



Ontario Association of Fire Chiefs

# Position Paper: Abandoned Gas Wells

January 12, 2022



# ONTARIO ASSOCIATION OF FIRE CHIEFS

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## Introduction

On August 26, 2021, an explosion occurred in downtown Wheatley Ontario (Municipality of Chatham-Kent) that resulted in hospitalizations, injuries, millions of dollars in property damage, and forced the evacuation of hundreds of residents from their homes for months. The explosion was preceded by two major gas leaks earlier in the Summer - leaks dangerous enough that a State of Emergency was declared, and the local fire department had to evacuate the businesses and residents of the area for days at a time. Fire personnel were in the middle of a third evacuation, when the explosion occurred on August 26, 2021. Thanks in part to the local Fire Chief's continued engagement in the situation and the on-scene firefighters performing an emergency evacuation, there were no fatalities.

The current prevailing cause of the explosion, was due to an underground gas well(s) that had been leaking explosive fuel into the building, resulting in the explosion. It is believed that the current owner of the building was unaware that there was an abandoned gas well located under the building.

According to the Ontario Petroleum Institute (OPI), Ontario has over 27,000, mostly inactive and abandoned gas wells. Of those 27,000 known abandoned gas wells, the OPI estimates that 4,400 of them "pose a risk to landowners and public health and safety<sup>2</sup>" and there could be "several thousand" more that no one is aware of<sup>2</sup>.

While the response from Wheatley's emergency officials helped mitigate the explosion and save lives, the OAFCh is concerned about the potential precedent it may have set. The OAFCh would like to offer our assistance to work with the Provincial Government and the Ministry of Natural Resources and Forestry (MNR) to learn from this incident and be better prepared for future responses to similar incidents.

## Background

A gas well is a type of well drilled for the purposes of extracting natural resources from under the earth. Abandoned gas wells are deep holes drilled underground and used by the fossil fuel industry to extract natural resources but are no longer maintained. These gas wells may have been abandoned for a variety of reasons.

In 2005, the Ontario Government created the "Abandoned Works Program" under the Ministry of Northern Development, Mines, Natural Resources and Forestry to help "Ontarians properly plug wells on their property<sup>1</sup>". This program places the onus to remediate abandoned gas wells squarely on the landowner, who may not even be aware there is an abandoned gas well on their property.



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## Who is the O AFC

The O AFC represents the Chief Fire Officers from Ontario's 441 fire departments. These Chief Officers are responsible, by statute, for the management and delivery of fire, rescue, and emergency response to the 15 million residents of Ontario.

The O AFC's vision is to inspire and influence a safer Ontario, while our mission is to lead innovation and excellence in public and life safety. We work cooperatively with the provincial government, key stakeholders, and other organizations to promote excellence and innovation in the areas of education and training, legislation and public policy, fire and membership services. We are the trusted advisor to the provincial government, key stakeholders and media on matters relating to public and firefighter safety.

## O AFC's Position

The O AFC is requesting to continue working with the Provincial Government, and the subject and sector matter experts at MNR, so that provincial and municipal agencies will be better prepared for these incidents. The O AFC would like to continue this work to:

- 1) Conduct a wholesale incident review of the entire August 26, 2021 Wheatly explosion, including a review of the responses to the June and July gas leaks that preceded the explosion.
- 2) Undertake a program review to determine the effectiveness of the "Abandoned Works Program" and make any necessary changes to the program.
- 3) Have the Abandoned Works Program immediately identify, inspect, and analyze all gas wells in Ontario, (those currently in-use and abandoned) to determine their risk status, similar to how Alberta conducted a review of gas wells in 2009.
- 4) Immediately identify what the province considers to be a "safe level" of explosive fuel leakage from abandoned gas wells. If any gas well is found to be leaking, monitoring equipment should be placed to ensure leakage levels not exceed the "safe level", and if they do, immediate maintenance/remediation of said gas well is required.
- 5) Work with the O AFC and relevant stakeholders to review the onus and responsibilities of abandoned gas wells on current landowners.
- 6) Immediately pass Regulation/Legislation that prohibits the construction of structures on top of abandoned gas wells, as municipalities in Ontario do not have the jurisdiction to enact.
  - a. This would prevent leaking abandoned gas wells from having a place for the explosive and/or poisonous fuel(s) to accumulate, which is the biggest risk factor.
  - b. The O AFC recommends a similar policy to Alberta, which requires a minimum five-metre setback from abandoned gas wells for all construction.
- 7) Work with all relevant stakeholders to produce a best practice guide for future responses to incidents of this nature.

The O AFC is requesting to work the Office of the Fire Marshal, and relevant stakeholders, to:

- 1) Create a province-wide funded network of properly trained teams to respond to these types of incidents similar to the Urban Search and Rescue (USAR) teams and Hazmat.



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## Conclusion

The O AFC is concerned that incidents like the Wheatley explosion from August 2021 will occur more frequently in the future as more of the 27,000 mostly inactive and abandoned gas wells continue to degrade with no oversight.

The O AFC is willing to offer our members expert opinions, advice, and experience to work with relevant stakeholders to improve the emergency responses to these types of incidents.

Should you have any questions, please contact O AFC Executive Director Mark Tishman at [mark.tishman@oafc.on.ca](mailto:mark.tishman@oafc.on.ca)

## Sources

1. <https://www.ontario.ca/page/abandoned-works-program#:~:text=Through%20the%20Abandoned%20Works%20Program,well%20qualifies%20for%20the%20program>



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2. <https://www.ctvnews.ca/canada/calls-grow-for-action-on-ontario-s-thousands-of-abandoned-oil-and-gas-wells-1.5468490>