Draft Plan of Subdivision – Lavigne, Corbeil and Quae Quae Roads

File No. SB 2026-01

Subject Property: Part of Lots 13 & 14 Concession 7 and
Part of lots 13 & 14 Concession 8

Prepared For: East Ferris Planning Committee - Supplementary

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As I revealed in my original submission to the PAC, I do not have the expertise to evaluate the Tulloch Hydro Geological Report. As a result, I turned to NBMCA to gain further understanding about the 2006 Groundwater Study and the 2024 Watershed Strategy report sending the following email to Liza Vandermeer, General Manager/Manager, Drinking Water Source Protection, in the hopes of gaining a professional opinion regarding who has the mandate and technical expertise to review that hydrogeological report.

Unfortunately, I was advised that this is the busy season for NBMCA and I have not, as yet, received a response to my query.

Re: [EXTERNAL]Re: North Bay-Mattawa Conservation Authority Integrated Watershed Management Program

P **Phil Konin[redacted]** Mon, May 4, 8:19 AM (6 days ago)
to Liza

Good Morning Liza,

In addition to my question regarding the followup, if any, to the 2006 groundwater study, I would be interested to know if the following statements, based on a AI review of the 2024 Watershed Strategy report, are accurate?

1. The watershed strategy identifies increasing groundwater stress, declining recharge reliability, and insufficient data to assess aquifer capacity. It explicitly warns of drying shallow wells, increased competition for water, and risks to residents dependent on private systems. Continuing to approve growth reliant on individual wells transfers systemic water risk from the municipality to individual property owners without adequate scientific basis or long-term sustainability assurance.

2. The Conservation Authority provides valuable technical information but does not translate watershed risks into clear development limits, groundwater capacity thresholds, or decision-ready scenarios. As a result, both residents and municipal councils are not adequately prepared for the cumulative and climate-amplified risks associated with continued reliance on private wells. This creates a planning environment where growth decisions are made without a full understanding of long-term water security implications.

3. While the North Bay-Mattawa Conservation Authority provides valuable technical insight into watershed conditions, its current communication and advisory approach does not equip municipalities to meet the requirements of the Provincial Policy Statement or Guideline D-5-5 in the context of continued growth reliant on private wells.

Absent a shift to capacity-based planning and cumulative impact assessment, ongoing development approvals risk:

- Exceeding groundwater system limits
- Creating long-term water insecurity for residents
- Transferring environmental and financial risk to future municipal councils

Thanks

Phil

I recognize that Council holds the responsibility and authority to approve the subdivision application but wanted to ensure some resident's concerns are articulated before the PAC renders their recommendation. As there is a need to present my concerns in a timely fashion, I utilized AI to identify concerns with the Study in relation to the Guideline D-5-5 requirements and found the following:

> *The hydrogeological study does not comply with Sections 4.6 and 4.7 of D-5-5. It fails to conduct required field verification of existing wells, does not assess land and water use conflicts within the prescribed 500 metre radius, and does not treat the proposal as part of a phased development requiring reassessment based on observed well performance. As a result, the study does not provide sufficient evidence to demonstrate a sustainable and reliable groundwater supply.*
>
> *The presence of an active quarry within approximately 1000 metres of the site—recently expanded to permit significant extraction—constitutes a foreseeable and material influence on local groundwater conditions. The failure of the hydrogeological study to identify and assess this operation is inconsistent with Section 4.6 of D-5-5 and undermines the reliability of its conclusions regarding groundwater sustainability.*
>
> *Consistent with the reasoning in decisions such as Simcoe (County) v. Oro-Medonte (Township), Ballantry Homes Inc. v. Whitchurch-Stouffville (Town), and Castleton Development Corp. v. Cramahe (Municipality), the evidence must demonstrate long-term, cumulative, and reliable groundwater supply. In this case, the available evidence demonstrates only short-term, site-specific well performance and does not address cumulative demand, aquifer capacity, or drought conditions. Accordingly, it has not been demonstrated that the proposed or continued development will provide a sustainable water supply, and the requirements of the Provincial Policy Statement and Guideline D-5-5 are not met.*

Table 1			
Year	Avg GPM	# of Wells	5 Yr Avg GPM
2003	60.0	1	
2004	29.3	19	
2005	11.2	16	
2006	18.3	26	
2007	14.1	17	26.6
2008	16.0	20	
2009	12.4	25	
2010	11.5	25	
2011	18.8	19	
2012	12.3	18	14.2
2013	9.8	24	
2014	7.8	17	
2015	8.5	2	
2016	8.1	32	
2017	10.0	9	8.8
2018	10.3	19	
2019	8.4	24	
2020	4.5	2	
2021	9.1	17	
2022	8.6	19	8.2
2023	9.0	5	
2024	9.0	2	
	Total	358	

The 173 wells that were listed in the report as proof of sufficient water supply did not show a location, and I know that some were outside of the 500m limit referred to earlier.

With some assistance, I was able to extract the well records from 355 wells in East Ferris dating back to 2003 and summarized the data in Table 1. (Spreadsheet attached)

I do not know how current the records contained in the Well Records Database are, but I suspect there are numerous records from 2023, 2024 and 2025 at least, that still need to be included.

Regardless, the 5 Year summaries show a trend in the past couple of decades of reducing average gallons per minute in their yields. This is very concerning because the information that is missing is also the period that contains the most growth in the community along with the lowest yield averages.

The historical well record combined with population growth forecasts (Figure 1) and climate change impacts to groundwater resources contained in the 2024 NBMCA Watershed Strategy (Attached) in Table 2

Table 2

Type of Change	Potential Impacts of Change
Groundwater recharge and discharge	• changes to wetland form and function as discharge decreases • greater costs for groundwater-dependent communities, industries and rural residents associated with deepening wells • increased conflict because of additional competition for scarcer supplies • increased frequency of shallow wells drying up in rural areas • greater frequency of low flows in streams dependent on baseflow, causing increased competition and conflict, and increased stress on aquatic ecosystems
Soil moisture	• increased stress on plants due to decreased summer soil moisture • increased demand for irrigation to supplement soil moisture on drought prone soils

Figure 1

East Ferris is experiencing steady population growth, with estimates placing the 2026 population around 6,000, driven by its attractiveness as a residential community within the North Bay commuting area. Recent trends indicate a 3.32% annual growth rate, making it one of the faster-growing municipalities in the region. [1, 2]

Population Growth Highlights:

- **Current Estimates (2026):** Estimated to be around 6,029, up from 5,137 in the 2021 Census, according to World Population Review.
- **Recent Growth Trends:** The 2021 Census reported a population of 4,946, a 1.7% increase from 2016.
- **Regional Growth Factor:** East Ferris is part of the North Bay Census Agglomeration, which has seen a significant population influx, largely driven by migrants from Southern Ontario.
- **Future Outlook:** Projections suggest continued growth, likely exceeding earlier forecasts of 5,500 by 2023. [1, 2, 3, 4, 5]

In light of similar resident concerns in other municipalities, those Councils have turned to Peer Reviews of Hydrogeological reports.

An AI query reveals the following:

> *What municipalities are requiring peer reviews for hydrogeological reports in subdivision applications and who pays for them*
>
> *In Ontario, numerous municipalities require a peer review of hydrogeological reports for subdivision applications, especially for developments relying on private wells or septic systems. The applicant (developer) is almost always responsible for paying all costs associated with these peer reviews. [1, 2, 3, 4, 5]*
>
> ***Municipalities Requiring Peer Reviews***
> *While many municipalities reserve the right to request a peer review during the pre-consultation stage, the following have explicitly documented requirements or frequently use third-party reviewers: [1]*
> - ***Regional Municipalities:*** *Halton Region, Peel Region, and York Region.*
> - ***Cities & Towns:*** *City of Hamilton, City of Barrie, Town of Caledon, and Town of New Tecumseth.*
> - ***Districts & Counties:*** *District Municipality of Muskoka, SDG Counties, and County of Brant.*
> - ***Townships:*** *Many smaller townships, such as Melancthon and North Stormont, also mandate peer reviews for technical reports. [1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12]*
>
> ***Payment Responsibility***
> *The **applicant** typically pays for peer reviews in the following ways:*
> - ***Direct Payment:*** *Paying the municipality's third-party consultant costs directly.*
> - ***Administrative Fees:*** *Some towns, like New Tecumseth, charge the consultant's cost plus an administrative fee (e.g., 5%).*

My hope would be that the PAC would recommend a peer review of the Hydrogeological Study be required and the fee recovered from the Developer.