

Environmental Concerns Regarding the Proposed Asphalt Plant at 13945 Telephone Road, Cramahe Township

The proposed installation of an asphalt plant at 13945 Telephone Road raises several significant environmental concerns, particularly regarding groundwater contamination, noise, light pollution, and odour. These concerns are especially critical given the site's unique geology and proximity to residential wells and municipal water sources.

1. Groundwater Contamination Risk

The primary environmental concern is the potential for hazardous spills within the pit and the subsequent migration of contaminants into the surrounding groundwater. A review of over 50 residential well reports from properties around the proposed site reveals no consistent substrate barrier that could reliably prevent the spread of contaminants.

In plain terms, if a hazardous material were to spill within the pit, it could percolate through the porous earth—comprised of varying layers of sand, gravel, and clay—and contaminate groundwater used by nearby households. Unlike some industrial sites, this area lacks a consistent impermeable clay layer that might otherwise isolate contaminants. The data, drawn from Ontario's Ministry of Natural Resources (MNR) well records, shows that area wells range in depth from 15 to 250 feet, many of which are dug or drilled directly into this inconsistent substrate.

This concern is not hypothetical. If the risk were negligible, why do many other gravel pits in Southern Ontario with active or former asphalt plants have groundwater monitoring wells in place?

Topographical and aerial imagery from the MNR indicate that the southern edge of the proposed site is level with a nearby pond, which drains naturally into Little Lake via a stream. Any spilled hazardous liquid at the pit could follow this direct conduit, entering the pond, the stream, and ultimately Little Lake. This would jeopardize the water quality for local residents and cottagers who rely on the lake for drinking water and recreation.

It is also notable that the pit's elevation and substrate are consistent with that of Colborne's municipal wells, located less than a mile away.

2. Hazardous Materials Stored On-Site

Routine operation of an asphalt plant involves the use and storage of hazardous and flammable substances, including:

- **Diesel fuel** – for generators, trucks, and excavation equipment.
- **Organic solvents** – to clean equipment coated with bitumen, oil, and fuel residues.

- **Motor oils and lubricants** – for maintaining equipment and engines.
- **Gasoline** – for smaller generators and vehicles.

These materials pose both fire and contamination hazards. In the event of a fire, using water to extinguish it can worsen the situation by spreading diluted contaminants into the groundwater. For example, a single dump truck may carry between 150–300 litres of diesel fuel. A spill of this size would visibly affect local surface water and wetlands, creating a petroleum sheen in the swamp south of the pit and potentially carrying contaminants via the creek into Little Lake.

3. Light Pollution (“White Noise” Illumination)

The plant’s lighting system will include high-mounted industrial floodlights to ensure adequate visibility during operations. These lights will extend far beyond the pit itself, casting intrusive illumination into surrounding properties. Combined with the constant movement of vehicles on-site and on access roads, residents will be subjected to multi-directional lighting disruptions, especially during nighttime hours.

4. Noise Pollution from Operations and Traffic

The noise generated by the asphalt plant will include the continuous operation of motors, blowers, and heaters, audible to nearby homes. A particularly disruptive noise comes from the unloading of trucks—each tailgate slamming against the dump box produces a sound louder than a shotgun blast. If an estimated 200 trucks per day deliver materials over a 24-hour period, that equates to one loud tailgate slam every 7 minutes.

Additional noise from heavy diesel trucks accelerating uphill and braking downhill on rural roads will be relentless. The suggestion that these vehicles will consistently adhere to speed limits and noise mitigation protocols is unrealistic. The cumulative effect will be an unbearable soundscape for local residents.

5. Odour Emissions

Another concern voiced by residents living near existing asphalt plants is the pervasive odour. The smell of petroleum products during operation is constant and often unbearable. Depending on wind direction, these odours can spread to surrounding neighbourhoods, making it unpleasant—or even impossible—for residents to enjoy outdoor spaces, open their windows, or host gatherings.

Final Thoughts: Groundwater Protection Is Non-Negotiable

The potential for groundwater contamination at this site is both real and significant. The soil and substrate in this area—sand, gravel, and mixed clays—are porous and variable, allowing contaminants to spread in unpredictable directions and over great distances. Importantly, the Source Water Protection Zone for the Town of Colborne’s drinking water system lies less than one mile from the proposed site.

Having worked with water resources for over 30 years, I can say with confidence that the **best way to protect groundwater is to prevent hazardous materials from being introduced into vulnerable environments in the first place.** Despite the best efforts in training, containment, and emergency preparedness, spills happen—and once they do, the damage is often permanent.

We must learn from the mistakes of past approvals, such as the installation of asphalt plants on the Oak Ridges Moraine. Cramahe Township cannot afford to make the same error.

Jim Cunningham

from Committee Of the Whole presentation, May 13, 2025

Education: Water Resources Engineering and Technology – Sault College

Work background and experience:

31 years in the Water, Wastewater and Industrial Waste Sections including 27 in monitoring for dumping of pollutants into the natural environment including: Illegal discharges of toxic pollutants, monitoring and clean-up of contaminated sites.

Reference Documents

Monitoring wells in gravel pits along the oak ridges moraine.

Knowledge of asphalt plants and cement plants being located within these locations.

ORMGP Monitoring Sites - Oak Ridges Moraine Groundwater Program

Well Report Data: Ontario Ministry of Natural Resources Well Reports. Review of 49 area reports

<https://www.ontario.ca/page/map-well-records>

Tailgate slamming noise:

www.adc.org Noise: One of the barriers to Implementing Off-Hours Deliveries In Urban Areas. (117 dBs)