

Municipality of Chatham-Kent
Infrastructure and Engineering Services
Public Works

To: Mayor and Members of Council
From: Ryan Brown, P.Eng., Director of Public Works
Date: July 15, 2024
Subject: Wheatley Emergency- Single Source Purchases and Excavation By-Law

Recommendations

It is recommended that:

1. Single source purchase to 360 Engineering and Environmental Consulting Ltd. for the amount of \$6,009,575 + HST be approved;
2. Single source purchase to T.L. Watson and Associates for the amount of \$250,000 + HST be approved;
3. The Excavation in Potential Gas Emission Areas By-law, attached as Appendix A, be passed;
4. The User Fee By-law No. 221-2023 be amended to include a fee for enforcement of the Excavation in Potential Gas Emission Areas By-law at a full cost recovery of direct costs incurred by the Municipality.

Background

The Wheatley Emergency has been ongoing since 2021 due to hydrogen sulfide gas (H₂S) concerns. Several Council reports have come on the subject including:

- February 5, 2024 - Wheatley Emergency Update
- December 12, 2022 - Wheatley Gas Explosion Emergency – Recovery Update
- October 3, 2022 - Wheatley Emergency Financial Update
- June 6, 2022 - Wheatley Long Term Evacuation Zone Tax Grant
- March 28, 2022 - Wheatley Emergency 2021 Financial Update
- November 8, 2021 - Wheatley Emergency Expenses to Sept 30, 2021
- October 25, 2021 - Property Taxes – Wheatley Evacuation Zone
- October 3, 2021 - Wheatley Emergency Financial Update

This report is a follow up to the February 5, 2024 update to address next steps in the Wheatley investigation and Excavation in Potential Gas Emission Areas By-law.

Comments

The demolition of the properties purchased by the Municipality in downtown Wheatley was recently completed. The next step of the Wheatley investigation is to remove the foundations of the buildings and excavate the entire site to native soil in order to confirm or deny the presence of any additional gas or water wells.

This exercise has been carefully planned out by T.L. Watson in consultation with many of the experts, contractors and internal departments who have been involved with the Wheatley emergency since the beginning. The main challenge with this project is that, if during the excavation a hazardous well is found emitting H₂S, Chatham-Kent must have the resources on site to gain control of the situation immediately. This will require having contractors, equipment, and emergency services on standby for the duration of the excavation. The project is intended to begin the first week of September and is anticipated to take several weeks. Preparation work is already underway and will ramp up in August. Communication to the public of the operational and safety plans will take place over the remainder of the summer.

Residents in the area can expect elevated activity around the site, potential of short-term road closures, and elevated noise during working hours, similar to what was experienced during the demolition. Should a hazardous well be found emitting H₂S or other toxic chemicals that could cause a hazard off site from the current evacuation zone, the emergency response plan will be activated. At its most extreme, this could include short-term evacuation of residents occupying nearby properties down wind. Two different sized drilling rigs will be on standby to respond once the emission is under control. Should the larger drilling rig be mobilized to site, intense noise and light emissions will be possible. The operational plan for the project consists of work during normal working hours, however operations will move to 24/7 in the event a hazardous well is discovered.

Given the impact of the Wheatley emergency on the community, administration and contractors have given extensive thought to the operational plans as well as the emergency response plan to ensure the impacts on the community are minimized during this essential step. Completing this work will enable the development of potential plans for the site.

ELM 360 Purchase

ELM 360 Environmental Consulting Ltd. (ELM 360) has been identified as one of the few companies with the necessary engineering and related technical expertise necessary to undertake the next phase of the Wheatley gas release investigation. ELM 360 has developed a work plan to complete this task, taking into account the safety hazards and risks associated. ELM 360 will be the overall general contractor for the project with many sub-contractors being organized by them, including but not limited to: hazmat technicians, excavators, site safety planning and development, drilling companies, gas modelling, and geotechnical engineering.

One of the critical criteria for selecting ELM 360 was their ability to create a plan and assemble a contractor team that is prepared and staffed to work 24/7 in the event a hazardous well is discovered.

The initial project costs are estimated to be \$2,164,700 with a \$500,000 contingency. These costs will be incurred even if no well is found.

As summarized in the financial implications, there is an additional \$3,344,875 being included as contingency. If a hazardous well is found, the well drilling rig will need to be mobilized to the site and staffed with a crew to work 24/7 in two shifts. Materials will need to be purchased to construct a new well, and suppliers will need to be brought in to provide services to the drilling rig. Engineering and geotechnical work also needs to continue 24/7 alongside the operations.

T.L. Watson has reviewed the pricing of this contract and confirms the rates are consistent with the industry standards and believes the estimates are accurate.

T.L. Watson Purchase

Theresa Watson of T.L. Watson and Associates has been a key advisor to the Municipality since the early days of the emergency. This purchase will extend her contract with a value estimated to procure her services through to the end of 2024. Her knowledge of oil and gas, combined with her experience with the Wheatley investigation could not be procured from any other vendor, hence the recommendation for the single source procurement of services.

This contract will have T.L. Watson continue to act as an advisor to the Municipality and act as the owners' representative on site during the ELM 360 work in September. Once the work is completed, it is anticipated that T.L. Watson will provide a report regarding the future suitability of the work site for long-term use.

Excavation in Potential Gas Emission Areas By-law

As previously reported to Council and the public on February 5, 2024, administration has drafted a new Excavation in Potential Gas Emission Areas By-law. The overall terms of the by-law provide:

- No regulation of excavations that are 6 meters deep or less. This allows for most normal excavations, including construction of basements. It should be noted, however, that it is recommended that any newly constructed basements in the Wheatley area strongly consider implementation of some gas monitoring equipment.
- Regulation of any excavations that are deeper than 6 meters (called "Deep Excavations" under the by-law). The full by-law should be referred to in order to understand exactly what is proposed, but from a high level, the regulation of these Deep Excavations involves:
 - Applying for a permit to the Chief Building Official for the Deep Excavation;
 - Submission of an application and excavation plan which will address:

- Details of the planned excavation, schedule and site;
- Financial security to ensure work under the permit is performed;
- Insurance;
- Proof of necessary approvals from other agencies;
- Gas monitoring plans;
- A safety plan to be implemented if a gas release occurs; and
- 24/7 contact information;
- The ability of the CBO to apply conditions to the permit to protect the environment, people and property;
- A process for revocation or closing of the permit, including steps required to address any excavation that has already occurred;
- Obligations on the excavator if a gas release occurs; and
- Enforcement powers.

Due to the unique nature of this by-law, and the importance of getting feedback on how the implementation of this by-law would impact the community, businesses, and other stakeholders, at Council's direction, administration proceeded with a public consultation process regarding this by-law.

Through the consultation process, information on the by-law was posted to the Chatham-Kent Wheatley Updates "Let's Talk" page. Information on the by-law was included in a media release and received media attention through local print media services. The by-law was also sent to the Ontario Geothermal Association, a network of businesses that participate in the geothermal sector throughout Ontario, as administration identified this as a group of contractors that may perform deep excavations based on the nature of their work. To date, the Municipality of Chatham-Kent has received no feedback or heard any concerns from parties whose work would fall under the by-law.

Administration also had a meeting with representatives from the Municipality of Leamington to advise them of the by-law and its terms.

As there has not been any feedback from citizens or businesses about the by-law, it is recommended that Council pass the Excavation in Gas Emission Areas By-law (Appendix A). Should citizens or businesses raise technical or other concerns with the by-law after passing, administration would review and consider them, and would bring forward potential amendments for Council consideration.

Council Term Priorities

This report supports the following Council Term Priorities:

			
<p>Deliver Excellent Service</p>	<p>Promote Safety & Well-Being</p>	<p>Grow Our Community</p>	<p>Ensure Environmental Sustainability</p>
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Consultation

Administration has consulted with the various departments impacted by the described work. T.L. Watson was also consulted to review the ELM 360 proposal for accuracy of scope and pricing competitiveness.

Other governmental permitting agencies such as the Ministry of the Environment, Conservation and Parks (MECP) and the Ministry of Natural Resources and Forestry (MNR) have been consulted in the operational plan development.

Communication

Administration has continued to keep the public informed of the Wheatley Emergency through Council reports, media releases and the Wheatley Recovery Task Force. Details of the proposed work in September will be communicated to the public in a variety of methods including one-on-one conversations with those immediately adjacent to the work zone.

More detailed information including consultants’ reports can be found at: <https://www.letstalkchatham-kent.ca/wheatley-updates>.

Diversity, Equity, Inclusion and Justice (DEIJ)

This report does not have implications related to diversity, equity, inclusion, or justice.

Financial Implications**Table 1: Recommended Costs and Funding Summary**

Description	Total
A) Recommended Costs	
Recommended ELM 360 Project Award	\$2,164,700.00
Recommended T.L. Watson Project Award	\$250,000.00
Recommended ELM 360 Contingency	\$3,844,875.00
Plus 13% HST	\$813,744.80
Total Cost (with HST)	\$7,073,320.00
Less 11.24% HST	\$703,576.20
Total Recommended Cost	\$6,369,744.00

Including these purchases, Chatham-Kent is anticipating total costs of the Wheatley Emergency to be between \$7 and \$12 million in 2024. Administration has relayed these costs to the province for consideration of funding. Reserve funding of these expenses will be considered in the 2024 final variance once total costs and any grants received from the province are known.

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Consulted and confirmed the content of the consultation section of the report by:

David Taylor, Director, Legal Services

Chris Case, Fire Chief, CKFR

Attachment: Appendix A: The Excavation in Potential Gas Emission Areas By-law