4, 2019, Pieter Wessels sent an email (page 2 of technical document LA19004) indicating that he had decided to amend his application by deleting the conversion of the existing seasonal feeding and bedding site on the SW quarter as well as the proposed runoff control catch basin for that quarter, and reducing the proposed livestock numbers from 5,000 beef finishers to 2,500 beef finishers:

- Reducing proposed livestock numbers from 5,000 to 2,500 beef finishers
- No longer constructing the proposed catch basin on SW 4-8-26 W4M (34 m x 30 m x 4 m)
- No longer constructing the proposed feedlot pens on SW 4-8-26 W4M (185 m x 90 m)

This decision was reached by the applicant after he identified unexpected logistical issues at the proposed CFO location on SW- 4-8-26 W4M. Pieter Wessels stated that they will continue to use the existing pens on SW 4 -8 26 W4M as a seasonal feeding and bedding site. Because this area will be used as a seasonal feeding and bedding site, which does not require an AOPA permit, it will not be considered part of this application. The applicant is reminded that they are required to operate the adjacent seasonal feeding and bedding site in accordance with the NRCB's Operational Policy 2015-2 *Distinguishing Between Confined Feeding Operations and Seasonal Feeding and Bedding Sites (for Cattle Operations)*, as well as AOPA regulations pertaining to manure management and storage.

Application LA19004 has now been revised and consists of developing a new CFO on NW 33-7-26 W4M including:

- Increasing livestock numbers from 0 to 2500 beef finishers
- Constructing a synthetically lined catch basin– 40 m x 40 m x 5 m
- Constructing feedlot pens –190 m x 223 m (total area)

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](http://www.nrcb.ca).)

#### **a. Location**

The proposed CFO is located at NW 33-7-26-W4M in the Municipal District of Willow Creek, roughly 13 km southwest of Fort Macleod. The terrain is undulating and slopes slightly to the north towards an ephemeral drainage.

## **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 individuals 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 1.5 miles. That was the distance used to provide notice (the NRCB refers to this distance as the “affected party radius.”) based on the original animal numbers proposed by the applicant (5,000 beef finishers). That distance is the same for 2,500 beef finishers. This means that the affected party radius has not changed with the change in animal numbers.

Municipalities that are affected parties are defined by the act to be “directly affected” and are entitled to provide evidence and written submissions. The Municipal District of Willow Creek is an affected party (and therefore also a directly affected party) because the proposed facilities are 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 Macleod Gazette on February 20, 2019 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 the Municipal District of Willow Creek, Alberta Health Services (AHS), Alberta Environment and Parks (EP), and Alberta Transportation. A total of 40 courtesy letters were sent to people identified by the Municipal District of Willow Creek as owning or residing on land within the affected party radius. Re-notification of the amended application following the applicant’s reduction in the scope of the application and livestock numbers was not carried out. All parties who submitted statements related to the application will receive copies of this decision.

### **3. Responses from the municipality and referral agencies**

I received responses from the M.D of Willow Creek, AEP, AHS, and Alberta Transportation.

Ms. Cindy Chisholm, manager of planning and development with the Municipal District of Willow Creek, provided a written response on behalf of the Municipal District. As noted in section 2, the Municipal District is a directly affected party. Ms. Chisholm stated that the application is consistent with the Municipal District’s municipal development plan. In her response, Ms. Chisholm also stated that the Willow Creek Municipal Planning Commission requests that the NRCB gives consideration to all comments and concerns from the neighbouring landowners before making a decision. All statements of concern submitted within the deadline and in the manner indicated in the notice are addressed in Appendices B and C.

Ms. Leah Olsen, a development/planning technologist provided a written response on behalf of Alberta Transportation. Ms. Olsen stated that Alberta Transportation did not have any concerns with the proposed CFO and an Alberta Transportation permit is not required.

Mr. Jeff Gutsell, a hydrogeologist, provided a written response on behalf of AEP. In his response Mr. Gutsell stated that AEP has concerns with water allocation, use of unlicensed water sources, and the potential for groundwater contamination from the proposed catch basin and feedlot pens. These concerns are discussed in Appendix B.

Mr. Mike Swystun, an executive officer and public health inspector provided a written response on behalf of AHS. In his response Mr. Swystun stated that AHS has concerns with the proposed CFO relating to potential groundwater contamination, water allocation, and dust. Those concerns are discussed in Appendix B.

#### 4. Responses from other directly affected parties

The NRCB received 10 responses from 20 individuals. However, one of these submissions, provided by two individuals (Marlin and Donna Friesen) was received after the submission deadline in the notice. The e-mailed response did not include a request for a time extension or any justification as to why it was submitted late. Therefore I will not consider their response in my decision.

The 18 individuals who responded to the application notice within the deadline own or reside on land within the “affected party radius,” as specified in section 5(c) of the Agricultural Operation, Part 2 Matters Regulation. For this reason, and because they submitted a response within the deadline, they are presumed to be directly affected. These individuals are:

- Stasha Donahue – NW 28-7-26 W4M
- Edith Evans – N ½ 34-7-26 W4M
- Kelly and Peg Donahue – Section 8-8-26 W4M, NW 5-8-26 W4M
- Wendy and John McKinnon – Section 27-7-26 W4M
- Mark and Ali Meech – SE 32-7-26 W4M
- Stan, Jean, Bill and Wanda McNab – Section 3-8-26 W4M, Section 2-8-26 W4M, Section 11-8-26 W4M, ¾ 10-8-26 W4M, NW 34-8-26 W4M, N ½ 35-8-26 W4M
- Robert Rippin and Niesje Vanden Dool – SW 33-7-26 W4M
- Jadon and Jana Sharrat – SE 33-7-26 W4M
- Frank Wesley and Joy Hurlburt – SE 4-8-26 W4M

These directly affected parties raised concerns relating to the following:

- Adequate water supply
- Odour, air quality, soil quality
- Noxious Weeds
- Surface water drainage controls
- Catch basin construction design and materials
- Groundwater monitoring
- Fire hazard
- Groundwater quality
- Surface water
- Property values
- Road use and traffic
- Cumulative effects
- Dead animal disposal
- Animal welfare and containment
- Potential for change to a hog operation
- Manure application and land base for manure application
- Record keeping for manure spreading
- Adequacy of borehole drilling and permeability testing procedures
- Adequacy of information contained in application
- Adequacy of natural liner and whether the soil profile is appropriate for the feedlot pens
- Pen maintenance and manure buildup
- Confusion regarding increase in animal numbers
- Availability of information regarding catch basin capacity and water quality to landowners potentially impacted by any ground or surface water contamination that may occur
- Testing of water quality prior to and following issuance of a permit
- Enforcement of AOPA regulations

These concerns are addressed in Appendix C. In addition, runoff and groundwater concerns are addressed in approval conditions listed in section D and also discussed in Appendices B and C, below.

## 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 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/Guides on the NRCB website at [www.nrcb.ca](http://www.nrcb.ca).)

Under the screening tool, all of the CFO's proposed facilities pose a low potential risk to groundwater and surface water.

## 6. Other factors considered

The application meets all relevant AOPA requirements, with the terms and conditions summarized in part 7.<sup>1</sup>

In addition, the proposed CFO is consistent with the land use provisions of the Municipal District of Willow Creek's municipal development plan and land use bylaw. (See Appendix A for a more detailed discussion of the district's planning requirements.)

With respect to the act's technical requirements, the proposed CFO:

- Meets the required AOPA setbacks from all nearby residences (AOPA setbacks are known as the "minimum distance separation" requirements, or MDS)
- Meets the required AOPA setbacks from springs, wells and common bodies of water
- Has sufficient means to control surface runoff of manure
- Meets AOPA's nutrient management requirements regarding the land application of manure
- Meets AOPA groundwater protection requirements for the design of floors and liners of manure storage facilities

As required by section 4(1) of the South Saskatchewan Regional Plan (SSRP), I considered that document's Strategic Plan and Implementation Plan and determined that the application is consistent with that plan. In addition, there are no notices or orders under the Regulatory Details portion of the SSRP that apply to this application.

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 I considered the concerns expressed by referral agencies and directly affected parties, and I concluded that their concerns are addressed (see Appendices B and C). I also determined 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

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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](http://www.nrcb.ca/about/documents).

determinations are based on the application's consistency with the municipal development plan and land use bylaw. (See NRCB Operational Policy 2016-7: *Approvals*, part 8.7.3.)

## 7. Terms and conditions

Approval LA19004 specifies the new permitted livestock capacity as 2500 beef finishers and permits the construction of feedlot pens and a catch basin.

Approval LA19004 also contains terms that the NRCB generally includes in all AOPA approvals, including terms stating that the permit holder 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 LA19004 includes conditions that:

- Set a deadline of November 30, 2022 for the approved construction to be completed
- Require a leakage detection system for the catch basin due to the presence of coarse-grained soils dispersed throughout the site
- Require submission of an engineer's completion report to confirm the location, depth below grade, and size of the synthetically lined catch basin, and to confirm that the liner and leakage detection system was installed in accordance with the manufacturer's requirements
- Require leakage detection reporting to the NRCB
- Require the NRCB to be notified immediately if leachate is detected or the synthetic liner is damaged
- Prohibit P & H Wessels Farms Ltd. from placing manure or livestock in the feedlot pens, or allowing manure contaminated runoff to enter the catch basin, until the required documentation has been provided and facilities have been inspected by the NRCB following their construction

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

## 8. Conclusion

Approval LA19004 is issued for the reasons provided above, in the attached appendices, and in Technical Document LA19004.

July 26, 2019

(Original signed)  
Adria Snowden  
Approval Officer

## Appendices:

- A. Consistency with the municipal development plan
- B. Concerns raised by referral agencies
- C. Concerns raised by directly affected parties
- D. Explanation of conditions in Approval LA19004

## APPENDIX A: Consistency with the municipal district development plan

Under section 20 of AOPA, an approval officer may grant an approval only if the approval officer finds that the application is consistent with the “land use provisions” of the applicable municipal district 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.”)

P & H Wessel Farms Ltd. is located in the Municipal District of Willow Creek and is therefore subject to that district’s MDP. The Municipal District of Willow Creek adopted the latest revision to this plan on June 14, 2017, under Bylaw #1765.

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

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

This policy is likely not a “land use provision,” as it calls for project-specific, discretionary judgements about the types of cumulative effects that should be considered and the acceptable maximum levels of each of those effects. For this reason, I do not consider the MDP provision to be relevant to my MDP consistency determination. In any case, the application meets the AOPA requirements for minimum distance separation which is intended to mitigate nuisance impacts of CFO’s such as odours. Additionally, all CFO operators are required to meet AOPA nutrient loading limits for manure spreading which further mitigates the potential cumulative effects of a CFO.

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

P & H Wessel Farms Ltd.’s proposed CFO is not within any areas designated “environmentally significant” in the referenced report.

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

This is likely not a “land use provision” because of its procedural focus and thus I do not consider it to be relevant to my MDP consistency determination. At any rate, as explained above, the NRCB met the notification requirements of AOPA. The NRCB emailed referral letters and a copy of the complete application to the Municipal district of Willow Creek, Alberta Health Services (AHS), Alberta Environment and Parks (AEP) and Alberta Transportation. In addition, 40 courtesy letters were sent to people identified by the Municipal District of Willow Creek as owning or residing on land within the affected party radius of 1.5 miles. (See also Operational Policy 2016-8: *Approvals*, part 6).

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

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

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

As discussed in Technical Document LA19004, P & H Wessels Farms Ltd.’s new CFO meets the AOPA setbacks to common bodies of water and is not located in a known flood plain. The proposed CFO facility is not also not located in a wetland or riparian area. This provision is therefore met by the application.

For these reasons, I conclude that the application is consistent with the land use provisions of the Municipal District of Willow Creek’s MDP. The district’s response supports my conclusion.

In my view, the Land Use Bylaw is clearly incorporated in the MDP in section 15.5:

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

Therefore I also considered the application’s consistency with this document. Under the Municipal District of Willow Creek’s Land Use Bylaw (#1743), the subject land is currently zoned as Rural General. CFOs are not listed as prohibited, permitted, or discretionary land use under this zoning. Ordinarily, a land use bylaw intends to preclude land uses that are not listed as permitted or discretionary (and that do not meet any other relevant criteria). However, the land use bylaw lists “intensive livestock operations” (ILOs), defined essentially as CFOs below AOPA’s permit thresholds, as a discretionary use within areas zoned Rural General. In addition, there is a provision in the Rural General part that limits parcel sizes for CFOs. If the municipality had really intended to outlaw CFOs in this district, this lot size restriction would be pointless.

Therefore, I interpret the omission of CFOs from the lists of permitted and discretionary land uses as simply the municipality’s recognition that, since AOPA came into effect in 2002, the NRCB is responsible for permitting CFOs.

As for the lot size restriction, section 2(d) of the Rural General part of the bylaw states that the “parcel size shall remain the same size for which the development approval was originally issued.” Since CFOs are not listed in the LUB, it is my interpretation that the lot restrictions are intended to apply to ILOs that are permitted by the municipality, and are not intended to apply to CFOs above AOPA’s permit thresholds. Whatever the case, the proposed expansion meets this restriction.

Setbacks in the land use bylaw for all developments are met by this application. For these reasons, I conclude that the application is not inconsistent with the land use bylaw.



## **APPENDIX B: Concerns raised by Alberta Health Services, Alberta Environment and Parks**

### **1a. Alberta Health Services (AHS)**

In a letter dated March 14, 2019, Mike Swystun, an executive officer/public health inspector with AHS provided the following comments:

- Potential for the project to contribute to increased nitrate loading in groundwater resources. 11 water well samples taken from NW 33-7-26 W4M between March 2003 and August 2015 (at well depths ranging from 46 feet to 67 feet), had nitrate levels between 11.8 mg/L and 18.3 mg/L, exceeding the maximum allowable concentration for nitrate of 10 mg/L set by the Guidelines for Canadian Drinking Water Quality
  - AHS recommends that P & H Wessel Farms Ltd. be required to conduct groundwater monitoring to detect any increased nitrates resulting from the development for the duration that the project is active
- Water samples taken from a well on SW 4-8-26 W4M in a 2013 study by the University of Calgary showed the following results after isotope testing:  $d^{15}N_{\text{nitrate}} = 28.6$   $d^{18}O_{\text{nitrate}} = 5.2$  which are indicative of nitrates from sewage or manure origin.
  - AHS recommends that prior to the development receiving approval, the applicant undertake an intensive water and soil testing program to ensure manure generated from livestock in pens or catch basins does not infiltrate groundwater and lead to a further increase in groundwater nitrate concentrations

#### **Approval Officer's conclusion:**

As noted in the decision summary above, and further documented in Technical Document LA19004, the proposed CFO meets all AOPA technical requirements. Several of these requirements are designed to prevent or mitigate manure leakage from CFO facilities and thus prevent manure from contaminating ground and surface water. In addition, I have included a condition requiring the permit holder to conduct leak detection monitoring for the proposed catch basin. That condition will include a leakage detection system prescribed by the manufacturer of the synthetic liner used for the catch basin and approved in writing by the NRCB. This system is to be designed to detect any failures in the catch basin's synthetic liner. I will also include a condition requiring bi-annual reporting for the leakage detection system, to be submitted to the NRCB by September 30 and March 31 of each year, unless otherwise specified by the NRCB in writing

- Data from the boreholes included in the application show heterogeneous soil types including a substantial amount of gravel soils, which AHS feels may present a potential risk of further contamination of groundwater resources and an increase in nitrate loading

#### **Approval Officer's conclusion:**

The engineering report included in Technical Document LA19004 indicates that the soil types present throughout the site provide a natural protective liner that meets AOPA technical requirements for the proposed feedlot pens. I discussed the report results in a phone conversation with John Lobbezoo, the engineer responsible for signing off on the report, and confirmed that he is confident that the protective layer is consistent throughout the site. This was further discussed with Stephanie Fleck, an Environmental Specialist with the NRCB, who

supported this conclusion. As the AOPA requirements have been met for the pen liner and catch basin linter, this concern has been addressed.

- Dust control measures in place for the operation

**Approval Officer's conclusion:**

Minimum distance separation (MDS) is a tool for mitigating odours and other nuisance impacts from CFOs. As shown in Technical Document LA19004, P & H Wessels Farms Ltd.'s proposed CFO exceeds this MDS requirement to the nearest residences. Concerns or non-compliance related to CFO nuisance impacts can be directed towards the NRCB's complaint line at 1-866-383-6722.

- It is unclear whether the P & H Wessels Farms Ltd. has a sufficient and approved water allocation for the proposed operation

**Approval Officer's conclusion:**

AHS concerns regarding a sufficient and approved water allocation for the operation is addressed below, in my response to Alberta Environment and Parks comments.

**b. Alberta Environment and Parks (AEP)**

In an email dated March 6, 2019, Jeff Gutsell, a hydrogeologist with AEP stated the following:

- Neither SW 4-8-26 W4M nor NW 33-7-26 W4M are within an irrigation district and are unable to receive water from an irrigation district for a feedlot operation
- There are no water licenses associated with the three wells located on SW 4-8-25 W4M, with Well ID numbers 103473, 103474 and 2028608,
- There is an unauthorized dam structure on SW 4-8-25 W4M for which P & H Wessels Farms Ltd. does not have a license

**Approval Officer's conclusion:**

In addressing water licensing concerns, Alberta Environment and Parks (AEP) is responsible for licensing the use of surface water and groundwater in the province. Operations or residences that do not hold an AEP water license have to enter into an agreement with another water license holder such as an irrigation district in order to have access to sufficient water for their needs. Neither of the two processes, either obtaining a water license from AEP or entering into an agreement with an irrigation district, are under the jurisdiction of the NRCB.

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 6 of Technical Document LA19004. See also NRCB Operational policy 2016-7: *Approvals*, part 8.10.) P & H Wessels Farms Ltd.'s application includes a signed declaration indicating that they do not require a *Water Act* license as they currently have an adequate water supply licensed under the *Water Act*.

The above water allocation concerns were forwarded to the applicant who was notified that obtaining a water license from AEP or entering into an agreement with another water license holder was their responsibility. P & H Wessels Farms Ltd. have since confirmed that they have contacted AEP and are in the process of licensing water sources to be used for the operation. A permit issued under AOPA does not mean that an operator will receive a water license for their operation. Any construction done without having the necessary licenses and permits in place is done at the operator's own risk.

- The presence of a shallow sand and gravel unit ranging in depth from 1.5 to 3 m dispersed across the site, as well as soft bedrock at a similar depth range, which the proposed catch basin would intersect.
- Synthetic liners are known to fail over time, through perforations or deterioration, posing a potential risk to groundwater.
- AEP recommends that monitoring/sentinel wells should be installed at the catch basin to mitigate the risk to groundwater.

**Approval Officer's conclusion:**

Similar concerns were raised by AHS, they are addressed in my response to AHS comments (see section 1a, above).

The proposed synthetically lined catch basin meets AOPA regulations, as indicated in Technical Document LA19004 and further discussed in Appendix C.

## APPENDIX C: Concerns raised by directly affected parties

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. They also submitted responses to the application in a timely manner. Therefore, under NRCB policy, these individuals are presumed to be “directly affected” by the application. See NRCB Operational Policy 2016:7 – *Approvals* (May 18, 2018), part 6.2.

Stasha Donahue	NW 28-7-26 W4M
Edith Evans	N ½ 34-7-26 W4M
Kelly and Peg Donahue	Section 8-8-26 W4M, NW 5-8-26 W4M
Wendy and John McKinnon	Section 27-7-26 W4M
Mark and Ali Meech	SE 32-7-26 W4M
Stan and Jean McNab Bill and Wanda McNab	Section 3-8-26 W4M, Section 2-8-26 W4M Section 11-8-26 W4M, ¾ 10-8-26 W4M NW ¼ 34-8-26 W4M, N ½ 35-8-26 W4M
Robert Rippin and Niesje Vanden Dool	SW 33-7-26 W4M
Jadon and Jana Sharrat	SE 33-7-26 W4M
Frank Wesley and Joy Hurlburt	SE 4-8-26 W4M

I consider the concerns as follows:

- *Adequate Water Supply, compensation for loss of water supplies (Edith Evans, Kelly and Peg Donahue, Robert Rippin and Niesje Vanden Dool, Jadon and Jana Sharrat, Frank Wesley and Joy Hurlburt, Stan and Jean McNab, Bill and Wanda McNab)*

### Approval Officer’s conclusions:

This concern is addressed in Appendix B. As stated in my response to Alberta Environment and Parks (AEP) comments, AEP is responsible for licensing the use of surface water and groundwater in the province. The applicant has also been reminded that it is their responsibility to acquire the necessary licenses/water conveyance agreements prior to populating the CFO.

- *Odour, air quality, spread of invasive weeds (Wendy and John McKinnon, Frank Wesley and Joy Hurlburt, Stan and Jean McNab, Bill and Wanda McNab)*

### Approval Officer’s conclusion:

AOPA’s minimum distance separation (MDS) is a means for mitigating odour and other nuisance impacts from CFOs. While it is true a new CFO will likely result in an increase in nuisance impacts, the application meets the MDS requirements under AOPA, and this should minimize the nuisance impacts which may result from the CFO.

- *Noxious Weeds (Frank Wesley and Joy Hurlburt)*

**Approval Officer's conclusion:**

There are no provisions under the AOPA relating directly to noxious weeds. However, operators are required to abide by all applicable regulations and standards, in the case of noxious weeds, the *Weed Control Act*. Therefore this concern will not be addressed further.

- *Surface water drainage controls and surface water quality monitoring (Stasha Donahue, Kelly and Peg Donahue, Robert Rippin and Niesje Vanden Dool, Jadon and Jana Sharrat, Frank Wesley and Joy Hurlburt, Stan and Jean McNab, Bill and Wanda McNab)*

**Approval Officer's conclusion:**

AOPA includes several requirements to protect surface water from manure-contaminated runoff. One of these requirements is in section 7(1)(c) of the Standards and Administration Regulation, which precludes permitting manure storage facilities within 30 metres of a "common body of water." The nearest common body of water is an ephemeral creek that is located 303 metres from the proposed feedlot pens.

Another runoff-related requirement in the Standards and Administration Regulation is in section 19, which requires that catch basins be large enough to store sufficient runoff from a one day rainfall that has a one in 30 year probability, plus a half metre freeboard above that minimum storage level. P & H Wessels Farms Ltd.'s proposed catch basin meets this storage requirement, as shown on page 33 of Technical Document LA19004.

The applicant also provided me with additional information demonstrating the fill and sloping to be included in the construction of the feedlot pens. That, combined with the natural contour of the land will control runoff, and exclude run-on water to meet AOPA requirements. Based on the above information it is my opinion this concern has been addressed.

Two statements of concern indicated concern that the proposed pens (feedlot pens #1) at SW 4-8-26 W4M may pose a risk of contamination to Hay Coulee and a nearby well. As this facility has been removed from the application I will not be addressing it in this decision summary.

- *Catch basin construction design and materials (Robert Rippin and Niesje Vanden Dool, Jadon and Jana Sharrat, Stan and Jean McNab, Bill and Wanda McNab)*

**Approval Officer's conclusions:**

As stated in the paragraph above, the proposed catch basin will be large enough to meet the AOPA runoff control storage requirement for the area, with the proposed feed lot pens sloped and contoured to direct any surface runoff into the catch basin.

In addition to this, section 9 of *Standards and Administration Regulation* states that a manure collection area must have a protective liner or layer that meets AOPA requirements. This requirement ensures that ground water is protected. As stated in Technical Document LA19004, the proposed catch basin liner will be a synthetic liner, HDPE 40 Textured Geomembrane, which exceeds the AOPA requirements.

Conditions will also be included requiring confirmation from a qualified engineer that the catch basin liner has been constructed in accordance with the proposed design, and in accordance with the manufacturer's requirements. I have also included a condition stating that construction is to cease and the NRCB be notified immediately if the water table is encountered during construction of the catch basin.

- *Groundwater monitoring (Kelly and Peg Donahue, Mark and Ali Meech, Stan and Jean McNab, Bill and Wanda McNab)*

**Approval Officer's conclusions:**

This concern is addressed in Appendix B in my response to AHS comments. As well, in Appendix D, I describe the condition to be included in Approval LA19004 which requires leak detection monitoring and reporting for the proposed catch basin. This condition also requires the permit holder to contact the NRCB immediately if leachate is detected or the liner is damaged.

- *Fire hazard (Edith Evans, Jadon and Jana Sharratt, Frank Wesley and Joy Hurlburt)*

**Approval Officer's conclusions:**

There are no provisions under the AOPA relating directly to fire hazard. However, permit holders must also abide by legislation and rules under other regulatory bodies. Fire hazard is addressed under the *Forest and Prairie Protection Act* and applicable Willow Creek burning permit bylaw.

- *Groundwater quality (Stasha Donahue, Kelly and Peg Donahue, Wendy and John McKinnon, Mark and Ali Meech, Robert Rippin and Niesje Vanden Dool, Jadon and Jana Sharrat, Stan and Jean McNab, Bill and Wanda McNab)*

**Approval Officer's conclusions:**

As noted in the decision summary above and Technical Document LA19004, the proposed CFO 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.

As noted in section 5 of the decision summary, the proposed facilities were assessed using the NRCB's environmental risk screening tool (ERST) and determined to pose a low potential risk to groundwater.

AOPA also has regulations in place that set nutrient application limits. These regulations are in place to prevent overloading of soils with nitrogen and minimize the potential for manure to impact groundwater. Regulations also require operators to test the land on which manure is applied at least every three years for nitrogen and salts, and to have these results available for inspection by the NRCB.

- *Property values (Wendy and John McKinnon)*

**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 and land use bylaws." (RFR 2018-05 *Hutterian Brethren of Summerland* at p 9). As explained in Appendix A above, P & H Wessels Farms Ltd.'s application is consistent with the land use provisions of the district's MDP and LUB.

- *Road use and traffic (Mark and Ali Meech, Robert Rippin and Niesje Vanden Dool, Jadon and Jana Sharrat, Frank Wesley and Joy Hurlburt)*

**Approval Officer's conclusion:**

The NRCB does not have direct responsibility for regulating road use. On the other hand, section 18 of the *Municipal district Government Act* gives counties “direction, control and management” of all roads within their borders. It is impractical and inefficient for the NRCB to attempt to manage road use through AOPA permits. (See Operational Policy 2016-7: *Approvals*, part 8.9.).

- *Cumulative effects (Robert Rippin and Niesje Vanden Dool, Jadon and Jana Sharrat)*

**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, and the NRCB's board members have directed approval officers to ignore cumulative effects in their permitting decisions. For example, in a 2011 decision, the board stated that consideration of cumulative effects is “not within the Board's regulatory mandate. As a statutory decision maker, the Board takes its direction from the authorizing legislation. AOPA does not provide for cumulative effects assessment.” (RFR 2011-02 *Zealand Farms* at p 5.) NRCB policy presumes that an application meets the “acceptable community effects” and “appropriate use of land” if the application is consistent with the MDP and the LUB. These provisions were discussed in Appendix A, above. I determined the application to be consistent with the MDP and LUB and that therefore this concern has been adequately addressed.

- *Dead animal disposal (Edith Evans, Kelly and Peg Donahue, Robert Rippin and Niesje Vanden Dool, Jadon and Jana Sharrat, Stan and Jean McNab, Bill and Wanda McNab)*

**Approval Officer's conclusion:**

Livestock mortality disposal regulations are administered by Alberta Agriculture and Forestry. Therefore, the planned method of disposal is not required in an NRCB application. All CFO operators must comply with the *Disposal of Dead Animals Regulation*, AR 132/2014 under the *Animal Health Act*.

- *Animal welfare and containment (Edith Evans, Jadon and Jana Sharrat, Frank Wesley and Joy Hurlburt, Stan and Jean McNab, Bill and Wanda McNab)*

**Approval Officer's conclusion:**

Livestock producers aspire to contain their animals in the facilities into which they are placed. In the event that one or more livestock escape these facilities regulations are in place to deal with the situation. This is regulated by Alberta Agriculture and Forestry under the *Stray Animals Act*. Therefore, the planned method of containing animals and re-capturing escapees is not required in an NRCB application.

AOPA does not directly address animal densities and associated animal welfare impacts in feedlot facilities. However, operators are required to abide by all applicable regulations and standards (i.e. *Animal Protection Act*, *Animal Health Act*) which indirectly relate to this concern. Therefore this concern will not be addressed further.

- *Potential for change to a hog operation (Wendy and John McKinnon)*

**Approval Officer's conclusion:**

P & H Wessels Farms Ltd. would require a new permit under the AOPA for a change in animal category (ie such as changing from a beef to a swine CFO). Public notice would be required as part of such an application process.

- *Manure application, land base for manure application, manure spreading record keeping (Kelly and Peg Donahue, Robert Rippin and Niesje Vanden Dool, Stan and Jean McNab, Bill and Wanda McNab)*

**Approval Officer's conclusion:**

Manure application is addressed in section 24 of the Standards and Administration Regulation. Section 24(1) requires manure to be incorporated within 48 hours of application when it is applied to cultivated land. Incorporating reduces odours by working the manure into the soil. However, land application of manure is typically only carried out once or twice per year and is of limited duration.

Alternatively, section 24 (5)(a) allows manure to be applied without incorporation on forage and directly seeded crops, in order to conserve the soil. The manure must be applied at least 150 m from any residence. This setback requirement helps mitigate the odour impacts from the manure spreading.

Complaints about CFO-related issues can be reported to the NRCB's 24 hour response line (1-866-383-6722) and will be followed up on by an NRCB inspector within 24 hours. Neighbours can also call any NRCB office during regular business hours if they have questions about permit conditions or ongoing AOPA operational requirements.

Section 24 of the Standards and Administration Regulation also requires an applicant to demonstrate that they have access to a sufficient land base to utilize their manure for the first year, following the granting of the application. For this proposal, 964 acres of land in the black soil zone is required for manure spreading. The applicant has provided proof that they have access to 1590 acres of manure spreading land, all of which I have verified to be in the black soil zone. These manure spreading lands may change over time, and the operator must keep records to show where the manure has been applied.

AOPA has requirements to protect the soil, groundwater, and surface water from excessive application of manure nutrients. These include soil testing requirements, soil salinity limits, nitrate-nitrogen limits, and setbacks from water bodies, water wells, and residences. Operators are required to keep manure spreading and soil sampling records for five years and to provide them to the NRCB upon request.

- *Adequacy of natural liner (Robert Rippin and Niesje Vanden Dool, Jadon and Jana Sharrat, Stan and Jean McNab, Bill and Wanda McNab)*

**Approval Officer's conclusion:**

The engineering report included in Technical Document LA19004 states that the naturally occurring protective layer for the proposed feedlot pens at NW 33-7-26 W4M meets or exceeds AOPA requirements. I have also addressed this in my response to AHS concerns in Appendix B. I have relied on the engineer, who concluded from permeability testing and boreholes that AOPA requirements are met.



- *Adequacy of borehole drilling and permeability testing procedures (Robert Rippin and Niesje Vanden Dool, Jadon and Jana Sharrat)*

**Approval Officer's conclusion:**

There was a concern voiced that the permeability testing conducted in January was potentially not representative of actual conditions due to freezing temperatures. The concern was that this could result in difficulty keeping water running and ground thawed enough to accurately conduct the testing. However, data from AccuWeather indicates that temperatures in this area were unseasonably warm during January, fluctuating between 17° C and -23° C, with 24 of 31 days reaching a high of above zero. It is unlikely that conditions were too cold to allow for proper testing to be conducted. In addition to this, a qualified engineer signed off on the report containing the testing results, indicating that conditions were acceptable for testing.

There is also a concern regarding the results from borehole PW3-19 and its vicinity to the proposed pens at SW 4-8-26 W4M (feedlot pens #1). These pens have been removed from the application and so I will not be addressing statements of concerns relating specifically to that facility or its associated catch basin (catch basin #1).

- *Pen maintenance and manure buildup (Robert Rippin and Niesje Vanden Dool, Jadon and Jana Sharrat)*

**Approval Officer's conclusion**

The pens meet AOPA liner requirements for solid manure, therefore I have determined that these concerns have been addressed (see Technical Document LA19004). Complaints about CFO-related issues can be reported to the NRCB's 24 hour response line (1-866-383-6722) and will be followed up on by an NRCB inspector within 24 hours. Neighbours can also call any NRCB office during regular business hours if they have questions about permit conditions or ongoing AOPA operational requirements.

- *Confusion regarding increase in animal numbers (Kelly and Peg Donahue, Frank Wesley and Joy Hurlburt)*

**Approval Officer's conclusion:**

The initial application stated an increase from 0 to 5000 beef finishers. A statement of concern was submitted stating confusion over whether that number was in addition to or including the current livestock numbers currently owned by P & H Wessels Farms Ltd.

I have addressed this concern in the background section of this document. The applicant is applying to construct infrastructure at NW 33-7-26 W4M and to permit the area as a CFO for 2500 beef finishers. The applicant will continue to use the existing pens at SW 4-8-26 W4M for a seasonal feeding and bedding site, which is not considered as part of this application.

- *Availability of information regarding catch basin capacity and water quality to directly impacted landowners (Stan and Jean McNab, Bill and Wanda McNab)*

**Approval Officer's conclusion:**

Section 19 of the Standards and Administration Regulation requires that catch basins be large enough to store sufficient runoff from a one day rainfall that has a one in 30 year probability, with a half metre freeboard above that minimum storage level. P & H Wessels Farms Ltd.'s proposed catch basin meets this storage requirement. This information is provided on page 33 of Technical Document LA19004, which forms a part of this decision. In relation to water quality information, a condition has also been included, as explained in Appendix D, requiring the permit

holder to conduct leak detection monitoring and reporting for the proposed catch basin. Taking into consideration the above information, this concern has been addressed.

- *Testing of water quality and quantity prior to and following issuance of a permit (Kelly and Peg Donahue, Stan and Jean McNab, Bill and Wanda McNab)*

**Approval Officer's conclusion:**

As noted in Appendix B, in my response to AEP comments, and further documented in Technical Document LA19004, the proposed CFO meets all AOPA technical requirements. Many of the requirements are designed to prevent or minimize manure leakage from CFO facilities and thus prevent CFO manure from reaching and contaminating groundwater. In addition to meeting these requirements, a condition will be included requiring the permit holder to conduct leak detection monitoring for the proposed catch basin according to a leakage detection system prescribed by the manufacturer of the synthetic liner used for the catch basin and authorized in writing by the NRCB. This system is designed to detect failures in the synthetically lined catch basin.

- *Enforcement of AOPA regulations (Mark and Ali Meech, Stan and Jean McNab, Bill and Wanda McNab)*

**Approval Officer's conclusion:**

All operators are required to operate according AOPA and its regulations. The NRCB has jurisdiction over the implementation of AOPA. Complaints about CFO-related issues can be reported to the NRCB's 24 hour response line (1-866-383-6722) and will be followed up on by an NRCB inspector within 24 hours. Neighbours can also call any NRCB office during regular business hours if they have questions about permit conditions or ongoing AOPA operational requirements.

## **APPENDIX D: Explanation of conditions in Approval LA19004**

Approval LA19004 includes several conditions, discussed below:

### **a. Leak Detection System**

The permit holder will be required to install a leakage detection as prescribed by the manufacturer of the synthetic liner used for the catch basin. This system must be designed and installed to detect failures in the synthetically lined catch basin, and must be maintained in operable and accessible condition.

### **b. Leakage Detection/Groundwater Monitoring**

As noted in Decision Summary LA19004 and Technical Document LA19004, the proposed catch basin poses a low potential risk to groundwater. However, based on the presence of coarse-grained soils dispersed at varying depths throughout the site, I determined it necessary for P & H Wessels Farms Ltd. to monitor the synthetically lined catch basin to detect if the synthetic liner leaks. Failure of the liner could be a source of groundwater contamination. A condition is included requiring P & H Wessels Farms Ltd. to conduct leak detection monitoring and reporting for the proposed catch basin.

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

Under sections 9(2) and (3) of AOPA's Standards and Administration Regulation, the bottom of a manure storage facility (MSF) must be at least one metre above the water table "at the time of construction."

Based on the information provided in drilling well logs, the proposed synthetically lined catch basin may not meet the one metre requirement of sections 9(2) and (3). However, because the depth of the water table can vary over time, the depth shown in the drilling well logs is not necessarily the depth that will occur at the time of construction. To ensure that the requirement is met, a condition is included requiring the applicant to cease construction and notify the NRCB immediately if the water table is encountered during construction of the catch basin.

### **d. Construction Deadline**

P & H Wessels Farms Ltd. proposes to complete construction of the proposed feedlot pens and catch basin by November 30, 2022. This time-frame is considered to be reasonable for the proposed scope of work. The deadline of November 30, 2022 is included as a condition in Approval LA19004.

### **e. 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 LA19004 includes conditions requiring:

- a completion report, stamped by a qualified engineer, certifying that the synthetically lined catch basin
  - has been constructed in accordance with the proposed design.
  - is constructed in the approved location;

- liner material used for the synthetically lined catch basin is 40 mil HDPE textured geomembrane (as proposed in the application) or an equivalent liner;
- size , including depth below grade;
- liner is installed in accordance with the liner manufacturer's requirements, including under membrane surface preparation and proper sealing at all seams.
- approved leakage detection system was installed in accordance with 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 LA19004 includes conditions stating that the permit holder shall not place livestock or manure in the manure storage portions of the proposed feedlot pens or allow runoff to enter the catch basin until NRCB personnel have inspected the facilities and confirmed in writing that they meet the approval requirements.