An investigation into asbestos-related health concerns has found that there is no evidence of elevated asbestos-related health risk to residents who have commenced living near the former factories sites in Gaythorne and Newstead since the mid-1980’s, following the clean-up of the sites. However, it is noted in the past there was likely to have been asbestos exposure in the vicinity of the former factories while they were operational and prior to their clean-up (which occurred in the mid-1980’s).

Asbestos

What is asbestos?
Asbestos is the term used to describe a group of naturally occurring minerals whose characteristic feature is that they occur as fibres. The most common types used in Australia have been:

- chrysotile (white asbestos)
- amosite (brown asbestos)
- crocidolite (blue asbestos).

What was asbestos used for?
The strength of asbestos as well as its flexibility and resistance to heat made it a common material for use in building and construction. Although it has many uses, the most common are:

- asbestos-cement building products, e.g. ‘fibro’ boards, pipes and roofing materials
- electrical, thermal and acoustic installation, e.g. lagging, asbestos rope and asbestos cloth
- fire resistant insulation, e.g. sprayed ‘limpet’ asbestos in buildings.

Australia banned the use and import of blue and brown asbestos or asbestos products in the mid-1980s, and banned all manufacture and import of white asbestos products in December 2003.

Why is it dangerous?
Asbestos fibres present a risk to health if they are airborne and inhaled in sufficient quantities.

Once asbestos fibres are inhaled, they may remain deep within the lungs. They can lodge in lung tissue and cause inflammation, scarring and some more serious asbestos-related diseases, which usually take many years, if not decades, to develop.

Asbestos-related diseases include lung cancer, asbestosis, benign pleural plaques and malignant mesothelioma.

Who is at risk?
The people most at risk traditionally include those who have had long term exposure to high levels of airborne asbestos fibres. This includes those who worked with asbestos such as factory workers, builders or tradespeople.
Currently, increased risk of exposure to asbestos mainly occurs when inappropriately managed maintenance, removal or renovation of buildings containing asbestos material occurs.

Current or former residents concerned about their health should call 13 HEALTH (13 43 25 84) or consult their local GP.

**Health concerns**

**What is mesothelioma and why was it investigated?**

Mesothelioma is cancer of the lining of the lungs (pleura) or of the lining of the abdominal cavity (peritoneum). Malignant mesothelioma is a highly specific disease which develops as a result of exposure to asbestos in most cases.

Mesothelioma is the most commonly used marker for any effect of non-occupational exposure to asbestos fibres among the asbestos-related diseases

**Is there an increase of mesothelioma (asbestos-related cancer) cases around the factories?**

The epidemiological study found the number of mesothelioma cases in the vicinity of the former factory sites is consistent with what would be expected in the general Queensland population. However, there are a number of limitations to the analysis.

While the epidemiological study did not identify an excess of cases of mesothelioma, the investigation acknowledges the anecdotal information that asbestos related disease has occurred in those who lived near the factories during their operation. It is therefore possible that cases of mesothelioma have occurred as a result of past para-occupational and neighbourhood asbestos exposures which have not been able to be verified by the epidemiological findings.

**How long after inhaling asbestos fibres does it takes to develop mesothelioma?**

There is a long lag time between asbestos exposure and development of mesothelioma (often several decades). This means that any cases of mesothelioma diagnosed in the present, are overwhelmingly likely to have been caused by exposure several decades ago.

Therefore, mesothelioma incidence in the present day does not necessarily reflect a current or ongoing increased risk from the person’s current environment.

**How do you identify if you might have an asbestos-related illness?**

Current or former residents concerned about their health should call 13 HEALTH (13 43 25 84) or consult their local GP.


Former workers can register their exposure in the work place with WorkCover Queensland by phoning 1300 362 128.

The Asbestos Related Disease Support Society Queensland (ARDSSQ) can provide information and support services for former workers who were potentially exposed to asbestos. The can be contacted by calling 1800 776 412 or emailing [asbestoshelp@westnet.com.au](mailto:asbestoshelp@westnet.com.au).
The investigation

Why is Queensland Health doing an investigation?

The investigation into asbestos-related health concerns is in response to community concern regarding the Wunderlich asbestos factory in Gaythorne and the James Hardie asbestos factory in Newstead. Before closing in the 1980s both factories manufactured asbestos products.

In October 2014, a steering group was established to oversee a multi-agency investigation, aiming to determine whether there are any ongoing health risks to current residents of Gaythorne and Newstead.

Who was in the steering group?

This steering group was led by the Department of Health, supported by Department of Premier and Cabinet, Queensland Treasury, Department of Environment and Heritage Protection, Department of Housing and Public Works, Metro North Hospital and Health Service, and Brisbane City Council.

What did the investigation involve?

The investigation comprised five key components to ensure a comprehensive, scientifically robust approach to the investigation:

1. **Literature review**
   Examine the likely exposure to asbestos in the community from the asbestos plants by reviewing relevant literature which assesses asbestos exposure levels around similar factories and review of other identified sources of information relating risk of exposure to asbestos to distance from an asbestos factory.

2. **Site history review**
   Establish the history of the sites, including historical practices that may have led to community exposure to asbestos, and their subsequent management as contaminated sites.

3. **Epidemiology study**
   Establish as far as possible the epidemiology of asbestos-related disease near the Wunderlich asbestos factory, Gaythorne and the James Hardie fibrolite factory, Newstead

4. **Monitoring program**
   Examine current asbestos exposure for people living near the sites of the Wunderlich asbestos factory, Gaythorne and the James Hardie fibrolite factory, Newstead

5. **Community engagement**
   Undertake community engagement and consultation with possible exposed community members. Make recommendations on health protection or mitigation measures to manage ongoing risks from past practices to appropriate agencies and the community.

What were the results of the investigation?

The investigation concluded that there is no evidence of elevated asbestos-related health risk to residents who commenced living near the former factory sites in Gaythorne and Newstead since the clean-up of the sites in the mid 1980’s. However, while the factories were operational and prior to their clean-up, residents living in proximity to the factory sites may have been exposed to asbestos.

The results of the monitoring program demonstrate that the airborne asbestos fibre concentrations are consistent with low asbestos fibre concentrations found in other areas of Brisbane.
It is important that all homeowners throughout the state, not just in Gaythorne and Newstead, take appropriate precautions, including seeking expert advice, before undertaking home renovations. This is particularly important in homes built before 1990.

What next?

The investigation highlighted some issues of broader significance, which have resulted in recommendations regarding:

- practical solutions to enable safe disposal of small quantities of asbestos waste by members of the public;
- appropriate management strategies for providing advice to residents in Gaythorne and in other Queensland communities where buried asbestos may be extensively present. Residents should be made aware that buried asbestos is not a risk unless it is disturbed; and
- continued community education and awareness strategies on safe handling of asbestos containing materials.

These recommendations will be referred to the Interagency Asbestos Group (IAG), which is responsible for coordination of the Statewide Strategic Plan for the Safe Management of Asbestos in Queensland 2014-2019, to ensure a coordinated and systematic approach to the management of these issues.

Environmental monitoring

What was involved?
The asbestos monitoring involved air sampling in public areas and private properties, within a 500 metre radius of the factory.

To account for community concern about asbestos in ceiling dust, sampling of air, dust and building materials was also undertaken in all properties tested.

Monitoring was replicated in houses throughout Brisbane for comparison (control) purposes.

The results of the monitoring program demonstrated the airborne asbestos fibre concentrations in proximity to the former asbestos factory site in Gaythorne are consistent with the low asbestos fibre concentrations found in other areas of Brisbane.

Monitoring was not undertaken at the Newstead factory site. The decision for this was based upon the low levels of asbestos indicated by the monitoring program at Gaythorne. Since the Newstead factory ceased operations, the site has undergone significant remediation further reducing potential risk for exposure to asbestos from the factory site.

How many houses were tested?

Air, dust and/or bulk material samples were taken from 18 properties within 500 metres of the factory site (test houses).

One property consented to dust sampling, but did not consent to air monitoring.

Equivalent monitoring was undertaken at 12 properties greater than 3 kilometres away from any former factory site (control houses).
Frequently asked questions

**What tests were undertaken?**

Air monitoring utilising very sensitive analytical techniques is the most appropriate strategy for assessing public health risk. Two forms of testing were used:

1. *Phase Contrast Microscopy (PCM)* which is the standard test used in occupational settings and can provide results down to 0.01 fibres/mL (limit of detection).
2. Scanning Electron Microscopy (SEM), which is more sensitive providing results at a greater level of accuracy (0.001 fibres/mL). It can also determine the type of fibre.

**Why was monitoring not undertaken in Newstead?**

Site histories of the former factory sites indicated that legacy asbestos contamination in Gaythorne was likely to be higher than that in Newstead (which had been extensively redeveloped).

It was therefore decided that asbestos monitoring at Newstead would not be undertaken unless the asbestos monitoring at Gaythorne indicated the airborne asbestos concentrations in Gaythorne were higher than in other areas of Brisbane.

**Asbestos in the environment**

**Why was asbestos found in dust in ceilings?**

There are a number of potential explanations for asbestos being found in the dust of ceiling cavities, such as:

- Presence of asbestos in building materials of the house
- Presence of asbestos in building materials of neighbouring dwellings
- Residual from previous disturbance of asbestos containing materials (e.g. through renovations)
- General background levels of asbestos.

**What about buried asbestos outside the factory site?**

Throughout the investigation, a number of asbestos burial sites were identified. These sites were identified through community feedback, as well as a review of the Environmental Management Register.

Officers from Queensland Health and the Department of Environment and Heritage Protection visited each of these sites to ensure the integrity of any management measures.

Whilst management measures are in place for most sites, it is identified that there is the potential for ongoing exposure of asbestos along creek beds due to erosion. Should potential asbestos containing materials in public places such as parks and creeks, be found please contact your local Council to arrange removal.

**What is being done to manage asbestos at the former factory sites?**

No further management of asbestos is required for the former factory site at Newstead due the high level of remediation.
Site owners at the former factory site at Gaythorne continue to work with Workplace Health and Safety Queensland to ensure that any risks associated with this site are managed. There are some buildings constructed with asbestos containing materials on site.

Well maintained buildings constructed with asbestos containing material are not considered a risk.

**Building, construction and home renovation concerns**

**What should I do if I am concerned about the asbestos management of a construction or building site?**

If you witness practices on-site which you are concerned about, contact should be made with the site in the first instance.

If you still have concerns, please contact Workplace Health and Safety Queensland on 13QGOV (13 74 68).

**Houses close to the former factory are being demolished without control. What can I do?**

The investigation has found that there is no increased risk of asbestos exposure in proximity to the former factory sites.

Notwithstanding this, controls are in place to ensure that demolition of buildings containing asbestos is undertaken in a safe manner. This includes through development controls and licensing and strict requirements for companies handling asbestos.

If you are concerned about the way a building is being demolished, contact Workplace Health and Safety Queensland on 13QGOV (13 74 68).

**My neighbour is doing some renovations which appear to involve asbestos. What can I do?**

If you are concerned a homeowner is not safely working with asbestos, please contact Brisbane City Council on (07) 3403 8888 (or your local Council outside of Brisbane).

**Asbestos around the home**

**How should dust in ceilings be managed?**

Dust in ceiling cavities may contain a number of potentially hazardous substances, such as asbestos, fungal spores, pesticides and other chemicals.

Before entering the ceiling space, turn the electricity off and complete a risk assessment of the roof cavity, by looking around the ceiling space to identify hazards that may pose risks.

If you believe you are likely to come into contact with asbestos containing materials, ensure you are aware of safe handling procedures. Visit [http://www.qld.gov.au/asbestos](http://www.qld.gov.au/asbestos) for more information.
It is important that all homeowners throughout the state, not just in Gaythorne and Newstead, take appropriate precautions, including seeking expert advice, before undertaking home renovations. This is particularly important in homes built before 1990.

**What do you do if you find asbestos in or around your home?**

Any materials containing asbestos that are intact, well maintained and undisturbed are not considered a risk. Keep any asbestos building materials well maintained and undisturbed.

If you are intending on undertaking any renovation or repairs which may involve asbestos containing materials, make sure you use a licensed contractor.

If you find small pieces of asbestos on your property and want advice on safe removal please call 13QGOV (13 74 68).

**Are “Super 6” roofs safe? How should they be managed/replaced?**

If your house was built before the 1990s, asbestos materials may have been used to construct the roof and ceiling.

Asbestos materials that are intact, well maintained and undisturbed are not a risk.

Even if an asbestos cement roof is in poor condition, it is not likely to pose an increased risk to your health. Any released fibres rapidly disperse into the air and their concentration (the number of fibres in an amount of air) reduces within a short distance from the roof.

Air testing near the ground has shown the concentration of fibres is very low – the same as if the asbestos cement roof was not there.

Asbestos cement roofs can be left in place until they are no longer water tight. However, they can pose an increased risk to your health when they are disturbed or being worked on or when the roof gutters are being cleaned. Public health laws must be complied with and safety precautions need to be taken at such times.