Submission of Objection to ERO-026-0124
Esbaugh Sand & Gravel Ltd. Permit to Take Water Application

To: Ministry of the Environment, Conservation and Parks (MECP)
From: Citizens for Safe Ground Water (CSGW)
Date: March 6th, 2026
Subject: Categorical Opposition to Permit to Take Water (PTTW) – 1922 Witmer Road, Wilmot

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Executive Summary

Citizens for Safe Ground Water (CSGW) formally opposes the Category 3 request to extract 9.72 million litres of water per day at 1922 Witmer Road. Permitting a high-volume industrial draw in a primary recharge zone during an officially declared regional water quantity crisis violates the *Precautionary Principle* and threatens the viability of the Waterloo Moraine.

Ontario policy is clear: permits ***should not*** be issued where a taking may adversely affect existing users or the environment, particularly in already stressed systems. The designation alone signals that this is **not a routine** or low-impact application. Our objection highlights the already stressed environment, existing stresses to private-well, and municipal water systems.

Approving a Category 3 industrial water-taking permit in a region that is simultaneously:

- Experiencing a recognized water capacity **constraint**, and
- Actively seeking to **increase municipal groundwater withdrawals**
- Reports of **failing** wetlands, and private-wells due to an ongoing **drop** in water-levels in the area of the applicant.

creates a ***direct conflict*** *in water-management objectives*.

Put simply, the Region of Waterloo cannot responsibly plan to **secure more water** for residents while the Province considers approving a **new high-risk** industrial draw from the same groundwater system.

CSGW calls on the Ontario Government (MECP) to:

- **Reject** the proposed Category 3 Permit to Take Water application.
- **Apply** the precautionary principle where uncertainty and cumulative impacts exist.
- **Prioritize** protection of existing water users and long-term watershed sustainability.

Hallman Pit Hydrogeological Expert Issue Resolution – Summary

Agreed hydrogeological statement of facts between Ralph Ruland (hydrogeologic expert for CSGW) and Stan Denhoed (hydrogeologic expert for applicant) with regards to the Hallman Pit, OLT-22-003789 and OLT-22-004379,1894-1922 Witmer Road, Wilmot.

Item 1:

- If aggregate washing proceeds, add Turbidity and Total Suspended Solids (TSS) to the annual groundwater monitoring program for MW5, MW8, and MW11.
- Final parameter list includes general chemistry, anions, ICP metals, nutrients, PAHs, TPH, BTEX, turbidity, and TSS.
- Agreement confirms inclusion of TSS and turbidity only if aggregate washing occurs.

Item 2:

- If aggregate washing proceeds, include MW8 and MW11 in the annual groundwater quality sampling program for all parameters.
- MW9 is excluded as it is co-located with MW5.
- Sampling will begin six months prior to operation of the wash plant and only if the wash plant is constructed.

Item 3:

- Low-permeability liner must be gently sloped to allow runoff collection from asphalt and asphalt grindings.
- Collected liquid must be sampled and removed from site if PHCs, VOCs, or PAHs exceed MECP potable groundwater criteria.

Item 4:

- MECP must be promptly notified of details of any complaints received from private well owners.
- The Well Complaint Protocol document will be updated to reflect this requirement.
- Agreement confirmed with no outstanding issues.

Item 5:

- Baseline water quality testing to be completed on private wells within 500 m of the site, prior to wash plant operation.
- Testing includes: TSS, turbidity, bacteria (total coliform and E. coli), general chemistry, anions, ICP metals, and nutrients (NH3, NO2, NO3, TKN).
- Sampling limited to identified residences that consent after two contact attempts; work to be completed by a licensed well technician.

The site plans for the Hallman Pit should reflect the above agreements between hydrogeologists.

Evidence of Environmental Collapse

The hydrogeology of the Shingletown and Witmer Road corridor is reaching a breaking point. The anecdotal evidence of dry wells and restricted water use reported by residents at 1790 Witmer Road, 2198 Sandhills Road, and the Bricker property provides the empirical proof for the technical warnings detailed in this comment. The Ministry cannot approve a Category 3 permit when existing neighbors are already experiencing water quantity failure. Regional reporting and expert observations indicate a systemic failure of the local water table.

- **Vanishing Water Tables:** Residents and hydrogeologists (Harden Environmental) report significant declines in aquifer levels (Pender, 2026b).
    - "Since 2019 water levels in this area have declined 1.5 to two metres largely because of a once-in-a-lifetime event that occurred in 2021 when there was no groundwater recharge. *Water levels have not recovered from that yet*."
    - D'Amato L (2026-Feb 27) - 'A constant burden on my shoulders:' For some of us, the water crisis has already arrived. - Waterloo Region Record (Some of us already live in the Waterloo Region water crisis).

- *Documented Agricultural Well Failure: Drosco Farms (2023)*: The Ministry must consider the empirical evidence of aquifer exhaustion provided by Drosco Farms (1881 Queen St / 2025 & 2089 Witmer Rd). This supply-managed egg operation, which produces **80,000 fresh eggs daily**, suffered a total well failure at its Queen Street facility in the Summer of 2023, necessitating the drilling of a new well.

This failure occurred at a location roughly 1.8 km from the applicant site before the proposed 9.72 million L/day industrial draw has even commenced. This is a clear indicator that the sub-watershed is already over-taxed. Introducing a massive new Category 3 take adjacent to the farmer's Witmer Road facilities—which house over 100,000 birds—poses an unacceptable risk of 'Interference' under the Ontario Water Resources Act.

- **Ecological Degradation:** Local wetlands—the natural filtration systems for the region's drinking water—are visibly "dying," and small creeks are vanishing (Pender, 2026a). Waterloo Region Record: Water table dropping in Wilmot Township

- **Empirical Evidence of Aquifer Decline:** The technical concerns regarding the Wilmot Centre Well Field are supported by empirical data from local industry. Clarke Rieck, President of Lyndon Fish Hatcheries (1745 Huron Road), reports that their meticulous tracking over the last 5 years shows "more variability in our aquifer and ultimately lower water availability, especially in the summer months." This evidence of an "aquifer that is already proven to be in decline" directly contradicts the proponent's assumptions that a 9.72 million L/day take is sustainable.

- Pender T (2026-Mar-02): Dry wells and disappearing ponds: What's going on with the water in Waterloo Region? - Waterloo Region Record Decades-long decline in Wilmot water table.

- **Discontinuous Aquitard Vulnerability**: Legal and technical filings confirm that the "upper and lower aquifers" at the site are separated by a "discontinuous aquitard," establishing a physical possibility that the two systems are hydraulically connected (Factum of the Moving Party, Citizens for Safe Ground Water Inc).
- **Elevated Baseline Turbidity**: Expert evidence indicates that groundwater monitors currently show that "sampling already done... finds that turbidity is elevated" prior to the start of operations. Both hydrogeological experts (Wilf Ruland for CSGW and Stan Denhoed for the applicant) agreed that if aggregate washing proceeds, Turbidity and Total Suspended Solids (TSS) must be added to the annual monitoring program for wells MW5, MW8, and MW11 due to these baseline findings.

CSGW is requesting that all current, and historical data from the applicants test monitoring wells are made public (available for download via URL/public portal, and reviewed by the Region of Waterloo hydrogeology, MECP, independent peer review (CSGW recommended), to address transparency concerns related to this applicant.

The "Infiltration Paradox": Proponent Admission of Recharge Reduction

CSGW draws the Ministry's attention to a critical admission in the Harden Environmental report (page 10), which states: *"any reduction in processed tonnage greatly increases groundwater infiltration."* While the consultant presents this as a "safety buffer," it creates a significant technical red flag for the following reasons:

- **Direct Correlation to Aquifer Starvation:** By the consultant's own mathematical logic, the inverse is also true: increasing processed tonnage directly decreases groundwater infiltration. This confirms that at peak operational capacity, the pit will actively "starve" the Waterloo Moraine of the natural recharge it requires.
- **Threat to Private Well Resiliency:** For residents on Witmer Road and operations like Drosco Farms, groundwater infiltration is the primary mechanism that maintains shallow aquifer levels. The proponent's statement confirms that industrial success (higher tonnage) comes at the direct expense of the water table's ability to replenish itself.
- **Conflict with Regional Water Crisis:** During an officially declared "water capacity constraint," the Region cannot afford any activity that intentionally reduces infiltration to the primary recharge zone. The Ministry must evaluate the "net loss" of recharge during peak operations, rather than accepting the "speculative" benefit of low-tonnage periods.

Conflict with the 2026 Regional Water Crisis

As of January 2026, the Region of Waterloo confirmed a **"water capacity constraint"** in the Mannheim Service Area (Region of Waterloo, 2026). Most recently, Region of Waterloo's

Manager of Hydrogeology confirmed the level of pumping (at the Mannheim wellfields) has now reached the "trigger line," which is a provincially mandated limit. If water is taken beyond that line, it interferes with privately owned wells, and risks drying up the region's supply wells, Moroz said. "We probably can't do this for much longer," Moroz said. **"Aquifers need rest."** The Region of Waterloo is now looking at the Wilmot Centre wellfield (Shingletown) for additional water. Given the local reports of water table decline, there is a risk that the cumulative effects of multi water draw could eventually strain the Wilmot Centre wellfields.

- **Development Pause:** The Region has paused new residential development because the system lacks operational resiliency.
    - Available capacity is insufficient to comfortably accommodate growth, maintenance, and emergency shutdowns.
- **Resource Inequity:** It is logically inconsistent for the Ministry to consider a 9.7M L/day industrial permit while the local housing supply is stalled due to water shortages.
- **Overlapping Cones of Depression:** Increased pumping at municipal wells K50, K51, **and** K52 to meet urban demand creates a high probability of *"well interference"* when combined with the proposed Esbaugh draw.

Impacts to Municipal Supply Resilience:

- The Region relies heavily on groundwater, recharged through the Waterloo Moraine.
- Additional industrial withdrawals reduce flexibility during droughts, maintenance shutdowns, or emergencies.
- High-risk permits undermine long-term planning for municipal growth and climate resilience.

Impacts to Recharge Areas and the Waterloo Moraine:

- Proposed site lies above the Waterloo Moraine, a critical groundwater recharge feature.
- The area carries Source Water Protection designations, including:
    - Sensitive Recharge Area
    - Wellhead Protection Area
- Activities that remove large volumes of water or disrupt natural filtration increase long-term risk to both quantity and quality.

Impacts to Private Wells:

- Lowered groundwater levels can reduce well yield or cause wells to fail.
- Private well owners bear the financial and health burden when interference occurs.
- Rural residents have already expressed concern about declining water tables and drying wells within 2km of the Hallman pit.
    - ERO Comments (Bricker, Weitzel-Prong, Lernout, Fabrick, Weber, Drost, Rieck)
- Mandatory Baseline Locations: Baseline water quality sampling must be formally offered to the following specific residences on Witmer Road: 1768, 1790, 1785, 1850, 2008, 2025, 2040, 2056, and 2089 Witmer Road. Comprehensive Baseline Analytes: Mandatory baseline testing for these residences must include Bacteria (Total Coliform and E. coli), anions, general chemistry, ICP metals, and a full nutrient suite including Ammonia, Nitrites, and Total Kjeldahl Nitrogen.

Critically, the Region is now looking toward its Wilmot Township wells as part of its solution to this constraint, including revising a long-standing 1980 Policy on Water Taking – a transfer of water toward the Mannheim Service Area. This context fundamentally changes **(increases)** the **risk profile** of any new large or high-risk water-taking proposal in the same geographic area.

While some regional reports suggest adequate 'total' volume, the Region of Waterloo's formal declaration of a water capacity constraint in 2025/2026 proves that the aquifer is already under unsustainable pressure. Expert reports have confirmed that water levels in the Waterloo Moraine are dropping faster than they can be replenished (CTV News / Regional Council Report Feb 10, 2026). The Ministry cannot claim there is 'surplus' water for an industrial washing permit when the Region itself has implemented a development freeze due to water scarcity.

Technical Risks to Public Health and Safety

- **Legacy Nitrates:** The southern portion of 1922 Witmer Road has a history of intensive cattle feedlot operations. Large-scale aggregate washing risks creating a "vertical conduit," flushing legacy nitrates into the municipal aquifer.
- **Impact on Municipal Supply:** The site is located within the Waterloo Moraine, providing ~**7% of the Region's total drinking water**. A 3D Cumulative Drawdown Analysis is required to model the combined impact of the Hallman Pit, the Petersburg Pit, and Regional Wells K50–K52 (Region of Waterloo Engineering, 2024).
- **Cone of Depression:** High-volume pumping creates a "cone of depression" that acts as a massive artificial well. This reverses or accelerates natural flow gradients.
- **Plume Pulling:** Even if water is returned to a pond, the act of extraction can pull distant nitrate toward the site or toward nearby private wells that were previously up-gradient *(i.e. proposed wash ponds are in proximity of a former cattle manure lagoon)*.
- **Thermal and Chemical Alteration:** Recycling water through a surface pond increases its temperature and exposure to atmospheric pollutants before it re-enters the ground, altering the "thermal regime" of the aquifer.

Legacy Contamination: The Manure Lagoon Risk

Public records from the Ontario Land Tribunal (Case No. OLT-22-003789) indicate that proposed wash ponds are sited directly atop a former high-capacity industrial manure lagoon (circa 1894–1922 Witmer Road).

- **Hydraulic Flushing:** Introducing millions of liters of water into a former manure lagoon footprint creates a "hydraulic head" (downward pressure). According to the Walkerton Inquiry (Goss et al., 2001), this pressure acts as a transport mechanism, forcing pathogens like E. coli and nitrates through the soil. University of Waterloo research (Van Meter, 2016) confirms "Nitrogen Legacy" can persist for decades; these operations risk remobilizing these contaminants into the shallow aquifer.
- **The "Cone of Depression" Effect:** Pumping at 9.7 L/sec (approx. 840,000 litres/day) creates an underground "vacuum." The Region shall consider this artificial gradient risk of pulling concentrated nitrate plumes toward Regional wells K50/K51 and neighboring private wells.

- **Unrecorded Conduits:** Sworn statements identify six unlocated "feedlot-era" wells. These functioned as "vertical short-circuits," allowing surface contaminants to bypass protective soil layers and enter the deep aquifer directly.

Threat to Food Security

The Ministry must consider the following *"Adverse Effects"* (as defined in the Environmental Protection Act [2, p. 55]) that this permit would exacerbate:

Statutory Priority: Animal Welfare vs. Non-Essential Industrial Use

- Lyndon Fish Hatcheries produces **8 million meals** of Canadian raised fish annually; a reduction in water availability threatens the "viability of a family's livelihood" and the "security of the greater Canadian Rainbow Trout industry (Clark, 2026).
- The daily operational requirements for Drosco Farms include the consumption of 27,000 litres of water to sustain livestock. On hot summer days, this demand peaks, making water a life-essential resource for animal welfare (Drost, 2026). In contrast, the PTTW 026-0124 request is for non-essential aggregate washing.
- Under the Environmental Protection Act, the Ministry is tasked with preventing 'Adverse Effects.' The loss of water for a facility producing **80,000 eggs** a day or 8 million meals of fish annually is a significant adverse effect on provincial food security. The Ministry cannot legally prioritize the washing of gravel over the survival of 100,000+ birds or fish especially given that the proponent's own hydrogeological model is 'estimated', not measured.

Mandatory Mitigation Requirements (if approved)

Should the MECP move toward approval, CSGW requests the following legally binding conditions:

Closed-Loop Recycling ("Near-Zero" Loss)

Installation of a **Mechanical Wash Water Recycling System** (such as a filter press or high-rate thickener) capable of achieving **95-99% water recovery** (MNR, 2025).

Feature	Traditional Open Settling Ponds	Mechanical Filter Press (Closed-Loop)
Water Recovery	High losses via evaporation/seepage.	**95-99% recovery** (MNR, 2025).
Groundwater Risk	Leaching of silts/nitrates into aquifers.	**Sealed system**; no vertical conduits.

Land Footprint	Massive; prone to storm overflow.	Compact; automated and controlled.
Waste Output	Unstable slurry/mud.	Dry, stackable cakes; easy transport.

Why This is Critical for the Shingletown/Witmer Corridor:

The traditional "open pond" method is a primary driver of **water waste** and **aquifer risk**. While characterized as 'closed loop,' containment estimates range between ~70-95%, which is dependent upon the type of system. For 1922 Witmer Road best-available technology systems, "near-zero-discharge" closed loop system (*minimal or no ponds*), 95%+ containment system is the only acceptable "best practice".

- **Elimination of the "Vertical Conduit":** Open ponds rely on gravity, which in the Waterloo Moraine risks flushing surface contaminants and legacy nitrates directly into the drinking water aquifer (Source Water Protection, 2025).
- **Stormwater Resilience:** A mechanical system is self-contained and does not risk accidental discharge of sediment-heavy water into the Shingletown Wetland during extreme weather events.

Guidance on pond performance shows seepage is a persistent loss and contamination pathway, particularly in coarse or fractured soils; reducing pond reliance materially lowers this risk. A near-zero discharge closed-loop system turns water from a consumptive input into a managed asset, dramatically reducing ecological impact while strengthening regulatory, climate, and community resilience.

Testing and Off-Site Disposal: Any liquid collected from the sloped liner system must be sampled; if Petroleum Hydrocarbons (PHCs), Volatile Organic Compounds (VOCs), or Polycyclic Aromatic Hydrocarbons (PAHs) exceed MECP potable groundwater criteria, the liquid must be removed from the site for proper treatment or disposal.

Establishment of Financial and Monitoring Safeguards (if approved):

- **Financial Assurance Bond:** A **$2,000,000** bond held by the Township to provide immediate remediation for any private well within 2km experiencing interference.
- **Real-Time Transparency:** All flow meters equipped with **publicly accessible** telemetry to verify daily limits, retention percentages, in real-time (via URL/public portal access).
- **Sentinel Well Network:** Proponent must install Sentinel Wells between the pit boundary and off-site wells (within 2km) equipped with digital pressure transducers to monitor "head" levels (Region of Waterloo Engineering, 2024).

- **Automated "Stop-Draw" Triggers:** Mandatory Trigger Levels where pumps automatically shut down if a Sentinel Well shows drawdown exceeding a pre-defined threshold.
- **Shingletown Wetland Sensors:** Pressure and moisture sensors installed in the wetland; any pumping-related deviation from baseline results in immediate cessation of water taking.
- **Peer Review of Cumulative Impacts**: The amended planning report addressing cumulative impacts must be "peer reviewed by experts" to verify that the combined risks to the regional water supply and local private wells have been accurately modeled and addressed.

Compliance and Community Trust

Public confidence in groundwater protection, as well as the applicant, is already strained. Esbaugh Sand & Gravel has recently been cited by the Ministry of Natural Resources for operating outside approved site conditions, including violations related to site use. While separate from the PTTW process, this history raises legitimate concerns regarding:

- Adherence to permit conditions.
- Monitoring and reporting compliance.
- Trust in self-reported environmental performance.

When dealing with Category 3 risk, a precautionary approach is not only appropriate–it is necessary.

Environmental Compliance Approval (ECA) Missing from Permit Application

Under the Environmental Protection Act (Ontario), the requirement for approval of sewage works – including industrial wastewater like aggregate wash water – is found in Part II.1 (Environmental Compliance Approvals), but the trigger section is: Section 53(1) Section 53(1) states that no person shall establish, alter, extend or replace new sewage works except under and in accordance with an Environmental Compliance Approval (ECA). Because wash water from an aggregate wash plant is considered industrial sewage by the Ministry, the wash ponds, settling ponds, recycling systems, and any discharge or reuse infrastructure are legally classified as “sewage works.” “Sewage” under the Act includes drainage, storm water, and industrial waste – not just sanitary wastewater. So, for: collection, transmission, treatment, disposal, and reuse of wash water from a proposed aggregate wash plant the approval requirement arises under: EPA s. 53(1) – approval required for sewage works.

- ECA requirement and application route. The statutory trigger is s.53(1) (no person shall establish/alter/extend/replace sewage works except under an ECA), and applications are processed under Part II.1 (ECA) and the ministry’s application guidance A B.

- Broad definition of “sewage.” Because “sewage” expressly includes industrial waste, stormwater and drainage, wash ponds, clarifiers, recycle systems and any discharge/reuse infrastructure fall within the sewage-works definition and so are captured by the ECA regime A B.
- Regulatory detail and standards will be set in the ECA or regulation. The ministry’s ECA program and the specific sewage-works regulation (O. Reg. 208/19 and related guidance) govern what must be demonstrated, monitored, controlled for approval C B.
- Sources for the above: EPA statute and the ministry’s ECA guidance and sewage-works regulation A B C.

CSGW would expect to see the following for public review in advance of a PTTW application approval by the applicant:

- Specific effluent quality limits or monitoring requirements that an ECA would impose.
- Contingency/overflow management plans (e.g., emergency storage, bypass controls, notification procedures).
- Groundwater impact assessment or hydrogeological studies for ponded systems or infiltration risks.
- Sludge characterization, handling, transport, and disposal routes and whether sludge is classified as waste requiring separate approvals.
- Interaction with municipal zoning, aggregate licensing, or site-plan/land-use approvals.
- Water-taking or surface-water discharge authorizations under other statutes or regulations (if applicable).
- Public consultation and Indigenous consultation requirements that may be triggered by the project or the ECA process.
- Timing, fees, or administrative process details (application timelines, completeness review, appeal/objection routes).
- Specific regulatory exemptions or thresholds (e.g., small-volume exemptions, registration options) that might alter the need for a full ECA.
- Insurance, financial assurance, or long-term maintenance/closure obligations for ponds and treatment works.

CSGW believes that the MECP should treat the ‘wash-water system’ as requiring an ‘ECA’ and request the applicant to include engineering designs, monitoring, sludge management, and contingency measures B C. To address the issue of cumulative impacts, the application should map other approvals and stakeholders (municipal, aggregate licence, water-taking, Indigenous and public consultation) to avoid sequencing conflicts. Additional commissioned technical studies are likely to be required (hydrogeology, surface-water impact, sludge characterization, overflow modelling) so the application is comprehensive, and transparent. Budget for monitoring and compliance obligations that will likely be conditions of the ECA (sampling, reporting, inspections) should be established.

Record of Site Condition (RSC) Misclassification Risk

The RSC identified for the original Hallman Pit zone change/aggregate license was misclassified, as thus requires review by the MECP.

- Current use: Residential (incorrectly labelled)
- Intended use: Industrial.

However, the property was an agricultural feedlot land – not residential in function.

If Table 8 potable residential standards were applied rather than agricultural/industrial parameters, then contamination pathways specific to the following may not have been fully characterized:

- Nutrient loading
- Manure lagoon seepage.
- Silage runoff
- Atrazine and herbicide residues
- Deep well interaction

A Category 3 water taking requires a defensible conceptual site model. If the base model was incomplete, hydraulic manipulation magnifies that gap.

Technical Deficiencies in the Record of Site Condition (RSC)

The property was classified as "Residential" in the RSC process despite a history as an intensive 5,000-head industrial feedlot (Laepple, 2026).

- **Inadequate Testing Sensitivity:** Previous testing for Atrazine used a parts per million (ppm) detection limit (Laepple, 2026). However, the Ontario Drinking Water Quality Standards (O. Reg. 169/03) set the Maximum Acceptable Concentration for Atrazine at 0.005 mg/L (5 ppb).
- **Technical Failure:** Testing at the ppm scale is insufficient to detect concentrations that exceed health standards by orders of magnitude (MECP, 2023). A new characterization using Method Detection Limits (MDL) appropriate for potable water is required for a Category 3 permit (MECP, 2022b).

Legacy Hydrology and Operational Risks

Forensic Gap: Unaddressed High-Capacity Irrigation Well #6504418

The application fails to account for a deep irrigation well (Well #6504418) drilled to **121.9 m (400 feet)** (Laepple, 2026). Under **O. Reg. 903 (Wells)**, any well not properly maintained or

decommissioned presents a direct "preferential pathway" for surface contaminants to bypass natural filtration layers and reach deep aquifers (MECP, 2022a).

- **The Risk:** Historically, this well was used to distribute liquid manure via high-pressure irrigation (Laepple, 2026). Without a verified "Record of Decommissioning" (Form 9) filed with the Ministry, this well serves as a potential conduit for pathogens into the deep regional water supply (MECP, 2022a).
- **Requirement:** The ERO must mandate a forensic well audit. The Technical Support Document for Ontario Drinking Water Quality Standards requires that such "geological shortcuts" be investigated to ensure that high-volume Category 3 pumping does not cause vertical contaminant migration (MECP, 2023).

Chemical Loading: Cumulative Impact of Chloride-Based Dust Suppressants

The proponent intends to apply up to **45,000 liters** of **30% Calcium Chloride** annually.

- **Environmental Persistence:** The Canadian Council of Ministers of the Environment (CCME) states that chloride is a conservative ion that does not degrade; once it enters the groundwater, it can only be removed through energy-intensive desalination (CCME, 2011).
- **Policy Conflict:** Under the Clean Water Act (2006), the application of road salt and dust suppressants is identified as a ***"Significant Drinking Water Threat"*** in high-vulnerability recharge zones (Grand River Source Protection, 2021). Approving industrial-scale chloride loading here **contradicts** the Provincial Policy Statement (PPS), which mandates the protection of sensitive groundwater features (MMAH, 2020).

Inaccurate Receptor Mapping and Capture Zone Expansion

The proponent's assertion that no private wells exist south of Witmer Road within 2.5 km is refuted by public **MECP Well Records** (MECP, 2024; Laepple, 2026).

- **Capture Zone Risks:** According to the MECP PTTW Manual, a Category 3 taking must evaluate the "Zone of Influence" (MECP, 2022b). Pumping 9.72 million L/day creates a capture zone that extends far beyond physical drawdown (MECP, 2022b).
- **Plume Redirection:** Altering hydraulic gradients risks pulling existing contaminant plumes—such as the 25.4 mg/L nitrate level recorded at MW10—toward previously unidentified private wells (Laepple, 2026). This violates Ontario Water Management Policy 3.2.2, which states that water quality shall not be degraded further where it already fails to meet provincial objectives (MOEE, 1994).
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Concerns relating to Harden File No. 1728 Hydrogeological PTTW Evaluation

Please note: Independent from CSGWs identified concerns outlined below, our hydrogeological expert, Michael Frind, MSc, Hydrogeology and Groundwater Modelling (Frind Consulting Associates), is currently finalizing his review of the Harden report. Mr. Frind's preliminary review has identified that the proponent lacks a *'Cumulative Impact Study' and* has failed to prove aquifer separation using standard geophysical methods like Vibroseis. CSGW will be submitting Mr. Frind's full report to the ERO as a supplemental filing before the March 6th deadline. A PDF copy can be provided to the MECP upon request.

Unacceptable interference risk not convincingly ruled out (ecosystem + existing users)

High requested instantaneous rate + limited site-specific demonstration:

- Requested: 13,500 L/min, up to 12 h/day, 9.72 million L/day, 230 days/year.
- Yet the impact case relies heavily on (a) analogy to Germet Pit, and (b) simplified analytical drawdown/ "radius of influence" approaches.
- MECP guidance explicitly expects the "level of detail" to match risk/uncertainty.

Wetland sensitivity: SWC is a closed feature with monitoring triggers, but "no impact" hinges on a narrow influence zone:

- SWC: no surface outlet, perennially wet; ~36% of site drains to it.
- SWC is ~170 m from the proposed wash pond.
- Report asserts influence zone 27–67 m from pond edge so "no drawdown impact.

Existing domestic well concern increases sensitivity:

Report acknowledges a water quantity complaint (Dec 2025) and regional declines not recovered from 2021 low recharge event.

The MECP must consider impacts to wetlands/water levels/ecosystem function. CSGW is not satisfied that the influence analysis is conservative enough (especially for a closed-basin wetland). The report does not satisfy convincingly that no unacceptance interference exists and lacks strong mitigation and monitoring comments tied to pumping.

"Need / reasonable prospect of use" & "not speculative" problems

CSGW contends that the report fails to justify requested rates/volumes; PTTW ***is not*** to reserve water for speculative uses.

Rate request vs expected actual need is not tightly justified:

- The report says the pump operates "approximately 10,000 L/min" but requests 13,500 L/min.

- It also cites “losses <10%” and a closed-loop system, implying the *net* take may be substantially lower, but the permit request is for an exceedingly high instantaneous max.

Wash pond not yet constructed:

- “Wash Pond has not been constructed to date.

The construction/operations details are uncertain (dimensions, hydraulic connection, sediment management) and pose a risk/uncertainty too high to be satisfied that impacts are unlikely.

Return flow / “net taking” and discharge considerations not fully proven

CSGW suggests the applicant is overconfident “no monitoring required” as it is inconsistent with the need to manage uncertainty and protect ecosystem functions/quality; CSGW is not satisfied water quality and discharge pathways are adequately managed by the report. The file does not adequately show how quickly/where returned water re-enters the source and what drawdown occurs during the lag (especially under low recharge), as previously reported around the Hallman Pit.

Strong reliance on “closed-loop” without a rigorous net-taking/time-lag analysis:

- Report: “closed loop… majority of water is recirculated… losses estimated <10%.
- MECP guidance warns that net-taking evaluation requires “careful consideration” of timing/location of return, not just gross volumes.

Sediment/erosion/water quality impacts from return/discharge are largely asserted away:

- The report emphasizes sediments are removed in settling ponds and states “site activities are non-polluting…no water quality monitoring is required.”
- MECP guidance expects discharge-related physical impacts (erosion/sedimentation) and possibly water quality impacts to be assessed; and flags potential need for s.53 OWRA approvals.
- Refer to experts agree statement of facts for monitoring provisions.

Inadequate receptor characterization / well survey gaps

The affected study area should encompass the maximum predicted influence; include identified wells within study area and well records. For a high-rate Category 3 taking, incomplete receptor data can be considered a critical deficiency.

- Nearby private well R10 is “unverified” and did not participate:
  - “R10… 6503788 (unverified)

Conclusions that “none of the wells within 500 m use the unconfined aquifer” rely on records, not verified construction:

- Report asserts local wells within 500 m do not obtain water from unconfined water table aquifers.

CSGW is not satisfied that the receptor set is fully known/accurate (especially with an unverified well).

Water availability / sustainability logic non-conservative:

- In prolonged dry conditions the “offset” appears to be less dependable; CSGW contends that low-water sensitivity is insufficiently addressed for this taking schedule (Mar–Dec).

Water balance relies on evapotranspiration reduction from disturbance as an “offset,” with small net margin in some scenarios:

- Report argues losses are offset by reduced evapotranspiration from disturbed lands; scenario with processing shows a net increase of only ~3,350 m^3 under assumptions.
- It also notes multi-year low recharge/low levels (2021, dry 2025).

To summarize, MECP’s Category 3 guidance is explicit: the study must contain sufficient information for technical review and demonstrate that unacceptable impacts are unlikely; CSGW contends these **standards are not addressed** within the report. Strong conclusions (“no off-site impact,” “no water quality monitoring required”) are not paired with equally strong, conservative, site-specific evidence for an exceptionally large instantaneous rate.

- CSGW is not satisfied “unacceptable interference” is unlikely given the 13,500 L/min request and the reliance on analogy/simplified methods rather than a robust site-specific uncertainty-reducing demonstration.
- Wetland ecosystem function risk not conservatively closed out (closed/outlet-less wetland nearby; influence zone).
- Receptor dataset deficiency (unverified nearest well; recent well complaint, media reports of lowering water tables context) undermines confidence in “no impact to domestic users/wetlands.”
- Net-taking / return flow timing not rigorously treated, despite MECP guidance warning this is critical when relying on “water returned to source.”
- Overconfident water quality posture (“no monitoring required”) could be viewed as inconsistent with uncertainty management and discharge/return considerations.

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