



Natural Area
CONSULTING MANAGEMENT SERVICES

WA Country Health Service

Asbestos Site Management Plan – Busselton Health Campus

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Document Control

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1.0 Introduction

The Busselton Health Campus is located approximately 2.5 km west of the Busselton town centre at 189 Bussell Highway. It is bounded by Bussell Highway to the south, Craig Street to the west, Geographe Bay and the Indian Ocean to the north, and Mill Road to the east (Figure 1). During works associated with the Busselton Health Campus development, material later confirmed to be asbestos was found in the northeast portion of the conservation zone near the dual use pathway (Figure 1).

This management plan includes the following:

- background information relating to the contamination and cleanup
- site management time frame
- stakeholders
- characteristics of asbestos
- the likely form of asbestos remaining at the site
- the process to be followed in the event asbestos is found in the clean-up and any other location on site
- reporting.

1.1 Background Information – Contamination and Cleanup

The presence of asbestos was confirmed in March 2014 after site investigations and an associated sampling program. The Department of Environment Regulation was notified of the contamination as required by the *Contaminated Sites Act 2003 (WA)*, and the decision was made to remediate the site. The remediation was carried out in 2014, and involved removing the top 40 cm (400 mm) of contaminated soil, disposing of the material at an approved landfill facility, and replacing it with certified clean fill. The site forms part of the Busselton Health Campus Conservation Zone, which has been fenced to reducing the potential for access by community members, with fencing included either side of the dual use path. The site is included on the Busselton Health Campus' asbestos register.

The nature of the site and location of the illegal dumping that lead to the contamination mean there is the ongoing possibility for asbestos fragments to be present at the site, particularly in and around plants in the remediated area where further cleanup activities are not considered warranted. As a result, the Department of Health and the Department of Environment Regulation require the preparation of a perpetual Asbestos Management Plan to manage any material found on site in the future.

1.2 Site Contact

The contact for any matters relating to the presence of asbestos at the site is:

Engineering Officer
9754 0845

Senior Management at the Busselton Health Campus has endorsed this Asbestos Site Management Plan.

1.3 Management Timeframe

The timeframe for this management plan is in perpetuity, given that the potential for asbestos from previous illegal disposal activities means is moderate – high.

1.4 Stakeholders

Stakeholders with an interest in the ongoing management of asbestos at the Busselton Health Campus site include the following:

- staff and visitors to the Busselton Health Campus
- users of the dual use path
- nearby residents
- City of Busselton
- Department of Health
- Department of Environment Regulation.

1.4.1 Busselton Health Campus Staff and Contractors

All staff members and contractors who may be or are required to carry out work within the area where the asbestos remains (Figure 1) are to be presented with this plan and are required to undertake a formal induction in relation to the procedures outlined in this management plan in the event asbestos containing material is encountered.

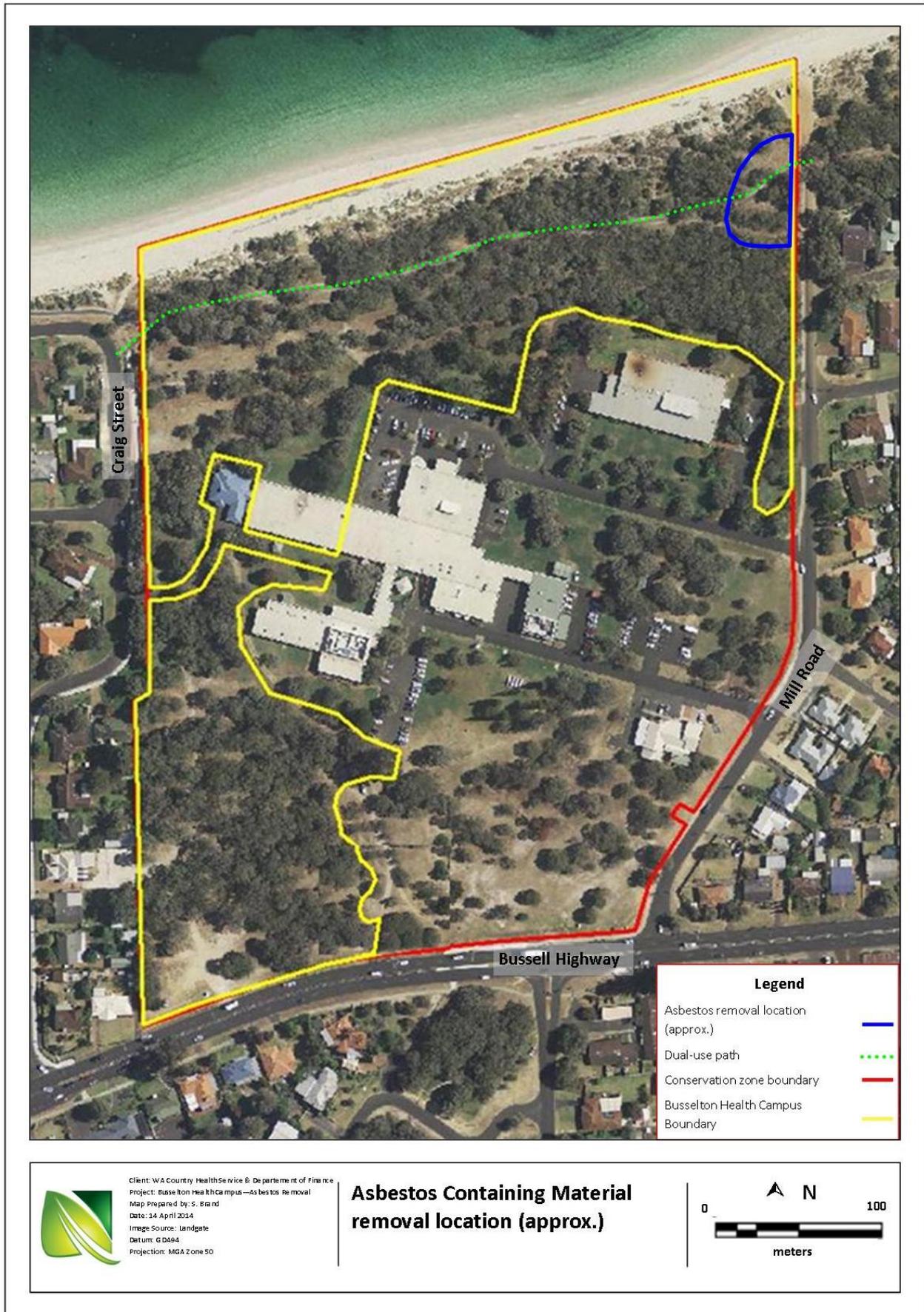


Figure 1: Asbestos Containing Material removal location

2.0 Asbestos

This Section describes key characteristics of asbestos and health risks associated with exposure.

2.1 Characteristics

Asbestos is a naturally occurring silicate material, the fibres of which were used as an additive in cement sheeting used for buildings and fences because of its physical properties, particularly its tensile strength and resistance to fire and heat. In Western Australia, the most common form of asbestos encountered is crocidolite, or blue asbestos. It was mined at Wittenoom for many years until the mine was closed in the mid-1960's amid increasing concerns of the health effects of exposure to asbestos.

According to the Department of Health (2009), there are three groups of asbestos contamination recognised in Western Australia, namely:

- asbestos containing material (ACM), where the asbestos is usually bound in a matrix, but may be broken and fragmented and can be detected visually
- fibrous asbestos (FA), which includes friable asbestos material in the form of loose fibres that can occur as a result of weathering and degradation, and can often be detected visually
- asbestos fines (AF), which includes free asbestos fibres and small asbestos bundles that can pass through a 7 mm x 7 mm sieve, posing an inhalation risk if they become airborne.

2.2 Health Risks

Asbestos fibres are often invisible to the naked eye as they can be smaller in size than the width of human hair. They are associated with two main forms of cancer, asbestosis and the rarer mesothelioma, along with lung cancer and pleural plaques. All are the result of inhalation of fine fibres that result in inflammation and mechanical damage to affected areas. The human health risks associated with asbestos-contaminated soil varies, and is dependent on its form, the situation where exposure can occur, and the quantity of material an individual is exposed to. Free fibrous asbestos will pose a greater risk than asbestos containing materials.

2.3 Asbestos at Busselton Health Campus

The form of asbestos remaining at the Busselton health Campus is primarily larger fragments asbestos containing material (ACM) interspersed with vegetation at the site. The area to the north and south of the dual use path has been fenced to restrict public access and limit potential exposure.

3.0 Management Plan

This management plan documents the process to be followed when individual fragments of asbestos are found and when a larger contamination is suspected. When asbestos is observed on site the Engineering Officer is to be notified on 9754 0845.

3.1 Individual Asbestos Fragments

Asbestos at the site is likely to be individual large fragments. If it is observed, the following will occur:

- report the sighting to hospital engineering
- engineering personnel will arrange for the manual removal of the individual pieces using appropriate equipment, and it will be triple wrapped in heavy duty black plastic
- wetting down the area prior to removal of individual fragments will assist with minimising the potential for dust
- disposal at a waste facility that will accept asbestos materials (e.g.: Dunsborough, Bunbury)
- maintaining/updating records of where the material was collected and the landfill facility where it was disposed of.

3.1.1 Personal Protective Equipment

While the risk of health impacts from exposure to asbestos are considered to be very low, it is recommended that those responsible for removal of the material are supplied with masks that prevent entry of dust and fibres into the respiratory tract and are approved for use when handling asbestos, such as a P1 or P2 disposable mask that complies with AS/NZS 1716:2012 Respiratory Protective Devices. Gloves are also recommended.

3.2 Larger Scale Contamination

In the event larger scale contamination is suspect, the following will occur:

- report the sighting to hospital engineering
- a suitably qualified contractor will be engaged to undertake site assessment activities to document the extent of contamination
- if the assessment confirms the presence of asbestos, discussions will need to occur with the following agencies (or their equivalent) to determine the most appropriate action plan:
 - Department of Health
 - Department of Environment Regulation
 - City of Busselton Environmental Health Branch
- management actions may include leaving the material in place or development and implementing an approved clean-up plan in consultation with the Department of Health and the Department of Environment Regulation.

4.0 References

Contaminated Sites Act 2003 (WA)

Department of Environment Regulation, (2014), Assessment and Management of Contaminated Sites – Contaminated Sites Guidelines, available: http://www.der.wa.gov.au/images/documents/your-environment/contaminated-sites/guidelines/Assessment_and_management_of_contaminated_sites.pdf.

Department of Health, (2009), *Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia*, Department of Health, Perth, Western Australia.