

Woodsreef Mine Major Rehabilitation Project

Fact Sheet - Air Monitoring and Health Risk Assessment Project

July 2018

Background

The Woodsreef Mine is a legacy asbestos mine located approximately 15km north east of Barraba in the Northern NSW Tablelands.

Prior to remediation works by the NSW Government, Woodsreef comprised a 75 million tonne waste rock stockpile, a 25 million tonne tailings stockpile, both of which are uncapped, and a number of open pits, some containing considerable quantities of water. There were also a number of legacy buildings. These were all substantially unrehabilitated and uncontained asbestos fibres are found throughout the site.

As a result, the NSW Department of Planning and Environment, Division of Resources and Geoscience engaged SLR Consulting Australia Pty Ltd (SLR), to undertake an Air Monitoring and Health Risk Assessment Project.

Objectives

The objective of the Woodsreef Air Monitoring & Health Risk Assessment Project was to determine the public health implications from potential asbestos exposure arising from the abandoned mine site, in adjacent communities and to members of the public via intermittent access to areas adjacent to the site.

The outcomes of these assessments have been used to prioritise the activities required to effectively manage and mitigate exposure to the community.

Consultant

SLR is a leading international environmental consultancy with a reputation for providing high quality tailored services. SLR has been operating in Australia since 1978 under its former name Heggies.

SLR specialises in the energy, mining & minerals, waste management, planning & development, infrastructure and industrial sectors.

Summary of Tasks

Hazard Identification and Assessment

A hazard assessment was conducted to identify, characterise and rank sources of asbestos on the entire mine site, on the basis of its potential to result in offsite migration of asbestos. SLR conducted bulk soil sampling from materials present on the site and analysis for the type and presence of asbestos. Given the size of the mine site, the bulk soil sampling program involved the collection of representative bulk samples from overburden;

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tailings; road cuttings; sediment collected in siltation systems; friable asbestos materials identified within the vicinity of the Mill Building and proposed containment cell locations.

All analysis was conducted using a NATA accredited laboratory and the program included appropriate quality assurance and quality control samples and analysis.

Health Impact Assessment

A Health Impact Assessment was conducted to assess the risks to human health in offsite areas associated with the proposed demolition of legacy buildings on the site. SLR reviewed the proposed emission management measures that were implemented during these demolition works. The Health Impact Assessment included air dispersion modelling. The offsite locations were identified in consultation with the Woodsreef Community Advisory Group and were located at different distances from the mine site. Air Monitoring was conducted at agreed offsite locations prior to, during and on completion of the demolition works.

Activity-Based Health Risk Assessment

An Activity-Based Health Risk Assessment was also conducted to evaluate risks to human health derived from conducting activities in

areas adjacent to the mine site. It was accepted that the risks associated with trespassing on the mine site needed to be managed through the maintenance of fencing and community consultation.

SLR collected asbestos air samples using personal air samplers during activities such as:

- walking along Bundarra Road adjacent to the northern site boundary
- camping or picnicking along Iron Bark Creek
- fossicking in Iron Bark Creek in dry weather conditions
- walking along flora and fauna trails.

Long Term Health Risk Assessment

The long-term health risk assessment quantified the risks to human health that is associated with the Woodsreef Mine, after remediation has been completed. SLR conducted a comparison of asbestos air data collected from the offsite locations and the community location with data collected from another location with naturally occurring asbestos.

Final Report key findings

In July 2018, the Department of Planning and Environment released the Air Monitoring and Risk Assessment Final Report (the Report).

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The Report concludes:

'It is concluded that the long term public health risk is likely to be negligible to low, for potential asbestos exposure arising from the abandoned mine site for adjacent communities and to members of the public that may have intermittent access to the mine site.'

Air Monitoring

- Asbestos fibres were only likely to be airborne at detectable concentrations (i.e. 0.01 fibres per mL of air) when there is a physical disturbance on the mine site itself.
- Detectable concentrations of airborne asbestos fibres were not recorded outside the mine site.
- Samples conducted at locations near the mine site, from 2013 to 2016, recorded airborne asbestos fibre concentrations at levels less than the minimum detection limit of the measurement technique.
- For Exposure Groups that may be routinely exposed to airborne asbestos fibres, concentrations would likely be less than the minimum detection limit of the measurement technique.

Exposure risk

- The long-term public health risk of asbestos exposure is likely to be negligible-to-low for adjacent communities and to members of the public that may have intermittent access to areas adjacent to the mine.

Site risk mitigation measures

- Several controls be considered to minimise potential long-term asbestos exposure health risks including limiting public access to the site and minimising offsite migration of asbestos materials.

Community Involvement

The NSW Government will continue community consultation around this site via a broader consultation program with the Barraba and Woodsreef communities.

For further information contact:

derelict.mines@planning.nsw.gov.au.

Future assessment and monitoring activities

The Long-term Health Risk Assessment Report recommended that additional actions are undertaken to ensure access in and around the site is limited. The Legacy Mines Program has funding available for these works, and is currently planning to implement all actions recommended in the study during 2018. The majority of actions will occur along the northern boundary of the mine.

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More information

- Visit the Resources and Geoscience's website at:
www.resourcesandgeoscience.nsw.gov.au/info/woodsreef.
- Call on 1300 305 695.
- If English isn't your first language, please call 131 450. Ask for an interpreter in your language and then request to be connected to our Information Centre on 1300 305 695.
- Email derelict.mines@planning.nsw.gov.au.

Other sources of useful information

Legacy Mines Program

www.resourcesandgeoscience.nsw.gov.au/info/legacymines.

Heads of Asbestos Coordination Authorities (HACA)

www.safework.nsw.gov.au/health-and-safety/safety-topics-a-z/asbestos/heads-of-asbestos-coordination-authorities-haca