

## Chapter 4

# Characterisation of contamination

Characterisation should clearly summarise the evidence of contamination at a site with regard to the distribution within the surface layer and fill, nature and extent of the contamination and any remaining uncertainties. The discussion should consider trends across the investigated area, including variability and change in asbestos type and condition. Where there are several sources of impact, these should be identified and discussed separately. Occasional or isolated/sporadic occurrences of asbestos contamination found either below screening criteria or removed during works should also be included in any report.

Characterisation will inform:

- the CSM and the degree to which an individual or group may be exposed to airborne asbestos fibres
- proposed remediation options
- legislative requirements required for compliance with legislation on the handling, removal and disposal of asbestos (See Chapter 2).

Detailed characterisation minimises project delays and costs and facilitates both:

- the planning of effective and compliant remediation
- long term management solutions to prevent or minimise disturbance of materials

For Tier 1 assessment, the soil contamination concentrations should be directly compared against the soil screening levels. If exceedances occur, a precautionary approach can be taken to remediate the site using screening levels as the clean-up goal as a means of minimising lifetime exposure risk. Conclusions or categorisation of risks based on a Tier 1 assessment should be adequately explained. In many cases, a Tier 1 assessment only informs the presence/magnitude of the hazard rather than the risk to health.

In some cases, minor contamination of the surface layer, such as the presence of isolated asbestos cement fragments or other bonded ACM, may be encountered at a site. Even where these sites are not reported under the Contaminated Sites Act 2003, any surface contamination must still be managed as small scale or limited impact contamination in compliance with good practice and legislative requirements and [Guidance Note on the Management of Small-Scale Low-Risk Soil Asbestos Contamination – May 2009 \(PDF 121KB\) \(under review\)](#).

The precautionary approach to remedial action at a Tier 1 level of assessment and to remediate any amount of visible surface contamination is consistent with national policy and other State legislation requiring the control, removal and disposal of asbestos. Consequently, results presented as being below screening criteria for site classification need to be based on rigorous and well justified investigative work, but there will still be a need to remove isolated/sporadic amounts of visible contamination in compliance with OSH or Health legislation (See Chapter 2).

A Tier 2 or 3 site assessment, including the development of site-specific clean-up goals (See Section 3.9), can be undertaken and will need to include more comprehensive discussion on the site-specific exposure scenario(s) (See Section 3.11).

The final assessment against criteria will depend on the CSM and the data quality objectives and the relevance of findings, including interpreting sample results.

In high exposure risk circumstances, the need for immediate exposure control measures should also be considered as per **Immediate Response Actions and Contingency Plans (to be updated)**.

The report should also comment on the limitations and uncertainties associated with the site investigation process.

It is important that the overall evaluation process be transparent, logical and reliable. Where the local community or other stakeholders raise concerns, consideration should be given to addressing and effectively communicating health risks. Note that interested stakeholders may read any investigation reports; therefore, all statements regarding health risks must be well supported.