



BOARD DECISION

RFR 2020-05 / LA20001

In Consideration of a Request for Board Review filed under the *Agricultural Operation Practices Act* in relation to Decision Summary LA20001

P & H Wessels Farms Ltd.

July 9, 2020

The Board issues this decision document under the authority of the *Agricultural Operation Practices Act (AOPA)*, following its consideration of a request for Board review of Decision Summary LA20001.

Background

On May 29, 2020, Natural Resources Conservation Board (NRCB) approval officer Andy Cumming issued Decision Summary LA20001 and Approval LA20001 with conditions, to construct a new beef confined feeding operation (CFO) proposed by P & H Wessels Farms Ltd. (Wessels) at SW 4-8-26 W4M in the Municipal District of Willow Creek. The construction includes:

- A new 2,000 beef finisher confined feeding operation (CFO)
- A synthetically lined runoff control catch basin – 40 m x 21 m x 2.5 m deep
- Six feedlot pens – total dimensions 140 m x 90 m

Pursuant to section 20(5) of the *Agricultural Operation Practices Act (AOPA)*, Requests for Board Review of Decision Summary LA20001 were filed by Robert Rippin and Niesje Vanden Dool, Jadon and Jana Sharratt, Stasha Donahue, and Edith Evans. Each of the four filed requests for Board review (RFR) met the 10-day filing deadline established by AOPA.

Under the authority of section 18(1) of the *Natural Resource Conservation Board Act*, a division of the Board consisting of Page Stuart (panel chair), Daniel Heaney, and Sandi Roberts was established on June 23, 2020 to consider the RFRs. The Board convened to deliberate on the RFRs on June 25 and 30, 2020.

The directly affected parties, as established by the approval officer, were notified of the Board's intent to review this request and provided with a copy of the RFRs. Parties that have an adverse interest to the matters raised in the RFRs were given the opportunity to submit a rebuttal. The Board received a rebuttal from Wessels on June 26, 2020, meeting the rebuttal filing deadline of June 29, 2020.

Jurisdiction

The Board's authority for granting a review of an approval officer's decision is found in section 25(1) of AOPA, which states:

- 25(1) The Board must, within 10 working days of receiving an application under section 20(5), 22(4) or 23(3) and within 10 working days of the Board's determination under section 20(8) that a person or organization is a directly affected party,*
- (a) dismiss the application for review, if in the opinion of the Board, the issues raised in the application for review were adequately dealt with by the approval officer or the issues raised are of little merit, or*
 - (b) schedule a review.*

The Board considers that a party requesting a review has the onus of demonstrating that there are sufficient grounds to merit review of the approval officer's decision. Section 13(1) of the AOPA Administrative Procedures Regulation describes the information that must be included in each request for Board review.

Documents Considered

The Board considered the following information:

- Decision Summary LA20001, dated May 29, 2020
- Approval LA20001, dated May 29, 2020
- Technical Document LA20001, dated May 29, 2020
- RFR filed by Robert Rippin and Niesje Vanden Dool (Rippen and Vanden Dool), dated June 16, 2020
- RFR filed by Jadon and Jana Sharratt (Sharratt), dated June 17, 2020
- RFR filed by Stasha Donahue (Donahue), dated June 17, 2020
- RFR filed by Edith Evans (Evans), dated June 17, 2020
- Portions of the public record maintained by the approval officer
- MD of Willow Creek Municipal Development Plan
- Technical Guideline Agdex 096-62 Subsoil Investigations for Manure Storage Facilities and Manure Collection Areas
- South Saskatchewan Regional Plan, amended May 2018
- Rebuttal from P&H Wessels Farms Ltd., dated June 26, 2020
- The Environmental Risk Screening Tool, Version 1.2

The Board received the following additional documents:

- Letter NRCB Field Services to Friend et al, dated June 23, 2020
- Letter Donahue to NRCB Field Services, dated June 24, 2020

The Board notes that it chose not to consider either NRCB Field Services June 23, 2020 correspondence, or the response from Donahue, as neither document contributed to the panel's assessment of the issues raised in the RFRs.

Board Deliberations

The Board met on June 25 and 30, 2020, to deliberate on the issues raised in the RFRs.

While the RFRs covered a number of issues, they focused on the following:

- Ground and surface water quality
- Groundwater quantity
- Manure spreading lands
- Animal type

Ground and Surface Water Quality

The RFRs included four concerns related to water quality.

1. Existing Groundwater Nitrate Levels and Reliance on the ERST to Assess Water Quality Risk

The Rippen and Vanden Dool, Donahue, and Evans RFRs expressed concerns regarding water quality and that the Wessels CFO will increase groundwater nitrate levels. The Rippen and Vanden Dool RFR referenced and included a letter from Alberta Health Services (AHS) dated March 17, 2020, originally filed with the NRCB in response to the approval officer's February 19, 2020 request for comment on the Wessels' application. The Rippen and Vanden Dool RFR asserted that isotope testing outlined in the AHS letter "clearly shows nitrates of manure origin", and suggested that existing data was ignored because the Environmental Risk Screening Tool (ERST) indicated "no risk". The RFR expressed concern that manure leachate from the pens and manure loading rates will increase the nitrate loading in the aquifer, and that groundwater testing should be made a condition of approval. The Donahue RFR stated that the issue of existing levels of groundwater nitrates was flagged by AHS, but was not addressed by the NRCB.

In the decision summary, the approval officer confirmed that the proposed facilities met AOPA's technical requirements, including meeting required AOPA setbacks from nearby residences, water wells, springs, and common bodies of water. Additionally, the approval officer confirmed that the proposed CFO has sufficient means to control surface runoff of manure, meets AOPA's nutrient requirements regarding land application of manure, and meets groundwater protection requirements for the design of floors and liners of manure storage facilities.

The approval officer noted that a recent study on the source of nitrates in groundwater in this area was inconclusive. The approval officer stated that he enlisted the assistance of an NRCB environmental specialist to assess the risk to surface water and groundwater posed by the proposed CFO's manure storage facilities using the NRCB's ERST. The proposed CFO pens and the runoff control catch basin, assessed under the ERST, were determined to pose a low risk to both groundwater and surface water. As noted by the approval officer, the Wood Environment and Infrastructure Solutions (Wood) engineering report included in technical document LA20001 identified that soils under the proposed pens are suitable to be used as a naturally occurring protective layer as set out in the AOPA regulations. Additionally, Approval LA20001 requires that a synthetically lined catch basin must be constructed with an approved leakage detection system. Furthermore, the leak detection system must be monitored regularly in the spring and fall, and "must be constructed and maintained so that it can be monitored at any time". The approval officer confirmed that the application was determined to be consistent with the South Saskatchewan Regional Plan's (SSRP) Strategic and Implementation Plans, and that there were no notices or orders under the portion of the SSRP's Regulatory Details that apply to the CFO application.

The Board recognizes that concerns regarding the ERST were not included in any of the submitted statements of concern (SOC) and therefore this issue was not addressed by the approval officer in the decision summary. In reviewing the assertion that existing leaching data was ignored because the ERST indicated "no risk", the Board reviewed the March 17, 2020 letter from AHS, and the NRCB Environmental Risk Screening Tool, Version 1.2.

The letter from AHS references 2013 radio isotope testing of a water well on SW 4-8-26-W4M:

AHS understands water samples taken from a well #2028608 on SW 4-8-26-W4M by University of Calgary, Department of Geology in a 2013 study, underwent radio isotope testing. The results indicated: $D^{15}N_{nitrate} = 28.6$ $d^{18}O_{nitrate} = 5.2$ which are indicative of nitrates from sewage or manure origin. This well in addition to new well #1250901 are approximate 30 meter downhill from the existing seasonal bedding operation. As such, AHS has strong concerns that the high groundwater nitrates in the area are potentially caused from human or intensive livestock activity and any increase in improperly sited or monitored livestock operations could lead to a further deterioration of groundwater quality.

The Environmental Risk Screening Tool, Version 1.2, describes the background of the ERST development, and that its purpose was to help guide the development of policy and AOPA technical guidelines relating to the determination of environmental risk. It further states that the ERST tool was developed using extensive desktop and field testing from actual CFOs, and assesses risks to groundwater and surface water as high, medium, and low. The NRCB Field Services group conducts internal audits and training to ensure consistent use of the tool, which is a technically driven process. The tool description stipulates that the ERST does not replace the legislated requirements of AOPA. The Board notes that the ERST assessment of surface and groundwater risk of the Wessel's CFO was not "no risk", but rather, low risk.

The Board notes that the approval officer's statement in the decision summary that the study was "inconclusive" likely refers to the AHS letter reference that the nitrates are from "sewage or manure" origin, and potentially caused from "human or intensive livestock activity". The Board agrees with AHS's assertion that "improperly sited or monitored livestock operations" can negatively impact groundwater quality; however, the Board finds that the RFR statement that the isotope testing "clearly shows nitrates of manure origin", is not supported by the AHS letter. The Board notes that the approval officer addressed the "low" risk of movement of nitrates to groundwater through a condition in the approval requiring a routinely monitored leak detection system to monitor the performance of the catch basin's synthetic liner.

The Board observes that the AHS reference to the 2013 University of Calgary study includes information only about existing levels of nitrates. Given that the approval officer and NRCB environmental specialist used the ERST as it is intended—to assess the risk to surface water and groundwater posed by the CFO's proposed manure storage facilities—the Board finds no causal relationship between the nitrate study and the ERST evaluation. Rather, the Board finds that the use of the ERST addresses the AHS concern regarding "improperly sited" livestock operations by supporting AOPA regulatory standards that require CFOs to be constructed and operated in a manner that will protect surface and groundwater. Further, the Board finds that the approval conditions requiring monitoring of the runoff control catch basin and decommissioning of the winter feeding site pens addresses the AHS concern regarding "improperly monitored" livestock operations. Nonetheless, the Board finds no evidence to support that leaching data was disregarded because of the results of the ERST.

The Board notes that one of the primary objectives of AOPA is to ensure that manure storage facilities and manure spreading activities address risk to groundwater. Although the Board

recognizes the concerns relating to existing nitrate levels, the RFRs have not provided evidence linking these nitrate levels to the Wessels' proposed CFO.

Further, the Board has consistently stated that approvals issued under AOPA must be consistent with regional plans under the *Alberta Land Stewardship Act*. The Board is satisfied that the approval officer's review of the SSRP satisfies this requirement.

With respect to the RFR concerns regarding surface and groundwater quality, the Board finds that the approval officer adequately considered these issues.

2. Groundwater Testing

The Rippen and Vanden Dool and Donahue RFRs expressed concerns that groundwater quality testing is warranted.

In the decision summary, the approval officer notes that studies to date have not been able to pinpoint the source of existing groundwater nitrates, and affirms that the proposed CFO meets or exceeds the groundwater protection requirements in AOPA.

The Board reviewed the conditions of Approval LA20001. The Board is satisfied that the evaluation of groundwater by the approval officer, as outlined above, was comprehensive and consistent with the requirements of AOPA. The Board finds that the approval officer adequately dealt with RFR concerns related to further groundwater testing.

3. Compensation and Financial Loss

The Donahue RFR suggested that affected parties experiencing water quality deterioration should be remunerated for damages and the expense of water hauling. The Rippen and Vanden Dool RFR suggested that approval of the Wessels' CFO will result in significant financial loss to all area landowners. The Board does not expect groundwater quality to be adversely affected by the proposed CFO, as the technical requirements set out in the AOPA regulations were developed to provide adequate groundwater protection.

None of the SOC's submitted for review by the approval officer prior to the issuance of Approval LA20001 included concerns related to compensation and financial loss, with the exception of a concern in the Sharratt's SOC regarding property values.

The effect on property values associated with permitted activities on neighbouring properties is not a matter for the Board to consider. The Wessels' CFO application to the NRCB is similar to the process by which a municipal authority considers a development permit application for a permitted land use. Provided that the application satisfies the regulatory requirements, including setbacks to neighbouring residences, the applicant is entitled to an approval. The proposed CFO is consistent with the MD of Willow Creek area land use provisions and meets the AOPA setbacks to neighbouring residences.

4. Wood Testing Inconsistency with NRCB Policy

The Rippen and Vanden Dool RFR stated that the Wood testing failed to follow the NRCB's subsoil testing guide Technical Guideline Agdex 096-62.

The Board notes that the concern with respect to bore hole testing following NRCB guidelines was not included in any of the SOCs submitted to the approval officer for review; therefore, the approval officer did not specifically address this concern.

The Board reviewed Agdex 096-62, and notes that its date of issue is April 2020. Given that the geotechnical review of SW 4-8-26-W4 was performed prior to April 2020, Wood would not have had access to, nor be obliged to follow this subsoil testing guide. Additionally, the RFR provided no evidence to support a failure in the Wood testing. The test results were reviewed and signed off by a professional engineer following standardized procedures for field investigations set out by the United States Bureau of Reclamation. The Board finds that the RFR concern relating to Wood testing is without merit.

In summary, the Board finds that the concerns relating to ground and surface water quality have either been adequately dealt with by the approval officer as they relate to AOPA regulations, or are without merit. Nonetheless, the Board notes the following concern expressed in the Rippen and Vanden Dool RFR:

“no efforts are being directed to finding the cause of the nitrates problem or to find a solution. Once [the Wessels CFO is] approved there will be no mechanism to further address the negative impacts on the groundwater.”

The AOPA provides the NRCB with a mandate to regulate CFO construction and nutrient management. The oversight and response to regional groundwater nutrient levels, not associated to specific confined feeding operations, fall under the AHS mandate. Where appropriate, the NRCB and AHS work together to address site specific concerns. Any party with concerns that a CFO is having a negative impact on water quality should contact the NRCB’s 24 hour reporting line by calling 1-866-383-6722 to have their concern addressed by an NRCB inspector.

Groundwater Quantity

The Sharratt and Evans RFRs cited concerns about water quantity, specifically regarding the depletion of the water supply. The Rippen and Vanden Dool, Sharratt, and Donahue RFRs expressed concerns that the applicant is not currently in compliance with the Water Act. The RFRs included suggestions that the approval should be amended to delay construction until the applicant is in compliance, as well as that regular unplanned site visits should occur to ensure compliance. Rippen and Vanden Dool referenced the Water Act declaration in Part 2 of the technical document, where the applicant stated that an additional water licence is not required.

Within the decision summary, the approval officer noted that Alberta Environment and Parks (AEP) confirmed that the Wessels CFO will require additional licenced water and that this information was provided to the applicant. The Board notes that Wessels’ rebuttal states AEP is aware of the CFO, and that Wessels are following AEP’s guidelines to provide necessary documents for water licensing.

The Board appreciates that access to shared resources, such as water, is commonly cited as a concern by directly affected parties. However, groundwater quantity is a matter outside of AOPA’s mandate. Groundwater quantity licensing, and any related compliance issues, are managed by AEP under the authority of the Water Act. Nonetheless, the Board reminds

Wessels that, as stated by the approval officer, the issuance of an AOPA permit does not guarantee that a water licence will be issued, and that at the time of the decision it was not clear to the approval officer whether or not sufficient licenced water will be available. The Board notes the approval officer's direction that the Wessel CFO is responsible to ensure that access to licenced water is available prior to populating any facilities.

The Board finds the issues relating to groundwater quantity have been adequately dealt with by the approval officer.

Manure Spreading Lands

The Rippen and Vanden Dool RFR expressed concerns that the soil type for manure spreading lands is misidentified as black soil, and that this error will result in unacceptable manure loading rates.

In the decision summary, the approval officer described that AOPA imposes nitrogen and salinity limits when manure is land applied, and that these limits are dependent on the soil type and depth to groundwater. The approval officer listed the calculated requirement for land spreading acres for the Wessels CFO, based on AOPA requirements, as 1390 acres for dark brown soil type. The Wessels provided appropriate documentation showing that they have sufficient land for manure spreading to meet that threshold.

At the application stage, approval officers limit their consideration of identified manure spreading lands to an assessment of whether the operator has access to sufficient land to meet the land base requirements to spread the manure produced in the first year of operation, and regulatory oversight of manure management is managed by NRCB inspectors (Silver Winds Hutterian Brethren, LA17073):

Manure application practices and the management of manure must be done in accordance with the AOPA regulations. Regulatory oversight and response in relation to manure management and manure spreading are compliance matters managed by NRCB inspectors. NRCB inspectors have the authority to investigate and enforce various provisions of the Standards and Administration Regulation, including numerous provisions that have the intended purpose of keeping manure to the locations it is has been applied. Preventative provisions include slope-dependent variable setbacks from common bodies of water, and restrictions on spreading over frozen or snow covered land. Other requirements such as record keeping and soil testing track ongoing manure management practices and their relationship to nutrient loads over time.

AOPA regulatory standards include manure spreading provisions that provide protection to the environment by establishing soil nutrient limits and setbacks from common bodies of water. The Board has reviewed the approval officer's evaluation of manure spreading lands, and notes that the calculated acreage requirement is sufficient whether the soil type is Dark Brown and Brown, Grey Wooded, Black, or Irrigated. The Board finds that the approval officer adequately dealt with the RFR concern regarding manure spreading lands.

Animal Type

The RFRs submitted by Rippen and Vanden Dool, Sharratt, and Evans commented that the cover letter dated May 29, 2020 advised of the approval of Application LA20001 describing the expansion of an existing multi-species confined feeding operation, as opposed to a new beef finisher operation. The Evans RFR described a communication with approval officer Andy Cumming, who confirmed that the multispecies reference is an error, and that the approval is for beef finishing. The RFR expressed an uneasiness with an error in an important document.

The Board accepts that the error in the description of animal type, although unfortunate, occurs only in the May 29, 2020 letter. The Board finds that the described conversation with the approval officer is consistent with the Approval document dated May 29, 2020, which is the permit for this site and lists the approved total permitted animal capacity as 2,000 beef finishers.

Board Decision

As a result of its deliberations, the Board finds that the issues raised in the filed Requests for Review were adequately considered by the approval officer, are outside of AOPA's mandate, or are without merit, and therefore does not direct any matters to a hearing. The RFRs are denied.

DATED at EDMONTON, ALBERTA, this 9th day of July, 2020.

Original signed by:

L. Page Stuart

Daniel Heaney

Sandi Roberts

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Copies of the *Agricultural Operation Practices Act* can be obtained from the Queen's Printer at www.qp.gov.ab.ca or through the NRCB website.