



STATEMENT OF CONCERN

Re: Natural Resources Conservation Board Application RA21045 Confined Feeding Operation, Greg Thalen and G&S Cattle Ltd. Location: NW 3-47-2 W5M, Wetaskiwin County

Filer Information

Name: Pigeon Lake Watershed Association

Municipal or Rural Address: 6B Village Drive, Village of Pigeon Lake, Westeros, Alberta

Mailing Address: Box 219, Mulhurst Bay, Alberta

Phone: 587-487-2044

Email: info@plwa.ca

STATEMENT OF CONCERN

The Pigeon Lake Watershed Association (PLWA) is submitting a statement of concern about the adverse effects on the environment from the proposed confined feeding operation (CFO) in the Pigeon Lake watershed.

PLWA requests directly affected party status. The PLWA is a non-profit, member-based watershed group at Pigeon Lake. PLWA is registered under the Society's Act (5012999784) and has charitable status in Alberta. PLWA was formed by concerned residents in 2007 to address diminishing water quality in the lake. The organization is made up of a voluntary Board of Directors, one staff member, and over 1100 members who are full and part-time residents in the watershed.

Our mission is to enhance, preserve and protect Pigeon Lake and its watershed as a healthy and environmentally sustainable ecosystem for current and future generations. PLWA collaborates with the Alliance of Pigeon Lake Municipalities and the Pigeon Lake Watershed Management Plan Steering Committee, to implement the [Pigeon Lake Watershed Management Plan 2018](#) (the "Plan"). The goal of the Plan is to reduce the frequency and intensity of harmful algal blooms, to improve the health of the watershed and the lake, and improve the recreational value of the lake and economic health of the region.

PLWA supports research and stewardship to protect the lake, environmentally sensitive areas in the watershed, and biodiversity, with a focus on reducing pollutants and contaminants from entering the lake. Our work is based on Alberta's *Water for Life* strategy. PLWA has:

- Raised over 1.5 million dollars for environmental initiatives from the province, local municipalities, environmental grants, and donations from families in the watershed.
- Released the Alberta Clean Runoff Action Guide to help residents implement low impact development solutions to slow and filter pollutants before they enter the lake.
- Installed clean runoff demonstration gardens, with provincial and local funding to improve runoff on more than 20 hectares of land and have additional funding for projects in 2021-2023 to support clean runoff initiatives on public and private land.

- PLWA has contributed resources to elevate environmental protections in statutory plans, as outlined by the community in the Pigeon Lake Watershed Management Plan.

For all the above reasons and our 15-year history in the watershed, the Pigeon Lake Watershed Association is best positioned to represent watershed-based concerns affecting directly affected members of PLWA and the concerned parties listed on this application.

The Pigeon Lake Watershed Association submits evidence in the Adverse Effects Background Report to demonstrate reasonable linkages between the proposed CFO, the environmental damages and the elevated risk of harm to residents, fish, and wildlife habitat for Pigeon Lake and its watershed.

THERE IS AN UNINTERRUPTED CHAIN OF CAUSE AND EFFECT

The Adverse Effects Background Report summarizes six major areas impacted by the CFO and describes the linkages between the proposed CFO on downstream habitat, conservation areas, and recreational users of Pigeon Lake. Those causal linkages include the elevated export of manure pollutants and nutrients including the mechanisms of timing and release, an integrally connected drainage network of two sub basins connecting the CFO to Pigeon Lake, the effect of increased runoff laden nutrients on the western basin of Pigeon Lake, the increased intensity of Harmful Algal Blooms (HAB's), and the circulation of HAB's to all parts and shorelines of Pigeon Lake, all of which will affect a variety of residents. This unbroken chain means that all watershed residents and visitors of Pigeon Lake are directly affected by the proposed CFO.

DETRIMENTAL EFFECTS OF HARM ARE LIKELY TO OCCUR

- Monitoring data for Sunset Harbour Creek in 2013 and 2022 show elevated levels of phosphorus and nitrogen. This sampling area is only a short distance downstream from the current feeding operation.
- Satellite imagery demonstrates how HABs move around the lake impacting all lake residents as well as fish and wildlife habitat along the shoreline.
- Pigeon Lake's history with Harmful Algal Blooms demonstrates that the lake is near a tipping point from nutrient overload. Watershed stewardship actions which reduce nutrients from watershed sources have been effective but new sources such as the CFO will have a significant adverse effect on water quality and the lake's ecosystem.
- Blue-green algae and fecal bacteria health advisories at Pigeon Lake demonstrate risk of harm to human health as well as risk for pets.
- Alberta Fisheries monitoring data from 2020 show that the risk to walleye has increased.
- Studies on the impact of runoff from intensive agricultural operations in other waterbodies in Alberta show evidence that livestock pharmaceuticals (promoters) used in CFOs is linked to adverse effects on fish.
- Research shows property values near a lake with an algal bloom can decline by 22% (*Bloom and bust: Toxic algae's impact on nearby property values*, Wolfe & Klaiber)

THE EFFECTS WILL NOT BE TRIVIAL

Harmful Algal Blooms have enormous significant health, social, and economic effects for a very large population of people who depend on Pigeon Lake for live, work and play. These adverse effects also extend to fish and wildlife. The public outcry and the economic consequences for this region and the province will not be trivial.

DEFICIENCY, OMISSIONS, AND ERRORS IN THE APPLICATION

- Information about the existing operation, which is understood to be an intensive cow-calf operation is omitted from the application. Assessments of environmental risks from the current application will not adequately reflect land use and risk without understanding the impact of the existing operation.
- The South Saskatchewan Watershed is referenced on the application, which may impact information about resource availability, water diversion rights, and runoff calculations.
- Groundwater sources and quality can not be effectively assessed because water well information for the new CFO is not included but is required for the NRBC environmental screening and approvals under the Water Act.
- Water conservation objectives under the Water Act extend to the protection of Sunset Harbour Creek, Tide Creek and Pigeon Lake and must be considered under the Alberta Environmental Protection and Enhancement Act.
- The catch basin as shown is only 70% of the capacity recommended in the geotechnical report. Extreme weather events present a high risk of overflows which will end up in Pigeon Lake.
- The application is required to provide ground contours and water courses including ephemeral channels that penetrate the sections of land for manure spreading and the CFO. Neither are identified in the application nor are the required NRCB setbacks.

STATUTORY PLANS & PROCEDURAL FAIRNESS

1. PLWA requests referral agency involvement as outlined in the attached CFO Referral
2. Considerations of environmental goals for the County as set out in the Municipal Development Plan and Land Use Bylaw are relevant to this application. These include the following environmentally sensitive areas:
 - a. Sunset Harbour Creek, and Tide Creek (proximity to manure spreading area)
 - b. Conservation lands, two protected sites along Tide Creek managed by Alberta Conservation Association, Alberta Fish and Game Association, and Alberta Environment and Park
 - c. Protected spawning grounds at Tide Creek and Sunset Harbour Creek
3. The Pigeon Lake Watershed Management Plan is a guide for development in the watershed. It was endorsed by the 12 municipalities around Pigeon Lake, including the County of Wetaskiwin, and requires consideration of the following commitments to meet the goal of reducing the frequency and intensity of algal blooms:
 - *Objective 2:* Improve phosphorus management for all land uses to achieve a net reduction in nutrient runoff and promote biodiversity.
 - New or Expanded Intensive Livestock Operations: Statutory land use restrictions on new or expanded intensive livestock operations (including CFO's) are supported in this Watershed Management Plan

CONCLUSION

With regards to this CFO Application, the Pigeon Lake Watershed Association has been contacted by rural agricultural landowners and cottage owners and been asked to provide this statement of concern and

technical information to demonstrate the adverse effects of a CFO in the watershed and the community's commitment to protecting the lake and its watershed.

The Pigeon Lake Watershed Association contends that:

1. As a community group with a large membership of full and part-time residents at Pigeon Lake, PLWA is a directly affected party.
2. This submission includes statements of concern from over 300 residents.
3. Legislation requires that the approval process must consider the cumulative environmental impacts this CFO will have on Pigeon Lake. PLWA submits the *CFO Adverse Effects Background Report* as supplemental resource material for support of the Statement of Concern.
4. Approval of this application would impact natural resources under the purview of the ministry of Environment, which has jurisdiction over Pigeon Lake.
5. This application does not comply with environmental protection goals in the County of Wetaskiwin's municipal development plan.
6. This project goes against the spirit of many of the municipal statutory plans and non-statutory planning documents which were prepared to protect the watershed and lake from such risk-laden projects as CFO's.
7. Pigeon Lake is already combating the effects of development and cannot handle such an increase in nutrient load which is expected from such a development.

RECOMMENDATION

This statement of concern together with the supporting *CFO Adverse Effects Background Report*, and accompanying statements of concern from residents, demonstrate that the environmental impacts from the CFO are reasonably expected to adversely affect the Lake, watershed, Pigeon Lake Watershed Association, and the community at Pigeon Lake. It is recommended that this application be denied.