



# Review of asbestos management practices in disaster planning

As prepared by



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RESEARCH



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# Background and objectives

The Asbestos Safety and Eradication Agency (ASEA) is a statutory authority that was established in 2015 to provide a national focus on asbestos issues that go beyond workplace safety to encompass environmental and public health issues.

The agency is tasked with implementing the *National Strategic Plan for Asbestos Management and Awareness 2014–2018* (The Strategic Plan), which aims to eliminate asbestos-related disease through awareness, best practice, identification, removal, research and international leadership. The Strategic Plan supports coordinating common efforts across governments, with a strong focus on facilitating information sharing. It was developed in consultation with the federal, state and territory governments, with a commitment to work together to address the deadly legacy of asbestos in the built environment. The plan does not direct or duplicate the content of any state, territory or local government plans.

As part of its remit, ASEA commissioned Newgate Research to undertake a preliminary national review of current disaster planning issues, protocols and practices in relation to asbestos. The review set out to explore the risk of exposure to asbestos following emergencies and natural disasters; disaster planning practices with regard to asbestos management; potential abatement policies in disasters; and best-practice emergency management to ensure asbestos exposures do not occur in times of natural disasters.

As an exploratory review aimed at developing a roadmap to guide ASEA's efforts, this study focused largely on the attitudes, perceptions and experiences of experts working at the intersection of disaster and asbestos management, along with publications used and recommended by these experts. This qualitative methodology was designed to most appropriately assess the context within which expert stakeholders operate – the lived experiences beyond documented policies and 'ideal' processes.

It is envisaged that a resulting program of works may include the development of outputs including more in-depth policy frameworks, technical reviews, operational benchmarks, training materials and communications tools.

## Research methodology

The review was conducted as a mixed-method study comprising:

1. A literature review of 51 relevant, publicly available articles, documents, frameworks and reports, including those recommended by expert stakeholders;
2. A series of in-depth interviews with 26 representatives of stakeholder organisations involved in emergency services, asbestos management and related sectors; and
3. A further round of consultation with expert stakeholders to consolidate and develop best-practice responses to the issues identified in the research.

Participating organisations through all phases of the study were selected to ensure a diverse sample across sectoral and geographic jurisdictions, and included emergency services, workplace safety regulators, local governments, environmental protection authorities, unions, NGOs, think tanks, and insurance and volunteering bodies. A full list of participating organisations can be found in the appendices.



# Research findings

## Overview

The literature review and in-depth interviews identified a strong knowledge base of asbestos management among key stakeholders in emergency and natural disaster management in relation to their own areas of responsibility. However, there was a perception that there is inconsistency and a lack of awareness and understanding among volunteers and the general public in particular. Some of the stakeholders not acting in operational roles also lacked knowledge of specific asbestos management practices, tending to trust that the appropriate practices were in place among those who needed to know.

The often time-critical nature of action required in disaster situations necessitates greater levels of preparedness, resourcing and adaptability in asbestos management processes and protocols compared with non-emergency situations – and thus a different set of risks. Gaps in awareness, information, training and resourcing among professional and ‘spontaneous’ responders alike have the potential to hamper efforts to mitigate asbestos risks in a disaster situation, which would benefit from a consistent and coordinated approach within and across jurisdictions and sectors.

The findings are structured into the following sections:

- Awareness and information
- Perceptions of the risks
- Training and identification
- Disposal and barriers
- Coordination and collaboration

## Awareness and information

Information *specifically* pertaining to asbestos in disaster situations tends to be quite limited and often embedded within policies and procedures pertaining more broadly to hazardous materials or natural disasters. This tends to focus primarily on personal protective hygiene and environmental impacts in a commercial context, with available material often targeting qualified professionals (e.g. Safe Work Australia’s codes of practice in *How to Manage and Control Asbestos in the Workplace and How to Safely Remove Asbestos*).

However, asbestos management in natural disasters and emergencies often occurs in a volatile, fast-moving context involving multiple layers of government, bureaucracy, industry and the community across different sectors and jurisdictions – with first responders including not only emergency services personnel but also (both trained and spontaneous) volunteers and affected residents.

In this context, stakeholders generally perceived the available information to be piecemeal, with no single authoritative voice offering definitive and timely best-practice guidance. This was particularly evident in communications to the public, with some stakeholders unsure of the lead agency responsible for issuing alerts and information in the event of a disaster, and how coordination occurs between agencies to ensure a consistent, authoritative message.

The research found that there is more of a ‘lived understanding’ of the roles and responsibilities of various government agencies and professional bodies in relation to natural disasters, resulting in a wealth of operational expertise that is not always fully documented. Many stakeholders indicated that they had limited understanding of asbestos management practices outside of their own remit or areas of responsibility.

Some states and territories have formed interagency working groups on asbestos to coordinate efforts and facilitate knowledge sharing – such as the Heads of Asbestos Coordination Authorities (HACA) in NSW, chaired by SafeWork NSW, and the Inter-agency Asbestos Management Working Group in the Northern Territory. Elsewhere, formal plans called for ad-hoc interagency collaboration under specific circumstances –for example, the NSW Asbestos Emergency Plan details triggers for the formation of an Asbestos Advisory Committee with clear obligations to communicate and consult between government agencies. However, such groups and processes were not in place across all jurisdictions, and were often limited to *intrastate* collaborations because of state-based regulatory regimes.

Beyond the work practices of professionals, there was a persistent theme of concern among stakeholders regarding the perceived low level of general community awareness, understanding and preparedness for appropriately identifying and managing asbestos in a disaster situation. Much of the public-facing communication regarding asbestos is proficient at conveying the basic details of asbestos risks, but tends to defer to other authorities on more complex issues for ‘further reading’ – creating a complex, circular route to information gathering that is likely to deter members of the public.

Consequently, many stakeholders identified improving knowledge and methods of education among the general community as a key area of focus that would aid detection, response and recovery efforts – particularly when community members are often the first responders in a disaster. Stakeholders agreed that any message to the public must offer simple, clear information and directives – i.e. targeting the ‘lowest common denominator’ of those who may not express a natural interest or have the capacity to engage more deeply (and using visual information to aid detection).

As a potential solution to some of these information needs, the Australian Institute for Disaster Resilience has launched a new online Knowledge Hub, centralising a collection of information, news and resources relating to disaster resilience and emergency management. While it does not focus specifically on asbestos management, the Hub allows users to search records of Australian disasters from the 1800s to now, an Emergency Management Library, the Australian Journal of Emergency Management, the Australian Disaster Resilience Handbook Collection, and resources for educators. The Hub also allows visitors to contribute documents, data or images – offering a potential solution for ensuring a comprehensive, accurate and up-to-date repository of information and resources for professionals and the public alike. While the Hub was not familiar to stakeholders due to its relative infancy, there was great interest in its potential and a desire to see it promoted to both expert stakeholders and even the general public.

## Perceptions of the risks

Asbestos is typically viewed as one of a host of potentially hazardous materials in emergency management. For emergency responders whose priority is preserving life and property, asbestos is perceived to be a less critical hazard relative to other competing priorities such as uncontained fires, gas leaks and downed power lines. In general, professional stakeholders regarded asbestos as a dangerous but relatively lower-order risk, because the risks it poses do not immediately manifest (and can be very difficult to trace back to a single incident).

Perceptions of the level of risk posed by asbestos were highly contextual to the specific location and type of disaster. Indeed, discussions with key stakeholders elicited imagery of asbestos as a sleeping giant – one that is of relatively low risk if left undisturbed in the built environment, but highly dangerous if ‘awoken’ by a disaster. Separately, perceptions of risk posed by asbestos to different groups within the community – and how this risk differed for each group – appeared vague and ill-defined in the minds of many stakeholders, often discussed as broad categories of ‘experts’ and ‘non-experts’, with no specific delineation for semi-expert cohorts such as tradespeople or at-risk populations such as children.

Meanwhile, *community* reactions to the potential presence of asbestos were seen to be more sharply divided, either as:

- an underestimation, where individuals may not fully comprehend the level or nature of the risk – let alone even consider that it may be present – and likely do not act appropriately to mitigate this risk; or
- extreme over-reaction, viewing the risks emotively and fearing that *any* level of asbestos in any form poses a deadly risk.

Therefore while inadequate knowledge among the public was identified as a key issue, some stakeholders also felt the message provided by media, government agencies and other subject-matter experts could be better tempered to 'alert, not alarm'. Note that this is a point of contention among stakeholders, with some believing that – contrary to the views of stakeholders in more technical or scientific roles – there is no safe level of asbestos exposure, and that a precautionary approach would better alert the public to the dangers.

Separately, the community's ability to accurately assess risk and to respond appropriately during a disaster is particularly critical as residents are not bound by workplace health and safety legislation, at a time when their judgement may be impaired by emotional trauma.

Emergency services personnel typically secure and then return responsibility for the site to the property's occupants. SafeWork NSW's *Asbestos Blueprint*, for example, states that "after the response phase, the site may be handed over by the combat agency" with the asbestos contaminated zone "clearly secured, marked and communicated" and the occupier advised to contact relevant agencies for further advice on asbestos removal. However, many stakeholders involved in emergency response expressed a lack of confidence in residents' ability to take appropriate and safe action in such circumstances, owing to knowledge gaps and emotional volatility.

Indeed, some stakeholders suggested that homeowners and business owners should not be left to manage asbestos clean-up themselves. It was suggested that following preliminary identification, assessment and stabilisation of a scene by emergency services, a coordinated effort could be undertaken by councils, insurers, emergency services and other relevant agencies to expedite clean-up of contaminated materials – assisting in minimising potential exposure and preventing illegal dumping. However, some recognised this was idealistic, as the public budget would be insufficient for such an undertaking.

Much of the risk assessment made by stakeholders was broad in nature. While this may be attributable in part to the broad-ranging nature of the interviews and the volume of issues canvassed, it may also point to the need for more targeted, scientific and empirical evaluations of the risk of asbestos exposure in an Australia-specific natural disaster context. Through the course of the review, the research team also observed at times a siloed approach to the management of asbestos in disaster situations, as well as a lack of specific knowledge and comprehensive documentation of the risks posed by asbestos in such situations.

## Training and identification

The effective implementation of any asbestos management protocol clearly relies on the ability of all parties involved to accurately identify the potential presence of asbestos, and in turn to know how to respond appropriately.

While professional responders undertake regular training that includes asbestos in the mix of hazardous materials, volunteers and especially affected general community members are less likely to be equipped with appropriate knowledge, experience and tools. As a result they can potentially break or remove debris as part of clean-up crews that may not always be adequately briefed, resourced or supervised (if indeed any of this happens at all), with limited understanding of the nature of asbestos risks in different types of disasters (e.g. airborne fibres in bushfire incidents versus waterlogged asbestos containing materials (ACMs) in floods that become more dangerous as they dry).

Several of the stakeholders had seen evidence of spontaneous volunteers being completely unaware of the risks posed by asbestos in their rush to help clean up after a disaster. Some stakeholders attributed this to a 'gung ho' attitude among some volunteers, with several citing the Queensland 'Mud Army' in particular. Meanwhile, others empathised with the desire of affected residents to return to their homes, and felt that the challenge related more to managing complex emotional reactions alongside adequate safety protocols.

Registered volunteers tend to be afforded greater training in accordance with workplace health and safety regulation, though the research suggests that the nature of the training varies in depth, frequency and quality. Some stakeholders questioned whether the training was effective, particularly when some volunteers only interface with their coordinating agency only once a year or less frequently.

Aside from training, the personal protective equipment of volunteers is often left to their own discretion because councils and other coordinating organisations often do not have adequate resources for such provisions. So, while

volunteer crews may receive hazardous material briefings before entering a site, how they dress and behave will be hampered by the limits of their own knowledge and the ability of onsite supervisors to assist. For residents who become spontaneous first-responders, this is even more problematic as most would not have adequate knowledge or access to appropriate personal protective clothing. This is particularly true in floods, as residents may have remained barricaded at home.

In response to the issues raised above, there have been efforts in some jurisdictions to alleviate potential obstacles for volunteering (planned or spontaneous) and to explore ways to maintain regular engagement with those on volunteering databases. For example:

- the Asbestos Council of Victoria/Gippsland Asbestos Related Disease Society has worked with local councils to produce protective equipment kits in the past, distributing these to volunteers and local residents following bushfires;
- Volunteering Queensland also sends regular updates to its registered volunteers to gauge on-going ability and willingness to assist; and
- following Cyclone Debbie, the Queensland Government announced that volunteers would be insured by WorkCover Queensland.

Many stakeholders also felt the broader public communications campaigns should be run, with some jurisdictions already trialling simple, digestible ways to communicate the risks. For example, following the 2013 Blue Mountains bushfires, Fire and Rescue NSW sprayed all potential ACMs among strewn debris with a blue PVA solution and broadcasted a “don’t touch the blue” message, which was effective in mitigating exposure and in reassuring an anxious local community. A similar approach was also taken by the WA Department of Water and Environmental Regulation following the 2011 Margaret River bushfires. There was significant interest in this approach, with some suggestion that a consistent colour should be applied nationally to encourage consistency of understanding among the public.

In contrast, professional emergency services personnel themselves are significantly better equipped to manage asbestos before, during and after a disaster. By way of example, members of the Melbourne Metropolitan Fire Brigade complete a report following each site visit and list any suspected exposures – this safeguards individuals should any health-related concerns surface in future, and the information also becomes part of the brigade’s geo-data set for future call-outs. There were calls from some stakeholders to better define specific responses to different forms of asbestos – e.g. broken, friable, wet or airborne – and integrating this into traditional risk-assessment processes and established workflows.

However, despite the best of training, some stakeholders had seen evidence of a degree of inconsistency in attitudes and behaviours among emergency responders, with some people naturally more diligent than others. Others also stressed the need for regular training and refreshers beyond the ‘basics’, particularly as some may not experience incidents of asbestos with any regularity (e.g. an SES volunteer who works one day a week may encounter asbestos only once a year).

There was also anecdotal evidence of missed detections in the wake of natural disasters. For instance, media coverage following Tropical Cyclone Debbie identified a case of a young family in Mackay who discovered asbestos some two months after returning to their home. Their landlord and insurer had responded quickly following the disaster by supplying contractors to remove water-damaged carpet and vinyl flooring, with drying machines installed to expedite the clean-up. Asbestos was not detected until new contractors arrived to install replacement flooring – demonstrating a clear gap in the ability of the professionals in this instance to consistently identify asbestos risks.

Finally, stakeholders spoke of often having incomplete information regarding asbestos risks for particular properties or areas and not having time to conduct rigorous laboratory testing to confirm its presence. Emergency responders are instead required to act on precautionary principles – e.g. the NSW Rural Fire Service’s operational protocols use age-related rules of thumb, with greater certainty of asbestos being present in “the majority of homes built before 1982”, and *likely* presence in homes built between 1982 and 1987.

Many stakeholders therefore highlighted a desire for more granular, reliable and coordinated geo-data – though some recognised this would be a time-consuming and costly undertaking that would require strong willingness to collaborate, particularly from local councils and homeowners (who are unlikely to want their property identified as containing asbestos due to the potential for increased insurance premiums and decreased property value).

## Disposal and barriers

Once identified, new challenges often arise in the disposal of ACMs.

The first is one of storage – there is often a dearth of suitable disposal sites within the disaster-affected area, as not all landfills are equipped to accept and safely store ACMs. Stakeholders described the positive exponential relationship between the distance ACMs travel and the risk posed by those ACMs, as a larger area may be contaminated by unsecured fibres becoming airborne. While this perception is at odds with some evidence regarding the distribution of particulates, it was a concern raised consistently by a number of stakeholders, who felt this was particularly a challenge following natural disasters that occur in rural or remote areas, where there would be significant distances to a licensed disposal site.

In response, some jurisdictions have introduced temporary waivers of standing protocols to allow ‘halfway house’ storage solutions; e.g. allowing non-accredited waste facilities to accept wrapped and labelled ACMs. However, they cautioned that this process must be managed carefully, with the ACMs clearly identified to prevent public exposure. Some stakeholders highlighted a specific example from the Bundaberg floods of 2013 where an open field was used as a temporary storage site for commingled waste, including ACMs, general waste and even supermarket food stock. However, the waste was not sorted and segregated appropriately, preventing general access, creating risks for volunteers, and making it difficult to isolate and label ACMs in a cost- and time-efficient manner. Stakeholders recognised temporary storage solutions are not necessarily secure and by no means best-practice – though they could be creative and effective risk-mitigation policies with the appropriate safeguards put in place.

Another barrier is the limited availability of licensed contractors to dispose of asbestos. WorkSafe Victoria, for example, reported there are approximately only 30 Class-A asbestos removalists in the state – i.e. who are permitted to remove friable asbestos, non-friable asbestos and any asbestos-contaminated dust or debris (ACD), and around 150 Class-B removalists – i.e. who are permitted to remove 10 square metres or more of non-friable asbestos, and only any ACD associated with the non-friable asbestos.

In a large-scale disaster, the number of specialists may be inadequate and their ability to mobilise may be constrained by distance. Note this was not always the perception in all jurisdictions, as some stakeholders in the ACT felt there would be adequate licensed removalists in an emergency given the on-going remediation work in removing asbestos from housing stock in that jurisdiction. Similar to the flexibility implemented in the use of interim storage sites, this challenge has been addressed in some cases by allowing contractors with more restrictive license classes to undertake a broader range of work – recognising that extraordinary circumstances require flexibility and agility in applying rules.

Existing regulations can also prove a barrier to proper disposal due to discrepancies between jurisdictions or even discrepancies in definitions within a jurisdiction. In Queensland, for example, a homeowner is allowed to *remove* 10 m<sup>2</sup> of asbestos without a license – however, the limit for *transporting* asbestos without a license is 250 kg, creating a grey area where the rules may allow removal without allowing transportation. There also appear to be inconsistencies in requirements for disposal sites to maintain an asbestos register – in some jurisdictions, this is a requirement of commercial sites but not of non-commercial sites; this inconsistency can create unintended loopholes in compliance.

Related to this are questions regarding the effective operation of asbestos tracking protocol, owing in part to recent media coverage suggesting the contrary. Currently, all jurisdictions track the interstate movement of asbestos waste, as specified by the *National Environment Protection (Movement of Controlled Waste between States and Territories) Measure*. Jurisdictions including NSW, Victoria, Queensland and South Australia also operate their own intrastate tracking systems – all with differing threshold metrics for tracking. Owing to recent media coverage regarding both the effectiveness of the tracking protocol and persistent cases of illegal dumping, some stakeholders also questioned the effectiveness of the broader regulatory enforcement regimes and their interface with private industry and the community.



Among agencies involved in the management of asbestos in relation to natural disasters, there can also be an issue of internal cultural inertia, with new ideas and approaches being met with resistance – particularly new approaches originating from other sectors. While most stakeholders interviewed expressed an interest in learning from and collaborating with other experts, there was sometimes a demonstrable difficulty in appreciating perspectives other than their own. This was also hampered in some organisations by resistance to even ideas from peer agencies in other jurisdictions, as well as frequent changes in roles and turnover of staff. One interview participant, for example, spoke of writing a proposal to adopt the PVA emulsion spray used in WA and NSW to seal the asbestos and signify potentially contaminated debris to passers-by. It had sat on their superior's desk for two years and - following two personnel changes and multiple attempts to gain traction - their current superior was now "starting to warm to the idea".

Another broad key barrier to disposal relates to resourcing and costs for the general community. As the workplace safety regulators do not have jurisdiction over private properties, consumers are generally left to manage their own affairs – including decisions regarding asbestos identification and disposal (e.g. seeking out licensed removalists and locations of local disposal facilities). Current gaps in information and knowledge, together with the high cost of proper disposal, the aforementioned definitional inconsistencies in allowable disposal amounts and the added pressures of responding during or following a natural disaster, all point to a reduced capacity among residents to behave appropriately when it comes to disposing of asbestos. However, creative partnerships could alleviate some of the financial burden of disposal – for instance, following the South Australian Pinery fires of 2015, a waste management contractor provided disposal bins at no cost in exchange for being able to retain any waste metals as payment.

Further, accurate identification of asbestos risks outside of disaster situations can lead to increased property insurance premiums and property value implications, adding another layer to resistance to adequate preparedness and response – leading to deliberate under-insurance and illegal dumping (which generates frequent coverage in the media). In some cases, environmental protection agencies have waived asbestos disposal levies following natural disasters as a partial response to these challenges – though this has been ad-hoc, with some stakeholders expressing a desire for a more consistent approach; for example, an automatic levy waiver once a disaster has been declared.

## Coordination and collaboration

Many of the issues unearthed in the literature review and stakeholder interviews point to challenges in coordination and collaboration – particularly in extending engagement beyond state-based regulatory frameworks.

Key organisations involved in emergency and natural disaster management have a robust understanding of the operational nature of their relationship and how to manage asbestos within their own areas of responsibility. However, the research revealed that there is room for greater discussion at the strategic level as to how to better share knowledge and build capacity across jurisdictions and between organisations involved in various aspects of emergency planning and response – among both expert stakeholders and the general public.

There is an opportunity to better capitalise on the experiences and lessons of all professionals working at the intersection of emergency response and asbestos management, and indeed there appeared to be an appetite among expert stakeholders for this.

However, stakeholders working in this space were often time-poor and resource-constrained, with many expressing a desire to provide input but finding it difficult to manage consultation among their other commitments. Newgate's experience in conducting this review suggests that one-on-one approaches may be most appropriate – whether via face-to-face, telephone or email – as this alleviates the need for stakeholders to dedicate time to producing written submissions and responses. The one-on-one approach is also a more sensitive way of working through jurisdictional, sectoral and cultural differences and tensions.

Above all, opportunities for coordination and collaboration must be flexible and convenient, allowing involvement to fit around participants' primary role and related commitments – i.e. ensuring compliance does not become so burdensome and onerous as to prevent participation. Care must also be taken to reduce the potential for consultation fatigue, and to demonstrate strong linkages between consultation and outcomes – for example, ensuring a timely and robust feedback loop that demonstrates how feedback has been acted upon and what progress has been made. This will have greater potential to increase stakeholders' appetite for future consultation and engagement.

## Potential solutions

Based on findings from the literature review, in-depth interviews and subsequent consultation through the draft report, Newgate Research recommends the following issues areas for further exploration by ASEA and its stakeholders – with a particular focus on the role that ASEA may be able to play in coordination or delivery.

1. **Building capacity for collaboration:** Developing, maintaining and sharing a contact database of relevant stakeholders working in this space across sectors and jurisdictions, along with a prioritised work stream of initiatives designed to create viable opportunities for participation and collaboration among stakeholders.
2. **Establishing definitions and performance measures:** It would be advantageous to the work of organisations in this space to more clearly and collaboratively articulate the risks posed by asbestos in natural disasters – both overall and for specific segments of the community (e.g. children, indigenous communities). Similarly, performance standards should be established in planning and responding to incidents, so that desired and acceptable outcomes are clear to all parties.
3. **A concerted public education campaign:** A unified campaign to educate members of the public on the risks posed by asbestos and how to best respond in a natural disaster, developed via collaboration between stakeholders but communicated via a single body nationally – aimed at efficiently improving knowledge and reducing duplication of messages. Opportunity exists to leverage existing networks, such as the communications stakeholder group within Safe Work Australia.
4. **Information kits:** A collection of authoritative, accurate and digestible information for the public regarding the risks posed by asbestos and how to best respond in a natural disaster (and other situations) – aimed at addressing the knowledge gap that stakeholders feel currently exists.
5. **Communication tools and templates:** A set of templates and tools to assist individual agencies and expert stakeholder organisations with communicating to their specific or local audiences – aimed at supporting busy stakeholders with ready-made information and protocols for easy tailoring to local contexts.
6. **Training materials for volunteers and professionals:** Best-practice, up-to-date training materials for both professional and semi-professional emergency responders, developed in consultation across jurisdictions. These should be aimed at providing consistent standards and reducing duplication of efforts in materials development (noting, however, that this may not always be possible owing to IP considerations).
7. **Protective equipment kits:** A ready-made kit for volunteers and members of the general community in disaster-prone areas, developed and distributed by local authorities – aimed at better equipping non-professionals to respond more safely to potential asbestos-containing materials in disasters. Note this must be managed carefully to balance the need to empower communities without encouraging active clean-up and remediation by untrained ‘spontaneous’ responders.
8. **Database of resources:** An online repository for professionals that may include fact sheets, how-to guides, case studies, contact details for professional removalists and storage sites, and a discussion forum space – aimed at taking the hard work out of finding accurate, reliable and current information and tools.
9. **Database of affected areas and properties:** A collation of available property/neighbourhood-level information regarding the existence or potential existence of asbestos (and other hazardous materials), compiled with the assistance of local experts – aimed at reducing the risks of exposure for emergency responders. Note this is a complex and sensitive issue owing to privacy concerns and remediation/insurance cost implications, and a balance must be struck between providing sufficiently detailed data and avoiding such granularity as to cause alarm and avoidance among property owners.

- 10. Partnerships and working groups:** Facilitating memoranda of understanding or similar charter arrangements between stakeholders working at the intersection of emergency and asbestos management, and extending to formal working groups with secretariat or establishment support – aimed at overcoming sectoral/jurisdictional silos and working towards harmonisation of standards. Such arrangements must be sufficiently flexible and not overly onerous in their administration and operation.
- 11. Specific policies for asbestos management:** Developing policy shells and handbooks for incorporation into existing emergency services workflows that explicitly recognise and address challenges posed by asbestos – aimed at providing tools for busy stakeholders to specifically address asbestos risks in natural disasters. Such policies would ideally leverage existing stakeholder networks and policy frameworks, such as Safe Work Australia’s *Australian Work Health Safety Strategy and ASEA’s own Strategic Plan*.

## Next steps

By exploring and synthesising expert experiences, opinions and best practice, this project has sought to guide ASEA in providing greater support to its stakeholders to manage asbestos in the context of emergencies and natural disasters. The research explored the hypothesis, among others, that with emergency and disaster management largely occurring at a state level in well-established communities of practice, ASEA’s role would be one of coordination and integration across jurisdictions and sectors.

The findings have indicated that while *in theory* a national approach for best practice is warranted, stakeholders felt in practice they would continue to operate largely on a jurisdictional basis due to their binding local legislation. In this context, many stakeholders felt ASEA could best play a role in areas including:

- raising public awareness;
- providing best-practice templates and tools for education and training;
- acting as a central repository of case studies, mapping data and other resources; and
- coordinating efforts for collaboration and knowledge-sharing.

The review identified several key areas of importance to stakeholders, including common issues experienced in the course of their work and potential areas of exploration for addressing these issues. Progress on any one of these areas is by no means a small feat, and it is envisioned that the potential solutions listed earlier would form the basis of fulsome work programs involving a consultative, partnership approach between ASEA and relevant stakeholder agencies.

# Appendices

## Acknowledgements

With thanks to the following organisations for participating in in-depth interviews and providing feedback to the preliminary discussion paper:

- ACT Emergency Services Agency
- Asbestos Council of Victoria / Gippsland Asbestos Related Disease Society
- Australian Institute for Disaster Resilience
- Australian Local Government Association
- Australian Strategic Policy Institute
- Blue Mountains City Council
- Emergency Management Australia
- Environment Protection Authority SA
- Fire and Rescue NSW
- Insurance Council of Australia
- Local Government NSW
- Melbourne Metropolitan Fire Brigade
- NSW Heads of Asbestos Coordination Authorities
- NSW Office of Emergency Management
- NSW Public Works Advisory
- NT Police, Fire and Emergency Services
- Police Federation of Australia
- Queensland Department of Environment and Heritage Protection
- Queensland Fire and Emergency Services
- Queensland Reconstruction Authority
- SA State Emergency Service
- SafeWork NSW
- Tasmanian State Emergency Service
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