



## **Administrative Report**

### **Office of the Chief, Essex-Windsor EMS**

**To:** Warden MacDonald and Members of Essex County Council

**From:** Justin Lammers  
Chief, Essex-Windsor Emergency Medical Services

**Date:** Wednesday, April 03, 2024

**Subject:** Legacy Gas and Oil Well Preparedness

**Report #:** 2024-0501-EMS-R07-JL

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#### **Purpose**

To provide County Council with an update on the status of the Ministry of Natural Resources and Forestry (MNR) action plan to address risks from legacy oil and gas wells in Southwestern Ontario.

The development of the Action Plan focuses on increasing our understanding of the risks of legacy oil and gas infrastructure and subsurface gas migration, identifying actions to reduce the risks, and supporting measures to enhance emergency preparedness related to the risks.

#### **Background**

Oil and gas drilling have a rich history across Ontario, with Legacy Gas Wells being established by private citizens, farmers, and various industries for diverse purposes. However, governmental oversight of these operations came into effect only recently, leading to the abandonment of numerous wells without proper closure procedures.

Recent incidents involving Legacy Gas Wells and other emergencies in Southwestern Ontario (Wheatley in 2021) have underscored the risks posed to our communities. These risks include the release of volatile and hazardous gases, which can be fatal if humans or animals are exposed. Moreover, the uncontrolled release or sub-migration of H<sub>2</sub>S/Hydrogen Sulfide Gas and other toxic, flammable, and explosive gases, including petroleum-based products, from gas wells, poses significant dangers to nearby populations.

In response to these concerns, the Ontario government has committed \$7,500,000 over three years starting in 2023. The County of Essex formulated a plan and received approval from the MNRF to execute the first year of this fully funded plan (\$280,000) in collaboration with its local municipal partners. Subsequent funding for years two (2) and three (3) will necessitate re-application in accordance with the project agreement. For clarity, year two (2) begins April 1<sup>st</sup>, 2024.

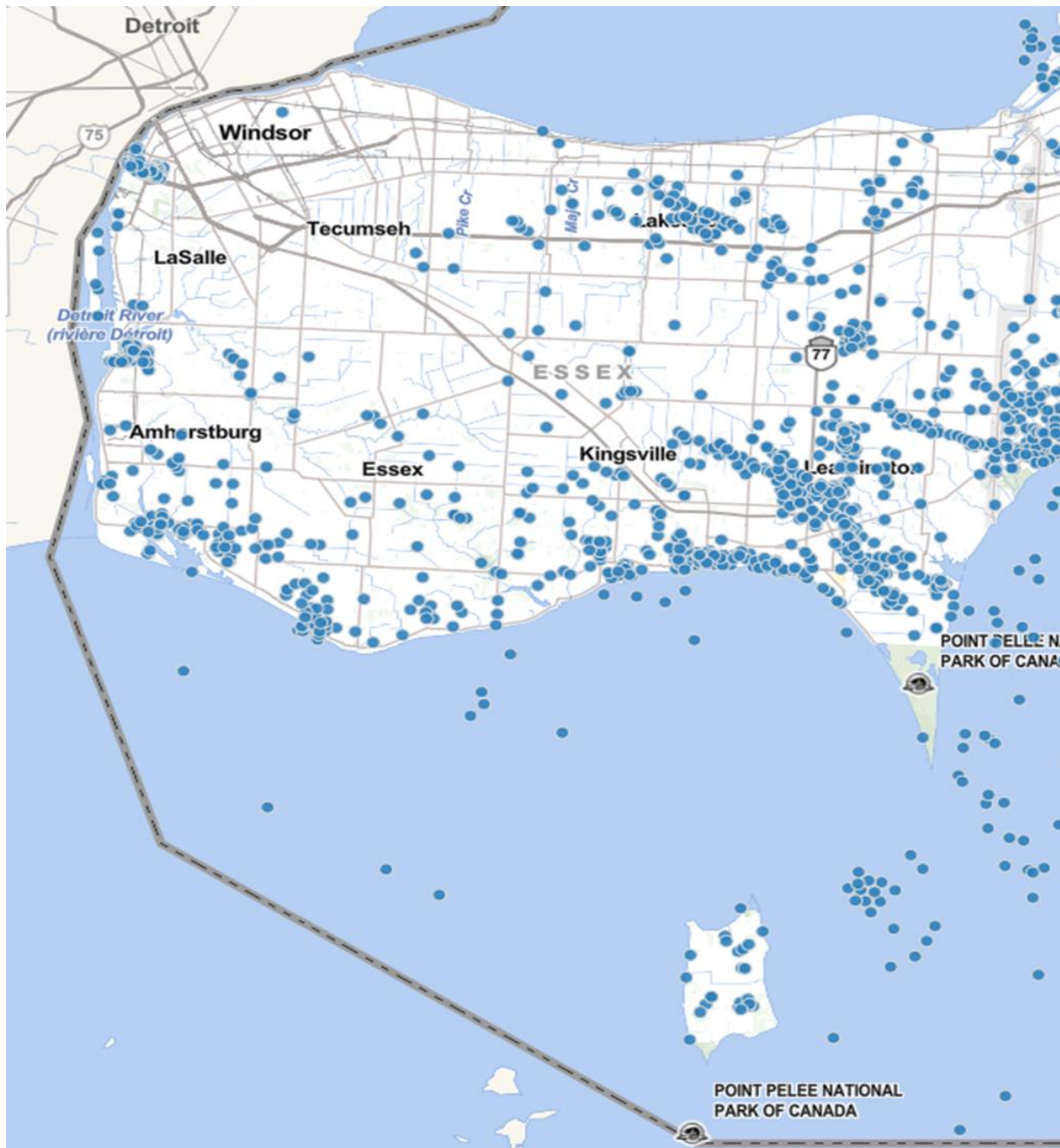
While the County is spearheading the implementation of the plan, it's crucial to note that it does not assume responsibility for preparedness activities related to these risks. The Ministry recognizes that the County lacks the expertise and statutory responsibility in this regard.

In addition to the County of Essex, the following municipalities were approved for funding in year one:

- Brant County
- Elgin County
- Haldimand County
- Lambton County
- Municipality of Chatham-Kent
- Norfolk County
- Oxford County
- Regional Municipality of Niagara

The County of Essex is awaiting notification from MNRF with the instructions to apply for year two (2) funding.

Figure 1: Map of Petroleum Wells in Essex County



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Ontario GeoHub. (2023). Petroleum Well. Retrieved April 9, 2024, from <https://geohub.lio.gov.on.ca/datasets/petroleum-well/explore?location=42.053863%2C-82.806756%2C9.19>

## Discussion

The County has introduced a comprehensive six-step strategy to mitigate risks associated with Legacy Gas Wells across the region:

1. **Communications:** Collaborating with local municipalities, allied response units, and stakeholders to conduct a unified public awareness campaign regarding H<sub>2</sub>S and other petroleum-related emissions. Tailored messages will be disseminated to various target groups including residents, businesses, construction firms, and municipal staff. These updates will be shared on the County of Essex website and during public education events throughout the region. The MNRF has plans to release unified content for messaging in the early part of year 2 (two). Once the content is received, the County of Essex will promote it through all channels.
2. **Training:** Implementing online H<sub>2</sub>S Awareness courses for approximately 430 staff members from the County of Essex, the City of Windsor, and the Township of Pelee, primarily focusing on first responders and firefighters. Additionally, selected firefighters will undergo an extensive 8-hour H<sub>2</sub>S Survive train-the-trainer program, enabling further in-house training. Public Safety Services will also provide training on the operation of portable radio and communication equipment.
3. **Monitoring/Assessment:** Procuring essential equipment through collaboration with the County's Procurement Department and local fire services. This includes gas detection devices, upgrades, and associated hardware/software to enhance monitoring capabilities in potential emergencies.
4. **Capacity Building:** Acquiring handheld portable radios with advanced features such as system repeaters and encrypted frequency capability to improve interoperability in emergency communications.

Furthermore, the purchase of Starlink satellite systems for primary and secondary Emergency Operations Centers (EOCs) will ensure uninterrupted communication during emergencies.

A Hazardous Materials Response Service Agreement has also been established between the WFRS HazMat Team and several municipalities in the region, covering activation, deployment, personnel, and ongoing training.

5. **Emergency Response Plan Updates:** Updating municipal emergency response plans to incorporate Legacy Gas Well and Petroleum incident response protocols in the 2024 County of Essex

Emergency Response Plan (ERP). This includes consulting with allied agencies to develop targeted response plans, protocols, policies, and Standard Operating Procedures (SOPs).

- 6. Coordinating/Delivering EMO Approved Training:** Continuation of hosting and delivering Emergency Management Ontario (EMO) Integrated Management System (IMS) level courses by the County's Emergency Management Division. These courses, including IMS 300, IMS 250, IMS 200, Basic Emergency Management (BEM), Scribe, and Note Taking, will be conducted twice annually by the COE.

By implementing these initiatives, the County aims to enhance preparedness and response capabilities to effectively manage Legacy Gas Wells and Petroleum emergencies throughout the region.

## **Financial Implications**

The County of Essex received a grant allocation of \$280,000. The six-step plan was executed within budget (\$279,267.65) and final reporting to the MNRF was completed by the reporting deadline of March 31, 2024.

## **Consultations**

As the Transfer Payment Agreement recipient, the County of Essex took the lead on this project, however achievement of our six-step plan would not have been possible without the collaboration and support from all of our local municipal partners. From the beginning of the grant application process and through to execution of the approved plan, key staff members from our entire region worked together and met regularly to ensure the project's success under tight timelines. County of Essex team members in EMS, Emergency Management, Administration, Finance, IT, Legal and Procurement, led by Ryan Lemay, Deputy Chief of Operations, were instrumental and warrant recognition.

## **Recommendation**

That Essex County Council receive report 2024-0501-EMS-R07-JL for information purposes.

## Approvals

Respectfully Submitted,

*Justin Lammers*

Justin Lammers, Chief, Essex-Windsor Emergency Medical Services

Concurred With,

*Ryan Lemay*

Ryan Lemay, Deputy Chief, Essex-Windsor Emergency Medical Services

Concurred With,

*Sandra Zwiers*

Sandra Zwiers, MAcc, CPA, CA, Chief Administrative Officer

<b>Appendix</b>	<b>Title</b>
N/A	N/A