

REQUEST FOR BOARD REVIEW

SUBMITTED TO THE NATURAL RESOURCES CONSERVATION BOARD

Application No. RA21045

Request for Review of Directly Affected Party Status

Submitted by Summer Village of Grandview

September 16, 2022

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REQUEST FOR BOARD REVIEW
SUBMITTED TO THE NATURAL RESOURCES CONSERVATION BOARD

Application No:	RA21045
Name of Operator/Operation:	G&S Cattle Ltd.
Type of application (<i>check one</i>):	<input checked="" type="checkbox"/> Approval <input type="checkbox"/> Registration <input type="checkbox"/> Authorization
Location (<i>legal land description</i>):	NW 3-47-2 W5M
Municipality:	County of Wetaskiwin

I hereby request a Board Review of the Approval Officer’s Decision and have the right to request a Board review because (*please review all options and check one*):

- I am the producer seeking the approval/registration/authorization.
- I represent the producer seeking the approval/registration/authorization.
- I represent the municipal government.
- I am listed as a directly affected party in the Approval Officer’s Decision.
- I am not listed as a directly affected party in the Approval Officer’s Decision and would like the Board to review my status.

IMPORTANT INSTRUCTIONS

1. You must meet the specified 10-day timeline; otherwise your request will not be considered.
2. Section 1 of this form must be completed only if you are requesting that the Board review your status as “not directly affected”. Sections 2 to 5 must be completed by all applicants.
3. This form must be signed and dated before it is submitted to the Board for its review.
4. Be aware that Requests for Board Review are considered public documents. Your submitted request will be provided to all directly affected parties and will also be made available to members of the public upon request.
5. For more assistance, please call Laura Friend, Manager, Board Reviews at 403-297-8269.

1. PARTY STATUS

(IF YOU ARE NAMED A DIRECTLY AFFECTED PARTY IN THE APPROVAL OFFICER'S DECISION, YOU DO NOT NEED TO COMPLETE THIS SECTION)

Party status (“*directly affected*” or “*not directly affected*”) is determined pursuant to the provisions of the *Agricultural Operation Practices Act (AOPA)* and its regulations. Upon receipt of an application, the Approval Officer must notify any affected parties. Affected parties include municipalities and owners or occupants of land as determined in accordance with the regulations. To obtain directly affected status, the owner or occupant notified in the above process must provide a written submission to the Approval Officer during the stage at which the Approval Officer considers the application. The Approval Officer will then determine who the directly affected parties are and include this determination in the Decision Summary.

Under its governing legislation, the Board can only consider requests for review submitted by directly affected parties. If you are not listed as directly affected in the Approval Officer’s decision, you must request that the Board reconsider your status (*please note that under the provisions of AOPA, the Board cannot reconsider the status of a party who has not previously made a submission to the Approval Officer during the application process*).

In order to request your status be reconsidered, you must explain why your interests are directly affected by the decision of the Board. Please list these reasons below:

My grounds for requesting directly affected status are as follows:

Please refer to Attachment 1, setting out the Summer Village of Grandview's grounds for requesting directly affected status.

2. GROUNDS FOR REQUESTING A REVIEW

(ALL PARTIES MUST COMPLETE THIS SECTION)

In order to approve an application, NRCB Approval Officers must ensure the requirements of AOPA have been met. Your grounds for requesting a Board review should identify any requirements or specific issues that you believe the Approval Officer failed to adequately address in the Decision.

My grounds for requesting a review of the Approval Officer's decision are as follows:

The Summer Village of Grandview ("Grandview") does not request review of the Approval Officer's substantive decision denying Application RA21045. Grandview agrees with the outcome of the Approval Officer's decision. This Request for Review form is submitted for the sole purpose of requesting review of the Approval Officer's decision that Grandview is not a directly affected party ("DAP").

This Request for Review is submitted so that in the event that the confined feeding operation applicant, G&S Cattle Ltd., or any other party requests review of the Approval Officer's decision, and in the event that the request is granted and the Board exercises its jurisdiction to review the decision, Grandview will be given opportunity to participate in the review, including being given the opportunity to put forward evidence and to make submissions at any hearing that may occur.

Further, Grandview asserts that even if there is no Board Review of the Approval Officer's decision denying the CFO, the Board should reverse the DAP decision pertaining to Grandview. The DAP decision was made in error, and if it is allowed to stand it creates a prejudicial precedent against Grandview excluding them from participation in CFO decisions that directly affect them.

For the reasons set out in Attachment 1, Grandview submits that it is a DAP in these proceedings, and requests the Board reverse the Approval Officer's decision on Grandview's DAP status in order to participate in any review (including any hearing) that may occur.

3. REASONS YOU ARE AFFECTED BY THE DECISION

(ALL PARTIES MUST COMPLETE THIS SECTION)

In order to support your reasons for requesting a review, please explain how you believe you would be affected by the Approval Officer's decision.

I believe that, as a result of the Approval Officer's decision, the following prejudice or damage will result:

Please see Attachment 1, outlining the damage and prejudice that will result to Grandview as a result of the Approval Officer denying Grandview Directly Affected Party status.

4. ACTION REQUESTED

(ALL PARTIES MUST COMPLETE THIS SECTION)

I would like the Board to take the following actions with the respect to the Approval Officer's decision:

- Amend or vary the decision
- Reverse the decision

Please describe why you believe the Board should take this action:

As explained in Attachment 1, the Summer Village of Grandview should be considered a Directly Affected Party in relation to the proposed Confined Feeding Operation. Therefore Grandview requests that the Board should amend or vary the Approval Officer's decision finding that Grandview was not a Directly Affected Party, and should give Grandview the opportunity to participate in any Board Review and hearing that may take place in relation to this matter.

If the Board decides to grant a review (*in the form of either a hearing or a written review*), all directly affected parties are eligible to participate. The Board may consider amending the Approval, Registration, or Authorization on any terms and conditions it deems appropriate. **Please note the Board cannot make any amendments unless it first decides to grant a review.**

If a review is granted by the Board, are there any new conditions, or amendments to existing conditions, that you would like the Board to consider? It is helpful if you identify how you believe your suggested conditions or amendments would address your concerns.

No, there are no new conditions, or amendments to existing conditions, that Grandview wishes the Board to consider. Grandview's position is that the only acceptable outcome of a review is to uphold the Approval Officer's decision denying a permit to the proposed CFO.

5. CONTACT INFORMATION

(ALL PARTIES MUST COMPLETE THIS SECTION)

Contact information of the person requesting the review:

Name: Summer Village of Grandview, c/o Don Davidson (Mayor)

Address in Alberta: P.O. Box 100 (605 – 2nd Avenue)
Ma-Me-O Beach, Alberta, T0C 1X0

Legal Land Description: SE- and SW-27-46-1-W5

Phone Number: (403) 860-1050

Fax Number: (780) 586-3567

E-Mail Address: donald_d@telus.net

Signature: Don Davidson Digitally signed by Don Davidson
Date: 2022.09.16 10:36:36
-06'00' Date: Sept 16, 2022

Please note that all sections of the form must be completed in order for your request to be considered.
Also, if you do not meet the timeline identified, your request will not be considered. Form must be signed and dated before being submitted for Board consideration

If you are, or will be, represented by another party, please provide their contact information (Note: If you are represented by legal counsel, correspondence from the Board will be directed to your counsel)

Name:

Address:

Phone Number:

Fax Number:

E-Mail Address:

When you have completed your request, please send it, with any supporting documents to:

Laura Friend, Manager, Board Reviews
Natural Resources Conservation Board
John J. Bowlen Building
#901, 620 – 7 Avenue SW
Calgary, AB T2P 0Y8

Phone: 403-297-8269

Email: laura.friend@nrcb.ca

Please note, Requests for Board Review are considered public documents. Your submitted request will be provided to all directly affected parties and will also be made available to members of the public upon request.

For more assistance, please call Laura Friend, Manager, Board Reviews at 403-297-8269.

Attachment 1: Request for Board Review submitted to the Natural Resources Conservation Board regarding Application RA21045

Submitted by the Summer Village of Grandview

c/o: Don Davidson
P.O. Box 100 (605 – 2nd Avenue)
Ma-Me-O Beach, Alberta, T0C 1X0
Phone: (403) 860-1050
Fax: (780) 586-3567
Email: donald_d@telus.net

Dated September 16, 2022

Sent to Laura Friend, Manager, Board Reviews, via email to laura.friend@nrcb.ca

I. Summary:

The Summer Village of Grandview (“Grandview”) was denied Directly Affected Party (“DAP”) status in the Approval Officer’s decision on the application by G&S Cattle Ltd. to construct and operate a new Confined Feeding Operation (“CFO”) in the County of Wetaskiwin.¹

Grandview requests Natural Resources Conservation Board (“Board” or “NRCB”) review of the decision to deny Grandview DAP status and requests that the Board reverse the Approval Officer decision in this regard by granting Grandview DAP status. This request summarizes the concerns raised by Grandview regarding negative effects of the proposed CFO and sets out why Grandview meets the five-step test to be granted DAP status, as well as why Grandview is an affected party under the *Agricultural Operations, Part 2 Matters Regulation*. This request demonstrates that the Approval Officer’s decision to deny Grandview DAP status was made in error and demonstrates that prejudice or damage will result to Grandview if the Approval Officer’s decision is not reversed in this regard, regardless of whether or not the substantive Approval Officer decision is reviewed.

II. Background:

Location of Grandview and Proposed CFO

The map below illustrates the location of Grandview (in yellow) on the shores of Pigeon Lake. The map shows the location of the proposed CFO, as well as the stream (highlighted by blue line) that flows adjacent to the proposed manure storage facility location and into Pigeon Lake.

¹ Natural Resource Conservation Board Decision Summary RA21045 (31 August 2022), [“Decision Summary”], online: <<https://www.nrcb.ca/public/download/files/216423>>.



Grandview’s Statement of Concern

On March 29, 2022, Grandview submitted a Statement of Concern (“SOC”) regarding G&S Cattle Ltd.’s CFO Application RA21045.²

In that SOC, Grandview requested DAP status. The contents of Grandview’s SOC demonstrate that Grandview meets the five-part test for DAP status. Additionally, Grandview can be considered an affected party under Section 5 of the *Agricultural Operations, Part 2 Matters Regulation*. Grandview raised the following concerns with the proposed CFO:³

- Grandview has undertaken significant investments to improve and protect water quality at Pigeon Lake, including construction of a regional sewer system, prohibiting lawn fertilizers and herbicides, a yearly tree-planting program, and actively supporting the Pigeon Lake Watershed Association (p 1). The proposed CFO, including manure-spreading lands, will drain directly into Pigeon Lake, contributing to nutrient overload, eutrophication, and harmful algal blooms, therefore undermining Grandview’s attempts to lower the nutrients entering Pigeon Lake (p 2).
- Grandview is within 10 miles downstream of the proposed CFO. Many residents and Grandview have riparian ownership, which affords the right to divert water. Thus

² Summer Village of Grandview, “Application RA21045 - Statement of Concern” (29 March 2022), [“Grandview SOC”], attached.

³ Page numbers in this list refer to page of Grandview’s SOC.

Grandview is an affected party under the regulations. These residents will be adversely affected by this CFO because of diminished water quality (p 2).

- A stream flows directly from the manure storage area of the proposed CFO into a tributary of Sunset Harbour Creek which enters Pigeon Lake.⁴ As well, this creek flows through the manure-spreading area to Pigeon Lake (p 2). The existing Intensive Livestock Operation adjacent to the proposed CFO is located close to the proposed manure lagoon, and phosphorous runoff in this area and in the stream is already high (pp 6, 8). During heavy rainfall and spring freshet, this stream experiences heavy flows into Sunset Harbour Creek and ultimately into Pigeon Lake (p 7). The high phosphorous concentrations found in Sunset Harbour Creek can be expected to increase as the load of manure in the vicinity increases (p 8).
- Cyanobacteria blooms are directly associated with the load of nutrients entering the lake from the adjoining land (p 3). Cyanobacteria blooms are non-trivial: they negatively affect quality of life, property values, and the local economy (p 2); can cause fish kills; and can be dangerous to human life (pp 2-3). Scientific studies recognize the importance of reducing phosphorous migration into the lake to control and prevent cyanobacteria blooms (p 2).
- The management practices and efforts of watershed residents have already shown indications of having a positive effect on water quality at Pigeon Lake, demonstrating the link between nutrient loading into the lake and the intensity of harmful algal blooms (which are the worst case of cyanobacteria blooms) (p 4).
- The 2018 Pigeon Lake Watershed Management Plan (“PLWMP”) was developed by the 12 municipalities of Pigeon Lake, including Grandview.⁵ Objective 2e of the PLWMP states that there should be no new or expanded intensive livestock operations, including CFOs, within the watershed (p 8). Grandview also participated in the development of the County of Wetaskiwin Pigeon Lake Area Concept Plan (“PLACP”).⁶ Planning Principle 5.5.2 of the PLACP states that “[l]arge scale confined animal operations are not appropriate in the Pigeon Lake watershed.”⁷
- The CFO application does not include locations of watercourses and drainage patterns, as required by the regulations. The watercourse adjacent to the manure lagoon was not considered in the original application, and the locations of adjacent water wells (p 10) were omitted.

⁴ Note: in the time since Grandview’s SOC was submitted, the proponent updated the application such that the manure storage area is 33 meters, rather than under 30 meters, from the drainage stream. Grandview contends that this does not meaningfully reduce the risk of runoff into Pigeon Lake, given the high probability of multi-day rain events causing the manure storage basin to overflow and the contents to enter the stream. Further, as explained below, as the manure storage area is within 100 meters of the drainage stream, Grandview should be considered a directly affected party in this proceeding.

⁵ Pigeon Lake Watershed Management Plan 2018 [“PLWMP”], attached.

⁶ County of Wetaskiwin Pigeon Lake Area Concept Plan [“PLACP”], attached.

⁷ PLACP at s 5.5.2 on p 11.

Subsequent to filing their SOC, Grandview filed two addenda.⁸ Although the Approval Officer gave verbal permission to submit both addenda, it appears that neither were accepted.⁹

The Approval Officer's decision

On August 31, 2022, Approval Officer Nathan Shirley issued his decision denying the application.¹⁰ The reasons the Approval Officer gave for denying the proposed CFO were that the CFO “would pose materially negative and long-lasting effects on the community” and that “it would not be an appropriate use of the land.”¹¹

In the decision, the Approval Officer dealt with requests by parties to be granted DAP status. The Approval Officer noted that Summer Villages which had filed statements of concern, including Grandview, were deemed to be outside the radius of “affected” parties, but nonetheless could apply for DAP status.¹²

The Approval Officer noted that Grandview's request for DAP status was assessed in the same manner as requests by individuals and found that the statements of concern of the Summer Villages were “similar” to those of parties that were granted DAP status.¹³ However, the Approval Officer denied Grandview and seven other Summer Villages DAP status on the basis of “their remoteness from the proposed CFO” and the “low probability of occurrence of the issues they identified.”¹⁴ The reasons given by the Approval Officer for denying DAP status to Grandview and the other Summer Villages were exceedingly brief. The Approval Officer wrote only one sentence denying the Summer Villages DAP status, and did not address the concerns of the Summer Villages separately from each other despite the unique circumstances of each municipality.¹⁵ Both of the grounds of denying DAP status to Grandview were made in error. The following sections demonstrate that Grandview meets the five-part test for Directly Affected Party status in connection with this CFO.

III. Test for Directly Affected Party Status:

A party requesting DAP status has the onus to show that:

- 1) A plausible chain of causality exists between the proposed project and the effect asserted;
- 2) The effect would probably occur;
- 3) The effect could reasonably be expected to impact the party;
- 4) The effect would not be trivial; and

⁸ Summer Village of Grandview, “Addendum No. 2 to the Summer Village of Grandview's Statement of Concern” (9 May 2022), attached; Letter dated 8 June 2022 to Nathan Shirley and Fiona Vance, “Request for Status Information”, attached.

⁹ Decision Summary at p 4.

¹⁰ Decision Summary.

¹¹ Decision Summary at p 1.

¹² Decision Summary, Appendix C, at pp 12 and 21 (Table C4).

¹³ Decision Summary, Appendix C at p 21.

¹⁴ Decision Summary, Appendix C at p 21.

¹⁵ Decision Summary, Appendix C, at p 21.

5) The effect falls within the NRCB regulatory mandate under AOPA.¹⁶

IV. Argument:

Grandview is an “affected party” under AOPA and the Regulations

Under AOPA, the NRCB notifies (or directs the applicant to notify) all parties that are “affected” by an approval application.¹⁷ An affected party may then apply to an approval officer for a determination on whether that party is a DAP.¹⁸ One way in which a party may be considered an affected party is if that party meets the criteria in Section 5 of the *Agricultural Operations, Part 2 Matters Regulation* (“*Part 2 Regulation*”).¹⁹

Section 5 of the *Part 2 Regulation* directs that, in the case of a CFO located within 100 meters of the bank of a river or stream, a person who is entitled under the *Water Act* to divert water within 10 miles downstream is an affected party. The manure storage facility at the proposed CFO is to be located 33 meters from an intermittent stream. The Approval Officer erred in determining that the intermittent stream was not a stream within the meaning of Section 5 of the *Part 2 Regulation*.²⁰ This error caused the Approval Officer to improperly exclude certain downstream parties, including Grandview, from the definition of “affected party”. Grandview residents within 10 miles downstream of the CFO are entitled to divert water under the *Water Act*, and therefore will be affected by this CFO.

While the AOPA and regulations do not explicitly define the meaning of “stream,” subsection 7(1) of the *Standards and Administration Regulation*, AR 267/2002 (“*Standards Regulation*”), dealing with the proximity of a manure storage facility to a common water body, includes intermittent streams within the definition of “common water body” except in a limited situation in which the intermittent stream does not run off of private land.²¹

It is unreasonable and inconsistent that the Approval Officer is required to, and in fact does, consider an intermittent stream as a “stream” when making his determination under subsection 7(1) of the *Standards Regulation*, but then distinguishes intermittent streams from permanent streams in interpreting the meaning of “stream” in Section 5 of the *Part 2 Regulation*. In the absence of any explicit definition of “stream” in either regulation, there must be some consistency in the definition and interpretation of “stream” between the two regulations. Therefore, the Approval Officer erred in determining that an “intermittent stream” was not a stream within the meaning of Section 5 of the *Part 2 Regulation*.

¹⁶ See Ijtsma, RFR 2011-05/RA11001, 2011-05 at p 4, online: <<https://www.nrcb.ca/public/download/documents/80747>>; and NRCB Operational Policy 2016-17 at section 6.3, online: <<https://www.nrcb.ca/public/download/files/97525>>.

¹⁷ *Agricultural Operation Practices Act*, RSA 2000, c A-7, at s 19 [“AOPA”], online: <<https://canlii.ca/t/547kg>>.

¹⁸ AOPA s 19(4).

¹⁹ *Agricultural Operations, Part 2 Matters Regulation*, Alta Reg 257/2001, at s 5 [“*Part 2 Regulation*”], online: <<https://canlii.ca/t/54vrh>>.

²⁰ Decision Summary at p 2.

²¹ *Standards and Administration Regulation*, Alta Reg 267/2001, at s 1(1)(d) and s 7 [“*Standards Regulation*”], online: <<https://canlii.ca/t/54wbp>>.

Further, provisions under other legislation including the *Water Act* and *Environmental Protection and Enhancement Act* include intermittent streams as “streams” for the purpose of environmental regulation and protection.²² It is inconsistent that Section 5 of the *Part 2 Regulation* under AOPA would exclude intermittent streams without an explicit exception.

Additionally, it is well established within the common law in Alberta and elsewhere that “watercourses” include waters that flow only intermittently.²³

The NRCB must consider ephemeral and intermittent streams as “streams” since the definition used by the NRCB in the Part 2 Application includes several types of water bodies, making no exception for seasonal ones. In comparison, sloughs often dry up but are still sloughs nevertheless. In the NRCB request for data in the application form for the Part 2 Application, there is no differentiation between seasonal and year-round waterbodies. Specifically, it requests measurements between the manure storage facility and a surface water body (e.g., lake, creek, stream, seasonal).²⁴ The Approval Officer erred by referring to this stream incorrectly as a drain (which is a man-made system of piping).

Finally, the Approval Officer erred in concluding that the absence of water diversion permits on Pigeon Lake meant that there was no plausible chain of causality between the proposed CFO and personal consumption of water.²⁵ This ignores the rights of riparian (indicating adjacency to a water body) household users under the *Water Act* to divert water for household purposes without a licence or permit. There are riparian household users within Grandview who can and do divert water for household purposes. Also, Section 5 of the *Part 2 Regulation* acknowledges a party to be an affected party if that party is “entitled” under the *Water Act* to divert water. To be an affected party the *Part 2 Regulation* does not state that water diversion must occur. It is therefore irrelevant if domestic water use comes from wells.

To conclude this section of the argument, Grandview is clearly an “affected party” with respect to the CFO application. This is because many Grandview residents have rights under the *Water Act* to divert water for household purposes, and are located within 10 miles downstream of the CFO. The fact that this provision is in the *Part 2 Regulation* shows it is an important consideration for determination of DAP status. Grandview is therefore an affected party under Section 5 of the *Part 2 Regulations* and should have been given notice of the application under Section 19 of AOPA. While being considered an affected party does not necessarily entitle Grandview to DAP status, the evidence that Grandview is an affected party goes directly to the question of whether there is a causal chain between the proposed CFO and the negative effects anticipated by Grandview. This is discussed more under heading 1), below.

²² *Water Act*, RSA 2000, c W-3, at s 1(1)(ggg), online: <<https://canlii.ca/t/55391>>; *Environmental Protection and Enhancement Act*, RSA 2000, c E-12, at s 1(yyy), online: <<https://canlii.ca/t/5575w>>.

²³ *Makowecki v Yachimyc*, 1917 CanLII 377 (AB CA), at 367-368, 373-376, 385-386, online: <<https://canlii.ca/t/gw6s3>>; *Kapicki v Andriuk*, 1974 CanLII 282 (Alta. District Court), at paras 28-37, online: <<https://canlii.ca/t/2bhmb>>; *Harwood Farms Ltd. v Western Irrigation District*, 2021 ABQB 467, at paras 7, 22, 67-68, online: <<https://canlii.ca/t/jgh7t>>; *Toporowski v Farrell*, 1995 CanLII 387 (BCSC), at paras 1-2, 5, 14-20, online: <<https://canlii.ca/t/1dr7g>>.

²⁴ Part 2 Technical Requirements at p 6, “General Environmental Information”, online: <<https://www.nrcb.ca/public/download/files/111829>>.

²⁵ See Decision Summary, Appendix C, at p 20.

Damage and Prejudice to Grandview as a result of the Approval Officer decision

In the NRCB form for a party to request review of an Approval Officer decision, including review of a DAP decision, Section 3 asks the party to identify the “prejudice or damage” that will result from the Approval Officer’s decision. Grandview’s SOC outlines the environmental, community, and economic damage that will occur to Grandview if the Board reverses the Approval Officer’s decision and the proposed CFO is permitted to be constructed and operated. The Approval Officer’s decision denying Grandview DAP status prejudices Grandview because it creates a possibility that the Board could review that decision without Grandview being given fair opportunity to bring evidence and make submissions, despite the fact that Grandview and its residents will be directly impacted by the outcome of such a review.

In the event that the Approval Officer’s decision to deny the CFO does not undergo review, Grandview is still prejudiced by the decision that it is not a DAP. If the Approval Officer’s decision on DAP status is not reviewed and reversed, it will set an adverse precedent that Grandview cannot be considered a DAP with respect to other CFOs or related decisions in the Pigeon Lake watershed. As outlined in Grandview’s SOC, Grandview participates in the Pigeon Lake Watershed Association and in negotiations for land use planning within the watershed. Grandview has also invested considerably in infrastructure and regulations to protect water quality at Pigeon Lake. Grandview’s residents have much to lose from the development of CFOs in the Pigeon Lake watershed, and if the decision that Grandview is not a DAP is allowed to stand, then Grandview risks never having the opportunity to be heard in future NRCB proceedings regarding CFOs that directly impact its residents and their livelihoods.

The following paragraphs demonstrate that Grandview meets the five-point test for DAP status, and that consequently the Board should reverse the Approval Officer’s determination that Grandview is not a DAP in these proceedings.

1) Plausible chain of causality exists between proposed project and effect asserted

Section II of this submission, above, outlines Grandview’s statement of concern (“SOC”). The effects that prompted Grandview to seek to participate in the permitting process of this proposed CFO can be summarized as: a) environmental effects, specifically harmful algal (cyanobacteria) blooms in Pigeon Lake resulting from nutrient runoff from the CFO manure storage facility and manure-spreading lands; b) the effects on the Grandview residents, economy, recreation, tourism, and the larger community; and c) inconsistency between the proposed CFO and land-use planning documents which Grandview participated in creating. The reasons that the Approval Officer gave in denying to permit the CFO were “materially negative and long-lasting effects on the community”, and inappropriate use of land. The chain of causality between the effects that led to the Approval Officer denying this application is the *same* chain of causality that exists between the proposed CFO and the effects asserted in Grandview’s SOC.

The Approval Officer noted that for this particular CFO, the presumption of acceptability to the economy and community is “rebutted by the significance, variety, and substances of the concerns

expressed by the directly affected parties.”²⁶ As noted by the Approval Officer, the small size of the Pigeon lake watershed relative to the size of the lake and the long residence time of the lake water make this lake particularly vulnerable to inflowing contamination. For this reason, the Pigeon Lake watershed is different from many other watersheds in the province. The effects on the community and the concerns raised by DAPs that led to the Approval Officer’s conclusion were the location in a sensitive watershed, the high use of the greater area for recreation, and the efforts by the community to improve the health of Pigeon Lake.²⁷

The concerns cited by the Approval Officer as reason to deny the project are the same concerns that Grandview raised in its SOC. As well, Grandview is located in the same sensitive watershed and on the shores of the same lake, relies on recreation and tourism on the lake to sustain its economic viability, and has invested significant resources, including financial resources, into improving and protecting the health of Pigeon Lake. It is clear that the same causal chain exists between the community effects cited by the Approval Officer as reasons to deny the project and the concerns raised by Grandview in its SOC. The effects of an approved project going ahead would include detrimental effects on Grandview.

The Approval Officer also cited several land-use planning documents in his decision that the proposed CFO is not an appropriate use of land. These documents include the Pigeon Lake Watershed Management Plan (“PLWMP”) and the Pigeon Lake Area Concept Plan (“PLACP”).²⁸ As outlined in Section II above and as stated in Grandview’s SOC, Grandview is a longtime supporter of the Pigeon Lake Watershed Association and was actively involved in developing these two planning documents. Grandview’s SOC raised concerns about the inconsistency between the project and these planning documents. Geographically, Grandview lies within the area covered by both the PLWMP and PLACP. Therefore Grandview has a direct interest in ensuring that land use activities in those areas are consistent with both plans. There is a clear causal chain between the proposed CFO and improper land use effects, as evidenced by the Approval Officer’s decision, Grandview’s SOC, and the expert input by Dr. Vinebrooke.

a) Approval Officer’s errors in defining “stream” and considering water diversion rights led to improper constraints on parties granted DAP status

Beginning on page 4, above, this submission demonstrates that the Approval Officer erred in concluding that the stream located adjacent to the manure storage facility of the proposed CFO is not a “stream” for the purposes of identifying affected parties under the *Part 2 Regulations*. As well, the Approval Officer erred in concluding that there were no parties with water diversion rights for the purposes of identifying affected parties under the *Part 2 Regulations*.

When the correct definition of “stream” (which includes an intermittent stream) is used, and combined with the fact that most Grandview residents have *Water Act* rights to divert water from Pigeon Lake, it is clear that Grandview should be considered an affected party under Section 5 of the *Part 2 Regulation*. This means Grandview ought to have been given notice of the CFO

²⁶ Decision Summary at p 6.

²⁷ Decision Summary at p 6.

²⁸ Decision Summary at p 7.

application along with other affected parties. This also reinforces the causal chain between the proposed CFO and the effects on water quality that Grandview raised in their SOC. Due to the flow of water from this stream into Pigeon Lake, Grandview will be directly and materially affected by nutrient runoff from the proposed CFO in the same manner as a party within the affected party radius would be, and perhaps more so.

2) Effect would probably occur

In denying DAP status to Grandview and other Summer Villages that submitted SOC's, the Approval Officer stated that there was only a "low probability of occurrence of the issues they identified."²⁹

As outlined above in the section on the causal chain of effect, the reasons that the Approval Officer gave for denying the application included many of the concerns raised by Grandview in its SOC. The Approval Officer cited negative community effects, including effects on the sensitive watershed and on recreation. Effects on the watershed and on recreation, through harmful algal blooms, will directly affect Grandview if they occur, as Grandview is located on the shores of Pigeon Lake and downstream of the proposed CFO.

The Approval Officer concluded that "the evidence indicates a *strong likelihood* for the proposed CFO to negatively impact the community in a material way and duration if the CFO were approved" (emphasis added).³⁰ The anticipated negative impacts cited for this conclusion include impacts on recreational use of the lake, the "concerted and coordinated work put into lake improvement over the past couple of decades", and "various activities" pursued by "many people."³¹ Those are many of the same concerns raised by Grandview in its SOC, as outlined in section II above. Therefore the effects that prompted Grandview to submit an SOC are the same effects that the Approval Officer concluded would have a "strong likelihood" of occurring.

From a scientific perspective, the Approval Officer's conclusion that the effects are improbable is simply incorrect. Dr. Rolf Vinebrooke, Professor of Aquatic Ecology at the University of Alberta, explains the connection between increased nutrient runoff (in the form of phosphorous, nitrogen, and dissolved organic matter from cattle manure produced at the proposed CFO) and cyanobacteria blooms as a direct cause-and-effect relationship.³² As the proposed CFO is located next to a waterway which drains into Pigeon Lake,³³ which is properly characterized as a stream as explained above, it is nearly certain that nutrient runoff from the proposed CFO will enter Pigeon Lake and contribute to the eutrophication effects including harmful algal blooms raised in Grandview's SOC. The manure spreading lands associated with this CFO also have watercourses flowing through them that enter Pigeon Lake, increasing the likelihood of these effects. The Approval Officer himself cited the PLWMP, which states that the Pigeon Lake watershed has a small land base, and water in Pigeon Lake has a high residence time, both of which make Pigeon

²⁹ Decision Summary, Appendix C, at p 21.

³⁰ Decision Summary, Appendix F at p 38.

³¹ Decision Summary, Appendix F at p 38.

³² Rolf Vinebrooke, "Expert Limnological Input" (4 June 2022), attached.

³³ Vinebrooke, attached, at p 2.

Lake “susceptible to nutrient accumulation and possible overloading over time.”³⁴ Therefore it was an error for the Approval Officer to find that these same issues identified by Grandview have a low probability of occurring, and Grandview has demonstrated that this part of the test for DAP status is met.

3) Effect could reasonably be expected to impact the party

Grandview exists as a community of residents and tourists because of the health and natural beauty of Pigeon Lake. In its SOC, Grandview stated that it has put a significant investment of municipal resources into improving Pigeon Lake by decreasing nutrients from landscaping and sewage. Grandview has also participated in the Pigeon Lake Watershed Association, including in the preparation of the PLWMP and the PLACP. The local economy and environment could be devastated if the water quality of Pigeon Lake were compromised. The Approval Officer denied the CFO application because, in his opinion, the effects of the proposed CFO on the “greater community” would be unacceptable.³⁵ A reasonable person would conclude that Grandview, located on the shores of Pigeon Lake, is part of this “greater community” that will be impacted by the proposed CFO. Therefore this third part of the test for DAP status is met.

4) Effect would not be trivial

The effects of the proposed CFO on the environment and economy of Grandview would be far from trivial. As stated in Grandview’s SOC, “[a]nyone who has lived through a significant bloom knows the damaging effects a bloom can have on the quality of life at the lake, the property values and the local economy.”³⁶

In fact, the Approval Officer himself recognized the magnitude of the effects, finding that those effects would be “materially negative and long-lasting.”³⁷

Dr. Vinebrooke reasons that the effects of eutrophication (which is increased nutrients from run-off) in Pigeon Lake, including effects from the proposed CFO, could “offset many of the remediation efforts” undertaken by Grandview and other parties in the watershed. Grandview and others have invested a non-trivial amount of resources and money into improving and protecting Pigeon Lake, for example by undertaking the construction of a multi-million dollar regional sewer system in collaboration with five other municipalities.³⁸ If the effects of the proposed CFO undermine this investment, that would present a non-trivial loss of taxpayer dollars and municipal funds for Grandview.

Grandview represents a home and vacation or recreation destination to many people, including residents and families. Losing the ability to use and enjoy Pigeon Lake – possibly forever – would be a non-trivial effect to these people. For those that rely on the lake for their livelihoods through recreation and service industries, long-lasting effects to the lake could be career-ending.

³⁴ Decision Summary, Appendix F, at pp 34-35.

³⁵ Decision Summary, Appendix F, at pp 38-39.

³⁶ Grandview SOC at p 2.

³⁷ Decision Summary at pp 1 and 30.

³⁸ Grandview SOC at p 1.

5) Effect falls within the NRCB regulatory mandate under AOPA

The effects set out in Grandview's SOC fall squarely within the NRCB's regulatory mandate under AOPA. Specifically, Grandview raised concerns about the proposed CFO's likely contribution to degraded water quality and harmful algal blooms in Pigeon Lake, and the effect this would have on the local residents, recreational users, and the economy.

Section 20(1)(b) of AOPA sets out considerations that an Approval Officer is required or permitted to make once the Approval Officer has determined that the proposed CFO is consistent with a municipal development plan and the requirements of the regulations. As the Approval Officer determined that the proposed CFO was consistent with the County of Wetaskiwin Municipal Development Plan, this section of AOPA applies. One of the mandatory considerations under this section is "effects on the environment, the economy and the community and the appropriate use of land."³⁹ It was this same section that the Approval Officer based his analysis on and which ultimately led to him denying to permit the proposed CFO.⁴⁰ This section of AOPA, and the Approval Officer's reliance on it in making his decision, indicate that the effects raised by Grandview are within the regulatory mandate of the NRCB under AOPA.

V. Conclusion and Action Requested:

This RFR of DAP status has set out the reasons why Grandview should be considered directly affected by the proposed CFO and why the Board should reverse the Approval Officer's decision denying Grandview DAP status. It has also set out the damage and prejudice that will result to Grandview if the Approval Officer's decision is not overturned. Grandview has demonstrated that it meets the five-part test for DAP status and has provided sufficient supporting evidence to substantiate its claim.

Grandview requests that the Board reverse the Approval Officer's decision by granting DAP status to Grandview, and thereby giving Grandview the opportunity to participate by bringing evidence and making submissions during any review and hearing process that may result with respect to the proposed or future CFO applications.

³⁹ AOPA at s 20(1)(b)(ix).

⁴⁰ Decision Summary, Appendix F at p 33.



June 4, 2022

From:
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To:
Whom it may concern

I have been asked by the Mayor of the Summer Village of Grandview Don Davidson to provide expert scientific input on the potential cumulative environmental impacts of the proposed confined livestock feeding operation on Pigeon Lake.

Large livestock operations are increasingly major contributors to the degradation of freshwater ecosystems around the world (e.g., Lake Winnipeg). They generate a variety of chemicals that can directly enter waterways via surface runoff and indirectly via seepage into underlying groundwater, particularly during extreme weather events (e.g., flooding). Elevated concentrations of phosphorus, nitrogen, and dissolved organic matter (DOM) found in water discharge from these agricultural operations pose major threats to lake and stream ecosystems because they stimulate excess growth of various harmful bacteria and algae, termed “eutrophication.” Below, I provide greater details concerning the role that each of these groups of chemicals when released into the environment can play in contributing to the future eutrophication of Pigeon Lake.

Phosphorus has long been identified as the key nutrient that fuels algal growth in lakes, such as in Pigeon Lake. For example, very clear and clean water conditions typically exist in Pigeon Lake during the spring and early summer because phosphorus levels are so low (~10 micrograms per litre) as to preclude rapid algal growth. Thereafter, warmer mid-summer water temperatures stimulate release of phosphorus from where it is stored in lake sediments, which then stimulates algal production. If phosphorus concentrations then increase over 30 to 50 micrograms per litre, this results in the proliferation of toxic cyanobacteria. Since phosphorus is a sedimentary element, any even minute external subsidy of this element from the surrounding landscape ends up contributing long-term to that stored in the lake sediments. Thus, the potential for greater release of this limiting nutrient from the sediments increases over years, thereby contributing to earlier and more intense outbreaks of cyanobacteria, termed “blooms.” In fact, other lakes in Alberta that have already received large nutrient subsidies now annually experience intense cyanobacterial blooms that begin immediately after spring ice-out (e.g., Lake Isle). Further, climatic warming is known to synergistically increase the impact of phosphorus



on cyanobacterial blooms by accelerating recycling of this nutrient once it has entered a lake. Therefore, a proposed livestock operation that contributes phosphorus in Pigeon Lake will become increasingly worrisome under the rapidly warming climate that we face here in Alberta.

Inputs of nitrogenous compounds can also contribute to algal growth in Pigeon Lake. The importance of nitrogen to blooms becomes evident in mid-summer with the appearance of certain cyanobacteria that can compensate for the lack of this nutrient in the lake by taking it up from the atmosphere. Thus, external input of nitrogen from the landscape would provide relief from nitrogen limitation and thereby stimulate increased algal growth. There also exists a synergistic interaction between external inputs of nitrogen and phosphorus that amplifies their net stimulatory effect on cyanobacterial growth that exceeds the sum of the individual effects of these two nutrients.

External input of DOM from the livestock operation also represents a source of excess nutrients to Pigeon Lake. DOM often consists of organically bound nitrogen and phosphorus, which can be released and made bioavailable to cyanobacteria via photodegradation by exposure to sunlight and enzymatic breakdown by microbes. In addition, DOM is also a very important carbon source for certain potentially toxic strains of bacteria that can pose major health risks to humans and wildlife (e.g., *E. coli*).

In summary, the proposed livestock operation located near a waterway represents a potential downstream threat to Pigeon Lake. The threat mainly involves deterioration of water quality due to excess nutrient runoff fueling toxic cyanobacterial production, and subsequently decomposition of this material that deprives key aquatic organisms of oxygen. The above stated cumulative impacts on water quality and harvestable fish capacity are characterized by several synergistic interactions among excess nutrient inputs and climatic warming. On that note, increasingly extreme climatic events (e.g., flooding events, summer heatwaves) will likely contribute to greater transport of these nutrients into Pigeon Lake where they will also be more rapidly recycled, resulting eutrophication that will offset many of the remediation efforts that have been accomplished over the past decade.

Sincerely yours,

A handwritten signature in black ink that reads 'Rolf Vinebrooke'.

Rolf Vinebrooke