Local Waste Management Arrangements for Emergency Events

September 2018

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Acknowledgements

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Shire of Augusta Margaret River
ASK Waste Management
ChemCentre
Department of Water and Environmental Regulation

Executive Summary

The State Emergency Management Committee (SEMC) has identified numerous situations in Western Australia where recovery efforts have been hampered by challenges associated with waste management. Ineffective waste management has the potential to significantly delay recovery efforts, present a considerable risk to human health and the environment and increase the costs of recovery.

With funding from the Natural Disaster Resilience Program 2017-18, WALGA is working with the State to embed waste management considerations into local emergency management planning and response mechanisms. The Framework is the third milestone for this project (milestones are outlined in Appendix 1). The first two milestones are summarised in the introduction, identifying the key issues relating to the legislative framework which governs waste and emergency management activities, along with feedback received to date from a range of stakeholders.

The Framework (Figure 1) has been designed to assist Local Government emergency management and waste management professionals plan for, and respond to debris generated in various emergency situations. The Framework consists of four phases:

Phase 1: Waste Management in the Context of Recovery
This section identifies, and provides generic information on how to manage different types of wastes generated in an emergency event. It also refers to the National Principles for Disaster Recovery and factors that inhibit the management of waste in recovery.

Phase 2: Planning
This section outlines a process that Local Governments can use to incorporate waste management considerations into local emergency management planning and response mechanisms. The first step in the process is to establish a multidisciplinary team within the Local Government that can undertake the following activities:

A. Identify likely emergency events
B. Identify built infrastructure and vegetation complexes in the Local Government area
C. Identify potential wastes arising from likely events and the potential impact on infrastructure
D. Identify internal Local Government capacity
E. Identify the capacity of licenced waste management contractors and infrastructure (local and state).

Phase 3: Assess Statements of Capacity
The information gathered through the planning process (Phase 2) can be used to inform an assessment of a Local Government's capacity. Phase 3 has been designed for completion on a regional basis, with consideration of existing agreements, understandings and commitments between Local Governments.

Phase 4: Decision Point
The final phase of the Framework allows a Local Government to make informed decisions on the approach it will take to address waste management considerations in recovery. The structure of the Framework allows decisions to be made with due regard to available funding, the scale of an event, the type / source of waste generated and the Comprehensive Impact Assessment (CIA) process.

1.0 Introduction

There have been numerous situations in Western Australia where recovery efforts have been hampered by challenges associated with waste management. Ineffective waste management has the potential to significantly delay recovery efforts, present a considerable risk to human health and the environment and increase the costs of recovery.

With funding from the Natural Disaster Resilience Program 2017-18, WALGA is working with the State to embed waste management considerations into local emergency management planning and response mechanisms. This Project includes four milestones, identified in Appendix 1. Section 2 and 3 of this Report summarise the main outcomes of the project to date, which are relevant to the use of the Framework.

Local Government is not necessarily responsible for the physical management of debris in recovery. Research findings indicate that numerous factors influence Local Government decision making on how it will choose to address waste management considerations in recovery. Considerations such as geographic location, the type of material encountered, staff capacity, funding, available resources and prior involvement with local recovery efforts all influence decisions on what approach will be taken by a Local Government. The inherent flexibility of the Framework is designed to accommodate these considerations.

Local Government can actively plan for the management of waste generated from its own infrastructure and activities. However, there will be situations where a Local Government may choose to facilitate recovery efforts for waste arising from residential and commercial sources by undertaking one, or more of the following activities:

- Ensuring waste generators manage debris in a lawful manner (by communicating expectations and providing regulatory oversight)
- Providing information to waste generators on how different types of waste can be recycled/disposed
- Coordinating the activities of waste management contractors (by using existing procurement mechanisms)
- Directly managing the waste (by using existing resources).

The Framework outlines a process that Local Government Emergency Management practitioners can use to begin engaging the waste management industry in the context of recovery (Phase 1), assess the likely implications of debris in their local area (Phase 2), develop and assess statements of capacity (Phase 3), and empower their Council to make an informed decision on the approaches that will be taken towards the management of waste in recovery (Phase 4). This is shown in Figure 1.

1.1 Legislative Framework

The first stage of this Project delivered a Research Report that identifies how the legislative framework is currently applied in terms of prevention, response and recovery. The Report also identifies case studies and key considerations for decision making. In analysing the legislative framework, some of the key findings were:

- Local Government is provided with some powers for prevention or mitigation, through the *Emergency Management Act 2005*, *Local Government Act 1995* and the *Bush Fires Act 1954*, but these powers relate only to cyclones, floods and bushfires

- The *Emergency Management Act 2005* gives Local Government responsibility for recovery, but no associated powers to undertake this activity
- The legislation which Local Government can use in recovery includes:
    - *Local Government Act 1995*: Local Government can require and/or undertake the removal of certain items from land that it considers to be 'untidy.' Local Government can recover the cost of works that it undertakes
    - *Public Health Act 2016*: Once implemented, Local Government authorised officers could potentially use improvement notices to address a material public health risk in recovery. If an improvement notice is not complied with, Local Government can issue an enforcement order, as a defined enforcement agency under the *Public Health Act 2016*. To address a serious public health risk, Local Government can directly issue an enforcement order. Local Government is provided with the ability to implement an enforcement order that has not been complied with and recover the costs of doing so
    - *Environmental Protection Act 1986*: Although Local Government officers can potentially be authorised under this Act, they would require appropriate training and support.

It is worth noting that there are limitations on the powers provided to Local Government. For example, some Acts contain rights of appeal if specific processes are not followed.

The Research Report is available online. The legislative powers relating to recovery must be understood by individual Local Governments, prior to identifying their role and capacity in addressing waste management in recovery.

1.2 Stakeholder Feedback

The second stage of the Project involved surveying Local Government Emergency Management and Waste Management officers to gain an understanding of the degree to which waste management considerations have been incorporated into Local Emergency Management Arrangements (LEMA), as well as individual views on roles and responsibilities in managing waste from residential, commercial, Local Government and State Government sources.

Survey respondents were asked to identify Local Government's role in relation to a variety of wastes arising from residential, commercial, Local Government and State Government sources. The potential roles of Local Government, were defined as:

- Ensuring waste generators manage debris in a lawful manner (by communicating expectations and providing regulatory oversight)
- Providing information to waste generators on how different types of waste can be recycled/disposed
- Coordinating the activities of waste management contractors (by using existing procurement mechanisms)
- Directly managing the waste (by using existing resources)
- Not having a role.

For residential waste, there were a range of views on Local Government's role. Where WANDRRA funding was available in recovery, the majority of respondents considered Local Government had a role either directly managing, or coordinating waste management, or providing information on how to manage waste. When this funding stream was not available,

the majority of respondents considered that responsibility for waste management should be assigned to the householder, owner or insurer.

For waste from commercial sources, there were a variety of opinions, but the majority of respondents identified Local Government's role as providing information on how to manage waste – particularly in situations where WANDRRA funding was not available.

For waste arising from Local Government sources (e.g. damaged infrastructure, kerbside collections), there was a clear consensus that Local Government had a role either directly managing or coordinating waste management activities, regardless of the availability of WANDRRA funding.

For waste from State Government sources, the majority of respondents considered that Local Government did not have a role, or that their role was to provide information on how to manage waste, regardless of the availability of WANDRRA funding.

The Report outlining the full survey results is available online.

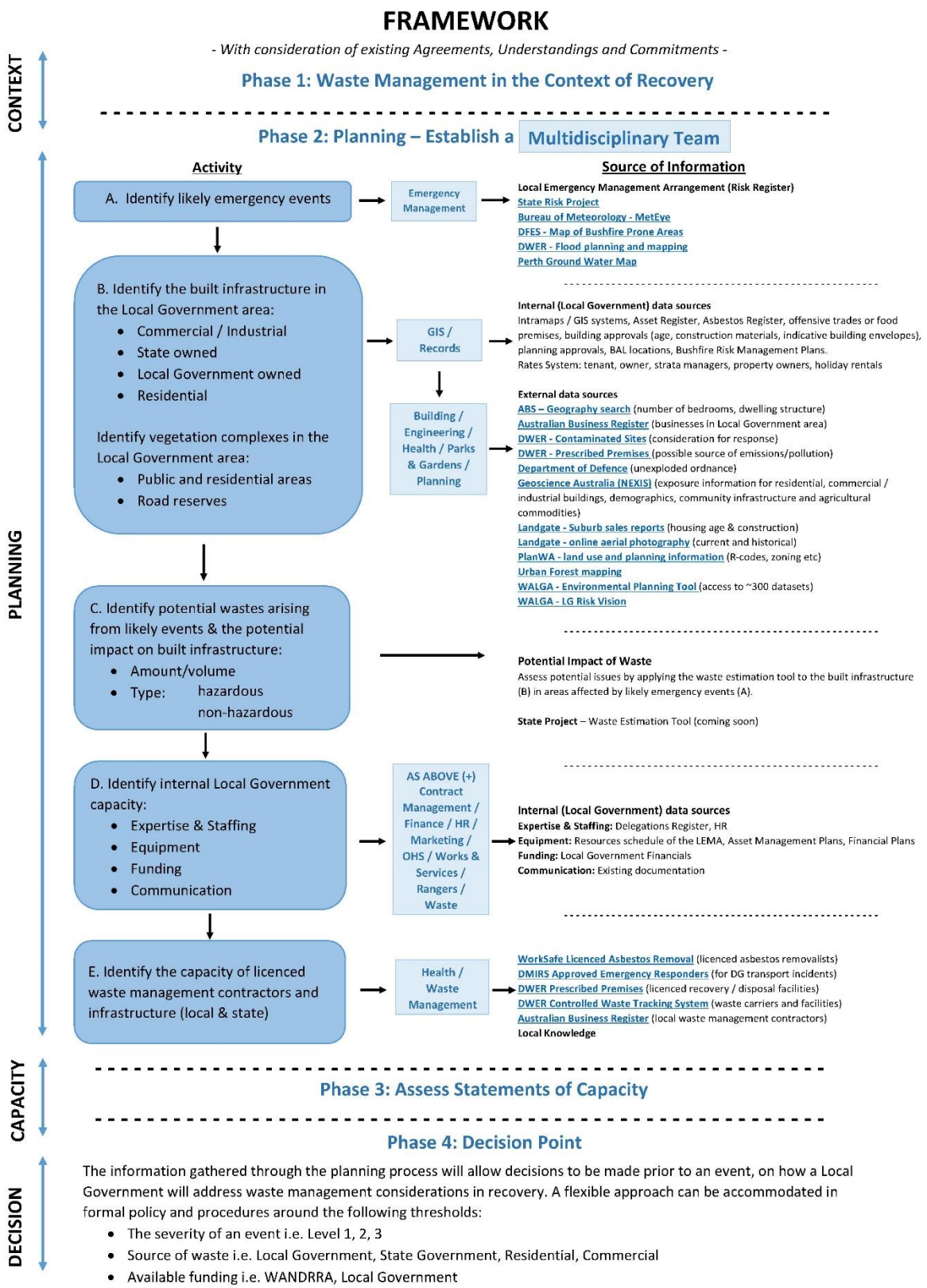


Figure 1: Framework for incorporating waste management considerations into local emergency management structures.

2.0 Phase 1: Waste Management in the Context of Recovery

2.1 National Principles for Disaster Recovery

How Local Government undertakes recovery is largely dependent on local expectations and expertise, the scale of the event and available resources. Local Government can be faced with difficult choices on the level of assistance it can provide, and to what sectors of its community. The National Principles for Disaster Recovery[1] provide a useful guide for decision making in recovery:

- **Understand the context:** Successful recovery is based on an understanding community context, with each community having its own history, values and dynamics.
- **Recognise complexity:** Successful recovery is responsive to the complex and dynamic nature of both emergencies and the community.
- **Use community-led approaches:** Successful recovery is community- centred, responsive and flexible, engaging with community and supporting them to move forward.
- **Coordinate all activities:** Successful recovery requires a planned, coordinated and adaptive approach, between community and partner agencies, based on continuing assessment of impacts and needs.
- **Communicate effectively:** Successful recovery is built on effective communication between the affected community and other partners.
- **Recognise and build capacity:** Successful recovery recognises, supports, and builds on individual, community and organisational capacity and resilience.

2.2 Factors that Inhibit the Management of Waste in Recovery

To enable the waste management system to function effectively in recovery, Local Government must address a number of factors in other systems and processes. Figure 2 provides a summary of the factors that inhibit the management of waste in recovery.

As one example of how these factors can have an impact in a situation where a contractor will be undertaking waste management activities on behalf of either State or Local Government, works cannot occur until affected parties have provided authority to act. Significant delays could occur when affected parties cannot be contacted through the usual recovery communication channels, and/or clarification is not immediately obtained as to which party will manage debris.

[1] Australian Disaster Resilience Knowledge Hub (2018). SRRG National Principles for Disaster Recovery. Available online. https://knowledge.aidr.org.au/resources/national-principles-disaster-recovery/.

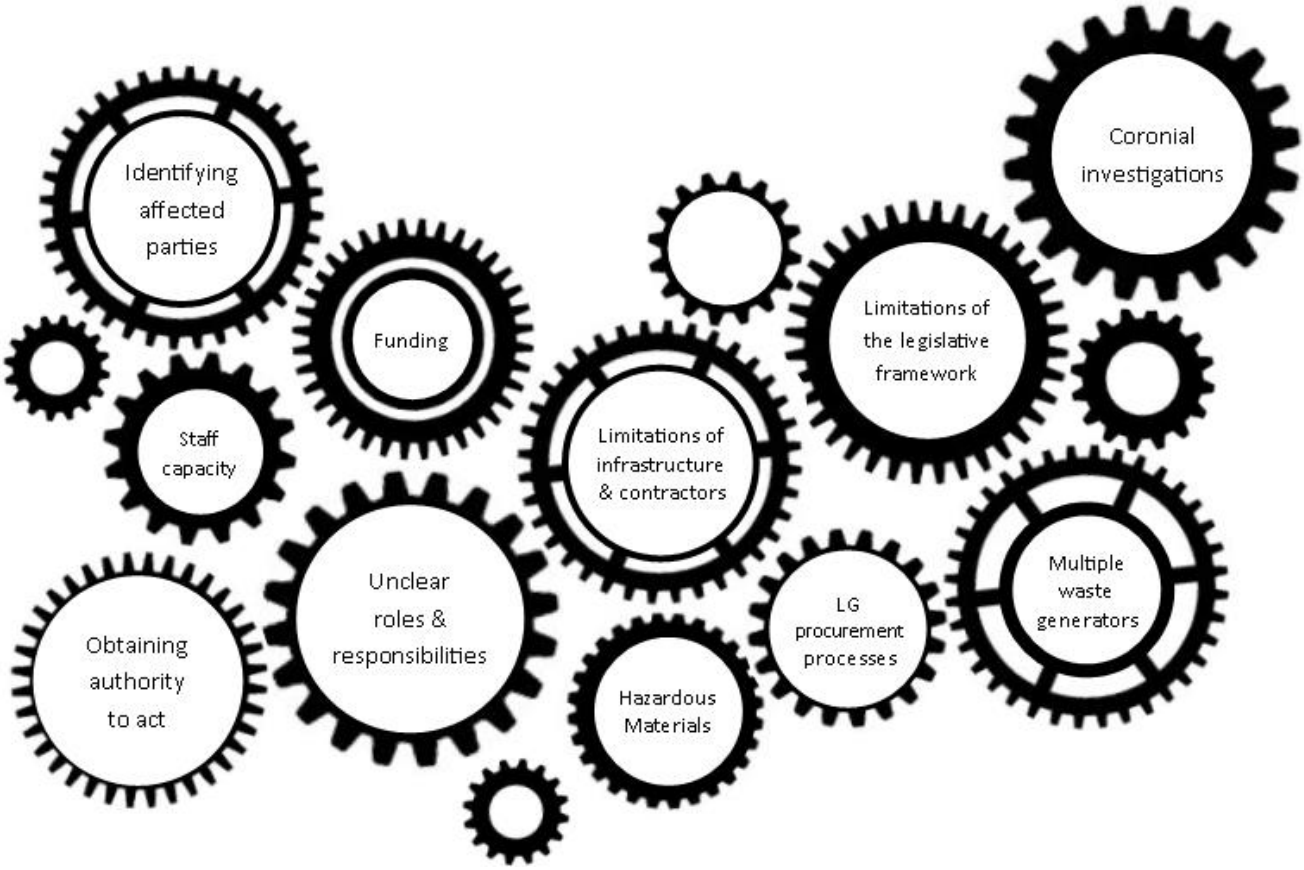


Figure 2: Factors that inhibit the management of waste in recovery.

2.3 Waste Characterisation and Management

An understanding of the waste management system is required to identify roles, plan and facilitate, or alternatively deliver waste management activities in recovery. In the waste management industry, materials are usually identified by their characteristics or source. In developing the Framework, the identification, containment, confinement, collection, transport, and treatment of Hazardous Materials has been prioritised. By addressing Hazardous Materials first, Local Government can facilitate improved resource recovery outcomes, and reduce health, environmental and safety risks, along with the return of personal belongings (where possible). In situations where it is not possible to first remove Hazardous Materials from debris, the entire waste stream may need to be classified and managed as Hazardous Material. Although in this document the materials are identified separately, to facilitate resource recovery, there could be situations where separation is not possible. In this case non-hazardous materials can be collected, transported, stored and treated collectively.

Figure 3 summarises how materials arising from a range of emergency situations are typically defined, with *general advice* on potential management options provided in Tables 1-6 (Section 2.3.4).

When prioritising the management of waste and determining what role it should play in recovery, Local Government should be guided in by the National Principles for Disaster Recovery (Section 2.1), with an emphasis on community focused recovery. For example,

priorities can be determined based on access to infrastructure valued by the community, a community desire to utilise local contractors, and/or a community preference to recycle as much material as possible. It is worth noting that Local Government has an important role to play in ensuring that waste generators and contractors undertake waste management activities lawfully.

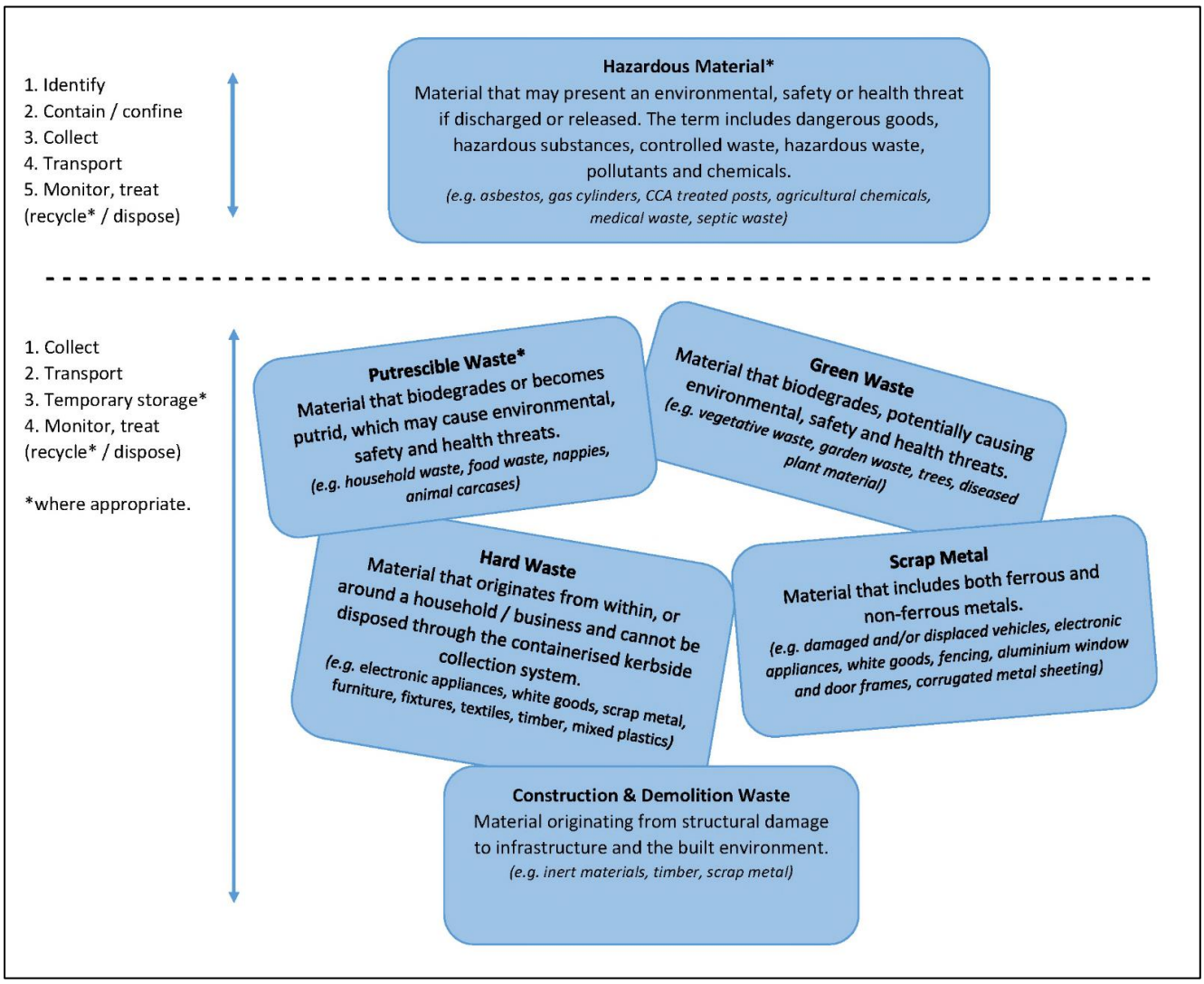


Figure 3: Definition and management materials in the waste management system.

2.3.1 Legislative Framework

Tables 1-6 provide *general advice* on potential management options for certain materials, as per the legislative framework that underpins the waste management system. Namely, those established by the *Waste Avoidance and Resource Recovery Act / Levy Act 2007* and the *Environmental Protection Act 1986*. It should be noted that other legislation also applies to the management of certain materials (refer to Section 2.3.3).

The *Waste Avoidance and Resource Recovery Act / Levy Act 2007* and associated regulations enables Local Government to provide waste management services to the community and charge for the provision of these services. It also provides the overarching

policy direction for waste avoidance and resource recovery, as well as a Levy on waste generated or landfilled in the Perth metropolitan area.

The framework established by the *Environmental Protection Act 1986* is used to prevent, control and abate pollution and environmental harm. Under this legislative framework, certain materials are subject to specific transport, management and disposal requirements. Waste management facilities operating over certain product or design thresholds must be licenced or registered under Part V of the Act. This includes landfills, as well as resource recovery facilities such as liquid waste facilities, composting facilities, scrap metal recycling facilities and solid waste depots.

WALGA has recommended using only contractors/sites that are licenced through the relevant legislation. This is to ensure that there is a degree of independent regulatory oversight regarding how contractors or sites operate.

2.3.2 Exemption Processes

The information included in Tables 1-6 is based on a business as usual approach to waste management. In recovery, there may be situations where a business as usual approach is not possible. When this occurs, certain exemptions can be requested, subject to specific conditions.

Exemption – Controlled Waste Tracking
The CEO of the Department of Water and Environmental Regulation (DWER) can grant an exemption from compliance with any or all of the requirements detailed in Parts 2 and 3 of *the Environmental Protection (Controlled Waste) Regulations 2004.* This includes licensing of carriers, drivers and vehicles and tanks, waste holder, carrier, driver and waste facility obligations, use of controlled waste tracking forms, requirements for waste unloading, transport and disposal requirements for asbestos waste. The exemption is not provided automatically. A form must be completed and approved by the Department[2].

Exemption – Prescribed Premises
In recovery, the volume and type of material generated may exceed the approved production or design capacity, and/or specific management conditions of individual prescribed premises approved by DWER licencing. There are two provisions in the *Environmental Protection Act 1986* which can be used to progress an exemption:

- **Ministerial Exemption (S.6):** These exemption powers have a wide ranging scope and can include any of the provisions of the Act or an approved policy. To progress this option, contact the DWER
- **CEO Exemption (S.75):** the Director General of the DWER can issue a 14 day exemption from compliance with Part V of the Act (this could include licence conditions).

Exemption – WARR Levy
The Waste Avoidance and Resource Recovery Levy only applies to waste generated or landfilled in the Perth metropolitan area. Material can be exempted from the Levy if it is

[2] Department of Water and environmental Regulation (December 2017). Forms and materials. FORM CW23: Application for exemption under Regulation 49. Available online. https://www.der.wa.gov.au/our-work/controlled-waste/138-forms-and-materials.

generated from an emergency event. The exemption is not provided automatically. A form must be completed and approved by the Department[3].

2.3.3 Management of Hazardous Materials

In facilitating the management of Hazardous Materials in recovery, Local Government must consider specific legislative requirements that relate to transport, storage, and treatment (resource recovery or final disposal). In the Framework, the definition of Hazardous Materials (Figure 3) includes the following types of materials:

- **Dangerous Goods:** as defined in the *Dangerous Goods Safety Act 2004* (and associated regulations)
- **Hazardous Substances:** as defined in the *Occupational Safety and Health Regulations 1996*
- **Controlled Waste:** as defined in the *Environmental Protection (Controlled Waste) Regulations 2004*
- **Hazardous Waste:** as defined in the *Landfill Waste Classification and Waste Definitions 1996 (as amended).*

Certain Hazardous Materials are subject to multiple legislative frameworks. For example, asbestos is considered to be both a Controlled Waste and a Hazardous Substance. As a Controlled Waste, asbestos is subject to strict disposal requirements, but not (currently) the tracking requirements of the Controlled Waste Tracking System. Different thresholds apply under the two legislative regimes with respect to the use of licenced contractors (volume, material type and source), resulting in another layer of complexity.

As the legislative framework for Hazardous Materials is complex, it is **not recommended** that Local Government officers undertake the waste management activities listed in Table 1, unless they have received specialist training. Where a Local Government resolves that its role is to provide information to waste generators on how different types of waste can be recycled/disposed, the use of appropriately licenced contractors and facilities must be promoted.

WALGA has developed a Preferred Supplier Panel for Hazardous and Emergency Event Services that can assist with the selection of a suitably qualified contractor to undertake tasks associated with debris management in recovery. Local Governments using this resource must do so in accordance with their internal procurement processes.

2.3.4 Material Types and Management Options

When identifying potential disposal options for debris, Local Government should refer to the DWER *Landfill Waste Classification and Waste Definitions 1996 (as amended)*[4]. When identifying potential locations for Temporary Storage Sites, Local Government must engage

[3] Department of Water and Environmental Regulation (August 2014). Exemptions from the landfill levy. Available online. https://www.der.wa.gov.au/images/documents/your-environment/waste/landfill-levy/fs-exemptions-from-the-landfill-levy.pdf

[4] Department of Water and Environmental Regulation (April 2018). Landfill waste classification and waste definitions 1996 (as amended). Available online. https://www.der.wa.gov.au/our-work/licences-and-works-approvals/publications.

DWER licencing. Information that could inform these discussions, is available from the DWER *Guidance Statement: Environmental Siting*[5].

It is worth noting that more stringent criteria can be imposed by waste facility operators, or by the Department through conditions imposed on individual licences. It is imperative that those tasked with recovery, directly contact waste facility operators and review individual licences to identify and discuss:

- Specific management requirements
- Limitations on accepted materials and throughput (tonnes per annum)
- Capacity (for a landfill, this relates to available airspace across the life of a facility)
- Specifications of the facility (for example if material is taken to a landfill, is it designed and operated in such a way it can handle animal carcasses without causing a future liability)
- Whole of life costs (for a landfill, ensure the gate fee covers closure and post closure management / liabilities).

For those operating in more remote, non-metropolitan areas, there will be additional considerations relating to which waste management options can feasibly be accessed. For example, although material could be stockpiled for recycling there might not be a local market for the material and it could be cost prohibitive to use mobile crushing/shredding equipment.

Throughout Tables 1-6, references are made to waste facilities that are legally able to accept certain materials. This refers to licenced facilities (i.e. various prescribed premises) with specific conditions that determine the type of waste that can accepted and how it must be managed. The different classes of landfill relate to the following categories of prescribed premises listed in Schedule 1 of the *Environmental Protection Regulations 1987*:

- Class I (Category 63)
- Class II (Category 64 or 89)
- Class III (Category 64)
- Class IV (Category 65)
- Class V (Category 66)

All Regulations referenced in Tables 1 – 6 are available from the State Law Publisher.

Table 1: Hazardous Materials (Note: The information provided in this table is not an exhaustive list of Hazardous Materials).

	→**Waste Management Activities**→				
	Identify	**Contain / Confine**	**Collect**	**Transport**	**Monitor, Treat (recycle / dispose)**
Asbestos (Special Waste Type 1, DWER Landfill Waste Classification	To ascertain if debris contains asbestos, collect and get samples tested by a	Where friable asbestos is likely to be encountered, secure the services of an unrestricted asbestos licence holder *(OSH Regs).*		Asbestos is not (currently) subject to the regulatory requirements for: -transportation	Dispose at a waste facility that is legally able to accept this material. Potentially Class I, II, III and IV

[5] Department of Water and Environmental Regulation (November 2016). DWER Guidance Statement: Environmental Siting. Available online. https://www.der.wa.gov.au/component/k2/item/6574-guidance-statement-environmental-siting.

and Waste Definitions)	NATA accredited laboratory. Structures built: -before the mid-1980s will contain asbestos - between the mid-1980s and 1990 are likely to contain asbestos -after 1990 are unlikely to contain asbestos[6].		by a licensed controlled waste carrier OR -tracking via a CWT Form. However, the material must be appropriately contained in transport.	landfills *(EP Act and Regs).* Material must be labelled, packaged, and disposed in accordance with the Regulations *(CW Regs).*
Gas cylinders (Hazardous waste, DWER Landfill Waste Classification and Waste Definitions)	Gas cylinders will usually have identifying marks which detail the contents. If markings are not clear, additional caution should be used in transport etc. The contents of gas cylinders can include: -Aerosols -Butane -Nitrogen -Helium -Oxygen -Argon	Check the valves are intact and gas is not leaking. Separate the gas cylinders based on the type of gas. Store outside, upright, in a well ventilated area with valves closed.	Employ the services of a suitably qualified and licenced contractor. Cylinders must be transported in appropriate containers to protect against damage *(DGS Act and Regs).*	Employ the services of a suitably qualified and licenced contractor that can extract gas and arrange for metal cylinders to be recycled.
CCA treated posts	These posts are used for a variety of purposes including power poles and fencing. Their colour may vary to that of untreated timber.	This material should not be cut or burnt. There are no specific transport requirements.		Dispose at a waste facility that is legally able to accept this material *(EP Act and Regs).*
Agricultural chemicals (Hazardous waste, DWER Landfill Waste Classification and Waste Definitions)	Chemical containers will usually have identifying marks which detail the contents. If markings are not clear, employ the services of suitably qualified contractors to identify chemicals.	Employ the services of a suitably qualified contractor licenced to transport Dangerous Goods.		Dispose at a waste facility that is legally able to accept this material *(EP Act and Regs).*
Medical waste	Employ the services of suitably qualified contractors. Management practices will depend on the type of material		Employ the services of a suitably qualified and	Dispose at a waste facility that is legally

[6] Asbestos Safety and Eradication Agency (2018). Asbestos information. Available online. https://asbestossafety.gov.au/asbestos-information.

(Hazardous waste / Special Waste Type 2, DWER Landfill Waste Classification and Waste Definitions)	generated and how it is defined under different legislative frameworks (i.e. controlled waste, hazardous substances, dangerous goods, and other definitions used in relevant health legislation).		licenced contractor *(CW Regs).* A controlled waste tracking form must be completed (≥200 kilograms or litres).	able to accept this material. Potentially Class II, III and IV landfills *(EP Act and Regs).*
Septic waste (Putrescible waste, DWER Landfill Waste Classification and Waste Definitions)	To ascertain if debris, water, soil etc contains septic waste, collect and get samples tested by a NATA accredited laboratory.	Employ the services of a suitably qualified contractor to undertake these activities *(CW Regs).*	Employ the services of a suitably qualified and licenced contractor *(CW Regs).* A controlled waste tracking form must be completed (≥200 kilograms or litres).	Dispose at a waste facility that is legally able to accept this material. Potentially Class II and III landfills *(EP Act and Regs).*

Putrescible Waste Management

Putrescible waste is defined as material that biodegrades or becomes putrid, which may cause environmental, safety and health threats. This material is generated from a range of sources in an emergency event. In recovery, another potential source of putrescible waste is from relief / recovery centres that have been established to support the community. Consideration of how the waste from these centres is managed should be incorporated into procedures / operational pans.

Table 2: Putrescible Waste (Note: The information provided in this table is not an exhaustive list of putrescible waste).

	→Waste Management Activities→			
	Collect	**Transport**	**Temporary Storage**	**Monitor, Treat (recycle / dispose)**
Household waste (Putrescible waste, DWER Landfill Waste Classification and Waste Definitions)	**Considerations** Where collection and treatment services are outsourced, refer to the terms of existing contracts. For services provided in-house, allocate all available resources to clear areas experiencing delayed / disrupted kerbside collection services. Alternatively, establish aggregation points where households can dispose of material. Where bins are damaged, establish bin replacement programs. Dispose at a waste facility that is legally able to accept this material. Potentially Class II and III landfills *(EP Act and Regs).*			
Food waste (Putrescible waste, DWER Landfill Waste Classification and Waste Definitions)	Where usual collection systems are overwhelmed (e.g. power outages), establish aggregation points where households can dispose of material. If possible, prioritise collections of food waste from commercial	Food waste from businesses may be subject to CW requirements.	It is not appropriate to store this material for long periods of time due to health, environment and safety risks.	Food waste can be composted. If contaminated with plastics, glass etc. additional processing may be required (Category 67A). Where no recovery options are available, dispose at a waste facility that is legally able to accept this material. Potentially Class II and III landfills *(EP Act and Regs).*

	businesses (supermarkets, cafes, restaurants etc).			
Nappies (Putrescible waste, DWER Landfill Waste Classification and Waste Definitions)	As per the management of household waste.			
Animal carcases (Putrescible waste/ Hazardous waste, DWER Landfill Waste Classification and Waste Definitions)	The approach that is taken to manage this material will depend on the amount of animal carcases and the nature of the emergency event. Carcases could potentially be disposed of at a suitably licenced landfill (Class II or III). Depending on the type of emergency, resource recovery options such as composting (Category 67A) and rendering (Category 16) may be viable. The Department of Water and Environmental Regulation is developing specific guidance on the management of this material. For large scale events, with animal or plant: pests or disease, Local Government will need to liaise with the Hazard Management Agency (the Department of Primary Industries and Regional Development).			

Hard Waste Management

Hardwaste has been included as a separate category, to identify the range of materials that originate from within or around a household / business and cannot be disposed of through the containerised kerbside collection system. In recovery, another source of hardwaste can be donations (solicited/unsolicited). Consideration must be given in the Local Government LEMA on how these donations will be managed. For example, entering into a Memoradum of Understanding with a charitable organsiation such as GIVIT.

In accommodating the recovery of personal belongings, Local Government must consider how best to minimise risks to affected parties. It is recommended that unsupervised access to areas where hazards have not been identified or contained is prohibited, and the reasons why clearly communicated. If supervised visits are carried out, appropriate personal protective equipment must be used.

Table 3: Hard Waste (Note: The information provided in this table is not an exhaustive list of hard waste).

	→Waste Management Activities→			
	Collect	**Transport**	**Temporary Storage**	**Monitor, Treat (recycle / dispose)**
Electronic appliances, white goods, scrap metal	Refer to Table 5.			
Furniture (Putrescible waste, DWER Landfill Waste Classification and Waste Definitions)	**Option 1** To facilitate resource recovery, establish aggregation points where households can dispose of 'like' materials. **Option 2** Consideration could be given to the provision of dedicated vergeside collection services for damaged material, using clearly defined and communicated parameters (e.g. tonnages, zones, material types).			Where no recovery options are available, dispose at a waste facility that is legally able to accept this material. Potentially Class II and III landfills *(EP Act and Regs).*
Fixtures (Putrescible waste, DWER Landfill Waste Classification and Waste Definitions)				
Textiles (Putrescible waste, DWER Landfill Waste Classification and Waste Definitions)				
Timber				

(Putrescible waste, DWER Landfill Waste Classification and Waste Definitions)		
Mixed plastics (Putrescible waste / Inert waste type 2, DWER Landfill Waste Classification and Waste Definitions)		

Green Waste Management

Green waste is defined as material that biodegrades, potentially causing environmental, safety and health threats.

Table 4: Green Waste (Note: The information provided in this table is not an exhaustive list of types of green waste).

	→**Waste Management Activities**→			
	Collect	**Transport**	**Temporary Storage**	**Monitor, Treat (recycle / dispose)**
Vegetative waste (Putrescible waste, DWER Landfill Waste Classification and Waste Definitions) **Garden waste** (Putrescible waste, DWER Landfill Waste Classification and Waste Definitions) **Trees** (Putrescible waste, DWER Landfill Waste Classification and Waste Definitions)	**Option 1** Where existing systems are overwhelmed, establish aggregation points where households and/or businesses can dispose of material. **Option 2** Alternatively, the provision of dedicated collections by an organics recycler could be provided from the verge using clearly defined and communicated parameters (e.g. tonnages, zones, material types).		Contact DWER licencing for advice on site specifications for a new temporary facility and/or licence amendments to an existing transfer station or other waste management facility.	Green waste can be mulched, chipped, composted, used as firewood or to construct community infrastructure (e.g. park benches) when collected separately (Category 67A). Where no recovery options are available, investigate onsite management options (e.g. burning green waste) or dispose at a waste facility that is legally able to accept this material. Potentially Class II and III landfills *(EP Act and Regs).*
Diseased plant material (Putrescible waste, DWER Landfill Waste Classification and Waste Definitions)	The approach that is taken to manage this material will depend on the amount of material generated and the nature of the emergency event. Vegetative material can be disposed of at a suitably licenced landfill (Class II or III). Depending on the type of emergency, resource recovery options such as composting (Category 67A) may be viable. For large scale events involving animal or plant: pests or disease, Local Government will need to liaise with the Hazard Management Agency (the Department of Primary Industries and Regional Development).			

Scrap Metal Management

Scrap metal is defined as material that includes both ferrous and non-ferrous metals. In managing this waste stream, preference should be given to resource recovery and recycling rather than disposal. In managing vehicles, special consideration needs to be given to the resolution of insurance and registration issues, prior to collection.

Table 5: Scrap Metal (Note: The information provided in this table is not an exhaustive list of scrap metal).

	→Waste Management Activities→				
	Address Hazards	**Collect**	**Transport**	**Temporary Storage**	**Monitor, Treat (recycle / dispose)**
Damaged and/or displaced vehicles **Electronic appliances, white goods** **Fencing** **Aluminium window and door frames** **Corrugated metal sheeting**	Refer to Table 1. Items containing refrigerants must be degassed prior to recovery or disposal. Materials such as oil / fuel / gas must be removed prior to recycling or disposal.	**Option 1** To facilitate resource recovery, establish aggregation points where households and/or businesses can dispose of 'like' materials. **Option 2** Consideration could be given to the provision of dedicated scrap metal collection services for damaged material, using clearly defined and communicated parameters (e.g. tonnages, zones, material types).		Contact DWER licencing for advice on site specifications for a new temporary facility and/or licence amendments to an existing transfer station or other waste management facility.	Scrap metal can be processed by scrap metal recyclers (Category 47). Where no recovery options are available, dispose at a waste facility that is legally able to accept this material *(EP Act and Regs).*

Construction and Demolition Waste Management

These materials orginate from structural damage to infrastructure and the built environment. Depending on the type of emergency event, there is a possibility that this material is recyclable. However, Local Government must ensure that hazards such as asbestos are removed prior to collection.

Table 6: Construction and Demolition Waste (Note: The information provided in this table is not an exhaustive list of construction and demolition waste).

	→Waste Management Activities→			
	Collect	**Transport**	**Temporary Storage**	**Monitor, Treat (recycle / dispose)**
Inert materials (Inert waste, DWER Landfill Waste Classification and Waste Definitions)	The main consideration relating to collection, transport and storage for these materials is dust suppression. This can be addressed by ensuring loads are covered. Ensure transport is undertaken by a suitable vehicle.			These materials can be crushed and screened for use as a recycled construction product such as road base (Category 13). Where no recovery options are available, dispose at a waste facility that is legally able to accept this material: -Class I, II, III and IV landfills can accept Inert Waste Type 1. -Potentially Class I, II III and IV landfills can potentially accept Inert Waste Type 2. -Potentially Class I landfill can accept Inert Waste Type 3. *(EP Act and Regs).*
Timber	Refer to Table 3.			

(Putrescible waste, DWER Landfill Waste Classification and Waste Definitions)	
Scrap metal	Refer to Table 5.

3.0 Phase 2: Planning – Establish a Multidisciplinary Team

The Framework (Figure 1) is designed to inform Local Government emergency management planning, and decision making on the level and type of involvement that a Local Government will have in waste management related recovery activities. The Framework links Local Government with relevant sources of information, providing guidance on the development of resources that can be included in a LEMA and/or Recovery Plan and reviewed as per the process outlined in the State EM Procedure[7].

Establishing a Multidisciplinary Team
The first part of the planning process is to establish a multi-disciplinary team. This approach is more likely to result in creative solutions and useful resources that improve how waste management is addressed when undertaking prevention, response and recovery activities. This approach also ensures that staff from across the organisation have an understanding of both emergency and waste management processes, and assists with identifying expectations and establishing lines of communication between decision makers and operational areas. An understanding of the waste management system could influence how a Local Government chooses to engage with the Comprehensive Impact Assessment (CIA) process.

The Framework (Figure 1) provides a suggested structure for the multi-disciplinary team, where representatives from various operational areas provide input on each specific consideration. Ideally, the team should include representatives (or be able to bring in representatives) who have an understanding of, and responsibility for, the following areas:

- Contract management
- GIS and/or Records Management
- Emergency Management
- Environmental Health
- Finance
- Human Resources
- Marketing
- Operational services (e.g. parks and gardens, works)
- Occupational Health and Safety
- Structural Engineering and Building Surveying
- Waste Management.

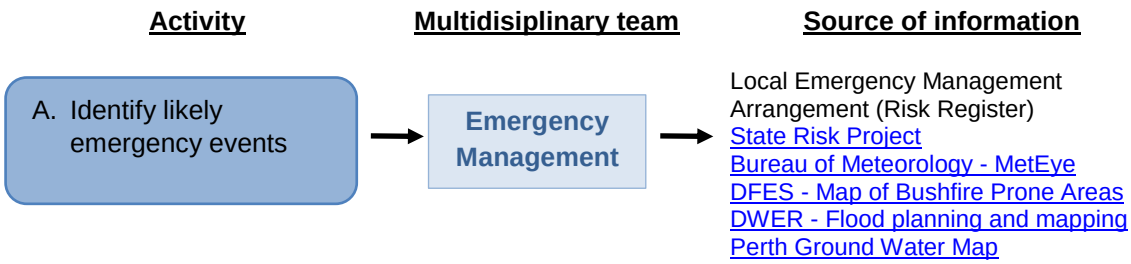
Feedback from Local Government has highlighted the importance of senior management involvement in the team. There may also be benefit in reviewing existing Agreements,

[7] State EM Procedure (May 2018). Available online. https://www.oem.wa.gov.au/resources/legislation-and-policy-framework/procedure.

Understandings and Commitments that have been entered into with other Local Governments. Particularly those relating to resource sharing arrangements and the management of volunteers. Local Governments that are members of Regional Councils undertaking waste management activities, should also establish what capacity these organisations have to assist in informing prevention, response and recovery activities and if formalised agreements for waste management are appropriate.

Case Study – Shire of Augusta Margaret River
To demonstrate how the Framework can be used in practice, a worked example is provided with resources specific to Shire of Augusta-Margaret River. Where possible, an assessment has been made of the resources available within the area subject to the *Memorandum of Understanding: Member Councils of the South West Zone Western Australian Local Government Association for the provision of mutual aid during emergencies and post incident recovery (2015-2018)*. This agreement includes the Shires of Augusta-Margaret River, Boyup Brook, Bridgetown-Greenbushes, Capel, Collie, Dardanup, Donnybrook-Balingup, Harvey, Manjimup, Shire of Nannup and the Cities of Bunbury and Busselton.

3.1 Identify Likely Emergency Events



Aim: Identify the most significant and likely emergency event that could occur in the Local Government area.

Approach
As per the legislative requirements of the *Emergency Management Act 2005*, a Local Emergency Management Arrangement (LEMA) must contain a description of emergencies that are likely to occur in the Local Government district. Local Governments should base all waste planning activities on an emergency event that has already been identified as most likely to occur, and/or have a significant impact in terms of recovery.

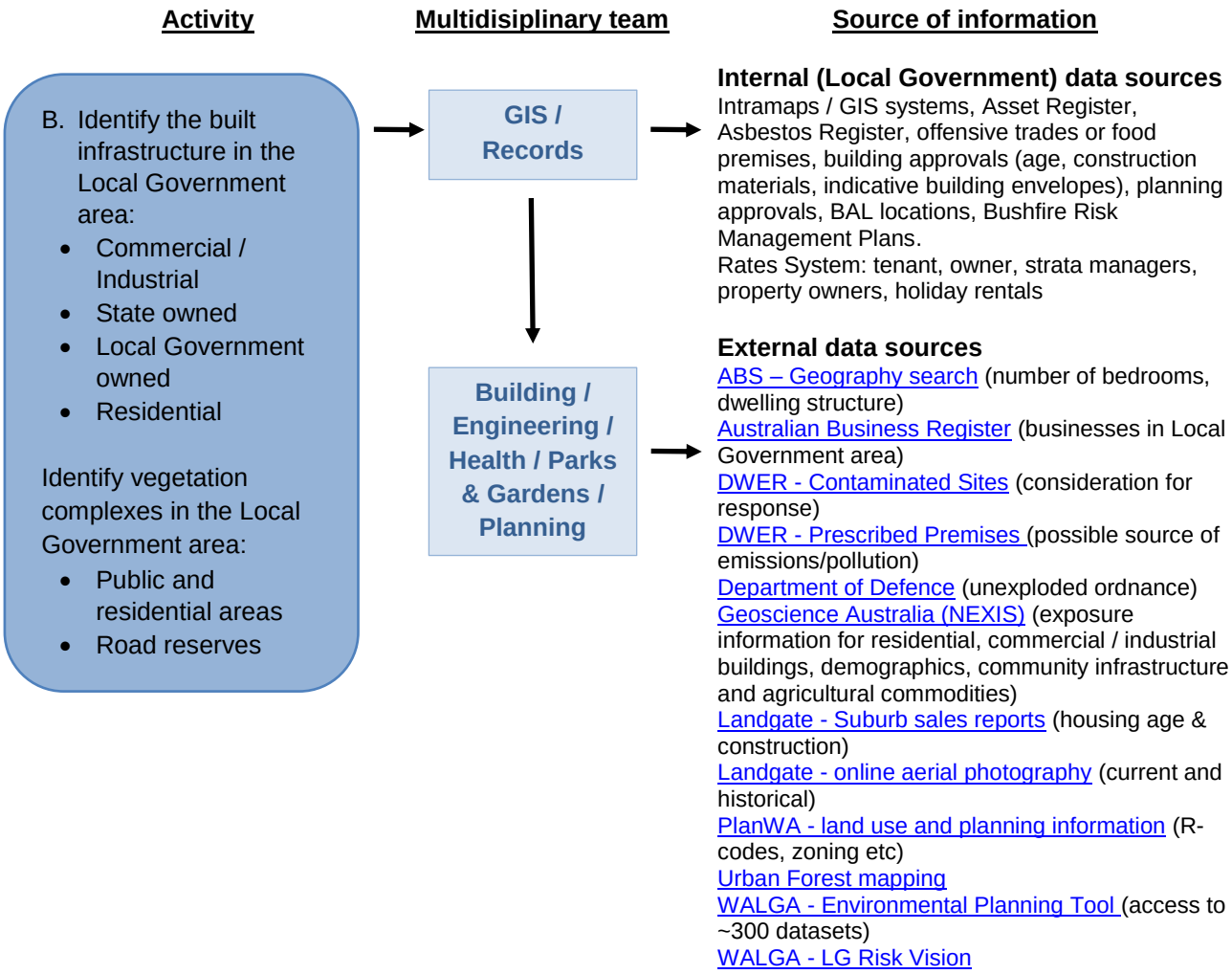
Rationale
By focusing on a likely event, Local Governments will be able to establish relevant processes to identify likely waste types, volumes and solutions that complement existing initiatives.

Outcome for Capacity Statement:
- Identify an emergency event that is most likely to occur, and/or have a significant impact in recovery.

Case Study – Shire of Augusta Margaret River

Worked Example:
Bushfire has been identified as the most likely emergency event. The type and amount of waste generated in previous events has caused considerable issues

3.2 Identify Infrastructure in the Local Government Area



Aim: Identify the built infrastructure and vegetation complexes in the Local Government area.

Approach
The datasets available to, and used by, individual Local Governments to identify aspects of built infrastructure and the natural environment vary considerably. To accommodate these differences, a flexible approach has been taken in the development of this stage of the planning process. Local Governments are encouraged to identify and assess available sources of information and determine how this information could be used to inform / improve prevention, response and recovery activities. Information on how to access certain resources is included in Appendix 2.

Rationale
Information on the natural environment, type of infrastructure, year of construction, material used, and approximate construction and replacement costs can inform the design of targeted prevention initiatives, alert responders to potential hazards at an incident, and inform decisions on how best to manage waste in recovery.

Prevention: Identifying facilities / infrastructure where Hazardous Materials may be present, facilitates the assessment of compliance with bushfire safety requirements, such as firebreaks and emergency access.

Response: Identifying facilities / infrastructure where Hazardous Materials may be present, allows Local Government to determine if specialist skills and equipment are required in response, and recovery.

Recovery: Information on built infrastructure and the natural environment can be used to negotiate positive outcomes throughout the Comprehensive Impact Assessment and procurement processes, by ensuring:

- Hazards are correctly identified and contained
- An accurate scope of works can be developed based on the scale and type of debris likely to be encountered in recovery.

Datasets on vegetation complexes can be used to estimate the quantity of greenwaste that will be generated in an emergency event, based on rates of tree cover and vegetation. This information can inform decisions on the allocation of resources to clear public areas and road reserves in recovery.

Data sets relating to the built environment (e.g. Asset Register, ABS and Landgate), can provide information on the age of structures. This can be used to model the likelihood of asbestos. An understanding of the housing stock and local businesses in the Local Government area will also assist in determining what wastes are likely to be generated (Step C). The Australian Business Register[8] can be used to identify businesses where Hazardous Material may be present, or generated in an emergency. The DWER search function for licenced prescribed premises can be used to identify potential sources of Hazardous Material, and emissions/pollution in response and recovery.

Outcome for Capacity Statement:

- To be attached to the Local Government LEMA – a resource which includes:
  Prevention:
    - A list of high risk facilities and potential sources of Hazardous Materials that can be used to design targeted compliance activities on bushfire safety requirements, such as clearing firebreaks and emergency access.

  Response:
    - A list of potential sources of Hazardous Materials, which would require specialist skills and equipment in response and recovery.

  Recovery:

[8] Australian Business Register (May 2018). ABR data aids disaster response and recovery. Available online. https://abr.gov.au/Media-centre/Fact-sheets/ABR-data-aiding-disaster-response-and-recovery/.

- A model of vegetation complexes which may impact on road access and community infrastructure
- A waste estimation tool that can be used to model types and volumes of waste likely to be generated in an emergency, including Hazardous Materials (e.g. asbestos) (refer to Step C)
- Waste disposal/processing facilities that can manage various waste streams (refer to Step E).

Case Study – Shire of Augusta Margaret River

Worked Example:
The GIS system at the Shire of Augusta Margaret River has been used to map a number of potential hazards to inform bush fire preparedness and response activities, including:

- Bushfire Prone areas
- BAL locations
- Firebreak inspections
- FMP Firebreaks
- Emergency Fire Points
- Indicative building envelope
- Assetic emergency water
- Scheduled and completed burns
- Contaminated sites
- Indigenous sites
- Vegetation, remnant, forest and other
- Buildings on farms
- LG buildings and assets

There is a possibility that this approach could be expanded in the future to inform recovery activities. The Shire has indicated that it may create a register of structures where asbestos has been identified in the community. This could ultimately inform the activities of emergency response teams, and awareness raising activities on insurance considerations.

Figure 4 provides an example of how buildings with asbestos can be identified through the Shire's GIS system. Red marks indicate where the term 'asbestos' was included in a building approval description. The orange marks indicate if a building was constructed between1950 – 1981, a time period when asbestos was commonly used in construction. Although there are limitations with the data used to generate this resource, it establishes a starting point to identify certain hazards.

Figure 4: Properties potentially containing asbestos.

3.3 Identify Potential Waste Arising from Likely Events and Infrastructure

Activity	Multidisiplinary team	Source of information
C. Identify potential wastes arising from likely events & the potential impact on built infrastructure: • Amount / volume • Type: hazardous non hazardous	→	**Potential Impact of Waste** Assess potential issues by applying the waste estimation tool to the built infrastructure (B) in areas affected by likely emergency events (A). **State Project** – Waste Estimation Tool (coming soon)

Aim: Identify the amount and type of hazardous and non-hazardous waste likely to be generated from specific emergency events and infrastructure.

Approach

Using the emergency event identified in Step A, it is possible to determine specific characteristics of waste that could be generated. The State Government is undertaking a project which is closely aligned to the WALGA project. This project has identified generic waste types and a waste estimation tool. The tool estimates the quantities of waste generated by emergency events and includes:

- Waste quantity estimator for residential building destruction (total tonnes & tonnes by waste stream)
- Waste quantity estimator for commercial building destruction

- Waste quantity estimator for road destruction, and
- Waste quantity estimator for animal mortalities.

Guidance has also been produced that will assist with the establishment of temporary storage sites in terms of siting, approvals and operation, including:

- Site Identification and Suitability Matrix
- Guidelines for operation
- Guidelines for closure

It is suggested that Local Government practices using the waste estimation tool, prior to an emergency event.

Rationale
The outputs from the waste estimation tool will assist Local Governments with negotiating positive outcomes throughout the Comprehensive Impact Assessment and procurement processes, by ensuring:

- Hazards are correctly identified and contained
- An accurate scope of works can be developed based on the scale and type of debris likely to be encountered in recovery.

Outcome for Capacity Statement:

- To be attached to the Local Government LEMA – a resource which includes:
  - The special considerations relating to the management of the waste that is likely to be generated from the type of emergency event identified in Step A
  - A waste estimation tool that can be used to model types and volumes of waste likely to be generated in an emergency, including Hazardous Materials (e.g. asbestos).

Case Study – Shire of Augusta Margaret River

Worked Example:
Will be completed when the State Project is finalised.

3.4 Identify Internal Local Government Capacity

Activity	Multidisiplinary team	Source of information
D. Identify internal Local Government capacity: • Expertise & Staffing • Equipment • Funding • Communication	**AS ABOVE (+) Contract Management / Finance / HR / Marketing / OHS / Works & Services / Rangers / Waste Management**	**Internal (Local Government) data sources** **Expertise & Staffing:** Delegations Register, HR **Equipment:** Resources schedule of the LEMA, Asset Management Plans, Financial Plans **Funding:** Local Government Financials **Communication:** Existing documentation

3.4.1 Expertise & Staffing

Aim: Identify the applied skills and knowledge of staff that could potentially undertake waste management related activities in recovery.

Approach
Local Governments are encouraged to identify staff from across the organisation that could *potentially* deliver waste management activities using the following approaches:

- Ensuring waste generators manage debris in a lawful manner (by communicating expectations and providing regulatory oversight)
- Providing information to waste generators on how different types of waste can be recycled/disposed
- Coordinating the activities of waste management contractors (by using existing procurement mechanisms)
- Directly managing the waste (by using existing resources).

This could include staff from community development, environmental health, finance/procurement, media, human resources and waste management operational areas.

Using the list of applied skills and knowledge provided in Table 7 and Table 8, it is possible to identify what capacity exists across the Local Government, along with areas of potential gaps. As noted in Section 3.0, this activity will need to be undertaken regularly to accommodate staff turnover and changes to the powers provided to delegated and/or authorised officers under relevant legislation.

In addition to technical waste management skills, staff will also need to be able to communicate effectively with a variety of stakeholders. In recovery, staff will need to demonstrate empathy when communicating with affected parties. It is suggested that additional training is provided to those staff who will have a role interacting with the community, to further develop these skills.

There are resources available to assist Local Governments with upskilling staff. For example, training provided by WALGA[9]. The State Government has developed tools, plans and templates to assist Local Government in communication in recovery.

Table 7: Delegated / authorised officers for activities including entering residential and commercial premises, issuing a notice, undertaking works and recovering costs.

Number of Delegated / Authorised officers	Legislative framework (please list limitations where relevant)
	Bush Fires Act 1954
	Emergency Management Act 2005
	Environmental Protection Act 1986

[9] WALGA (2018). Emergency Management Courses. Available online. https://walga.asn.au/Training/Our-Courses/Emergency-Management-Courses.aspx.

	(Specific sections of the Act which Officers are Authorised under)
	Local Government Act 1995
	Health (Miscellaneous Provisions) Act 1911 / Public Health Act 2016
	Local Laws (please list)

Table 8: Applied skills and knowledge required for a Local Government to undertake waste management activities in recovery (to be developed in consultation with Local Government).

Approaches	Applied skills and knowledge available in Local Governments (Number of FTE)
Ensuring waste generators manage debris in a lawful manner (by communicating expectations and providing regulatory oversight)	**Environmental Health Officer** **Ranger** **Communications**
Providing information to waste generators on how different types of waste can be recycled/disposed	**Communications** **Waste Management**
Coordinating the activities of waste management contractors (by using existing procurement mechanisms)	**Communications** **Waste Management** **Procurement** **Contract Management**
Directly managing the waste (by using existing resources)	**Communications** **Waste Management**

Rationale
Local Governments need to identify applied skills and knowledge to make an informed decision on the approach that it will take to address waste management considerations in recovery (refer to Section 5). By identifying potential gaps, the Local Government can investigate potential solutions, such as investing in training, using suitably qualified local contractors for certain activities and/or requesting assistance from other Local Governments and State agencies. It is important that Local Governments adopt a consistent approach to the identification of applied skills and knowledge, to allow for effective resource sharing through existing agreements, understanding and commitments with other Local Governments.

Local Government officers should only undertake activities that align with their applied skills and knowledge. If there is an expectation that certain staff will undertake activities outside of their job description or training, this must be agreed and negotiated. This is essential, as emergency situations can result in the assignment of tasks without full consideration of potential impacts and liabilities. The establishment of a multi-disciplinary team could be one way to address this potential issue.

Outcome for Capacity Statement:
To be attached to the Local Governments LEMA – a resource which includes:

- A complete list of applied skills and knowledge that are relevant to waste management activities.

3.4.2 Equipment

Aim: Identify Local Government owned equipment that could potentially be used for waste management activities.

Approach
It is suggested that the multidisciplinary team investigates what equipment is used across the entire organisation, to identify equipment which is, or could potentially be used for waste management activities. There is also a need to consider what equipment could be used in potentially challenging situations (e.g. power not available). It is suggested that the team first reviews the current resources schedule of the LEMA, then cross references against Asset Management Plans and Financial Plans (where applicable) to assess waste management capabilities. Local Government financial management systems should contain information on depreciation of assets. This will assist with the identification of available equipment and the life of the equipment. For example:

- **Waste Management:** front end loaders, fork lifts, skid steer, hook bins, compactors
- **Infrastructure:** Road building equipment, trucks
- **Parks and Gardens:** chain saws, mulchers, generators.

Rationale
By identifying what equipment is available in recovery, a Local Government will be able to determine if it can physically undertake recovery, or if it requires external assistance.

Outcome for Capacity Statement
To be attached to the Local Government LEMA – a resource which includes:

- A list of equipment available to the Local Government that could potentially be used for waste management activities.

Case Study – Shire of Augusta Margaret River

Worked Example: Confidential.

3.4.3 Funding

Aim: To ensure funding processes and options available to Local Government for recovery are clearly identified.

Approach – Local Government funding
If an emergency event is such that a Local Government provides funds for recovery, it is highly likely that this expense would not have been accounted for in the usual budgetary process. Individual council budgets vary greatly and Local Governments can quickly meet budget thresholds even from small scale events. In these cases, Local Governments may need to borrow money to cover this expenditure if no other means is available.

For a proclaimed natural disaster event, WANDRRA funding is potentially available to undertake certain waste management activities, with up-front costs paid by a Local Government and reimbursed after the fact[10]. For unbudgeted funds to be accessed, an approval process is required (outlined in Appendix 3). It is suggested that Local Governments establish a specific process to ensure that legislatives requirements are met.

Rationale
There is a clear process in the *Local Government Act* for funds to be accessed which Local Governments need to comply with. Establishing a specific policy that is referenced in the LEMA, will ensure the Local Government meets its regulatory obligations.

Approach – Local Government cost recovery
Certain legislation provides Local Government with the ability (in certain situations) to issue notices, undertake works and recover the costs of doing so. Specific processes must be followed when using this approach to facilitate waste management activities in recovery. Therefore the Local Government needs to clearly identify and review the specific processes for each Act prior to any action being taken

Examples include the *Local Government Act 1995* and the *Health (Miscellaneous Provisions) Act 1911.* Further information is provided in the MM1 Research Report (available online).

Rationale
This approach is to ensure Local Government is acting within the authority that is it provided with under specific legislation.

Approach – WANDRRA funding
If the emergency event is of such as scale that WANDRRA is activated there are a range of considerations in relation to funding, these include:

- Does the Local Government have the capacity to pay the upfront costs associated with waste management activities?
- Are there any issues if refund of such payment is delayed?
- For the WANDRRA – Local Governments must contribute 1% of Total Rates Levied, this amount is calculated annually.

[10] Office of Emergency Management (2017). Western Australia Natural Disaster Relief and Recovery Arrangements (WANDRRA). Available online. https://www.oem.wa.gov.au/funding/wandrra.

- Is the Local Government aware of the most contemporary advice about what are eligible expenses through WANDRRA?
- Is the Local Governments record keeping system sufficient to meet the requirements for eligible expenses through WANDRRA?

Outcome for Capacity Statement
To be referenced/included in the Local Government LEMA:
- A policy for authorising unbudgeted expenditure, to meet legislative requirements, is put in place.
- The funding that the Local Government has set aside for emergency management response and recovery activities.

Case Study – Shire of Augusta Margaret River

Worked Example:
To be completed in consultation with the Shire.

3.4.4 Communication

Aim: To ensure information about waste management is communicated efficiently and effectively in in terms of prevention, response and recovery.

Approach
Consideration must be given to what information on waste management will be provided to the community to facilitate good outcomes in terms of prevention, response and recovery. There is also a need to consider what platforms can be used to distribute information in potentially challenging situations. The suggested approach is to:
- Establish relevant prevention communications
- Identify what platforms and approaches will be used to communicate waste management information to the community in response and recovery
- Identify other stakeholders and how communication will be undertaken with these groups, for example State Government agencies and charitable organisations
- Identify the type of information that a Local Government will provide in response and recovery, including:
    - Outlining the process that will be used to recover personal belongings
    - Roles and responsibilities allocated to various waste generators (home owners / business owners / Local Government / State Government)
    - Expectations on those responsible for managing waste (acceptable waste management practices, hazards that will be encountered, the importance of using of licenced contractors)
    - What options are available for the management of waste, including where material should be taken and what assistance is available. This includes providing information on charitable organisations (e.g. GIVIT, Red Cross).

The State Government has developed tools, plans and templates to assist Local Government in communication in recovery.

Rationale
Clear and consistent communication is vital for the effective management of waste:

Prevention
Opportunities exist for Local Government to provide information prior to an event on insurance considerations and roles and responsibilities of waste generators in recovery.

Response and Recovery
Opportunities also exist to develop resources prior to an event that can be used to communicate expectations that waste generators manage debris in a lawful manner, and provide information to waste generators on how different materials must be managed.

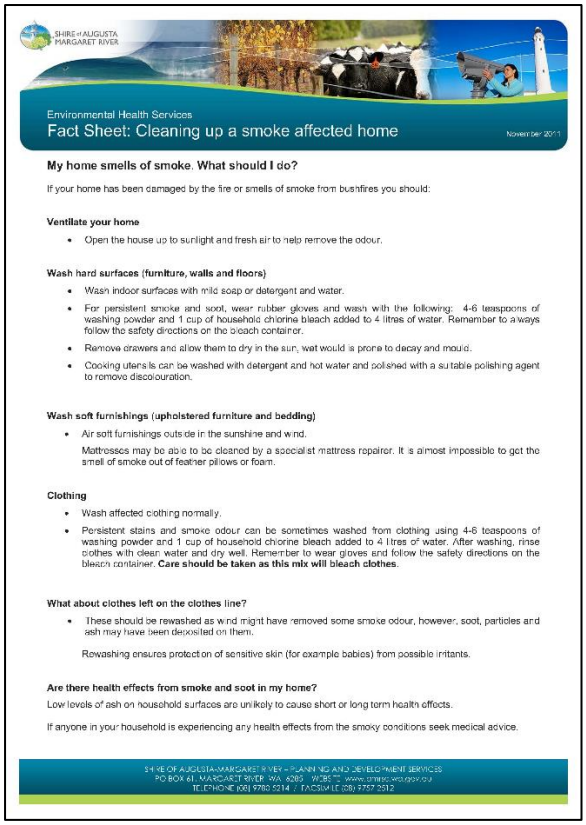
It is suggested the Local Governments establish a process where affected parties register to obtain assistance with waste management activities. This allows waste to be tracked from the source to final destination, fulfilling the eligibility requirements of external sources of funding and that ensuring that Hazardous Materials are managed correctly. This approach also provides an opportunity to identify if properties are insured and who is responsible for clean-up costs. If the owner cannot be located, then the Local Government will have to make a decision if access to the property and the commencement of works will be pursued through the 'business as usual' legislative framework (summarised in Section 1.1 of this Report).

Outcome for Capacity Statement:
To be attached to the Local Governments LEMA – a resource which includes:

- The approach to communication and information provision.

Case Study – Shire of Augusta Margaret River

Worked Example:
The Shire of Augusta Margaret River has developed a number of resources as a result of previous emergency events. The worked example also includes a specific reference in the LEMA to GIVIT and the management of donations. Figures 5 to 12 provide examples of these resources.



Environmental Health Services

Fact Sheet: Cleaning up a smoke affected home

November 2011

My home smells of smoke. What should I do?

If your home has been damaged by the fire or smells of smoke from bushfires you should:

Ventilate your home

- Open the house up to sunlight and fresh air to help remove the odour.

Wash hard surfaces (furniture, walls and floors)

- Wash indoor surfaces with mild soap or detergent and water.
- For persistent smoke and soot, wear rubber gloves and wash with the following: 4-6 teaspoons of washing powder and 1 cup of household chlorine bleach added to 4 litres of water. Remember to always follow the safety directions on the bleach container.
- Remove drawers and allow them to dry in the sun, wet would is prone to decay and mould.
- Cooking utensils can be washed with detergent and hot water and polished with a suitable polishing agent to remove discolouration.

Wash soft furnishings (upholstered furniture and bedding)

- Air soft furnishings outside in the sunshine and wind.

  Mattresses may be able to be cleaned by a specialist mattress repairer. It is almost impossible to get the smell of smoke out of feather pillows or foam.

Clothing

- Wash affected clothing normally.
- Persistent stains and smoke odour can be sometimes washed from clothing using 4-6 teaspoons of washing powder and 1 cup of household chlorine bleach added to 4 litres of water. After washing, rinse clothes with clean water and dry well. Remember to wear gloves and follow the safety directions on the bleach container. **Care should be taken as this mix will bleach clothes.**

What about clothes left on the clothes line?

- These should be rewashed as wind might have removed some smoke odour, however, soot, particles and ash may have been deposited on them.

  Rewashing ensures protection of sensitive skin (for example babies) from possible irritants.

Are there health effects from smoke and soot in my home?

Low levels of ash on household surfaces are unlikely to cause short or long term health effects.

If anyone in your household is experiencing any health effects from the smoky conditions seek medical advice.

SHIRE OF AUGUSTA-MARGARET RIVER – PLANNING AND DEVELOPMENT SERVICES
PO BOX 41, MARGARET RIVER WA 6285 WEBSITE www.amshire.wa.gov.au
TELEPHONE (08) 9780 5214 / FACSIMILE (08) 9757 2512

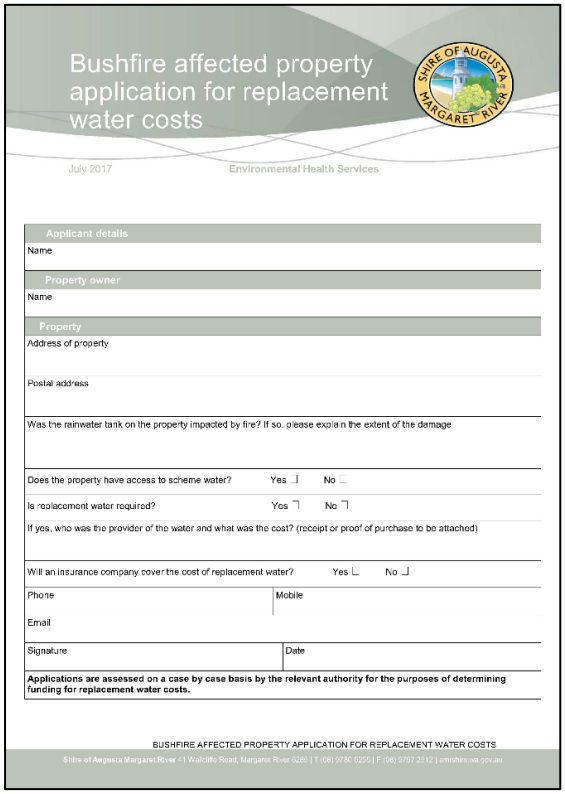
Your doctor

If you or anyone in your household is experiencing any health effects from the smoky conditions seek medical advice from your doctor.

For further information please contact Shire's Environmental Health Services on 08 9780 5255 or visit: http://www.amrshire.wa.gov.au

SHIRE OF AUGUSTA MARGARET RIVER – PLANNING AND DEVELOPMENT SERVICES
PO BOX 41, MARGARET RIVER WA 6285 WEBSITE www.amshire.wa.gov.au
TELEPHONE (08) 9780 5214 / FACSIMILE (08) 9757 2512

Figure 5: Factsheet - Cleaning up a smoke affected home.



Bushfire affected property application for replacement water costs

July 2017

Environmental Health Services

Applicant details

Name

Property owner

Name

Property

Address of property

Postal address

Was the rainwater tank on the property impacted by fire? If so, please explain the extent of the damage

Does the property have access to scheme water? Yes ☐ No ☐

Is replacement water required? Yes ☐ No ☐

If yes, who was the provider of the water and what was the cost? (receipt or proof of purchase to be attached)

Will an insurance company cover the cost of replacement water? Yes ☐ No ☐

Phone | Mobile

Email

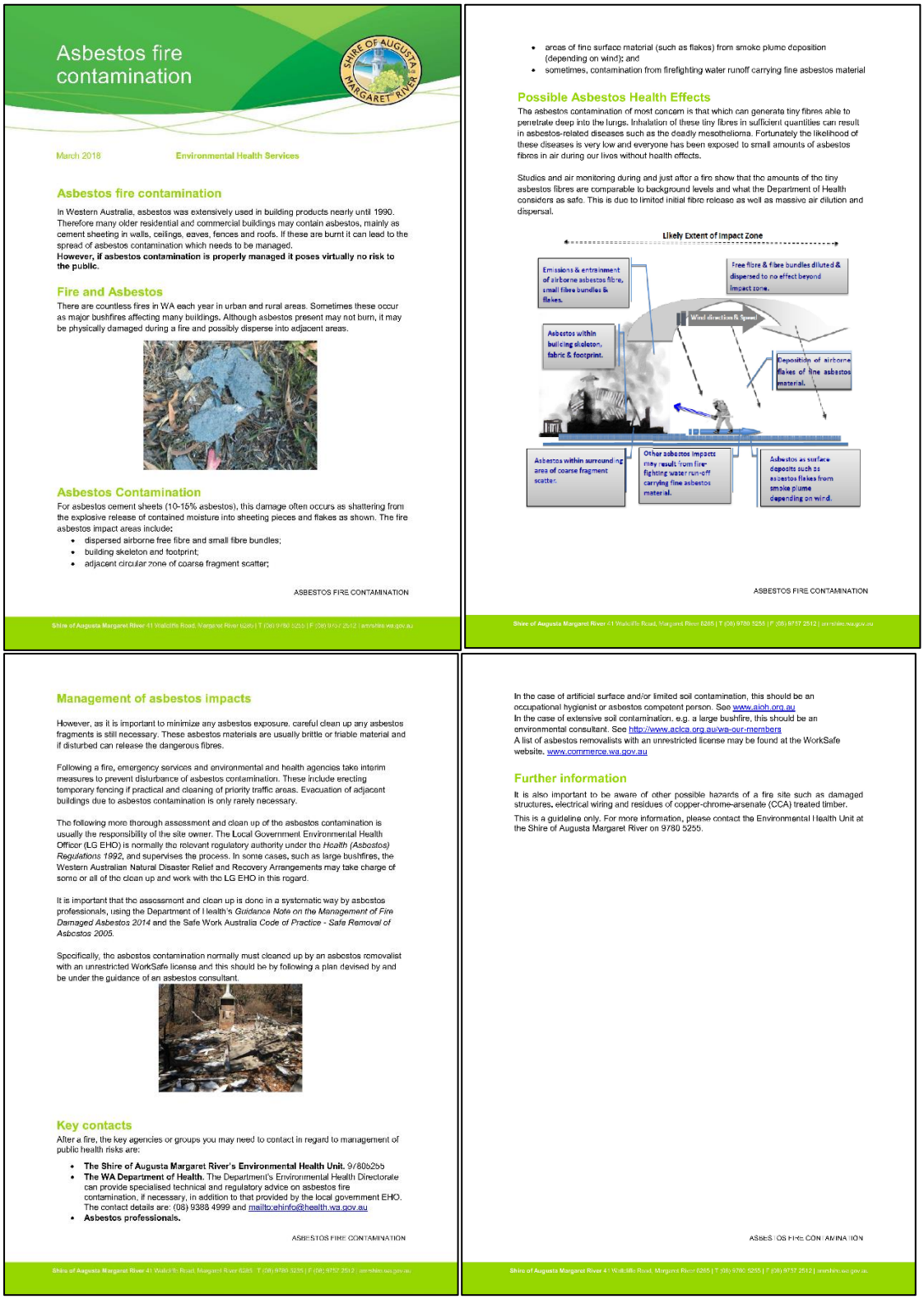
Signature | Date

Applications are assessed on a case by case basis by the relevant authority for the purposes of determining funding for replacement water costs.

BUSHFIRE AFFECTED PROPERTY APPLICATION FOR REPLACEMENT WATER COSTS

Shire of Augusta Margaret River 41 Wallcliffe Road, Margaret River 6285 | T (08) 9780 5255 | F (08) 9757 2512 | amrshire.wa.gov.au

Figure 6: Application Form – Replacement Water Costs.



Asbestos fire contamination

March 2018 Environmental Health Services

Asbestos fire contamination

In Western Australia, asbestos was extensively used in building products nearly until 1990. Therefore many older residential and commercial buildings may contain asbestos, mainly as cement sheeting in walls, ceilings, eaves, fences and roofs. If these are burnt it can lead to the spread of asbestos contamination which needs to be managed.
However, if asbestos contamination is properly managed it poses virtually no risk to the public.

Fire and Asbestos

There are countless fires in WA each year in urban and rural areas. Sometimes these occur as major bushfires affecting many buildings. Although asbestos present may not burn, it may be physically damaged during a fire and possibly disperse into adjacent areas.

Asbestos Contamination

For asbestos cement sheets (10-15% asbestos), this damage often occurs as shattering from the explosive release of contained moisture into sheeting pieces and flakes as shown. The fire asbestos impact areas include:

- dispersed airborne free fibre and small fibre bundles;
- building skeleton and footprint;
- adjacent circular zone of coarse fragment scatter;

ASBESTOS FIRE CONTAMINATION

Shire of Augusta Margaret River 41 Wallcliffe Road, Margaret River 6285 | T (08) 9780 5255 | F (08) 9757 2512 | amrshire.wa.gov.au

- areas of fine surface material (such as flakes) from smoke plume deposition (depending on wind); and
- sometimes, contamination from firefighting water runoff carrying fine asbestos material

Possible Asbestos Health Effects

The asbestos contamination of most concern is that which can generate tiny fibres able to penetrate deep into the lungs. Inhalation of these tiny fibres in sufficient quantities can result in asbestos-related diseases such as the deadly mesothelioma. Fortunately the likelihood of these diseases is very low and everyone has been exposed to small amounts of asbestos fibres in air during our lives without health effects.

Studies and air monitoring during and just after a fire show that the amounts of the tiny asbestos fibres are comparable to background levels and what the Department of Health considers as safe. This is due to limited initial fibre release as well as massive air dilution and dispersal.

ASBESTOS FIRE CONTAMINATION

Shire of Augusta Margaret River 41 Wallcliffe Road, Margaret River 6285 | T (08) 9780 5255 | F (08) 9757 2512 | amrshire.wa.gov.au

Management of asbestos impacts

However, as it is important to minimize any asbestos exposure, careful clean up any asbestos fragments is still necessary. These asbestos materials are usually brittle or friable material and if disturbed can release the dangerous fibres.

Following a fire, emergency services and environmental and health agencies take interim measures to prevent disturbance of asbestos contamination. These include erecting temporary fencing if practical and cleaning of priority traffic areas. Evacuation of adjacent buildings due to asbestos contamination is only rarely necessary.

The following more thorough assessment and clean up of the asbestos contamination is usually the responsibility of the site owner. The Local Government Environmental Health Officer (LG EHO) is normally the relevant regulatory authority under the *Health (Asbestos) Regulations 1992*, and supervises the process. In some cases, such as large bushfires, the Western Australian Natural Disaster Relief and Recovery Arrangements may take charge of some or all of the clean up and work with the LG EHO in this regard.

It is important that the assessment and clean up is done in a systematic way by asbestos professionals, using the Department of Health's *Guidance Note on the Management of Fire Damaged Asbestos 2014* and the Safe Work Australia *Code of Practice - Safe Removal of Asbestos 2005*.

Specifically, the asbestos contamination normally must cleaned up by an asbestos removalist with an unrestricted WorkSafe license and this should be by following a plan devised by and be under the guidance of an asbestos consultant.

Key contacts

After a fire, the key agencies or groups you may need to contact in regard to management of public health risks are:

- **The Shire of Augusta Margaret River's Environmental Health Unit.** 9780 5255
- **The WA Department of Health.** The Department's Environmental Health Directorate can provide specialised technical and regulatory advice on asbestos fire contamination. If necessary, in addition to that provided by the local government EHO. The contact details are: (08) 9388 4999 and mailto:ehinfo@health.wa.gov.au
- **Asbestos professionals.**

ASBESTOS FIRE CONTAMINATION

Shire of Augusta Margaret River 41 Wallcliffe Road, Margaret River 6285 | T (08) 9780 5255 | F (08) 9757 2512 | amrshire.wa.gov.au

In the case of artificial surface and/or limited soil contamination, this should be an occupational hygienist or asbestos competent person. See www.aioh.org.au
In the case of extensive soil contamination, e.g. a large bushfire, this should be an environmental consultant. See http://www.aclca.org.au/wa-our-members
A list of asbestos removalists with an unrestricted license may be found at the WorkSafe website, www.commerce.wa.gov.au

Further information

It is also important to be aware of other possible hazards of a fire site such as damaged structures, electrical wiring and residues of copper-chrome-arsenate (CCA) treated timber.

This is a guideline only. For more information, please contact the Environmental Health Unit at the Shire of Augusta Margaret River on 9780 5255.

ASBESTOS FIRE CONTAMINATION

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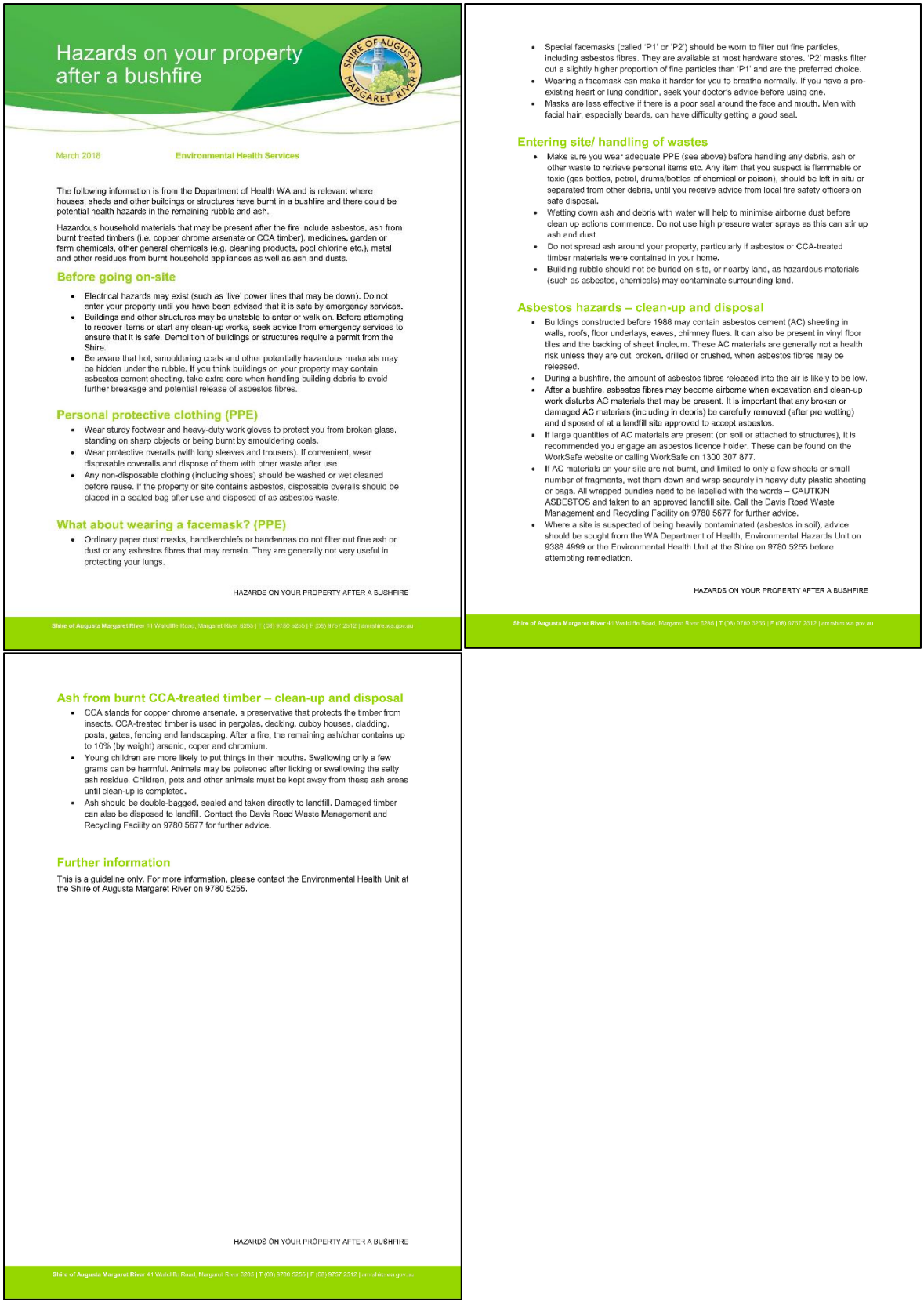
Figure 7: Factsheet – Asbestos Fire Contamination.



Hazards on your property after a bushfire

March 2018 **Environmental Health Services**

The following information is from the Department of Health WA and is relevant where houses, sheds and other buildings or structures have burnt in a bushfire and there could be potential health hazards in the remaining rubble and ash.

Hazardous household materials that may be present after the fire include asbestos, ash from burnt treated timbers (i.e. copper chrome arsenate or CCA timber), medicines, garden or farm chemicals, other general chemicals (e.g. cleaning products, pool chlorine etc.), metal and other residues from burnt household appliances as well as ash and dusts.

Before going on-site

- Electrical hazards may exist (such as 'live' power lines that may be down). Do not enter your property until you have been advised that it is safe by emergency services.
- Buildings and other structures may be unstable to enter or walk on. Before attempting to recover items or start any clean-up works, seek advice from emergency services to ensure that it is safe. Demolition of buildings or structures require a permit from the Shire.
- Be aware that hot, smouldering coals and other potentially hazardous materials may be hidden under the rubble. If you think buildings on your property may contain asbestos cement sheeting, take extra care when handling building debris to avoid further breakage and potential release of asbestos fibres.

Personal protective clothing (PPE)

- Wear sturdy footwear and heavy-duty work gloves to protect you from broken glass, standing on sharp objects or being burnt by smouldering coals.
- Wear protective overalls (with long sleeves and trousers). If convenient, wear disposable coveralls and dispose of them with other waste after use.
- Any non-disposable clothing (including shoes) should be washed or wet cleaned before reuse. If the property or site contains asbestos, disposable overalls should be placed in a sealed bag after use and disposed of as asbestos waste.

What about wearing a facemask? (PPE)

- Ordinary paper dust masks, handkerchiefs or bandannas do not filter out fine ash or dust or any asbestos fibres that may remain. They are generally not very useful in protecting your lungs.

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- Special facemasks (called 'P1' or 'P2') should be worn to filter out fine particles, including asbestos fibres. They are available at most hardware stores. 'P2' masks filter out a slightly higher proportion of fine particles than 'P1' and are the preferred choice.
- Wearing a facemask can make it harder for you to breathe normally. If you have a pre-existing heart or lung condition, seek your doctor's advice before using one.
- Masks are less effective if there is a poor seal around the face and mouth. Men with facial hair, especially beards, can have difficulty getting a good seal.

Entering site/ handling of wastes

- Make sure you wear adequate PPE (see above) before handling any debris, ash or other waste to retrieve personal items etc. Any item that you suspect is flammable or toxic (gas bottles, petrol, drums/bottles of chemical or poison), should be left in situ or separated from other debris, until you receive advice from local fire safety officers on safe disposal.
- Wetting down ash and debris with water will help to minimise airborne dust before clean up actions commence. Do not use high pressure water sprays as this can stir up ash and dust.
- Do not spread ash around your property, particularly if asbestos or CCA-treated timber materials were contained in your home.
- Building rubble should not be buried on-site, or nearby land, as hazardous materials (such as asbestos, chemicals) may contaminate surrounding land.

Asbestos hazards – clean-up and disposal

- Buildings constructed before 1988 may contain asbestos cement (AC) sheeting in walls, roofs, floor underlays, eaves, chimney flues. It can also be present in vinyl floor tiles and the backing of sheet linoleum. These AC materials are generally not a health risk unless they are cut, broken, drilled or crushed, when asbestos fibres may be released.
- During a bushfire, the amount of asbestos fibres released into the air is likely to be low.
- After a bushfire, asbestos fibres may become airborne when excavation and clean-up work disturbs AC materials that may be present. It is important that any broken or damaged AC materials (including in debris) be carefully removed (after pre wetting) and disposed of at a landfill site approved to accept asbestos.
- If large quantities of AC materials are present (on soil or attached to structures), it is recommended you engage an asbestos licence holder. These can be found on the WorkSafe website or calling WorkSafe on 1300 307 877.
- If AC materials on your site are not burnt, and limited to only a few sheets or small number of fragments, wet them down and wrap securely in heavy duty plastic sheeting or bags. All wrapped bundles need to be labelled with the words – CAUTION ASBESTOS and taken to an approved landfill site. Call the Davis Road Waste Management and Recycling Facility on 9780 5677 for further advice.
- Where a site is suspected of being heavily contaminated (asbestos in soil), advice should be sought from the WA Department of Health, Environmental Hazards Unit on 9388 4999 or the Environmental Health Unit at the Shire on 9780 5255 before attempting remediation.

HAZARDS ON YOUR PROPERTY AFTER A BUSHFIRE

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Ash from burnt CCA-treated timber – clean-up and disposal

- CCA stands for copper chrome arsenate, a preservative that protects the timber from insects. CCA-treated timber is used in pergolas, decking, cubby houses, cladding, posts, gates, fencing and landscaping. After a fire, the remaining ash/char contains up to 10% (by weight) arsenic, coper and chromium.
- Young children are more likely to put things in their mouths. Swallowing only a few grams can be harmful. Animals may be poisoned after licking or swallowing the salty ash residue. Children, pets and other animals must be kept away from these ash areas until clean-up is completed.
- Ash should be double-bagged, sealed and taken directly to landfill. Damaged timber can also be disposed to landfill. Contact the Davis Road Waste Management and Recycling Facility on 9780 5677 for further advice.

Further information

This is a guideline only. For more information, please contact the Environmental Health Unit at the Shire of Augusta Margaret River on 9780 5255.

HAZARDS ON YOUR PROPERTY AFTER A BUSHFIRE

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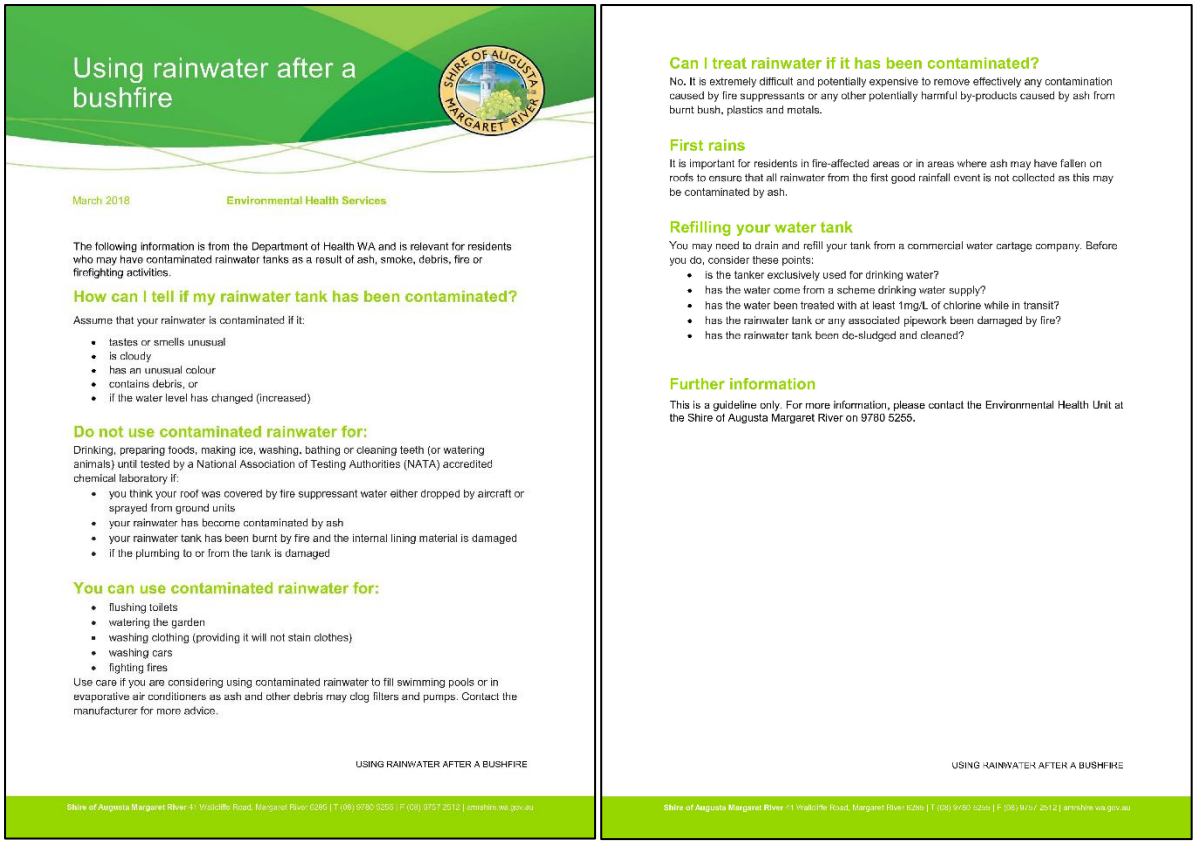
Figure 8: Factsheet – Hazards on your property after a bushfire.



Using rainwater after a bushfire

March 2018 **Environmental Health Services**

The following information is from the Department of Health WA and is relevant for residents who may have contaminated rainwater tanks as a result of ash, smoke, debris, fire or firefighting activities.

How can I tell if my rainwater tank has been contaminated?

Assume that your rainwater is contaminated if it:

- tastes or smells unusual
- is cloudy
- has an unusual colour
- contains debris, or
- if the water level has changed (increased)

Do not use contaminated rainwater for:

Drinking, preparing foods, making ice, washing, bathing or cleaning teeth (or watering animals) until tested by a National Association of Testing Authorities (NATA) accredited chemical laboratory if:

- you think your roof was covered by fire suppressant water either dropped by aircraft or sprayed from ground units
- your rainwater has become contaminated by ash
- your rainwater tank has been burnt by fire and the internal lining material is damaged
- if the plumbing to or from the tank is damaged

You can use contaminated rainwater for:

- flushing toilets
- watering the garden
- washing clothing (providing it will not stain clothes)
- washing cars
- fighting fires

Use care if you are considering using contaminated rainwater to fill swimming pools or in evaporative air conditioners as ash and other debris may clog filters and pumps. Contact the manufacturer for more advice.

USING RAINWATER AFTER A BUSHFIRE

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Can I treat rainwater if it has been contaminated?

No. It is extremely difficult and potentially expensive to remove effectively any contamination caused by fire suppressants or any other potentially harmful by-products caused by ash from burnt bush, plastics and metals.

First rains

It is important for residents in fire-affected areas or in areas where ash may have fallen on roofs to ensure that all rainwater from the first good rainfall event is not collected as this may be contaminated by ash.

Refilling your water tank

You may need to drain and refill your tank from a commercial water cartage company. Before you do, consider these points:

- is the tanker exclusively used for drinking water?
- has the water come from a scheme drinking water supply?
- has the water been treated with at least 1mg/L of chlorine while in transit?
- has the rainwater tank or any associated pipework been damaged by fire?
- has the rainwater tank been de-sludged and cleaned?

Further information

This is a guideline only. For more information, please contact the Environmental Health Unit at the Shire of Augusta Margaret River on 9780 5255.

USING RAINWATER AFTER A BUSHFIRE

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Figure 9: Factsheet – Using rainwater after a bushfire.

Environmental Health Services

Fact Sheet: Fire Redardants and Health

November 2011

Fire retardants and health

What are fire retardants?

Fire retardants are chemicals that slow the spread or intensity of a fire. They help fire fighters on the ground and are sometimes dropped from aircraft.

Short-term fire retardants are detergent chemicals mixed into foam. Long-term fire retarcants are chemicals that are mixed with water to form a slurry.

How do fire retardants work?

Long-term fire retardants are mixed with water before they are dispersed over the target area. When the water is completely evaporatec, the remaining chemical residue retarcs vegetation or other materials from igniting, until it is removed by rain or erosion. Fire retardants also work by binding to the plant material (cellulose) and preventing combustion.

Gels and foams are used to fight fires by preventing the water they are mixed with from evaporating easily. They coat the fuel (grass, trees and shrubs) and prevent or slow down combustion. A slurry of gel can be pumped over the fire and it immediately cools down the intense heat and puts out the fire.

What are fire retardants made of?

Long-term fire retardants are essentially fertilisers (ammonium and diammonium sulphate and ammonium phosphate), with thickeners (guar gum) and corrosion inhibitors (for aircraft safety). Sometimes a red coloured pigment, made from iron oxide, is added so that those spraying can see where they have released the fire retardant. Examples of long-term fire retardants include *Phos-Chek D75-F* and *Phos-Chek D75-R*.

Short-term fire retardant foams are made of a combination of wetting agents and foaming chemicals, mixed with water. This allows the water to penetrate surfaces more easily. Their usefulness is limited against high-intensity fires, where long-term retardants have proven more successful. Examples of short-term fire retardants include *Ansul Silv-Ex, Angus ForExpan S, Fire Quench, 3M Firebreak* and *Phos-Chek WD-881*.

What about aqua gels?

Super absorbent polymers (SAPs) can absorb high volumes of water relative to their own weight. In its concentrated powder form, SAPs can irritate eyes, airways and the skin. This does not occur after they have been mixed with water. When mixed with water the result is a gel-like substance which acts as a barrier against evaporation from heat. Gel fire retardants can be applied via aircraft or trucks as a firebreak, direct suppression or structure protection.

How do fire retardants work?

Long-term fire retardants are mixed with water before they are dispersed over the target area. When the water is completely evaporatec, the remaining chemical residue retarcs vegetation or other materials from igniting, until it is removed by rain or erosion. Fire retardants also work by binding to the plant material (cellulose) and preventing combustion.

SHIRE OF AUGUSTA-MARGARET RIVER – PLANNING AND DEVELOPMENT SERVICES
PO BOX 61, MARGARET RIVER WA 6285 WEBSITE www.amrc.wa.gov.au
TELEPHONE (08) 9780 0214 / FACSIMILE (08) 9757 2512

Gels and foams are used to fight fires by preventing the water they are mixed with from evaporating easily. They coat the fuel (grass, trees and shrubs) and prevent or slow down combustion. A slurry of gel can be pumped over the fire and it immediately cools down the intense heat and puts out the fire.

What about brominated flame retardants?

Polybrominated flame retardants (PBFRs) are a category of chemicals that are widely used in household and industrial items, including computers, electronics and electrical equipment, televisions, textiles, foam furniture, insulating foams, and other building materials They are sometimes also called fire retardants but are quite different from the chemicals described here and are not used in fighting bushfires.

What about environmental effects?

Although not a lot of research has been done in this area, the current evidence does not suggest any significant effects on birds or mammals. However, in Australia, long-term fire retardants have been observed to cause effects on some species of native plants (leading to low level damage to new growth). Water plants and animals are more sensitive to the effects of fire retardants; foams in particular can be moderately toxic to aquatic life. For this reason, pilots try not to apply fire retardants close to waterways.

What about health effects?

Testing shows these chemicals can produce minor irritant effects. The concentrated powder may cause minor respiratory irritation, to workers who are handling it. Once it is mixed into slurry this health effect does not occur. Workers are required to wear gloves, goggles and dust masks when handling the powder.

Risk assessments carried out in the United States and in Victoria demonstrate that the risk of health effects was very low, even to people who are accidentally exposed to the fire retardants during their application.

I live in a fire prone area – what precautions should I take if I have a water tank?

- Disconnect your water tank to prevent contaminated water from entering it.
- Install a first flush diverter or make sure the first part of runoff after rain cannot go into your tank. This will prevent any water runoff from your roof containing fire retardant from entering your tank. It will also prevent embers, ash and other contaminants from entering drinking water.

If the fire retardant does enter your water tank:

- Do not drink it. High levels of ammonia and sulphate in water will make it smell terrible and taste salty. It will not be suitable as drinking water for humans or animals (pets or livestock).
- The water can still be used for irrigation and fire fighting purposes.

Tips on cleaning up fire retardant residue:

- If aerial fire retarcant or fire fighting foam residue is present on the house and/or cars, use a mild detergent with water and brushes to scrub and dilute the dried residue and flush it from the surfaces. Rinse with clean water. A follow-up with pressure washing may help but will not replace scrubbing to remove the residue. Gloves and non-slip shoes should be worn as it may be slippery.

For further information regarding fire retardants and health, please contact the Shire's Environmental Health Services on 08 97805255.

*Information obtained form Department of Health and Department of Sustainability and Environment Victoria

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Figure 10: Fire retardants and health.

GIVIT – Memorandum of Understanding

The Shire of Augusta Margaret River has signed a Memorandum of Understanding with GIVIT who provides a free Emergency Recovery Service that supports charities, front-line services, agencies and governments by coordinating the deluge of donations that commonly occurs post-emergency and ensures offers of good quality goods and services are allocated to meet specific need. The goals of the partnership are;

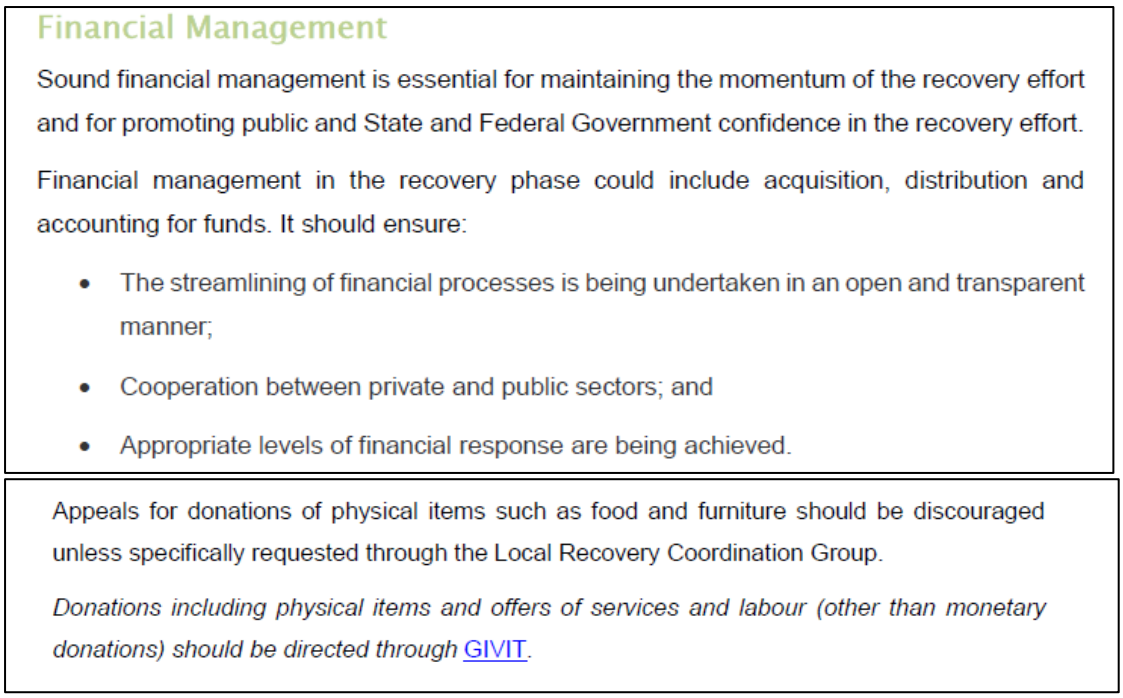
a) To reduce the amount of unsolicited donations received by the Shire in times of an emergency; and

b) To meet the immediate material needs of the local community in times of an emergency.

Please be advised that GIVIT does not manage spontaneous donations which will be managed by local government.

Further information on the services that are provided under the MOU with GIVIT can be found in Appendix 2 – Local Recovery Plan.

Figure 11: GIVIT MoU from the Shire of Augusta-Margaret River LEMA



Financial Management

Sound financial management is essential for maintaining the momentum of the recovery effort and for promoting public and State and Federal Government confidence in the recovery effort.

Financial management in the recovery phase could include acquisition, distribution and accounting for funds. It should ensure:

- The streamlining of financial processes is being undertaken in an open and transparent manner;
- Cooperation between private and public sectors; and
- Appropriate levels of financial response are being achieved.

Appeals for donations of physical items such as food and furniture should be discouraged unless specifically requested through the Local Recovery Coordination Group.

Donations including physical items and offers of services and labour (other than monetary donations) should be directed through GIVIT.

Figure 12: Financial Management Policy, from the Shire of Augusta-Margaret River LEMA

3.5 Identify Licenced Waste Management Contractors and Infrastructure

Activity	Multidisiplinary team	Source of information
E. Identify the capacity of licenced waste management contractors and infrastructure (local & state)	Health / Waste Management	WorkSafe Licenced Asbestos Removal (licenced asbestos removalists) DMIRS Approved Emergency Responders (for DG transport incidents) DWER Prescribed Premises (licenced recovery / disposal facilities) DWER Controlled Waste Tracking System (waste carriers and facilities) Australian Business Register (local waste management contractors) **Local Knowledge**

Aim: Identify the capacity of licenced waste management contractors and infrastructure (local and state).

Approach

It is suggested that Local Governments utilise the various resources available from State Government agencies and the Australia Business Registry to establish a list of suitably licenced waste management contractors and infrastructure within their local area. If certain infrastructure and/or services are not available locally, then alternative options must be identified, such as Temporary Storage Sites.

Rationale
It is useful to identify Local Government owned waste management facilities, particularly in situations where an MOU exists between Local Governments for the provision of mutual aid in response and recovery. Where Local Government owned infrastructure is limited, Local Governments may need to identify and enter into agreements with private industry operators. This suggested approach provides Local Governments with the ability to identify and use suitably qualified local businesses, and determine if alternative infrastructure and/or services from outside the region are required.

WALGA has recommended using only contractors/sites that are licenced through the relevant legislation. This is to ensure that there is a degree of independent regulatory oversight regarding how contractors or sites operate.

In investigating which facilities are options for the Local Government, it is worth noting that more stringent criteria can be imposed by waste facility operators, or by the Department, through conditions imposed on individual licences. It is imperative that those tasked with recovery, directly contact waste facility operators and review individual licences to identify and discuss:

- Specific management requirements
- Limitations on accepted materials and throughput (tonnes per annum)
- Capacity (for a landfill, this relates to available airspace across the life of a facility)
- Specifications of the facility (for example if material is taken to a landfill, is it designed and operated in such a way it can handle animal carcasses without causing a future liability)
- Whole of life costs (for a landfill, ensure the gate fee covers closure and post closure management / liabilities).

Outcome for Capacity Statement:
To be attached to the Local Government LEMA – a resource which includes:

- A list of entities available in the local area (or within the State), that are able to undertake:
    - Asbestos identification, removal, transportation and disposal
    - Transportation of controlled waste
    - Collection, transportation and disposal of non-hazardous waste
    - Resource recovery facilities that can address materials such as green waste, scrap metal, construction and demolition waste and hard waste
    - Disposal of waste which cannot be recovered.

Case Study – Shire of Augusta Margaret River
A database is provided separately with information relevant to the area covered by the South West MOU. This links to the example of the Assessment of Capacity provided in Section 4.0 of this Report. Figure 13 to 17 provide illustrations of the content of the database.

Worked Example: WorkSafe Licenced Asbestos Removal
Note: A licence is required in Western Australia to remove materials that contain asbestos. Only a licence holder, or an employee of a licence holder, may carry out this type of work. Each licence is valid for a period of three years and is endorsed with a number of conditions that relate to the way asbestos removal work is carried out.

Ensure the Licence holder has met their legal obligation to have a competent person employed within the business, who has been validated and approved by WorkSafe prior to

commencing any work under the licence. It is recommended that those undertaking recovery contact the licence holder to determine if there have been any changes to their capacity which could impact on their ability to provide services in recovery.

WorkSafe Licenced Asbestos Removal (Part 5 Occupational Safety and Health Regulations 1996)

No result for this area

Notes: A licence is required in Western Australia to remove materials that contain asbestos. Only a licence holder, or an employee of a licence holder, may carry out this type of work. Each licence in valid for a period of three years and is endorsed with a number of conditions that relate to the way asbestos removal work is carried out. Ensure the Licence holder has met their legal obligation to have a competent person employed within the business, who has been validated and approved by WorkSafe prior to commencing any work under the licence. It is recommended that those undertaking recovery contact the licence holder to determine if there have been any changes to their capacity which could impact on their ability to provide services in recovery.

Data source: https://www.commerce.wa.gov.au/worksafe/do-i-need-asbestos-removal-licence

Update: Correct as of April 2018

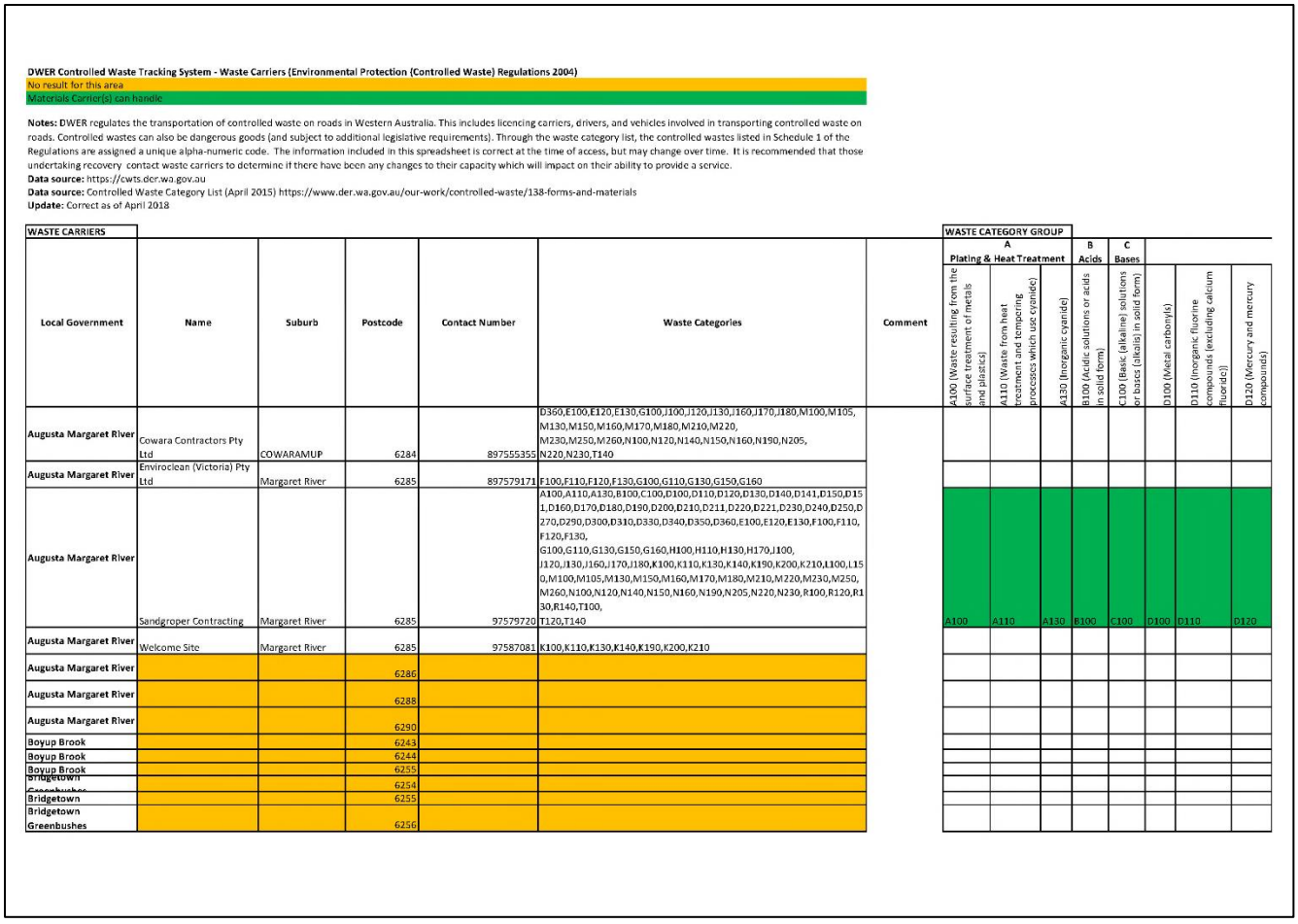
Local Government	Name	Licence Number	Phone	Mobile	Suburb	Expiry	Comment
Augusta Margaret	ALLINGTON, PETER	WR237		0477 683 737	WITCHCLIFFE	7/13/2019	Individual
Augusta Margaret River	GAUL TELECOMMUNICATIONS PTY LTD	WR1408	08 9757 3445	0448 797 831	COWARAMUP	2/29/2020	Company
Augusta Margaret River	HAMELIN BAY FENCING PTY LTD	WR1990		0438 857 733	KARRIDALE	2/17/2020	Company
Augusta Margaret River	QUARRILL, ALAN	WR9	0437 786 290	0437 786 290	KARRIDALE	5/27/2019	Individual
Augusta Margaret River	BRASH, PAUL	WR1734	08 9441 9533	0412 393 077	MARGARET RIVER	6/09/2018	Individual
Augusta Margaret River	JOLLIFFE, ANDREW	WR1775	0408 975 712	0408 975 712	MARGARET RIVER	8/05/2018	Individual
Augusta Margaret River	MORWITZER, CHRISTOPHER	WR372		0417 092 913	MARGARET RIVER	9/29/2019	Individual
Augusta Margaret River	VINCENT, DEAN	WR1865		0439 945 421	MARGARET RIVER	2/04/2019	Individual
Augusta Margaret River	WHITE SANDS CORPORATION (AUST) PTY LTD	WR2006	08 9758 7901	0402 521 952	MARGARET RIVER	3/28/2020	Company
Augusta Margaret River	WIGHTMAN, ALEXANDER	WR2046		0407 904 420	MARGARET RIVER	6/30/2020	Individual
Boyup Brook	KEYBROOK HOLDINGS PTY LTD	WR778	08 9765 1466	0429 651 466	BOYUP BROOK	10/12/2020	Company
Bridgetown Greenbushes	VOWLES, PETER	WR1149	0417 970 920	0417 970 920	BRIDGETOWN	7/01/2019	Individual
Bridgetown Greenbushes	SCOVELL, PHILIP	WR1352		0458 508 173	GREENBUSHES	12/21/2018	Individual
Bunbury	ARMSTRONG, DEAN	WR454	08 9791 2137	0407 382 918	BUNBURY	12/03/2019	Individual
Bunbury	BAROVEN PTY LTD	WR132	08 9791 3080	0418 952 197	BUNBURY	6/24/2019	Company
Bunbury	BUNBURY BUILDING COMPANY PTY LTD	WR776	08 9791 9717	0419 906 632	BUNBURY	10/12/2020	Company
Bunbury	CALINA INVESTMENTS PTY LTD	WR2130	0417 091 051	0417 091 051	BUNBURY	3/09/2021	Company

Figure 13: Extract from the WorkSafe Licenced Asbestos Removal (Contractors based in the South West MOU area).

Worked Example: DWER Controlled Waste Tracking System - Waste Carriers

Note: DWER regulates the transportation of controlled waste on roads in Western Australia. This includes licencing carriers, drivers, and vehicles involved in transporting controlled waste on roads. Controlled wastes can also be dangerous goods (and subject to additional legislative requirements).

Through the waste category list, the controlled wastes listed in Schedule 1 of the Regulations are assigned a unique alpha-numeric code. The information included in this spreadsheet is correct at the time of access, but may change over time. It is recommended that those undertaking recovery contact waste carriers to determine if there have been any changes to their capacity which will impact on their ability to provide a service.



DWER Controlled Waste Tracking System - Waste Carriers (Environmental Protection (Controlled Waste) Regulations 2004)

No result for this area

Materials Carrier(s) can handle

Notes: DWER regulates the transportation of controlled waste on roads in Western Australia. This includes licencing carriers, drivers, and vehicles involved in transporting controlled waste on roads. Controlled wastes can also be dangerous goods (and subject to additional legislative requirements). Through the waste category list, the controlled wastes listed in Schedule 1 of the Regulations are assigned a unique alpha-numeric code. The information included in this spreadsheet is correct at the time of access, but may change over time. It is recommended that those undertaking recovery contact waste carriers to determine if there have been any changes to their capacity which will impact on their ability to provide a service.

Data source: https://cwts.der.wa.gov.au

Data source: Controlled Waste Category List (April 2015) https://www.der.wa.gov.au/our-work/controlled-waste/138-forms-and-materials

Update: Correct as of April 2018

WASTE CARRIERS							WASTE CATEGORY GROUP							
							A Plating & Heat Treatment			B Acids	C Bases			
Local Government	Name	Suburb	Postcode	Contact Number	Waste Categories	Comment	A100 (Waste resulting from the surface treatment of metals and plastics)	A110 (Waste from heat treatment and tempering processes which use cyanide)	A130 (Inorganic cyanide)	B100 (Acidic solutions or acids in solid form)	C100 (Basic (alkaline) solutions or bases (alkalis) in solid form)	D100 (Metal carbonyls)	D110 (Inorganic fluorine compounds (excluding calcium fluoride))	D120 (Mercury and mercury compounds)
Augusta Margaret River	Cowara Contractors Pty Ltd	COWARAMUP	6284	897555355	D360,E100,E120,E130,G100,J100,J120,J130,J160,J170,J180,M100,M105,M130,M150,M160,M170,M180,M210,M220,M230,M250,M260,N100,N120,N140,N150,N160,N190,N205,N220,N230,T140									
Augusta Margaret River	Enviroclean (Victoria) Pty Ltd	Margaret River	6285	897579171	F100,F110,F120,F130,G100,G110,G130,G150,G160									
Augusta Margaret River	Sandgroper Contracting	Margaret River	6285	97579720	A100,A110,A130,B100,C100,D100,D110,D120,D130,D140,D141,D150,D151,D160,D170,D180,D190,D200,D210,D211,D220,D221,D230,D240,D250,D270,D290,D300,D310,D330,D340,D350,D360,E100,E120,E130,F100,F110,F120,F130,G100,G110,G130,G150,G160,H100,H110,H130,H170,J100,J120,J130,J160,J170,J180,K100,K110,K130,K140,K190,K200,K210,L100,L150,M100,M105,M130,M150,M160,M170,M180,M210,M220,M230,M250,M260,N100,N120,N140,N150,N160,N190,N205,N220,N230,R100,R120,R130,R140,T100,T120,T140		A100	A110	A130	B100	C100	D100	D110	D120
Augusta Margaret River	Welcome Site	Margaret River	6285	97587081	K100,K110,K130,K140,K190,K200,K210									
Augusta Margaret River			6286											
Augusta Margaret River			6288											
Augusta Margaret River			6290											
Boyup Brook			6243											
Boyup Brook			6244											
Boyup Brook			6255											
Bridgetown Greenbushes			6254											
Bridgetown			6255											
Bridgetown Greenbushes			6256											

Figure 14: Extract from the DWER Controlled Waste Tracking System - Waste Carriers (Contractors operating in the South West MOU area that can transport certain wastes).

Worked Example: DWER licenced waste management facilities

An assessment of entities operating within the area subject to the MOU has been undertaken. The rationale for the facilities included in the list of prescribed premises, is as follows:

- Facilities that can potentially process, recycle/recover or dispose of material generated in an emergency event:
  - Category 13 – Crushing of building material
  - Category 16 – Rendering operations
  - Category 39 – Chemical or oil recycling
  - Category 47 – Scrap metal recovery
  - Category 54 – Sewage facility (100m³ or more per day), Water Corp facilities only accepting sewage from the reticulate sewerage system via inflow pipes have not been included. However, where the licence permits the acceptance of tankered waste, these facilities have been included.
  - Category 59 – Biomedical waste incineration
  - Category 60 – Incineration
  - Category 61 – Liquid waste facility
  - Category 61A – Solid waste facility
  - Category 62 – Solid waste depot
  - Category 63 – Class I inert landfill site

- Category 64 – Class II or III putrescible landfill site
- Category 65 – Class IV secure landfill
- Category 66 – Class V intractable landfill site
- Category 67A – Compost manufacturing and soil blending
- Category 89 – Putrescible landfill site

- Facilities where there was only a Works Approval have been excluded as they are not yet operational / accepting waste materials.
- Waste facilities where it is not clear if material generated offsite can be accepted for processing / disposal were also removed.

Note: This dataset is only intended to act as a guide. The facilities identified in this spreadsheet are licenced under Part V of the *Environmental Protection Act 1986* (the EP Act). Through this licencing system, DWER regulates to prevent, reduce or control emissions and discharges to the environment and ensures there is adequate monitoring and reporting. Breaches to the limits specified in a facility's licence, including any pollution incidents, must be reported to the Department. The facilities licences were reviewed to provide the information included in the table. However prior to any material being delivered to a site, the site should be contacted to discuss:

- Specific management requirements
- Limitations on accepted materials and throughput (tonnes per annum)
- Capacity (for a landfill, this relates to available airspace across the life of a facility)
- Specifications of the facility (for example if material is taken to a landfill, is it designed and operated in such a way it can handle animal carcasses without causing a future liability)
- Whole of life costs (for a landfill, ensure the gate fee covers closure and post closure management / liabilities).

Exemptions to licence conditions can be sought under S.6 or S.75 of the EP Act. As the Department's approach to regulation has evolved over time, individual licence requirements differ between sites. There are also differences in the layout of, and approach to licences. Licence amendments may have occurred since this information was sourced. It is recommended that those undertaking recovery activities, review individual licences and contact facility operators directly to identify and discuss specific management requirements.

DWER licenced waste management facilities (Schedule 1, Environmental Protection Regulations 1987)

No result for this area

Notes: This dataset is only intended to act as a guide. The facilities identified in this spreadsheet are licenced under Part V of the Environmental Protection Act 1986 (the EP Act). Through this licencing system, DWER regulates to prevent, reduce or control emissions and discharges to the environment and ensures there is adequate monitoring and reporting. Breaches to the limits specified in a facility's licence, including any pollution incidents, must be reported to the Department. Exemptions to licence conditions can be sought under S.6 or S.75 of the EP Act. As the Department's approach to regulation has evolved over time, individual licence requirements differ between sites. There are also differences in the layout of, and approach to licences. Licence amendments may have occurred since this information was sourced. It is recommended that those undertaking recovery activities, review individual licences and contact facility operators directly to identify and discuss specific management requirements.

Data source: https://www.der.wa.gov.au/our-work/licences-and-works-approvals/current-licences

Update: Correct as of April 2018

Local Government	Type	Works approval / licence holder	Premises name	Location details	Suburb	Date issued	Date commenced	Date of expiry	Category	Approved premises production or design capacity	Waste acceptance	Waste code (CWTS)
Augusta Margaret River	Licence L5953/1991/14	Water Corporation	Augusta Wastewater Treatment Plant	Lot 869 on Plan 190289, 869 Leeuwin Road	AUGUSTA WA 6290	Friday, 29 April 2016	Saturday, 01 November 2014	Monday, 31 October 2033	54 - Sewage facility	248 cubic metres per day	Sewage	N/A
Augusta Margaret River	Licence L6863/1994/13	Shire of AMR	Margaret River Liquid Waste Facility	Lot 4004 on Plan 207556, Wallis Road	ROSA GLEN WA 6285	Friday, 29 April 2016	Monday, 27 July 2015	Friday, 26 July 2019	61 - Liquid waste facility	1,800 tonnes per annual period	Liquid wastes	K210, K110
Augusta Margaret River	Licence L6989/1997/13	Shire of AMR	Davis Road Putrescible Landfill	Lot 5011 on Plan 192309, Davis Road	Forest Grove WA 6286	Thursday, 12 December 2013	Thursday, 19 December 2013	Sunday, 18 December 2022	64 - Class II putrescible landfill site	20,000 tonnes per annual period	Clean Fill Inert Waste Type 1 Special Waste Type 1 Putrescible Waste Contaminated Solid Waste Hazardous Waste	N/A
Augusta Margaret River	Licence L7738/2000/9	Water Corporation	Margaret River Wastewater Treatment Plant	Forest Lease 2112/97, State Forest No 56, Corner Long and Tare Roads	Bramley WA 6285	Thursday, 24 October 2013	Friday, 01 November 2013	Tuesday, 31 October 2034	54 - Sewage facility 61 - Liquid waste facility	Quantity of wastewater treated 1,500 cubic metres per day Quantity of liquid waste accepted 1,000 tonnes per year	N/A biological wastes (categories 1.02 and 1.05)	N/A K210, K130
Boyup Brook	Licence L8128/2006/2	Shire of Boyup Brook	Stanton Rd Liquid Waste Facility	Lot 201 on Plan 301850, Stanton Road	BOYUP BROOK WA 6244	Friday, 29 April 2016	Saturday, 10 November 2012	Tuesday, 09 November 2032	61 - Liquid waste facility	600 tonnes per year	Biological wastes 1.02, septage wastes - waste from apparatus for the treatment of sewage.	K210
Boyup Brook	Licence L8535/2011/1	Shire of Boyup Brook	Boyup Brook Waste Transfer Station	Lot 147 on Plan 225864, Jayes Road	BOYUP BROOK WA 6244	Friday, 29 April 2016	Monday, 12 September 2011	Sunday, 11 September 2033	62 - Solid waste depot	Not more than 5,000 tonnes per year	Clean Fill Type 1 Inert Waste (Building and demolition waste) Type 1 Special Waste (Asbestos Waste) Putrescible Waste	N/A

Figure 15: Extract from the DWER licenced waste management facilities (Contractors operating within the South West MOU area).

Worked Example: DWER Controlled Waste Tracking System – Waste Facilities

Note: DWER regulates the transportation of controlled waste on roads in Western Australia. Eligible facilities can apply to the Department to be listed in the CWTS as a controlled waste facility. Controlled wastes can also be dangerous goods (subject to additional legislative requirements).

Through the waste category list, the controlled wastes listed in Schedule 1 of the Regulations are assigned a unique alpha-numeric code. The information included in this spreadsheet is correct at the time of access, but may change over time. It is recommended that those undertaking recovery contact waste facilities to determine if there have been any changes to their capacity which will impact on their ability to provide a service.

DWER Controlled Waste Tracking System- Waste Facilities (Environmental Protection (Controlled Waste) Regulations 2004)

No result for this area

Materials Waste Facilities can handle

Notes: DWER regulates the transportation of controlled waste on roads in Western Australia. Eligible facilities can apply to the Department to be listed in the CWTS as a controlled waste facility. Controlled wastes can also be dangerous goods (subject to additional legislative requirements). Through the waste category list, the controlled wastes listed in Schedule 1 of the Regulations are assigned a unique alpha-numeric code. The information included in this spreadsheet is correct at the time of access, but may change over time. It is recommended that those undertaking recovery contact waste facilities to determine if there have been any changes to their capacity which will impact on their ability to provide a service.

Data source: https://cwts.der.wa.gov.au

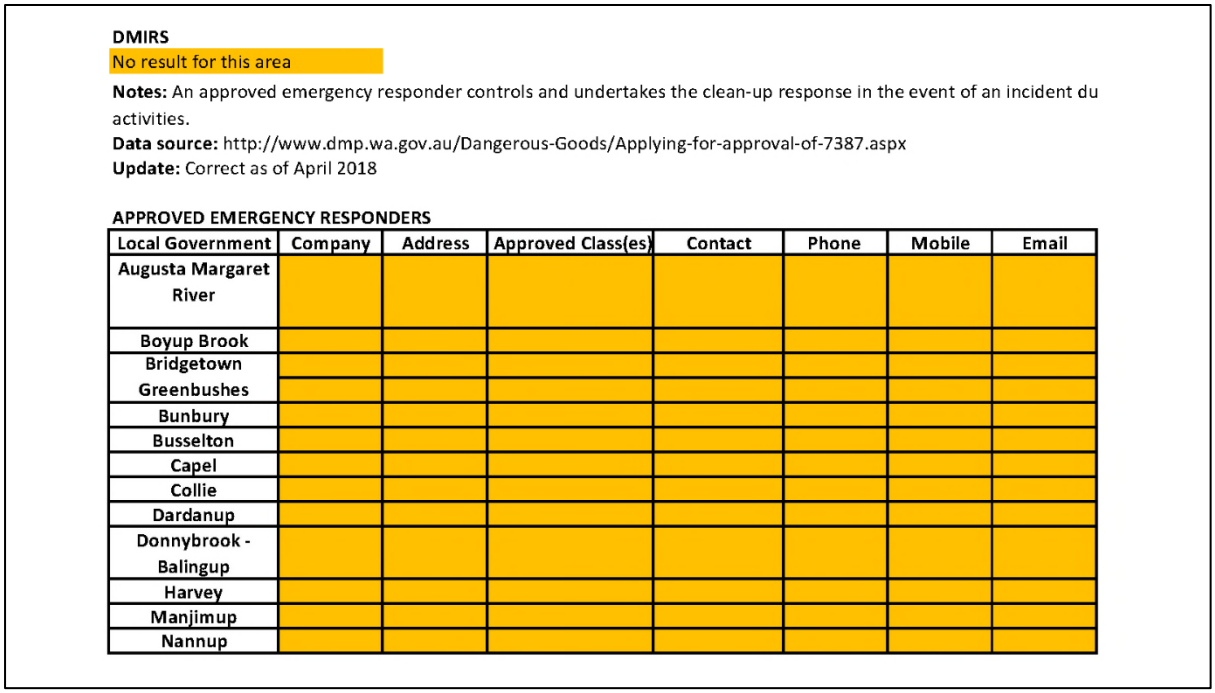
Data source: Controlled Waste Category List (April 2015) https://www.der.wa.gov.au/our-work/controlled-waste/138-forms-and-materials

Update: Correct as of April 2018

WASTE FACILITIES							WASTE CATEGORY GROUP			
							A Plating & Heat Treatment			B Acids
Local Government	Name	Suburb	Postcode	Contact Number	Waste Categories	Comment	A100 (Waste resulting from the surface treatment of metals and plastics)	A110 (Waste from heat treatment and tempering processes which use cyanide)	A130 (Inorganic cyanide)	B100 (Acidic solutions or acids in solid form)
			6284							
Augusta Margaret River	MARGARET RIVER SEWER	MARGARET RIVER	6285	97910441	K130					
Augusta Margaret River	Margaret River Septage Treatment Plant	ROSA GLEN	6285	97805292	K110,K210					
Augusta Margaret River	Margaret River Wastewater Treatment Plant	MARGARET RIVER	6285	97910453	K130,K210					
Augusta Margaret River			6286							
Augusta Margaret River			6288							
Augusta Margaret River	AUGUSTA-SEWER	AUGUSTA	6290	97910441	K130					
Augusta Margaret River			6243							
Boyup Brook	Stanton Road Liquid Waste Facility	BOYUP BROOK	6244	897661200	K210					
Boyup Brook	BRIDGETOWN-SEWER	BRIDGETOWN	6255	97910441	K130					
Boyup Brook	Bridgetown Waste Management Facility	BRIDGETOWN	6255	97611555	K110,K210,N140					

Figure 16: Extract from the DWER Controlled Waste Tracking System - Waste Facilities (Waste types accepted at facilities in the South West MOU area).

Worked Example: DMIRS Approved Emergency Responders
Notes: An approved emergency responder controls and undertakes the clean-up response in the event of an incident during dangerous goods transport activities.



DMIRS

No result for this area

Notes: An approved emergency responder controls and undertakes the clean-up response in the event of an incident du activities.

Data source: http://www.dmp.wa.gov.au/Dangerous-Goods/Applying-for-approval-of-7387.aspx

Update: Correct as of April 2018

APPROVED EMERGENCY RESPONDERS

Local Government	Company	Address	Approved Class(es)	Contact	Phone	Mobile	Email
Augusta Margaret River							
Boyup Brook							
Bridgetown							
Greenbushes							
Bunbury							
Busselton							
Capel							
Collie							
Dardanup							
Donnybrook - Balingup							
Harvey							
Manjimup							
Nannup							

Figure 17: Extract from the DMIRS Approved Emergency Responders (Contractors operating within the South West MOU area).

4.0 Phase 3: Assess Statements of Capacity

In each of the planning stages, information can be sourced that assists with an assessment of the capacity of individual Local Governments in relation to waste management in recovery. This section of the Framework is intended to bring together information in a format that can be attached to the LEMA, allowing for the identification of key actions and assignment of responsibility for changes.

It is important that Local Governments adopt a consistent approach to the identification of capacity, to allow for effective resource sharing through existing agreements, understanding and commitments with other Local Governments.

Worked Example: Capability Statement for the Shire of Augusta Margaret River - licenced waste management contractors and infrastructure (Local and State)

Facility type	Facilities in the MOU area (licenced throughput - tpa)	Is there a gap? If so, are there alternative options?
Licenced Waste Infrastructure		
Construction and Demolition waste processing facility	3 x LG owned - (2) City of Busselton (78,000 tpa) (9,000m³ per annual period) - (1) Shire of Manjimup (10,000 tpa)	

	2x Private industry owned - (1) Peel Resource Recovery Pty Ltd (65,000 tpa) - (1) Hovey Property Pty Ltd (5,000 tpa) *(Category 13 - DWER licencing system)*	
Rendering operations	0 x LG owned 2x Private industry owned - (1) Holista Colltech Limited (2,000 tpa) - Harvey Industries Group Pty Ltd (120,000 tpa) *(Category 16 - DWER licencing system)*	
Chemical or oil recycling	0 x LG owned 1 x Private industry owned - (1) Romine Holdings Pty Ltd (Wren Oil) *(Category 39 - DWER licencing system)*	
Metal recycling facility	0 x Scrap metal recovery facilities *(Category 47 - DWER licencing system)*	Yes. Assistance required from outside the MOU region to recycle scrap metal.
Biomedical waste incineration	0 x LG owned 0 x Private industry owned *(Category 59 – DWER licencing system)*	Yes. Assistance required from outside the MOU region if a need for biomedical waste incineration is identified.
Incineration	0 x LG owned 0 x Private industry owned *(Category 60 - DWER licencing system)*	Yes. Assistance required from outside the MOU region if waste to energy is identified as an alternative to landfill.
Sewage facility (100m³ or more per day) Liquid waste facility	0 x LG owned 6 x Private industry owned (Water Corporation) - (2) within AMR - (1) within Bridgetown-Greenbushes - (2) within Busselton - (1) within Capel *(Category 54 - DWER licencing system)* 6 x LG owned - (1) Shire of AMR - (1) Shire of Boyup Brook - (1) Shire of Bridgetown-Greenbushes - (1) City of Busselton - (1) Shire of Harvey - (1) Shire of Manjimup	

	5 x Private industry owned (Water Corporation) - (1) within AMR - (1) within Bridgetown-Greenbushes - (2) within Busselton - (1) within Capel 7 x Private industry owned - (2) Wineries (Busselton) - (4) harvey fresh, wren oil, lennard waste, cleanaway (Dardanup) - (1) 1cristal pigment (Harvey) *(Category 61 - DWER licencing system)*	
Solid waste facility	3 x LG owned - (1) Bridgetown-Greenbushes (?tpa) - (1) Busselton (1,400 tpa) - (1) Manjimup (20,000 tpa) 0 x Private industry owned *(Category 61A - DWER licencing system)*	
Solid waste depot	7 x LG owned - (1) Bridgetown-Greenbushes (?tpa) - (2) Busselton (15,000 tpa) - (1) Capel (2,500 tpa) - (1) Collie (10,000 tpa) - (1) Dardanup (5,000 tpa) - (1) Donnybrook-Balingup (500 tpa) 5 x Private industry owned - (1) Bunbury Ezy Bins (4,500 tpa) - (1) SUEZ Recycling & Recovery Pty Ltd (45,000 tpa) - (1) Vasse Bins (41,600 tpa) - (1) Peel Resource Recovery Pty Ltd (100,000 tpa) - (1) Wren Oil (≤20,000 tpa) *(Category 62 - DWER licencing system)*	
Class I Landfill (inert landfill)	0 x LG owned 1 x Private industry owned: - (1) Peel Resource Recovery Pty (115,000 tpa) *(Category 63 - DWER licencing system)*	
Class II Landfill (putrescible landfill) Class III Landfill (putrescible landfill)	8 x LG owned - (1) Shire of AMR (20,000tpa) - (1) Shire of Bridgetown-Greenbushes (5,000tpa)	

	- (1) City of Busselton (45,000tpa) - (1) Shire of Collie (50,000tpa) - (1) Shire of Donnybrook-Balingup (6,700tpa) - (1) Shire of Harvey (5,000 tpa) - (1) BHRC (100,000tpa) - (1) Shire of Manjimup (50,000 tpa) 1 x Private industry owned - (1) Cleanaway Solid Waste Pty Ltd (303,000 tpa) *(Category 64 - DWER licencing system)*	
Class IV Landfill (secure landfill)	0 x Class IV Landfill *(Category 65 - DWER licencing system)*	Yes. Nearest facility: Red Hill Waste Management Facility 1094 Toodyay Road Red Hill WA 6056 Owned and operated by the Eastern Metropolitan Regional Council.
Class V Landfill (intractable landfill)	*(Category 66 – DWER licencing system)*	Yes. Nearest facility: Mt Walton East - Crown Reserve 42001 Owned and operated by the Department of Finance.
Compost manufacturing and soil blending facilities	1 LG owned - BHRC 5 Private industry owned: - (2) Malatesta Investments Pty Ltd - (1) Agri Corp Australia Pty Ltd - (1) KBB Pty Ltd - (1) Fitonia Pty Ltd *(Category 67A – DWER licencing system)*	
Registered landfill	4 x LG owned, all with a limit of "not more than 5000 t/a": - (1) Shire of Boyup Brook - (2) Shire of Donnybrook-Balingup - (1) Shire of Nannup *(Category 89 - DWER licencing system)*	
Licenced Waste Carriers (Controlled Waste)		
Refer to database		
Licenced Waste Facilities (Controlled Waste)		
Refer to database		
Approved Emergency Responders: Dangerous Goods	0 x approved emergency responders *(DMIRS licencing system)*	Yes. Assistance required from outside the MOU region. Currently 14 in the state.

Asbestos Removalists	0 x unrestricted asbestos contractors (WA) 111 x restricted asbestos contractors (WR) *(DMIRS licencing system)*	Yes. Assistance required from outside the MOU region for events generating friable asbestos.

5.0 Phase 4: Decision Point

Aim: To identify the approach that a Local Government will take to address waste management considerations in recovery.

Approach
The information gathered through the planning process will allow decisions to be made prior to an event, on how a Local Government will address waste management considerations in recovery. A flexible approach can be accommodated in formal policy and procedures around the following thresholds:

- The severity of an event i.e. Level 1,2,3[11]
- Source of waste i.e. Local Government, State Government, Residential, Commercial
- Available funding i.e. WANDRRA, Local Government.

In the State Emergency Management Plan Report there is a detailed outline of the tests for the severity of event. To summaries Level 1 are small scale incidents with no significant issues, the incident area is limited, Level 2 events are larger scale, involve multiple agencies, are more complex and involve multiple hazards, Level 3 events require multiple agencies, there is a significant impact on critical infrastructure and a high level of complexity.

The *Emergency Management Act (2005)* prescribes Local Government *to manage recovery following an emergency affecting the community in its district*. (s.36 (b)). It is acknowledged that the capacity and capability of Local Government varies throughout Western Australia and as such the State have appointed a State Recovery Coordinator to assist Local Governments when an emergency exceeds their abilities to manage such an event. In some circumstances, State Government involvement may be necessary through either the State Recovery Coordinator, the establishment of a SRCG or State Recovery Controller or both. This higher-level of coordination ensures that an affected community has equitable and appropriate access to available resources. However, it is worth noting that the management of recovery remains the responsibility of the affected Local Governments[12].

In addition to Local Government's role in ensuring that waste generators and contractors undertake waste management activities lawfully, other potential roles for Local Government have been characterised as:

- Providing information to waste generators on how to manage waste [Inform]
- Coordinating waste management activities [Coordinate]

[11] Office of Emergency Management (May 2016). State Emergency Management Response Procedure 2. Available online. https://www.oem.wa.gov.au/Documents/Resources/LegislationPolicyPlansProcedureandGuidelines/Procedure/StateEMProcedure.pdf

[12] Office of Emergency Management (May 2016). State Emergency Management Plan. Available online. https://www.oem.wa.gov.au/Documents/Resources/LegislationPolicyPlansProcedureandGuidelines/Plans/StateEMPlan/StateEMPlan.pdf.

- Directly managing the waste [Manage]
- Not having a role [No role].

Rationale
By clearly identifying what role a Local Government intends to play in recovery, roles and responsibilities can be allocated to staff and Elected Members in line with their applied skills and knowledge. This is essential, as emergency situations can result in the assignment of tasks without full consideration of potential impacts and liabilities.

Through identifying potential gaps and areas of low capacity there is an opportunity for Local Governments and WALGA to address these issues. It also provides an opportunity to communicate Local Governments role to the community, prior to any event, and highlight what areas individual community members need to address. For example, being fully aware of the limitations of insurance cover.

Aim: To ensure Local Government staff are aware of, and understand how to engage with the Comprehensive Impact Assessment (CIA) process.

Approach
Through the existing emergency management structure a Comprehensive Impact Assessment may be undertaken. The Assessment is undertaken in the response phase, in consultation with the Incident Support Group, all affected Local Governments and the State Recovery Coordinator. The purpose of this Assessment, is to:

- Identify and quantify impacts relating to all recovery environments
- Identify any risks arising from the emergency
- Include a risk assessment, identify risk treatments undertaken, and contain a treatment plan (including the allocation of responsibilities) to provide for safe community access to the affected area
- Inform and support the objectives of the Recovery Plan.

The Assessment includes information and data that will impact on waste management issues that will impact the recovery of a community. Through the established procedure, the Assessment has to be provided to the affected Local Governments and the State Recovery Coordinator for final clarification prior to handover to the Local Government at the commencement of recovery[13].

Rationale
Using the information obtained through Phase 2 of the Framework, Local Governments can ensure that hazards are accurately identified in the CIA document, and that appropriate containment / confinement of these hazards has occurred. It is strongly suggested that a Local Government officer with knowledge of the information gathered in Phase 2 accompanies the CIA team undertaking the assessment of impact.

Case Study – Shire of Augusta Margaret River

Worked Example:
To be completed following consideration by Council.

[13] Office of Emergency Management (May 2018). State Emergency Management Procedure. Available online. https://www.oem.wa.gov.au/Documents/Resources/LegislationPolicyPlansProcedureandGuidelines/Procedure/StateEMProcedure.pdf.

Appendix 1: Milestones for the WALGA NDRP Project

Milestone 1
Research Report
(29 September 2017)

- Contact interstate agencies and Local Government Associations to establish and access the resources they have in place or any projects currently underway
- Contact the interstate branches of the Waste Management Association of Australia to seek case studies and interview those who have dealt with different disaster events from an industry point of view
- Contact Local Governments in WA where disaster events have had challenging waste management considerations
- Contact the WA waste management industry professionals who have relevant disaster management experience
- Analyse the relevant WA legislation to clearly identify implications for disaster management
- Identify the range of considerations which effect decision making
- Research and identify communication and engagement approaches
- Identify innovative approaches to managing waste in emergency situations
- Analyse the information collected and develop recommendations for the Western Australian context

Milestone 2
Local Government Engagement
(16 March 2018)

- Through the large range of WALGA publications (electronic and hard copy) communicate the project that is being undertaken to raise awareness
- Survey the Emergency Management Local Government sector to establish their current level of knowledge and expertise in relation to waste management.
- Meet with MWAC to outline the project and engage expertise
- Through the WALGA Zone process seek to present at every Zone – there are 17 zones across the State. The Zones are a good opportunity to engage with every Local Government at the CEO/Senior Executive and Mayor/President level.

Milestone 3
Framework for Waste Management
(31 May 2018)

- Based on the Research Report and Local Government Engagement develop a Draft Framework for Local Government to incorporate waste management into their Emergency Management Arrangements
- Select at least 4 examples of emergency events that have occurred and run them through the Framework to see how applicable it is
- Select at least one Local Government to develop a worked example of how the framework can be used to inform future planning
- Utilising WALGA's existing networks undertake consultation with the sector on the Draft Framework
- Following feedback from the sector, finalise the Framework and worked example
- Communicate the Framework to Local Government, through electronic communications, face to face meetings (including Zone meeting), phone calls, through the ongoing work of the Emergency Management Coordinator and at relevant Conferences.

Milestone 4
Project Evaluation
(30 September 2018)

- Survey the Emergency Management Local Government sector to establish their level of knowledge and expertise in relation to waste management.
- Put together a Report on the key learnings from this project and recommendations for future application.

Appendix 2: Accessing Resources Listed in Phase 2

Australian Business Register
Note: this free online tool is only for eligible government agencies.
The Disaster response and recovery dashboard in ABR Explorer can be used during all stages of disaster management, including planning, preparation, response and recovery.
It will allow you to:

- choose a local government area
- view ABNs in that area, sorted by industry
- focus your search on a specific postcode
- list ABN details of a chosen industry in that postcode
- use the contact/location details to plan your emergency response
- map ABNs on the National Map to view the locality of businesses within proximity to a disaster.

To access ABR data for disaster response and recovery assistance on behalf of your agency, first check to see if your agency is eligible.

If your agency is eligible, send an email to abrenquiries@ato.gov.au for access to ABR Explorer.

Urban Forest data
Urban Forest data is available on the Shared Land Information Platform (SLIP), as a Restricted Service. Only registered users can access these services:

- Web Map Service (WMS)
- Web Feature Service (WFS); and
- Data download.

To access the Web Map Service (WMS), simply search ***Urban Forest*** at: www.data.wa.gov.au.

To access the Web Feature Service (WFS) and data download function, simply request additional **DPLH Restricted Services**:

- Login into SLIP Sailpoint
- Select ***Join a User Group***
- Use the Search Bar to search for ***DPLH Restricted Services***
- Click on the tick and this will turn green
- Click the **Review** button and **Submit**
- For further information, visit UTube: com/watch?v=y8YaIvDddHM

Appendix 3: Local Government Financial Considerations

The *Local Government Act 1995* establishes a clear process and constraints for the development and adoption of a Local Government's Budget. This process only allows unbudgeted expenditure in a few circumstances.

Local Government Act 1995:

6.8. Expenditure from municipal fund not included in annual budget

(1) A local government is not to incur expenditure from its municipal fund for an additional purpose except where the expenditure —

(a) is incurred in a financial year before the adoption of the annual budget by the local government; or

(b) is authorised in advance by resolution*; or

(c) is authorised in advance by the mayor or president in an emergency.

* Absolute majority required

Q: What is an emergency?

Emergency Management Act 2005

Section 3 - Terms Used

emergency means the occurrence or imminent occurrence of a hazard which is of such a nature or magnitude that it requires a significant and coordinated response;

hazard means —

(a) a cyclone, earthquake, flood, storm, tsunami or other natural event;

(b) a fire;

(c) a road, rail or air crash;

(d) a plague or an epidemic;

(e) a terrorist act as defined in The Criminal Code section 100.1 set out in the Schedule to the Criminal Code Act 1995 of the Commonwealth;

(f) any other event, situation or condition that is capable of causing or resulting in —

(i) loss of life, prejudice to the safety, or harm to the health, of persons or animals; or

(ii) destruction of, or damage to, property or any part of the environment,

and hazards prescribed under Regulation 15 of the EM Regulations.

Local Government (Functions and General) Regulations 1996:

11. When tenders have to be publicly invited

(2) Tenders do not have to be publicly invited according to the requirements of this Division if —

(a) the supply of the goods or services is to be obtained from expenditure authorised in an emergency under section 6.8(1)(c) of the Act; or

(b) the supply of the goods or services is to be obtained through the WALGA Preferred Supplier Program[14].

[14] WALGA (2018). Find a Contract. Available online. http://www.walga.asn.au/Procurement/Preferred-Supplier-Program/Preferred-Supplier-Directory/Find-a-Contract.aspx.