

# Historical Waratah Gasworks Environmental Investigation

## Background

In July 2016, Newcastle City Council received advice from the NSW Environment Protection Authority (EPA) that a former gasworks may have operated on land bounded by Ellis, Turton and Georgetown roads at Waratah. Council records did not contain evidence of any former gasworks at this location, but a review of historical sources confirmed that a gasworks operated at this site in Waratah from 1889 to 1926.

In August 2016, Council engaged an independent environmental consultant experienced in the investigation of former gasworks sites.

An environmental investigation was undertaken from late-2016 to late-2017, to assess the nature and extent of potential gasworks contamination, and determine if mitigation measures are required to address potential risks.

Council is continuing to liaise with the NSW EPA and Hunter New England Local Health District, and will continue to seek their advice to ensure any health and environmental concerns are addressed.

## Investigation area

The investigation area comprised 20 residential properties located within the footprint of the former gasworks site and two adjacent properties occupied by the Family Support Centre and Callaghan College – Waratah Technology Campus (Waratah Campus).

## Initial investigations

In late-2016, the initial investigations (Stages 1 and 2A) involved:

- reviewing site historical information
- reviewing the condition of the site through a visual site inspection within accessible areas
- collecting and analysing more than 200 shallow soil samples.

The initial investigation identified substances within the site that were likely attributed to former gasworks activities. The key substances identified in shallow soils were Benzo(a)Pyrene Toxic Equivalence Quotient (BaP (TEQ)) and Lead.

## Detailed site investigation

The initial investigation identified a need for a more detailed site investigation and analysis, and the Stage 2B Detailed Site Investigation was undertaken from December 2016 to November 2017. This stage involved installing groundwater and soil vapour monitoring wells on selected properties and collecting more than 300 soil, vapour and groundwater samples from private and public land.

Given the industrial history of the local Waratah area, samples were collected from beyond the investigation area up to 500 metres from the gasworks site, to characterise typical background substances that may be present from man-made sources other than the former gasworks. The Stage 2B Detailed Site Investigation was completed in November 2017.



- Investigation Area within former gasworks footprint
- Western portion of former gasworks site
- Eastern portion of former gasworks site
- Investigation Area at sensitive off-site locations
- 500 metre radius from former gasworks site

## Investigation area findings

The environmental investigation identified contaminants considered to be related to former gasworks activities within the eastern portion of the former gasworks site, at concentrations above typical background levels. This is consistent with the area where former gasworks infrastructure is understood to have been located.

Contaminants in shallow soils were significantly lower in the western portion of the site, outside the footprint of the former gasworks infrastructure, and within typical background levels. Similar results were also detected at the Family Support Centre and Waratah College. At these locations, gasworks indicator substances were absent or at much lower concentrations.

The western portion of the former gasworks site, Family Support Centre and Waratah College, are not considered to be impacted by substances from the former Waratah Gasworks. These areas recorded concentrations of substances considered to be typical of background conditions within the local Waratah area, and not related to former gasworks activity.

## Off-site background findings

Results from samples collected outside of the former gasworks site and investigation area indicate that some contaminants were present at elevated concentrations; however, gasworks indicator substances were typically absent in these off-site samples. As such, these concentrations are considered typical of background levels within the local Waratah area.

This is understood to reflect the long term impacts of a range of industrial activities in the neighbourhood, including brickworks, collieries, foundries, smelters, steelworks and incinerators, as well as vehicular traffic.

## Next steps

The Stage 2B Detailed Site Investigation identified the need for further action at properties in the Eastern Portion of the Investigation Area, to minimise exposure to gasworks-related substances. Council has engaged an environmental consultant to conduct a Remediation Options Assessment (ROA) for these properties. The purpose of the ROA is to identify practical remediation options to minimise the potential for exposure to gasworks substances present above background concentrations, for ongoing residential land use at these properties. Some remedial strategies may include physical measures, such as excavating and replacing accessible soil in garden areas and replanting. Developing long-term site management plan may be required for some properties, where some form of post-remediation monitoring or management is required. Council is liaising directly with affected residents about possible options for remediation and management measures.

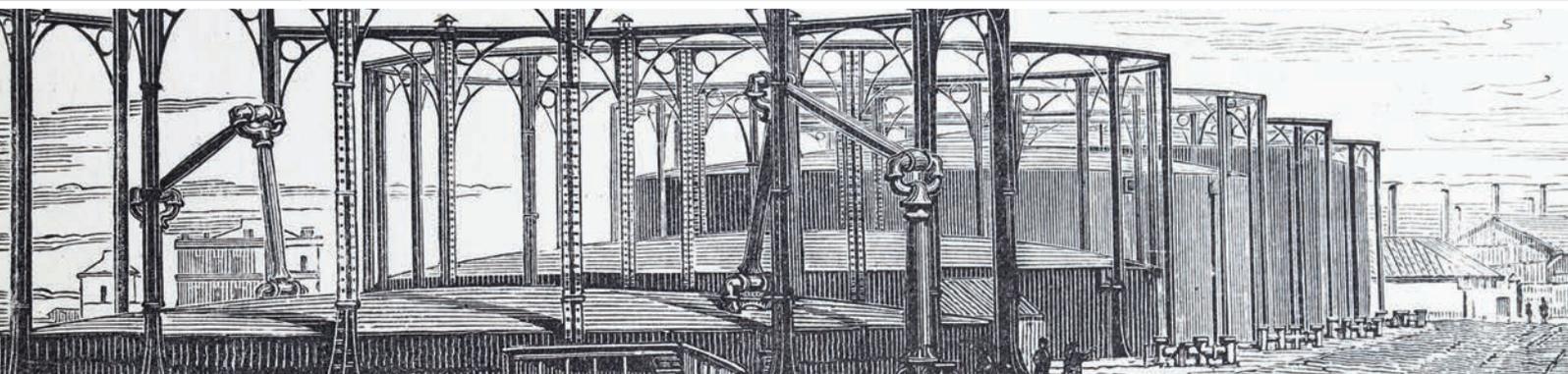
## Further information

Further information about the historical Waratah Gasworks, including detailed frequently asked questions and a map of the investigation area, is available by searching for 'Waratah Gasworks' on the Newcastle City Council website.

For enquiries about the environmental investigation, please contact Newcastle City Council's Regulatory Services on 02 4974 2522, Monday to Friday, between 8.30am and 5.00pm.

For more information about related matters, please see contact details below:

- Specific health advice: Your doctor
- General health information: Hunter New England Local Health District: 1300 066 055
- Environmental information: NSW EPA



For enquiries please call 4974 2000

For more information visit:  
[www.newcastle.nsw.gov.au](http://www.newcastle.nsw.gov.au)