

Review of the Emergency Services Levy

Draft Report

7 July 2017

Economic Regulation Authority

WESTERN AUSTRALIA

Economic Regulation Authority

4th Floor Albert Facey House
469 Wellington Street, Perth

Mail to:

Perth BC, PO Box 8469
PERTH WA 6849

T: 08 6557 7900

F: 08 6557 7999

E: records@erawa.com.au

W: www.erawa.com.au

National Relay Service TTY: 13 36 77
(to assist people with hearing and voice impairment)

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Executive summary

Emergency services are critical to protecting and preserving the lives, livelihoods and properties of Western Australians. Delivering and funding emergency services in a state as large and diverse as Western Australia is a complex and difficult task. The Emergency Services Levy (ESL) funds many of these services. The levy began in July 2003 to ensure a fair and adequate funding system. It replaced a mix of insurance levies, state and local government rates, and volunteer fundraising. It is now the responsibility of all land owners.

The Treasurer asked the Economic Regulation Authority (ERA) to review arrangements for managing and distributing ESL funds to emergency services in the State. The review was in response to findings from Mr Euan Ferguson's Report of the Special Inquiry into the January 2016 Waroona Fire. The State Government asked the ERA to look at options to improve the allocation of ESL funds. The ERA was also asked to review to what extent the ESL should be available to fund a Rural Fire Service, and what effect that would have on how much people pay for emergency services.

In forming recommendations for this review, the ERA held public and private meetings with stakeholders and received 40 submissions from interested parties from all around the State. This draft report will be the basis for further consultation.

There is strong community support for using the ESL to fund emergency services. Only one submission to this review argued that there should be no levy. The levy ensures that funds are available to support emergency services provided by government and volunteer organisations. The ERA recommends the State Government should continue to raise funds for emergency services through the ESL. However, it also considers that public confidence in the ESL could improve if the distribution of funds was more transparent and independent. Further, continued public support may depend on ensuring that the activities funded from the ESL are clearly defined and limited, and that the services it funds are efficient and cost-effective.

The ESL is based on the Gross Rental Value of a property - that is the amount it could reasonably be expected to earn if let for a tenancy for a year. Payments also depend on where a property is located, what it is used for, and what level of emergency services is available in that area. Property owners in the metropolitan area generally pay more than those in areas serviced by bush fire brigades. The levy is collected by local councils through regular rates notices. This method for calculating and collecting the ESL appears simple and effective.

This report considers the ESL is equitable. Property owners with the greatest capacity to pay, pay more. Owners of similar properties, pay similar amounts of ESL. The ESL was designed to ensure that all communities receive essential emergency services regardless of cost.

The ERA considers that the ESL is an appropriate way of funding emergency services, that the way it is collected is simple and effective, and that the burden of paying the levy is fair.

However, this review has identified a number of ways in which the accountability and transparency of the allocation of ESL expenditure could be improved. This forms the backbone of the ERA's draft recommendations.

The ERA recommends that an independent agency advises the Minister for Emergency Services on how much landholders pay for emergency services and how that levy is spent. Currently the Department of Fire and Emergency Services (DFES), the agency which receives the bulk of ESL funds, advises Treasury each year on how much it needs and how

that money should be spent. There is a perception amongst stakeholders that DFES has the opportunity to make decisions that benefit the organisation rather than the broader community.

The ERA recommends responsibility for the oversight of the ESL transfers from DFES to the Office of Emergency Management (OEM). It is recommended that OEM become an independent agency, separate from DFES, reporting directly to the Minister of Emergency Services. The ERA considers that more transparent information on how and where ESL is spent, along with processes to ensure it is carefully targeted and spent effectively, will help to sustain community confidence in, and support for, how the ESL is raised and spent. OEM has significant experience in emergency management. The ERA believes an independent OEM will be well placed to advise government about the amount of ESL required each year and how that money can best fund the network of career and volunteer emergency services across the State.

Last financial year DFES collected \$323 million in ESL. Of that, DFES distributed almost \$36 million in grants to local government and volunteer marine rescue. The ERA considers the main purpose of the ESL is to enable all emergency workers to be ready to respond to emergencies across the State.

Many submissions to this review argue money should be spent on prevention and preparedness. Industry has increased capability in the northwest of the State to be prepared during severe cyclones and to prevent wide scale damage. However, bushfires are difficult to mitigate because they are random. Prescribed burning and clearing are effective ways of reducing fire load before the summer months. The ERA agrees that prevention is important, and may have been under-funded. However, responsibility for prevention lies primarily with property owners and land custodians, including local and state government agencies. There is no strong case for using the ESL to fund prevention, except for activities that landowners are unlikely to be able to do themselves, such as coordination and planning.

The levy should, however, be used to help communities prepare and be ready to act in the event of a disaster. The ESL should continue to fund the front line services of DFES, the bush fire brigades and the State Emergency Service units. It should be used to fund the full salaries of local governments' Community Emergency Services Managers. The ESL should also be used to educate the public about how to best prepare for emergencies. This will have a lasting effect and will promote self-sufficiency, particularly in high-risk communities.

The aftermath of a major emergency can affect communities for years after the event – affecting people, land and industry. Helping these communities to recover draws on the resources of government, the private sector and not-for-profit organisations. The ERA does not consider the ESL to be the best way to fund these responses. Each emergency is unique, and the cost and nature of services needed in response is unpredictable. Emergency response should continue to be resourced through the agencies responsible for delivering services.

The ERA was not asked to give a view on whether the State should establish a rural fire service, but it was asked to give a costing for such a service if the State Government decides to introduce one.

There are many ways a rural fire service could be configured and costs of each possible model vary depending mainly on whether it is staffed by career firefighters or volunteers.

The ERA has found a rural fire service will cost Western Australians between \$4.2 million and \$560 million extra.

For residential ratepayers, these amounts are the equivalent of an extra \$2.41 on average ELS charges for the purely volunteer based model, up to \$362.74 for a service staffed by career firefighters.

The amount landowners pay for the ESL has increased markedly since it was introduced in 2003. In that time, some services once funded through the tax system have been rolled into the ESL, including volunteer marine rescue services. The volunteer marine rescue service is used by a small segment of the community, and the ERA recommends a levy on vessel registrations to fund the approximately \$6 million of the cost of this service.

Recommendations

Key recommendations

1. The basic structure of the ESL system should be retained. (Chapter 6)
2. Gross rental value should be retained as the basis for calculating ESL rates. (Chapter 6)
3. The agency that advises the Minister for Emergency Services on ESL revenue and rates should not benefit from the ESL. (Chapter 8)
4. The Office of Emergency Management should be given the oversight functions of advising the Minister for Emergency Services on the amount of ESL revenue required, and on ESL rates. (Chapter 8)
5. The Office of Emergency Management should be made independent of the Department of Fire and Emergency Services. It should report directly to the Minister for Emergency Services rather than the Fire and Emergency Services Commissioner. (Chapter 8)
6. The Office of Emergency Management should oversee how the Department of Fire and Emergency Services (and a rural fire service if established):
 - a. allocates ESL funds to stakeholders; and
 - b. spends its share of ESL funds. (Chapter 8)
7. The Office of Emergency Management should be the body of appeal for ESL-related issues, and the Fire and Emergency Services Commissioner's appeal role should be revoked. (Chapter 8)
8. The Department of Treasury should undertake a review of the Department of Fire and Emergency Services' structure, resources and administration costs to determine whether services are efficiently delivered. (Chapter 8)
9. The ESL should be used to fund prevention undertaken by the Department of Fire and Emergency Services, bush fire brigades and State Emergency Service units that have community-wide benefits or which involve coordination of prevention across land tenures. (Chapter 3)
10. The ESL should be used to fund the preparedness activities of the Department of Fire and Emergency Services, the bush fire brigades and State Emergency Service units that have community-wide benefits. (Chapter 3)
11. The ESL should be used to fund the response activities of the Department of Fire and Emergency Services, the bush fire brigades and State Emergency Service units. (Chapter 3)
12. The ESL should not be used to fund the costs of recovery. (Chapter 3)

13. The ESL should be used to fund the administration costs of the Department of Fire and Emergency Services. (Chapter 3)
14. The ESL should be used to fund the full costs of the Community Emergency Services Managers in local government. However, it should not be used to fund the broader emergency service and management responsibilities of local government, or the administration costs linked to bush fire brigades and State Emergency Service units. (Chapter 3)
15. The Office of Emergency Management should compensate local government for the cost of collecting ESL revenue (including the costs of recovering unpaid debts and any ESL revenue that cannot be recovered). (Chapter 8)
16. If a rural fire service is established, the ESL should be used to fund the efficient costs of:
 - a. response activities;
 - b. prevention and preparedness activities that have community-wide benefits; and
 - c. the administration costs of a rural fire service. (Chapter 7)
17. New emergency services legislation should clarify the extent to which the Department of Fire and Emergency Services and local governments are obliged to undertake prevention activities, and whether these activities may be funded from the ESL. (Chapter 3)

Method for setting the ESL

18. Grouping of properties should be discontinued for the purpose of calculating the ESL. (Chapter 6)
19. A levy on boat registrations should be introduced to fund the direct costs of the Volunteer Marine Rescue Services. (Chapter 6)
20. Road crash rescue services should continue to be funded from the ESL. (Chapter 6)
21. Landgate should conduct another review of land classifications in the Swan Valley to ensure that vineyards are classified appropriately. (Chapter 6)

Decision-making framework

22. The Department of Fire and Emergency Services should implement activity based costing to allow for robust analysis. (Chapter 5)
23. The Department of Fire and Emergency Services should use its cost and incident data to determine the direct costs of providing emergency services to each of the five ESL categories. (Chapter 6)
24. The Department of Fire and Emergency Services should implement the *ISO 31000* standard across its business activities. (Chapter 5)

25. The Department of Fire and Emergency Services should finalise and implement the Capability Framework. (Chapter 5)
26. The Department of Fire and Emergency Services should require cost-benefit analysis to be prepared for all major funding allocation decisions. (Chapter 5)
27. The Department of Fire and Emergency Services should require post-project cost-benefit reviews to be presented to senior decision-makers to enable assessment of the effectiveness of past decisions. (Chapter 5)
28. Grants manuals should be made consistent between all volunteer organisations where it makes sense to do so. (Chapter 8)

Setting ESL rates

29. The Office of Emergency Management should consult stakeholders when:
 - a. determining the ESL revenue to be allocated to stakeholders; and
 - b. advising the Minister for Emergency Services on ESL revenue and rates. (Chapter 8)
30. The Office of Emergency Management should prepare a report to the Minister for Emergency Services recommending total ESL revenue and rates. The Minister should table the report in Parliament within 28 days of receiving it. (Chapter 8)
31. The Department of Fire and Emergency Services (and a rural fire service if established) should provide a report to the Office of Emergency Management explaining how it has spent ESL funds and the rationale for this expenditure. (Chapter 8)

Transparency

32. The Office of Emergency Management should prepare and publish an annual report on the ESL. (Chapter 8)
33. The Office of Emergency Management should prepare a brochure on the ESL and provide it to local governments to distribute with rate notices. The brochure should explain the purpose of the ESL and that it is a State Government levy, and describe how ESL revenue is raised and spent. (Chapter 8)
34. The Office of Emergency Management should prepare annual estimates of the funding required by the Department of Lands and the Department of Parks and Wildlife to conduct prevention activities on their estates. These estimates should be published in the annual report of each agency, along with the amount of funding provided by the State Government. (Chapter 3)
35. The Department of Fire and Emergency Services should publish data in accordance with the State Government's *Whole of Government Open Data Policy*. (Chapter 8)

36. The Office of Bushfire Risk Management should require local governments to publish their bushfire risk management plans and treatment strategies. (Chapter 3)
37. The Department of Fire and Emergency Services should publish a capital grants manual for volunteer organisations it manages (for example the Volunteer Fire and Rescue Service). (Chapter 8)

1 Introduction

1.1 Terms of reference

On 23 December 2016, the then Treasurer of Western Australia asked the Economic Regulation Authority (ERA) to prepare a report on the current arrangements for, and options to improve, the management and distribution of the Emergency Services Levy (ESL) in Western Australia.

The Treasurer referred the review to the ERA under section 38 of the *Economic Regulation Authority Act 2003*, which allows the Treasurer to direct the ERA to prepare a report on a matter relating to an industry that is not a regulated industry (that is, water, gas, electricity and rail industries).

In conducting this review, the ERA will consider the following:

- The current ESL expenditure applied to managing the emergency services (prevention of, preparedness for, response to and recovery from natural hazard emergencies).
- The proportion of ESL funding directed towards each aspect of emergency management: prevention, preparedness, response and recovery.
- The extent to which the current allocation of ESL funds towards prevention and response reflects best practice in managing the risk of bushfire and other hazards.
- The extent to which the current methodology for setting the ESL is appropriate, now and into the future.
- The current transparency and accountability arrangements for the distribution of the ESL.
- Whether it would be more appropriate for the allocation of ESL funds to be the responsibility of an agency other than the Department of Fire and Emergency Services.
- The extent to which the ESL should be available to fund administrative and/or operational costs of a Rural Fire Service.
- The extent to which the use of the ESL to fund a Rural Fire Service would impact on ESL rates.

1.2 Background to the review

The former Treasurer, Dr Michael Nahan, asked the ERA to conduct a review of the ESL in response to a recommendation of the *Report of the Special Inquiry into the January 2016 Waroona Fire*, prepared by Mr Euan Ferguson.¹

Stakeholder comments in the Ferguson report raised the following concerns with the administration of the ESL.

- Stakeholders perceive that increases in the levy are used to supplement the administrative costs of the Department of Fire and Emergency Services (DFES), rather than funding frontline services.
- Insufficient funds are being directed towards mitigation² activities, with priority being given to response, despite greater financial benefits from investing in mitigation rather than response.
- There is a lack of transparency in the way funding from the ESL is allocated and concern that the allocation is not based upon risk.^{3,4}

The Ferguson report noted that previous inquiries into Western Australian bushfires had identified similar issues with the ESL and recommended changes to the management of the ESL.

In the 2011 *Perth Hills Bushfire Report*, Mr Mick Keelty recommended “the State Government move the responsibility for the management and distribution of the Emergency Services Levy to the Department of Finance.”⁵ DFES and the Department of Finance examined this issue, but found no major benefit evident in transferring the assessment and collection of the ESL to the Department of Finance.⁶

The Ferguson report considered this recommendation of the *Perth Hills Bushfire Report* had not been implemented because the review was not sufficiently inclusive or transparent.⁷ The report considered that an independent review should encompass a broad range of stakeholders and take into account the need for a greater emphasis on bushfire prevention and mitigation.⁸

¹ Ferguson, E., *Reframing Rural Fire Management: Report of the Special Inquiry into the January 2016 Waroona Fire*, Perth, Government of Western Australia, 2016, Vol. 1.

² Note that the ERA has used the term ‘prevention’ synonymously with ‘mitigation’ throughout this report.

³ Natural disaster risk arises from the interaction of three elements: the probability of a natural hazard occurring; the exposure of people, property and the environment to the hazard; and their vulnerability to the impacts. (Source: Productivity Commission, *Natural Disaster Funding Arrangements*, Inquiry Report No. 74, Melbourne, Government of Australia, 2014, Vol. 1, p. 12.)

⁴ Ferguson, E., *Reframing Rural Fire Management: Report of the Special Inquiry into the January 2016 Waroona Fire*, Perth, Government of Western Australia, 2016, Vol. 1, p. 55.

⁵ Keelty, M. APM AO, *A Shared Responsibility: Perth Hills Bushfire Inquiry*, Perth, Government of Western Australia, 2011, p. 22.

⁶ Ferguson, E., *Reframing Rural Fire Management: Report of the Special Inquiry into the January 2016 Waroona Fire*, Perth, Government of Western Australia, 2016, Vol. 1, p. 55.

⁷ Ferguson, E., *Reframing Rural Fire Management: Report of the Special Inquiry into the January 2016 Waroona Fire*, Perth, Government of Western Australia, 2016, Vol. 1, p. 56.

⁸ Ferguson, E., *Reframing Rural Fire Management: Report of the Special Inquiry into the January 2016 Waroona Fire*, Perth, Government of Western Australia, 2016, Vol. 1, p. 261.

The report recommended the State Government create a rural fire service to enhance the capability for rural fire management and bushfire risk management at a State, regional and local level.⁹

The State Government has not committed to form a rural fire service. On 23 June, it hosted a bushfire mitigation summit to hear stakeholders' views on bushfire management issues.¹⁰

1.3 Consultation

The ERA published an issues paper on 30 January 2017. The purpose of the issues paper was to help interested parties make submissions to the review. The issues paper explained the process for the review and how the ERA would examine the issues outlined in the terms of reference.

Submissions to the issues paper closed on Friday 10 March 2017. The ERA received 40 submissions. Most of the submissions are published on the ERA's website (www.erawa.com.au). Three submissions were confidential and are not published.

The ERA had 29 meetings with 21 individuals and organisations from February to May 2017. These meetings were conducted on the basis that comments made during these meetings would not be attributable to individuals or organisations.

The ERA relied on information stakeholders presented at confidential meetings when undertaking its analysis and writing this report. When referencing this information the ERA has excluded stakeholder details to maintain confidentiality, in accordance with section 55 of the *Economic Regulation Authority Act 2003*.

Appendix A contains a list of stakeholders that made submissions to the ESL review and a list of stakeholders that the ERA met.

This draft report has been prepared with the benefit of legal advice where appropriate (which remains confidential and has not been disclosed in the draft report) and extensive consultation.

1.4 Structure of this draft report

The remainder of this draft report is set out as follows:

- *Chapter 2 – Emergency Arrangements in Western Australia:* background information on agencies and organisations with responsibilities for emergency management and emergency services in Western Australia, and on the operation of the ESL.
- *Chapter 3 – Framework for considering the ESL:* an assessment of whether it is appropriate to fund emergency management activities, including emergency services, from a special purpose levy, a discussion of which aspects of

⁹ Ferguson, E., *Reframing Rural Fire Management: Report of the Special Inquiry into the January 2016 Waroona Fire*, Perth, Government of Western Australia, 2016, Vol. 1, p. 258.

¹⁰ OEM, *Bushfire Mitigation*, Perth, Government of Western Australia, <https://www.oem.wa.gov.au/Pages/BushfireMitigationSummit.aspx>, (accessed 19 June 2017).

emergency management expenditure should be funded from the ESL and a discussion of the principles for designing a special purpose levy.

- *Chapter 4 – The Department's revenues and costs:* an overview of the revenues and expenditures of DFES and how the ESL is currently applied across prevention, preparedness, response and recovery.
- *Chapter 5 – Best practice management of hazards:* a discussion of the extent to which the current allocation of ESL funds towards prevention and response reflects best practice in managing the risk of bushfire and other hazards.
- *Chapter 6 – Method for setting the ESL:* an assessment of issues with the design of the ESL against principles for the design of taxes and levies, and practical considerations.
- *Chapter 7 – Funding a rural fire service:* a discussion of the extent to which the ESL should be used to fund the costs of a rural fire service and an estimate of the range of potential costs of a rural fire service.
- *Chapter 8 – Governance, transparency and accountability arrangements:* a discussion of options to improve the transparency and accountability of the administration of the ESL, including whether an agency other than DFES should allocate the ESL.

1.5 How to make a submission

Submissions should be made by **4:00pm (WST) on 11 August 2017**, preferably in electronic form.

Online: www.erawa.com.au/consultation

Email address: publicsubmissions@erawa.com.au

Postal: PO Box 8469, PERTH BC WA 6849

CONFIDENTIALITY

In general, the ERA will treat all submissions from interested parties as being in the public domain and placed on the ERA's website. Where an interested party wishes to make a submission in confidence, it should clearly indicate the parts of the submission for which confidentiality is claimed, and specify in reasonable detail the basis for the claim. Any claim of confidentiality will be considered in accordance with the provisions of the *Economic Regulation Act 2003*.

The publication of a submission on the ERA's website shall not be taken as indicating that the ERA has knowledge either actual or constructive of the contents of a particular submission and, in particular, whether the submission in whole or part contains information of a confidential nature and no duty of confidence will arise for the ERA.

1.6 Next steps

After reviewing the responses received to this draft report, the ERA will prepare a final report and present it to the Treasurer by 29 September 2017. The Treasurer will have 28 days to table the final report in Parliament.

General Enquiries

Paul Kelly

Ph: 08 6557 7900

records@erawa.com.au

Media Enquiries

Sinéad Mangan

Ph: 08 6557 7900

communications@erawa.com.au

2 Emergency arrangements in Western Australia

2.1 Introduction

This chapter provides background information on agencies and organisations with responsibilities for emergency management and emergency services in Western Australia, and on the operation of the ESL. The chapter is set out as follows:

- an overview of agencies and organisations with responsibilities for emergency management and for providing emergency management and services in Western Australia, particularly to identify agencies with responsibility for rural fire management;
- an overview of the ESL and how it is currently used;
- a discussion of why the ESL was introduced in Western Australia;
- an overview of the expenditures the ESL was intended to fund;
- an overview of responsibilities for the ESL (that is, which entities are responsible for collecting, setting, and administering the ESL); and
- a description of the method used to calculate the ESL.

2.2 Emergency management and emergency services in Western Australia

The *Emergency Management Act 2005* defines an emergency as the occurrence or imminent occurrence of a hazard of such a magnitude that it requires a significant and coordinated response.¹¹

Emergency management is the managerial function charged with creating the framework within which communities reduce vulnerability to hazards and cope with disasters.¹² Agencies such as the State Emergency Management Committee, Office of Emergency Management and Hazard Management Agencies are tasked by legislation to provide this managerial role across 27 hazards.

The *Emergency Management Act 2005* also defines emergency management as the management of adverse effects of an emergency. The adverse effects are managed through prevention, preparedness, response and recovery.

Emergency services involve an organisation responding to provide protection to preserve life and property from harm resulting from an emergency.¹³ Agencies that provide

¹¹ *Emergency Management Act 2005*, section 3.

¹² Federal Emergency Management Authority, *Principles of Emergency Management*, U.S. Department of Homeland Security, 2007.

¹³ Office of Emergency Management, *State Emergency Management: Glossary*, 'emergency service', Perth, Government of Western Australia.

emergency services include the Department of Fire and Emergency Services and volunteer units such as the State Emergency Service.

The report defines 'emergency services' as a subset of 'emergency management'.

It further defines 'rural fire management' as planning and undertaking activities to prevent, prepare for, and respond to fire incidents in rural areas. It may also include incident recovery. State Government agencies and stakeholders that have responsibilities for rural fire management include Department of Fire and Emergency Services, Office of Bushfire Risk Management, local governments, volunteer brigades, and Department of Parks and Wildlife.

2.2.1.1 State Emergency Management Committee

The State Emergency Management Committee (SEMC) is the State's peak emergency planning body and reports to the Minister for Emergency Services. SEMC is established under section 13 of the *Emergency Management Act 2005*. Members of SEMC are appointed by the Minister and SEMC is comprised of a Chairman, a Deputy Chairman, an Executive Officer, a representative of local government, and other members appointed in accordance with the *Emergency Management Regulations 2006* (Regulations).

SEMC is responsible for developing a state wide mechanism that ensures a coordinated approach to emergency response and community safety.¹⁴ It does so through the state emergency management framework, which consists of the state emergency management legislation, *State Emergency Management Policy*, *State Emergency Management Plan*, state hazard specific plans (Westplans), state emergency management procedures, and state emergency management guidelines.

The state emergency management framework identifies the relevant authorities or organisations, and outlines the roles and responsibilities to prevent, prepare for, respond to and recover from an emergency or natural disaster event. The framework also provides procedural guidelines on the reporting structure for emergency coordination across the 27 hazards prescribed under the *Emergency Management Act 2005*.

SEMC is supported by district emergency management committees, local emergency management committees, four sub-committees, and two reference groups to fulfil its legislative functions. In January 2017, SEMC established a new subcommittee, the State Bushfire Coordinating Committee, tasked with:

- developing a state bushfire management policy and setting long term bushfire risk management objectives; and
- identifying bushfire risk management priorities and providing a mechanism to allocate bushfire mitigation grant expenditure.

The State Bushfire Coordinating Committee engages with stakeholders and advises SEMC and the Fire and Emergency Services (FES) Commissioner on bushfire risk management matters.¹⁵

¹⁴ Office of Emergency Management, *Emergency Management*, <https://www.oem.wa.gov.au/emergency-management>, Perth, Government of Western Australia, (accessed 24 May 2017).

¹⁵ Department of Fire and Emergency Services, *Office of Bushfire Risk Management Update – State Bushfire Coordinating Committee*, Perth, Government of Western Australia,

2.2.1.2 Hazard Management Agencies

The *Emergency Management Act 2005* appoints hazard management agencies (or public authorities) to provide emergency management (or an aspect of emergency management) of a hazard prescribed by the *Emergency Management Regulations 2006*.¹⁶ Hazard management agencies, or HMAs, are appointed based on that agency's functions under any written law or because of its specialised knowledge, expertise, and resources for a particular hazard.¹⁷

There are eight HMAs in Western Australia. They are the Commissioner of Police, FES Commissioner, Coordinator of Energy, State Health Coordinator and State Human Epidemic Controller, Marine Safety General Manager, Public Transport Authority, Brookfield Rail Pty Limited, and Agriculture Director General.

Table 1 summarises the relationship between a hazard, the HMA responsible, and the controlling agency (or agencies) nominated to control the response activities to a particular hazard emergency.

<https://www.dfes.wa.gov.au/waemergencyandriskmanagement/obrm/Documents/OBRM-Update-April-2017.pdf>, 2017, (accessed 27 May 2017).

¹⁶ *Emergency Management Act 2005*, section 4 (1).

¹⁷ *Emergency Management Act 2005*, section 4 (3).

Table 1 Hazard management arrangements

Hazard Management Agency	Hazards	Controlling agency
Commissioner of Police	Air crash, land search, maritime search, radiation escape from a nuclear powered warship, road crash, space re-entry debris, and terrorist act	Western Australian Police
FES Commissioner	Cyclone, earthquake, collapsed structure or landform, fire ¹⁸ , flood, hazmat spill (chemical, radiological, or other substances), storm, and tsunami	Department of Fire and Emergency Services
Coordinator of Energy	Electricity, gas, and liquid fuel supply disruption	Department of Finance (Public Utilities Office) ¹⁹
State Health Coordinator and State Human Epidemic Controller	Biological substance spill, heatwave, and human epidemic	Department of Health
Marine Safety, General Manager	Marine oil pollution and marine transport emergency	Department of Transport, Marine Safety and Port Authority
Public Transport Authority (PTA) Network	Rail crash (passenger)	Public Transport Authority ²⁰
Brookfield Rail Pty Ltd	Rail crash (freight)	Brookfield Rail Pty Ltd ²¹
Agriculture Director General	Animal or plant, pests or diseases	Department of Agriculture and Food WA

Source: OEM website – Emergency Management Arrangements.

¹⁸ DFES within gazetted fire districts or where a DFES brigade or unit is established; Department of Parks and Wildlife (DPAW) on land it manages outside gazetted fire districts; and local government in local government districts outside of gazetted fire districts and DPAW land.

¹⁹ On 1 July 2017, the Public Utilities Office was transferred to the Department of Treasury as part of the Machinery of Government changes.

²⁰ Passenger rail crash is alternatively managed by WA Police or DFES, by agreement, following the declaration of an emergency situation or state of emergency or circumstance where the demands of the situation are deemed to exceed the capacity or capability of the PTA.

²¹ Freight rail crash is alternatively managed WA Police or DFES, by agreement, following the declaration of an emergency situation or state of emergency or circumstance where the demands of the situation are deemed to exceed the capacity or capability of the Brookfield Rail.

A HMA has a number of responsibilities, functions and powers for their prescribed hazard(s), under the *Emergency Management Act 2005* and the *State Emergency Management Policy*, including:

- conducting emergency management activities for prevention, preparedness, response and recovery;²²
- declaring, extending and revoking an emergency situation through a notice of declaration;²³
- appointing a hazard management officer to act as an emergency response coordinator on its behalf;²⁴ and
- preparing, maintaining, exercising and amending the Westplans.²⁵

The *State Emergency Management Policy* further outlines a HMA's roles and responsibilities across prevention, preparedness, response, and recovery.

Westplans are developed for each hazard by the prescribed HMA. A Westplan is similar to the state emergency management framework, but it addresses a specific hazard risk. Some Westplans prescribe hazard risk management strategies.

2.2.1.3 Department of Fire and Emergency Services

The Department of Fire and Emergency Services (DFES) coordinates emergency management and emergency services for fire, tsunami, storm, hazardous material incidents, flood, earthquake, cyclone, and collapsed landform or structures across the State.²⁶

The DFES' responsibilities are set down in a number of Acts²⁷ (which include the *Fire and Emergency Services Act 1998*, *Bush Fires Act 1954* and *Fire Brigades Act 1942*)²⁸, and by the *Emergency Management Act 2005* and *Emergency Management Regulations 2006*.

Under the *Fire and Emergency Services Act 1998* the FES Commissioner is the chief executive officer of DFES. The FES Commissioner has responsibility for providing emergency services under the emergency services Acts.²⁹ (Appendix C shows DFES' organisational structure.)

The *Emergency Management Act 2005* and *Emergency Management Regulations 2006* establish the FES Commissioner as a HMA or public authority, which provides emergency

²² *Emergency Management Act 2005*, section 3.

²³ *Emergency Management Act 2005*, Part 4, Division 1.

²⁴ *Emergency Management Act 2005*, Part 4, Division 2.

²⁵ *State Emergency Management Policy*, section 1.5.4; *Emergency Management Act 2005*, section 20.

²⁶ Department of Fire and Emergency Services, *Annual Report 2015-16*, Perth, Government of Western Australia, 2016, p. 14; *Emergency Management Regulations 2006*, regulations 17.

²⁷ *Fire and Emergency Services Act 1998*, section 3.

²⁸ These are referred to as the 'emergency services Acts'.

²⁹ *Fire and Emergency Services Act 1998*, section 11.

management for hazard risks relating to fire, tsunami, storm, hazardous material incidents, flood, earthquake, cyclone, and collapsed landform or structures.³⁰

The *Emergency Management Act 2005* and the *Emergency Management Regulations 2006* do not differentiate between bushfires and structural fires. The FES Commissioner provides support to a number of State Government agencies, such as the Department of Education and Department of Lands, with responsibilities for fire management on land they manage.

The FES Commissioner has the general responsibility of the State Emergency Service, Volunteer Marine Rescue Services, and fire and emergency services units.³¹ The *Fire Brigades Act 1942* establishes the FES Commissioner to have the general responsibility for all private and volunteer brigades such as the Volunteer Fire and Rescue Service and the Volunteer Fire and Emergency Services.

DFES provides emergency management and services through its career firefighters and an extensive network of volunteers. The operations of the career and volunteer units are funded through the ESL. DFES administers the ESL under the *Fire and Emergency Services Act 1998*. The administration and calculation of the ESL is discussed further in Section 2.6 and Section 2.7.

At the time of publishing, there are 1,123 career firefighters in Western Australia.³² Career firefighters are paid staff responsible for firefighting, hazardous material management, road crash rescue, urban search and rescue, disaster support, fire alarm response, building fire safety inspection, fire scene investigation, community engagement, and the provision of firefighting and fire safety education. Career firefighters support communities in the Perth metropolitan fire district, regional cities, and urban metropolitan area.³³ DFES career firefighters operate as the Career Fire and Rescue Service.

The Volunteer Fire and Rescue Service consists of volunteers who provide firefighting, hazardous material management, road crash rescue, and fire safety education services. There were 93 brigades and 2,414 volunteers in 2015-16.³⁴ The Volunteer Fire and Rescue Service supports communities in the urban metropolitan area and country towns.³⁵

The functions of the State Emergency Service, Volunteer Marine Rescue Services, and Volunteer Fire and Emergency Services will be discussed further in Section 2.2.1.9.

The FES Commissioner's responsibility to provide emergency management across eight hazards is established under the *Emergency Management Act 2005*, while the FES Commissioner's functions to provide emergency services as chief executive officer of DFES are established under the emergency services Acts.

³⁰ *Emergency Management Act 2005*, section 4; *Emergency Management Regulations 2006*, regulation 17.

³¹ *Fire and Emergency Services Act 1998*, section 18A, 18F and 18K.

³² Department of Fire and Emergency Services, Career Fire and Rescue Service, Perth, Government of Western Australia, <https://www.dfes.wa.gov.au/aboutus/operationalinformation/Pages/fireandrescueservice.aspx>, (accessed 25 May 2017).

³³ Department of Fire and Emergency Services, *Emergency Services Levy – Manual of Operating Procedures*, 2016-17, Perth, Government of Western Australia, 2015, p. 1-2.

³⁴ Department of Fire and Emergency Services, *Annual Report 2015-16*, Perth, Government of Western Australia, 2016, p. 158.

³⁵ Department of Fire and Emergency Services, *Emergency Services Levy – Manual of Operating Procedures*, 2016-17, Perth, Government of Western Australia, 2015, p. 1-2.

The FES Commissioner's functions are defined in section 11, 18A, 18F, and 18K of the *Fire and Emergency Services Act 1998* and section 25 in the *Fire Brigades Act 1942*.

The functions established are supported by a number of powers established by the emergency services Acts. This gives the FES Commissioner the ability to perform certain actions. The powers include, but are not limited to, the power to assess the levy charged on State and local government land, to form and manage a brigade, and carry out fire prevention measures the FES Commissioner considers necessary.³⁶

2.2.1.4 Office of Emergency Management

The Office of Emergency Management (OEM) provides secretariat support to SEMC and is a sub-department of DFES.

OEM has the strategic role of developing and improving the State's emergency management arrangements through capacity building, and providing advisory and support services to stakeholders. For instance, SEMC delegates to OEM the responsibility for the development, maintenance, and review of the *State Emergency Management Policy* (in consultation with relevant stakeholders),³⁷ the preparation of the *Emergency Preparedness Report*, and to carry out the State Risk Project.³⁸

The *Emergency Preparedness Report* is a report that offers a broad view of the State's capacity and ability to deal with large-scale emergencies and is submitted yearly to the Minister for Emergency Services.³⁹

The State Risk Project identifies a range of potential vulnerabilities that may be affected by any of the 27 hazards. Risks are assessed through a series of workshops. SEMC establishes six objectives to protect: people, economy, infrastructure, social setting, government, and environment.

The project is used to formulate an understanding of the risks faced at the state, district, and local levels. The information will formulate appropriate, cost-effective mitigation strategies that address capacity and ability gaps to lower risk and contribute to building a more resilient state.⁴⁰

OEM advises SEMC and the Minister for Emergency Services. It also provides capability building assistance and guidance to district emergency management committees, local emergency management committees, local governments and HMAs in accordance with *State Emergency Management Policy* and the *Emergency Management Act 2005*.

OEM administers funding for the Natural Disaster Resilience Program, the All West Australians Reducing Emergencies grant, and the Western Australia Natural Disaster Relief

³⁶ *Fire and Emergency Services Act 1998*, section 36 L; *Fire Brigades Act 1942*, section 26; *Bush Fires Act 1954*, section 10 (e); respectively.

³⁷ *State Emergency Management Policy*, Perth, Government of Western Australia, 2016, p. 8.

³⁸ Office of Emergency Management, *Submission to the Emergency Services Levy Review*, 9 March 2017.

³⁹ Office of Emergency Management, *Submission to the Emergency Services Levy Review*, 9 March 2017.

⁴⁰ Office of Emergency Management, *State Risk Project*, Perth, Government of Western Australia, <https://www.oem.wa.gov.au/about-us/the-office-of-emergency-management/risk-and-capability/state-risk-project>, (accessed 29 May 2017).

and Recovery Arrangements. It also manages the finances for the National Bushfire Mitigation Program.⁴¹

DFES provides OEM with support services in human resources, finance, and information technology.⁴² The FES Commissioner appoints and delegates responsibilities to OEM Executive Director under the *Public Sector Management Act 1994*.

2.2.1.5 Office of Bushfire Risk Management

In 2012, the State Government established the Office of Bushfire Risk Management (OBRM) as a recommendation of the 2011 Keelty report into the Margaret River fire. OBRM is an independent business unit of DFES and reports directly to the FES Commissioner.

OBRM is tasked with overseeing the level of prescribed burning undertaken and setting standards to manage bushfire related risks in the State.⁴³ The unit has other functions including: facilitating coordination between key stakeholders, providing expert bushfire risk management advice to stakeholders, and reporting on the State's capability to manage bushfire related risk.

OBRM has the power to approve, delay or disallow prescribed burning in high bushfire risk areas; establish and maintain standards for bushfire risk management activities; establish and maintain a bushfire prone mapping area; and request agencies, entities and organisations to report on bushfire related risk and prescribe burning.

DFES fulfils its responsibilities for bushfire risk prevention through OBRM. DFES is the custodian of the Bushfire Risk Management System and oversees the implementation of the Bushfire Risk Management Plans (BRMP).⁴⁴ The BRMP is a tenure blind program that assesses bushfire risk to assets and prioritises treatment strategies to address those risks.⁴⁵ Local governments develop a BRMP with guidance from OBRM.⁴⁶ Current ongoing BRMP projects are part funded by the Natural Disaster Resilience Program and general government revenue.⁴⁷

In 2015, DFES extended the development of BRMP to 38 local governments with high bushfire risk.⁴⁸ The effectiveness of a BRMP is supported by the development of the *Map*

⁴¹ State Emergency Management Committee, *SEMC and Secretariat Annual Report 2015-2016*, Perth, Government of Western Australia, 2016, p. 16.

⁴² State Emergency Management Committee, *SEMC and Secretariat Annual Report 2015-2016*, Perth, Government of Western Australia, 2016, p. 54.

⁴³ DFES, *Office of Bushfire Risk Management Charter*, Perth, Government of Western Australia, <https://www.dfes.wa.gov.au/waemergencyandriskmanagement/obrm/Documents/DFES-OBRM-Charter.pdf>, (accessed 27 May 2017).

⁴⁴ State Emergency Management Committee, *Bushfire Stocktake – Green paper*, Perth, Government of Western Australia, 2016, p. 19.

⁴⁵ Department of Fire and Emergency Services, *Annual Report 2015-16*, Perth, Government of Western Australia, 2016, p. 26.

⁴⁶ Department of Fire and Emergency Services, *Annual Report 2015-16*, Perth, Government of Western Australia, 2016, p. 75.

⁴⁷ Department of Fire and Emergency Services, *Annual Report 2015-16*, Perth, Government of Western Australia, 2016, p. 75; Department of Fire and Emergency Services, *Annual Report 2014-15*, Perth, Government of Western Australia, 2015, p. 84.

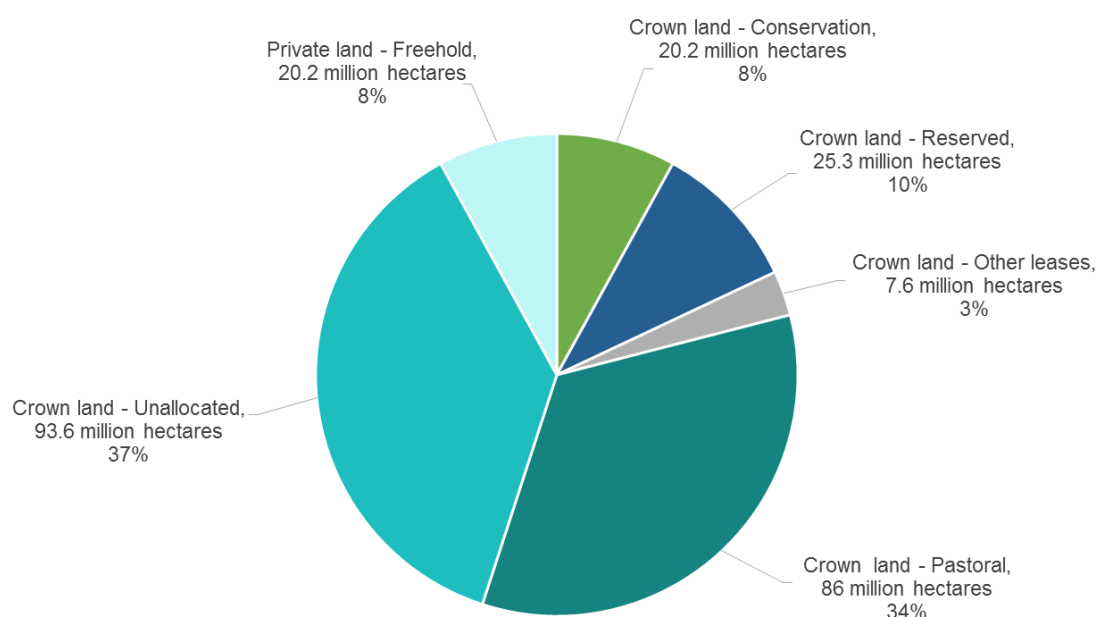
⁴⁸ Department of Fire and Emergency Services, *Annual Report 2015-16*, Perth, Government of Western Australia, 2016, p. 26.

of *Bush Fire Prone Areas*. The map is developed by OBRM to ‘ensure the accurate and consistent designation of bushfire prone areas in Western Australia’.⁴⁹

2.2.1.6 Department of Lands

The Department of Lands administers Crown land in Western Australia, and is principally governed by the *Land Administration Act 1997*. Western Australia has a total land area of 252,987,500 hectares.⁵⁰ Crown land makes up 92 per cent of the State, while freehold land that is privately owned accounts for eight per cent.⁵¹ Figure 1 represents the types of Western Australia’s land tenure.

Figure 1 Western Australia's land tenure



Source: Department of Lands Annual Report 2015-16.

The Department of Lands liaises with SEMC, DFES and DPAW to implement a BRMP on Western Australia’s Crown land.⁵² For example, the Department of Lands has entered into a memorandum of understanding with DFES to conduct bushfire risk management on unallocated Crown land and unmanaged reserves.⁵³ A portion of this land is co-managed by the Department of Parks and Wildlife.⁵⁴ The department’s responsibility to manage fire-related risks on Crown land is discussed further in Section 2.2.1.7.

⁴⁹ Department of Fire and Emergency Services, *Office of Bushfire Risk Management*, Perth, Government of Western Australia, <https://www.dfes.wa.gov.au/waemergencyandriskmanagement/obrm/Pages/default.aspx>, (accessed 16 June 2017).

⁵⁰ Geoscience Australia, *Area of Australia – States and Territories*, Canberra, Government of Australia, <http://www.ga.gov.au/scientific-topics/national-location-information/dimensions/area-of-australia-states-and-territories>, (accessed 28 June 2017).

⁵¹ Department of Lands, *Annual Report 2015-2016*, Perth, Government of Western Australia, 2106, p. 6.

⁵² Department of Lands, *Annual Report 2015-2016*, Perth, Government of Western Australia, 2016, p. 27.

⁵³ Department of Lands, *Annual Report 2015-2016*, Perth, Government of Western Australia, 2016, p. 53.

⁵⁴ Department of Lands, *Annual Report 2015-2016*, Perth, Government of Western Australia, 2016, p. 27.

In contrast, managing bushfire-related risk on pastoral land, freehold land, and other lease tenure is the responsibility of the land owner or occupier of land under the *Bush Fires Act 1954*. The management of bushfire-related risk includes the suppression and prevention of bushfires under section 28 and 33 of the *Bush Fires Act 1954*.

2.2.1.7 Department of Parks and Wildlife

The Department of Parks and Wildlife (DPAW)⁵⁵ is the statutory body responsible for managing approximately 29 million hectares of land across Western Australia.⁵⁶ DPAW provides land and environmental conservation services to the State's national parks, regional parks, marine parks and reserves. The department's full land tenure is established under Part 2 of the *Conservation and Land Management Act 1984*.

DPAW has the responsibility to manage fire related risks on Crown land that is classified as conservation estates, reserved land, and other land tenures under the *Conservation and Land Management Act 1984*.⁵⁷

As a land manager, DPAW provides fire management and bushfire suppression services. The *Conservation and Land Management Act 1984* gives DPAW the authority to conduct fire risk management strategies to prevent, manage or control fire on land placed under its care.⁵⁸ Prescribed burns are conducted to protect and maintain the integrity of State assets from a bushfire related risk.⁵⁹

DPAW's prescribed burning process is described as 'OBRM compliant'.⁶⁰ DPAW uses an OBRM agreed system for prescribed burning that aligns with the *ISO 31000* risk management standard. OBRM regularly audits DPAW's prescribed burnings for compliance with the agreed system and through a continuous improvement framework, makes incremental improvements.^{61,62}

DPAW also researches fire behaviour, which improves the effectiveness of DPAW's prevention and preparedness activities.⁶³ Fuel age data is used to prioritise when and where prescribed burning should occur, subject to other variables such as wind speed, humidity, and allowed prescribed burning days.⁶⁴ DPAW keeps a detailed log of fuel age

⁵⁵ The Department of Parks and Wildlife will become part of the new Department of Biodiversity, Conservation and Attractions as of 1 July 2017. For the purpose of this report, the ERA will be referring to the Department of Parks and Wildlife as is.

⁵⁶ Department of Parks and Wildlife, *Annual Report 2015-16*, Perth, Government of Western Australia, 2016, pp. 91-92.

⁵⁷ *Conservation and Land Management Act 1984*, section 33 (1) (aa).

⁵⁸ *Conservation and Land Management Act 1984*, section 8A; section 8C; section 33 (1) (a) & (1) (aa).

⁵⁹ Department of Parks and Wildlife, *Annual Report 2015-16*, Perth, Government of Western Australia, 2016, p. 62.

⁶⁰ State Emergency Management Committee, *Bushfire Stocktake – Green paper*, Perth, Government of Western Australia, 2016, p. 27.

⁶¹ Communication with Office of Emergency Management and Department of Parks and Wildlife, 12 June 2016.

⁶² Department of Parks and Wildlife, *Yearbook 2015-16*, Perth, Government of Western Australia, 2016, p. 126, https://www.dpaw.wa.gov.au/images/documents/about/annual-report/2016/parks_and_wildlife_yearbook_2015-16_final_web.pdf, (accessed 29 June 2017).

⁶³ Department of Parks and Wildlife, *Fire*, Perth, Government of Western Australia, <https://www.dpaw.wa.gov.au/management/fire>, (accessed on 22 May 2017).

⁶⁴ Department of Parks and Wildlife, *Planning for prescribed burning: prescribed burn planning process*, Perth, Government of Western Australia, <https://www.dpaw.wa.gov.au/management/fire/prescribed-burning/54-planning-for-prescribed-burning?showall>, (accessed 8 June 2017).

on DPAW managed land. In 2015-16, DPAW conducted almost 155,000 hectares of prescribed burning.⁶⁵

DPAW is responsible for the coordination and on-ground management of bushfire risk prevention, preparedness, and suppression on unallocated Crown land and unmanaged reserves outside the Perth metropolitan area and town sites.^{66,67}

Unallocated Crown land is defined as “Crown land which is not subject to any interest, aside from native title interests, and which [is] not reserved or dedicated”.⁶⁸ Unmanaged reserves are “reserves which [are] not formally placed under the control of a management body”. Freehold land is “estates that can be held by a person without being the absolute owner, which is the Crown”.⁶⁹

2.2.1.8 Local governments

Local governments have a role to provide emergency management and emergency services across all 27 hazards. The *Emergency Management Act 2005* requires local governments to ensure that emergency management arrangements are in place for their respective districts.⁷⁰ Local governments are well-positioned to provide advice and support to the community to prevent, prepare for, respond to, and recover from an emergency.⁷¹

The *Emergency Management Act 2005* and *State Emergency Management Policy* establish functions for local governments to manage recovery activities following an emergency.⁷² These functions include establishing a recovery plan in local emergency management arrangements, nominating a local recovery coordinator, and establishing a local recovery coordination group to assist in coordinating local-level recovery activities.

Local governments are also the prescribed combat agency for fire suppression under the *Emergency Management Act 2005* and *Emergency Management Regulations*⁷³ and have legislative responsibilities under the *Bush Fires Act 1954* for bushfire risk management.

The *Bush Fires Act 1954* enables local governments to appoint Bush Fire Control Officers⁷⁴ with special powers established under the Act,⁷⁵ to establish, maintain, and equip one or

⁶⁵ Department of Parks and Wildlife, *Annual report 2015-16*, Perth, Government of Western Australia, 2016, p. 65.

⁶⁶ Department of Parks and Wildlife, *Annual Report 2015-16*, Perth, Government of Western Australia, 2016, p. 65.

⁶⁷ *Land Administration Act 1997*, section 45.

⁶⁸ Landgate, *Glossary of terms: Unallocated Land, Unmanaged Reserves and freehold land*, Perth, Government of Western Australia, <https://www0.landgate.wa.gov.au/for-individuals/property-ownership/survey-services/glossary-of-terms>, (accessed on 22 June 2017).

⁶⁹ Landgate, *Glossary of terms: Unallocated Land, Unmanaged Reserves and freehold land*, Perth, Government of Western Australia, <https://www0.landgate.wa.gov.au/for-individuals/property-ownership/survey-services/glossary-of-terms>, (accessed on 29 May 2017).

⁷⁰ *Emergency Management Act 2005*, section 41.

⁷¹ State Emergency Management Committee, *State Emergency Management Plan*, Perth, Government of Western Australia, 2016, p. 95.

⁷² *Emergency Management Act 2005*, section 36 (b); *State Emergency Management Policy*, section 6.3, Perth, Government of Western Australia, 2016.

⁷³ *Emergency Management Act*, section 6; *Emergency Management Regulations*, regulation 31.

⁷⁴ *Bush Fires Act 1954*, section 38.

⁷⁵ *Bush Fires Act 1954*, section 39.

more bushfire brigades for the purpose of controlling, extinguishing, or preventing the occurrence or spread of a bushfire.⁷⁶

Local government Chief Bush Fire Control Officers are responsible for coordinating volunteer brigades, including brigades that are administered by DFES. If an incident becomes more complex (in scale, resource requirements, risk, or community impact) it is escalated from a Level One to a Level Two or Level Three incident. Incidents are coordinated through a regional or the State operation centre, and additional resources may be brought in from other brigades or from the Career Fire and Rescue Service, including from pre-formed incident response teams.⁷⁷

Additionally, the *Bush Fires Act 1954* gives local governments the power to restrict burning times, penalise unlawful burning, and instruct owners or occupiers of land to prevent and suppress bushfires occurring on their own land.⁷⁸

Local governments may penalise the land owner or occupier of land if they fail to comply with an issued instruction. Local governments can direct bush fire control officers to carry out the necessary prevention or suppression activities,⁷⁹ and recover the expenses incurred from the land owner (including private individuals and State agencies) as allowed under the *Bush Fires Act 1954*.

Local governments also conduct cyclone-related prevention activities. The *Emergency Management Act 2005* delegates to local governments the power to remove, dismantle, or destroy dangerous vegetation or premises on land that may cause loss of life, harm, or damage to property or any part of the environment as a result of a cyclone.⁸⁰

Similarly, local governments can issue an instruction to a land owner or occupier of land to conduct the same prevention activity,⁸¹ issue fines if the instruction is not complied with, and recover the expenses incurred in conducting the activity.⁸²

The *Local Government Act 1995* outlines other preventative activities local governments can take to promote local safety, such as the ability to conduct earthworks or other works on land for the prevention or reduction of floods.⁸³

Local governments are responsible for the management of funding for their local bush fire brigades and State Emergency Service units. Under the ESL arrangements, local governments are to submit an operating and capital grants application to DFES via the Local Government Grant Scheme.⁸⁴

⁷⁶ *Bush Fires Act 1954*, section 41.

⁷⁷ Department of Fires and Emergency Services, *Westplan – Fire*, Perth, Government of Western Australia, 2016.

⁷⁸ *Bush Fires Act 1954*, Part 3 and Part 4.

⁷⁹ *Bush Fires Act 1954*, section 33 (4), 28 (3).

⁸⁰ *Emergency Management Act 2005*, section 46.

⁸¹ *Emergency Management Act 2005*, section 47.

⁸² *Emergency Management Act 2005*, section 48.

⁸³ *Local Government Act 1995*, Schedule 3.2, No. 2.

⁸⁴ Department of Fire and Emergency Services, *Local Government Grant Scheme – Bush Fire Services*, State Emergency Services, Perth, Government of Western Australia, 2017.

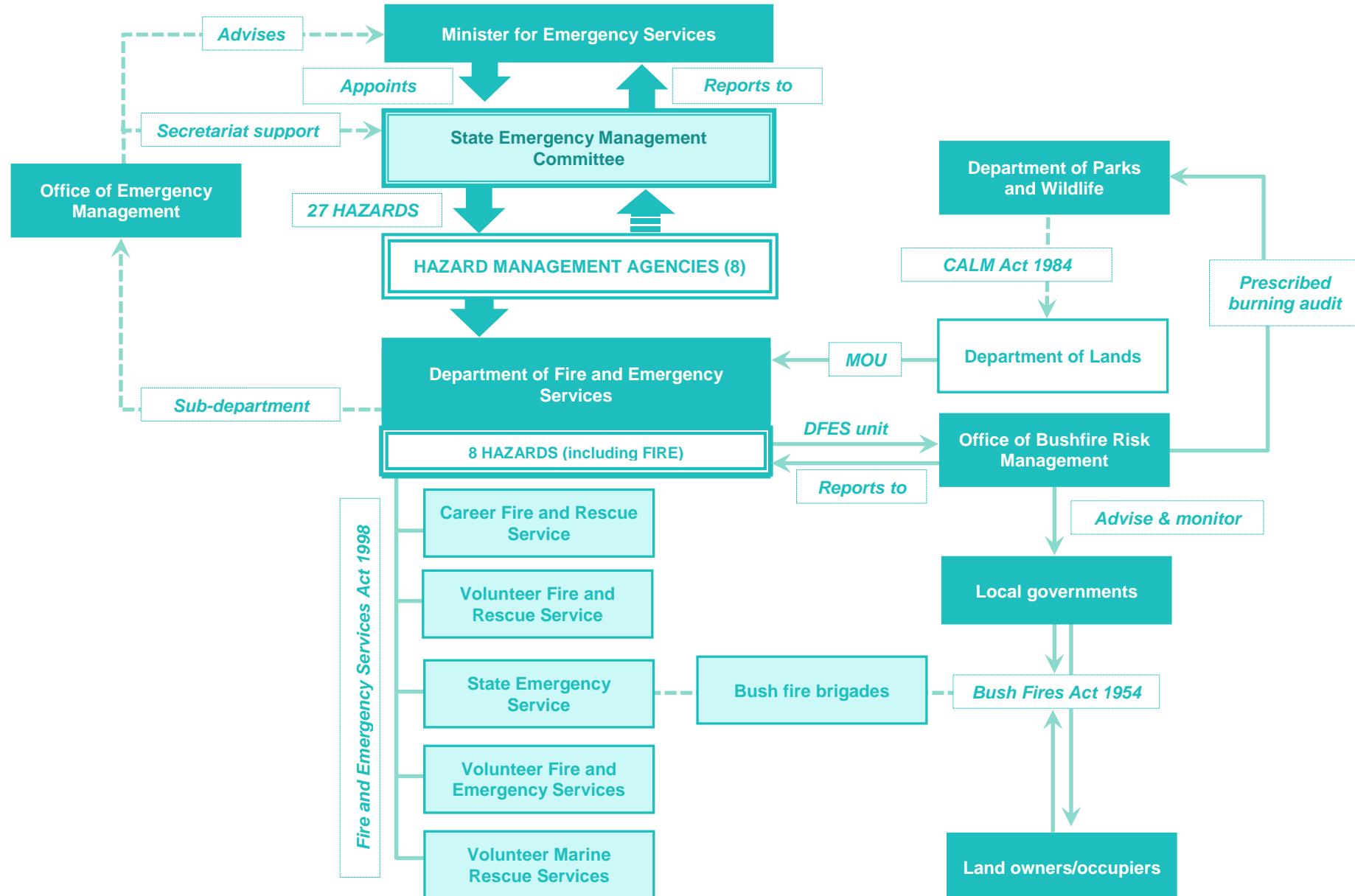
2.2.1.9 Volunteer units

There are number of volunteer units that support DFES in providing emergency management and services throughout Western Australia. These are:⁸⁵

- Volunteer Fire and Rescue Service (VFRS) – Volunteers in both urban and rural areas who provide firefighting, hazardous material management, road crash rescue, and fire safety education services. There were 93 brigades in 2015-16, and 2,414 volunteers. VFRS supports communities in the urban metropolitan area and country towns.
- Local government bush fire brigades – Volunteers in rural and pastoral areas who provide bushfire prevention and risk management services, bushfire suppression services, and bushfire safety education to the community. There were 575 brigades in 2015-16, and 19,954 volunteers. Bush fire brigades support communities in the urban metropolitan area, country towns, and pastoral/rural areas, and are appointed by local governments through the *Bush Fires Act 1954*. Some bush fire brigades operate as VFRS units.
- Volunteer Fire and Emergency Services (VFES) – Multi-functional volunteer units trained in natural disaster and emergency response. There were 27 units in 2015-16, and 884 volunteers. VFES supports communities in country towns and pastoral or rural areas.
- State Emergency Service (SES) – Volunteers in both urban and rural areas who provide disaster support, search and rescue services, community safety education, and ground support for fire services, with some support from local governments. There were 67 State Emergency Service units in 2015-16, and 1,946 volunteers. The SES supports communities across the Perth metropolitan fire district, regional cities, urban metropolitan areas, country towns, and pastoral/rural areas.
- Volunteer Marine Rescue Services (VMRS) – Volunteers who assist police in searching for missing people and vessels, provide help to drifting vessels, and assist in the removal of grounded and submerged vessels. There were 36 groups in 2015-16, and 1,559 volunteers. VMRS provides services in over 39 locations along Western Australia's 13,000 kilometre coastline.

Figure 2 summarises the interaction of main emergency management and emergency services agencies in Western Australia.

⁸⁵ Department of Fire and Emergency Services, *Annual Report 2015-16*, Perth, Government of Western Australia, 2016, p. 158; DFES, *Operational Information*, Perth, Government of Western Australia, <https://www.dfes.wa.gov.au/aboutus/operationalinformation/Pages/default.aspx>, (accessed on 29 May 2017); *Fire and Emergency Services Regulations 1998*, regulation 6.

Figure 2 Emergency management arrangements in Western Australia

2.3 Overview of the Emergency Services Levy system

The ESL commenced on 1 July 2003. The ESL is an annual, property-based levy that is used to fund the costs of providing emergency services in Western Australia. Services funded by the ESL are currently provided by the FES Commissioner of DFES, and by local governments and other organisations that receive grants and subsidies from DFES.

DFES was established on 1 November 2012 and operates under the *Fire and Emergency Services Act 1998*. The FES Commissioner receives all revenue raised via the ESL (although DFES provides grants and subsidies to other organisations). The *Fire and Emergency Services Act 1998* stipulates that:

- any levy paid is to be credited to an operating account of DFES; and
- any amount credited to an operating account of DFES ‘may be applied only for the purposes of the emergency services Acts’, being the *Fire and Emergency Services Act 1998*, the *Bush Fires Act 1954*, and the *Fire Brigades Act 1942*.

This guidance ensures ESL funding may only be used for the functions of the FES Commissioner (as set out in the emergency services Acts), and subject to any Ministerial or State Government policy determinations established in the annual DFES budget (which is approved by Parliament).

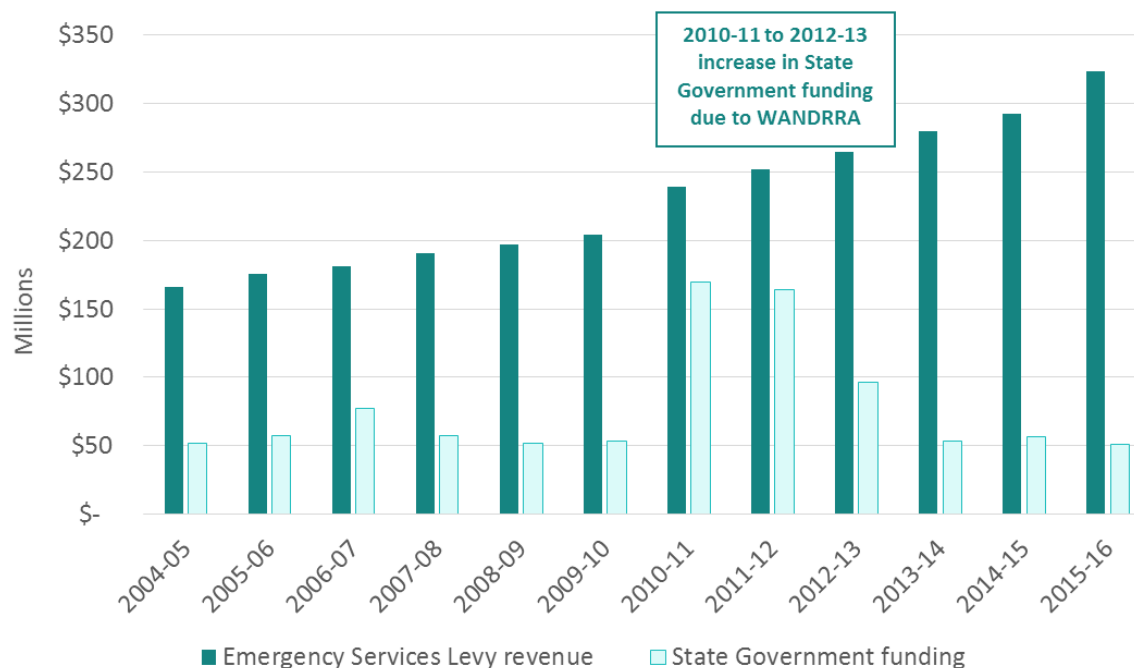
The ESL is the main source of revenue for DFES. In 2015-16, ESL revenue was \$323.3 million, or about 82 per cent of total income for DFES.^{86,87} (DFES also receives an appropriation from the State Government, which accounted for \$37.1 million or 9.4 per cent of DFES revenues in 2015-16. DFES applies the appropriation from the State Government to activities it may not legally fund from ESL revenues.⁸⁸)

Figure 3 shows ESL revenue and State Government funding received by DFES since 2004-05.

⁸⁶ Department of Fire and Emergency Services, *Annual Report 2015-16*, Perth, Government of Western Australia, 2016, p. 72.

⁸⁷ ‘Total income’ includes all income from the State Government, including service appropriations, services received free of charge, and fund from Royalties for Regions.

⁸⁸ The ERA understands that ESL revenue may not be used for unexploded ordinance, surf lifesaving, and the salaries of the FES commissioner and the two deputy FES commissioners.

Figure 3 ESL revenue and State Government funding 2004-05 to 2015-16 (\$ real 2015-16)

Sources: DFES annual reports; ERA analysis.⁸⁹

The ESL currently funds the operating costs of the Career Fire and Rescue Service, Volunteer Fire and Rescue Service, volunteer bush fire brigades, the State Emergency Service, and the Volunteer Fire and Emergency Services.⁹⁰ In 2010-11, the ESL also began funding the aviation service contracted by DFES during emergencies, and in 2015-16, the ESL began funding the Volunteer Marine Rescue Services.⁹¹

The Career Fire and Rescue Service, Volunteer Fire and Rescue Service, Volunteer Fire and Emergency Services, and Volunteer Marine Rescue Services are part of DFES. DFES also supports local governments in administering, training and funding local government bush fire brigades, and funds the direct costs incurred in supporting State Emergency Service units (for example, unit travel, training, and refreshments, regional office expenses, vertical rescue equipment, and the costs of the Pilbara and Kimberley offices where the State Emergency Service is under DFES' direct control).⁹²

Local governments distribute ESL operating and capital grants to bush fire brigades and State Emergency Service units through a local government grants process. DFES allocates funding to the Volunteer Fire and Rescue Service and Volunteer Fire and Emergency Services units through an internal grants process.

⁸⁹ WANDRRA is invoked to 'provide financial assistance to communities whose social, financial and economic wellbeing have been significantly affected by an eligible natural disaster event'. (Source: Fire and Emergency Services Authority, *Annual Report 2011-12*, Perth, Government of Western Australia, p. 120.) It is described in more detail in Chapter 3.

⁹⁰ Department of Fire and Emergency Services, *Emergency Services Levy Question & Answer Guide 2016-17*, Perth, Government of Western Australia, 2015, p. 1.

⁹¹ Department of Fire and Emergency Services, *Emergency Services Questions & Answer Guide 2016-17*, Perth, Government of Western Australia, 2016, p. 1.

⁹² Communication with Department of Fire and Emergency Services, 8 June 2017.

The ESL also funds general DFES operating costs, including operating and maintaining vehicles and buildings, insurance, personal protective equipment and operational consumables. The ESL also funds capital equipment purchases including firefighting appliances, vehicles, buildings, and major rescue equipment.⁹³ Additionally, the ESL funds volunteer training, fire investigations, building inspections, community safety programs, emergency management planning, and the corporate support costs of DFES.

2.4 Why the Emergency Services Levy was introduced in Western Australia

The ESL was established to ensure that all property owners contributed to the costs of emergency services, and that emergency services in Western Australia were appropriately funded.⁹⁴

Before the ESL was introduced, emergency services were funded from a mix of sources. These included a compulsory levy applied to insurance companies and recovered through insurance premiums, levies raised by local governments, State Government contributions, grants (for example, from the Lotteries Commission), and community fundraising.⁹⁵

The basis of this funding system arose in the 19th century. Western Australia adopted the British model of imposing a compulsory charge against insurance companies to establish full-time paid fire services.⁹⁶ Career and volunteer fire services were initially managed and funded by insurance underwriters to protect the property interests of their policyholders, and so to minimise their financial risks. In 1898, these services were incorporated into the Government managed and operated service that exists today.⁹⁷

Under the previous funding arrangements, funding sources varied by service and by location. For example:

- The Career Fire and Rescue Service of Western Australia was funded 75 per cent by the compulsory charge against insurance companies, and a 12.5 per cent contribution from each of the State Government and (collectively) local governments.
- The Volunteer Fire and Rescue Service in country towns was fully funded by the State Government.
- Local government bush fire brigades in rural communities were funded by local governments and their communities, including through community fundraising and matched grants from the State Government and the Lotteries Commission.

⁹³ Department of Fire and Emergency Services, *Emergency Services Levy Question & Answer Guide 2016-17*, Perth, Government of Western Australia, 2015, p. 1.

⁹⁴ Kobelke, J.C., Second Reading Speech: Fire and Emergency Services Legislation (Emergency Services Levy) Amendment Bill, *Hansard*, Assembly, 25 September 2002.

⁹⁵ Kobelke, J.C., Second Reading Speech: Fire and Emergency Services Legislation (Emergency Services Levy) Amendment Bill, *Hansard*, Assembly, 25 September 2002.

⁹⁶ Kobelke, J.C., Second Reading Speech: Fire and Emergency Services Legislation (Emergency Services Levy) Amendment Bill, *Hansard*, Assembly, 25 September 2002.

⁹⁷ Fire and Emergency Services Authority, *A replacement funding system for emergency services*, Perth, Government of Western Australia, 2002, p. 13.

- The State Emergency Service and Volunteer Marine Rescue Services were funded by a combination of local community contributions through local government, or local fundraising, State and Australian Government funding and Lotteries Commission grants.⁹⁸

The contribution made by the insurance industry was financed by policyholders through a loading on their property insurance premiums (that is, on building and contents insurance). The loading was known as the Fire Service Levy and was determined by the insurance industry as the levy sufficient to raise their 75 per cent contribution based on premium income generated in the previous year.⁹⁹

The previous funding arrangements were considered inequitable because the level of financial contribution to emergency services varied considerably among property owners. For example, although the insurance levy was compulsory, property owners could choose not to insure, to self-insure, to under-insure, or to use an off-shore, non-contributing insurer.¹⁰⁰ The Insurance Council of Australia conducted a survey in 1999, which estimated that:

- 9 per cent of all owner-occupied homes had no building cover;
- 21 per cent of all owner-occupied homes had no contents cover;
- 75 per cent of tenanted homes had no contents cover; and
- 31 per cent of all homes had no building or contents cover.¹⁰¹

The system was also inequitable because the level of service varied considerably between locations. In some cases, funding could only be spent in the location it was raised, resulting in some emergency services units being under-funded and under-resourced.¹⁰² However, in times of need, community funded volunteer groups would cross boundaries to provide services in other locations.

“Not every locality has a volunteer SES unit and therefore not every local community contributes to the SES. However, in times of emergency, SES volunteers provide a mobile response service anywhere in the State. Some communities contribute; others get off scot-free.”¹⁰³

In 2003, the new ESL system was introduced that now funds emergency services in Western Australia.

⁹⁸ Kobelke, J.C., Second Reading Speech: Fire and Emergency Services Legislation (Emergency Services Levy) Amendment Bill, *Hansard*, Assembly, 25 September 2002.

⁹⁹ Fire and Emergency Services Authority, *A replacement funding system for emergency services*, Perth, Government of Western Australia, 2002, p. 12.

¹⁰⁰ Kobelke, J.C., Second Reading Speech: Fire and Emergency Services Legislation (Emergency Services Levy) Amendment Bill, *Hansard*, Assembly, 25 September 2002.

¹⁰¹ Fire and Emergency Services Authority, *A replacement funding system for emergency services*, Perth, Government of Western Australia, 2002, p. 15.

¹⁰² Department of Fire and Emergency Services, *Emergency Services Levy Question & Answer Guide 2016-17*, Perth, Government of Western Australia, 2015, p. 1.

¹⁰³ Kobelke, J.C., Second Reading Speech: Fire and Emergency Services Legislation (Emergency Services Levy) Amendment Bill, *Hansard*, Assembly, 25 September 2002.

2.5 Expenditures that were to be funded by the Emergency Services Levy and general revenue

Under the arrangements established in 2003, the ESL and the ongoing State Government contribution were to meet 100 per cent of the agreed operating and capital costs of the Career Fire and Rescue Service, the Volunteer Fire and Rescue Service, bush fire brigades, Fire and Emergency Services Authority (FESA) units (later known as the Volunteer Fire and Emergency Services),¹⁰⁴ and the State Emergency Service.¹⁰⁵

There were to be no other ongoing contributions required from the community to fund these services (such as contributions from local government and community fundraising).¹⁰⁶

Local governments were to submit annual budgets to FESA for the operating costs and capital costs of their bush fire brigades and State Emergency Service units. As a result, these expenditures would no longer need to be funded through local government rates or community fundraising.¹⁰⁷ The change in funding arrangements did not to affect the management and control of these services.¹⁰⁸ This process is called the Local Government Grants Scheme (LGGS).

The Western Australian Local Government Association (WALGA) reported last year that bush fire brigades and State Emergency Service units still fundraise, and rely on donations and local government contributions to support their operational and capital needs.^{109, 110} The report suggests that the ESL is not funding all of the costs of the bush fire brigades and the State Emergency Service units, contrary to the intent of the original ESL arrangements.

Figure 4 and Figure 5 the revenue sources for bush fire brigades and the State Emergency Service.

¹⁰⁴ FESA Units are now known as Volunteer Fire and Emergency Services, and are a multi-skilled emergency services group developed to serve communities which either elected to have a single emergency service entity or, which through lack of local resources, only had sufficient volunteers for one service (FESA, 2002, p. 15). FESA Units are established under section 18M of the *Fire and Emergency Services of Western Australia Act 1998*.

¹⁰⁵ Fire and Emergency Services Authority, *A replacement funding system for emergency services*, Perth, Government of Western Australia, 2002, p. 32.

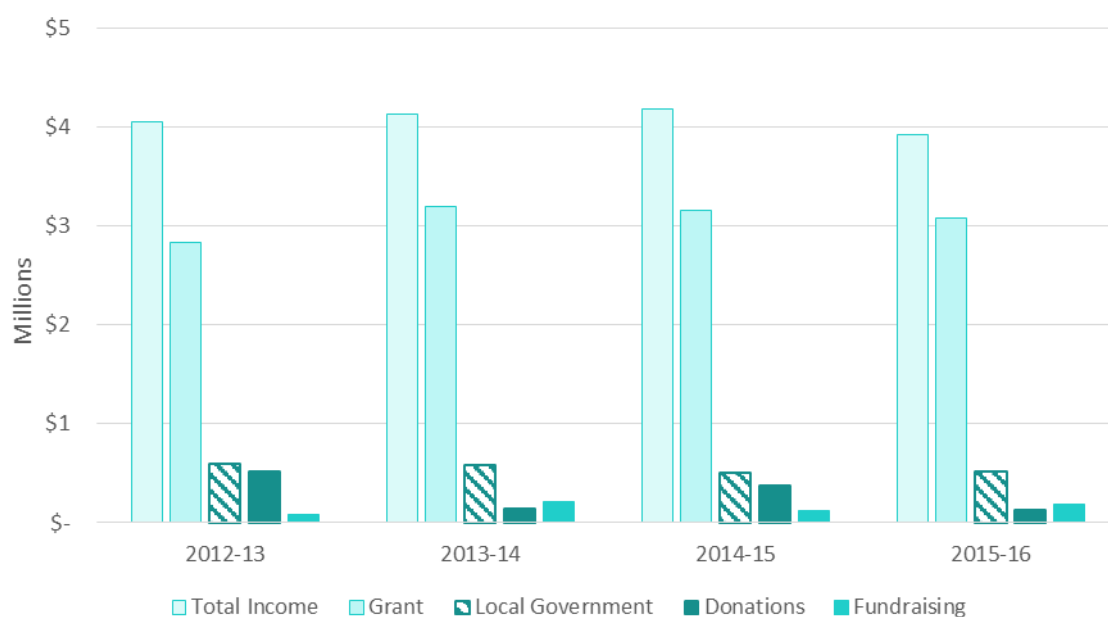
¹⁰⁶ Fire and Emergency Services Authority, *A replacement funding system for emergency services*, Perth, Government of Western Australia, 2002, p. 32.

¹⁰⁷ Fire and Emergency Services Authority, *A replacement funding system for emergency services*, Perth, Government of Western Australia, 2002, pp. 8-9; Kobelke, J.C., Second Reading Speech: Fire and Emergency Services Legislation (Emergency Services Levy) Amendment Bill, *Hansard*, Assembly, 25 September 2002.

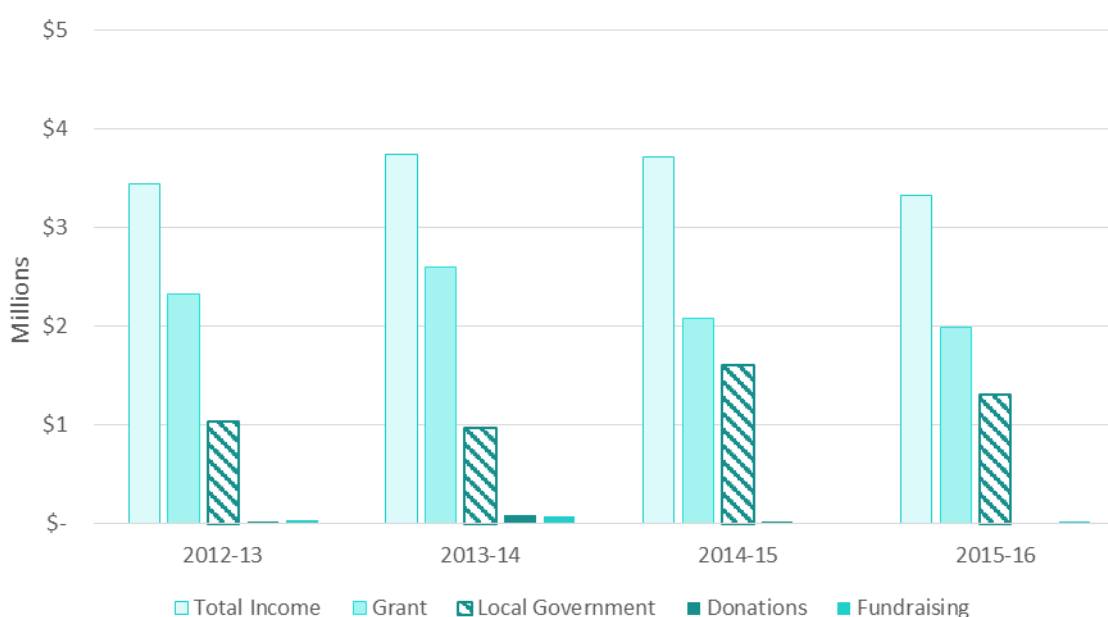
¹⁰⁸ Fire and Emergency Services Authority, *A replacement funding system for emergency services*, Perth, Government of Western Australia, 2002, p. 9.

¹⁰⁹ AEC Group on behalf of WALGA, *Local Government Emergency Management Funding Review – Working Draft 06*, Perth, AEC, 2016, p. 38.

¹¹⁰ The report provided is an advance draft copy, and only 32 out of 138 local governments contributed to the survey on which this information is based.

Figure 4 Bush fire brigades revenue by source (\$ real 2015-16)

Source: WALGA draft report submitted to the ERA.

Figure 5 State Emergency Service revenue by source (\$ real 2015-16)

Source: WALGA draft report submitted to the ERA.

Note: The increase in local government contribution in 2014-15 is attributed to capital expenditure provided in advance to construct an SES facility for Karratha SES.¹¹¹

¹¹¹ Communication with Western Australian Local Government Association, 22 June 2017.

What can be funded from the ESL changes from year to year, as published in the LGGS manual. For example, radio communication appliances for bush fire brigades and State Emergency Service units were eligible items in the 2012-13 financial year. However, the appliances are an ineligible item in the 2016-17 financial year.¹¹² In contrast, operational training costs and other items, which were unavailable in the 2012-13 financial year, are added to the 2016-17 financial year. (The LGGS manual is further discussed in Chapter 8.)

The ESL funding arrangements were not intended to alter the way the Volunteer Marine Rescue Services was funded. Rather, funding from general government revenue was to continue at \$1 million a year.¹¹³ The ESL began to fund the Volunteer Marine Rescue Services in the 2015-16 financial year.¹¹⁴

2.5.1.1 State Government contribution

The State Government's contribution includes ESL payments on land that it owned throughout the State.¹¹⁵ This is detailed in section 36L of the *Fire and Emergency Services Act 1998*. The levy on State Government land is either assessed by the FES Commissioner¹¹⁶ or, where required, by local governments,¹¹⁷ and in consultation with the Valuer-General¹¹⁸ as per section 36H of the *Fire and Emergency Services Act 1998*.

The State Government committed to providing an ongoing subsidy towards the cost of volunteer services (particularly in rural and remote areas of the State). This subsidy was estimated at \$18.5 million a year in 2001-02 terms.¹¹⁹

When the ESL was introduced, the Minister for Police and Emergency Services at the time affirmed that the State Government would continue its commitment to fund emergency services. DFES estimates the State Government's contribution from general revenue in 2016-17 to be approximately \$34.7 million, which is made of \$16 million in ESL on State Government property and a further contribution of \$18.7 million.¹²⁰

Figure 6 shows the State's contribution through ESL payments on its properties and from general government revenue.

¹¹² Department of Fire and Emergency Services, *Local Government Grants Scheme Manual for Capital and Operating Grants 2012/13*, Perth, Government of Western Australia, 2011, pp.62-66; Department of Fire and Emergency Services, *Local Government Grants Scheme Manual for Capital and Operating Grants 2017/18*, Perth, Government of Western Australia, 2016, pp. 72-73.

¹¹³ Fire and Emergency Services Authority, *A replacement funding system for emergency services*, Perth, Government of Western Australia, 2002, p. 2.

¹¹⁴ Department of Fire and Emergency Services, *Emergency Services Levy Question & Answer Guide 2016-17*, Perth, Government of Western Australia, 2015, p. 1.

¹¹⁵ Fire and Emergency Services Authority, *A replacement funding system for emergency services*, Perth, Government of Western Australia, 2002, p. 24.

¹¹⁶ *Fire and Emergency Services Acts 1998*, section 36L(1).

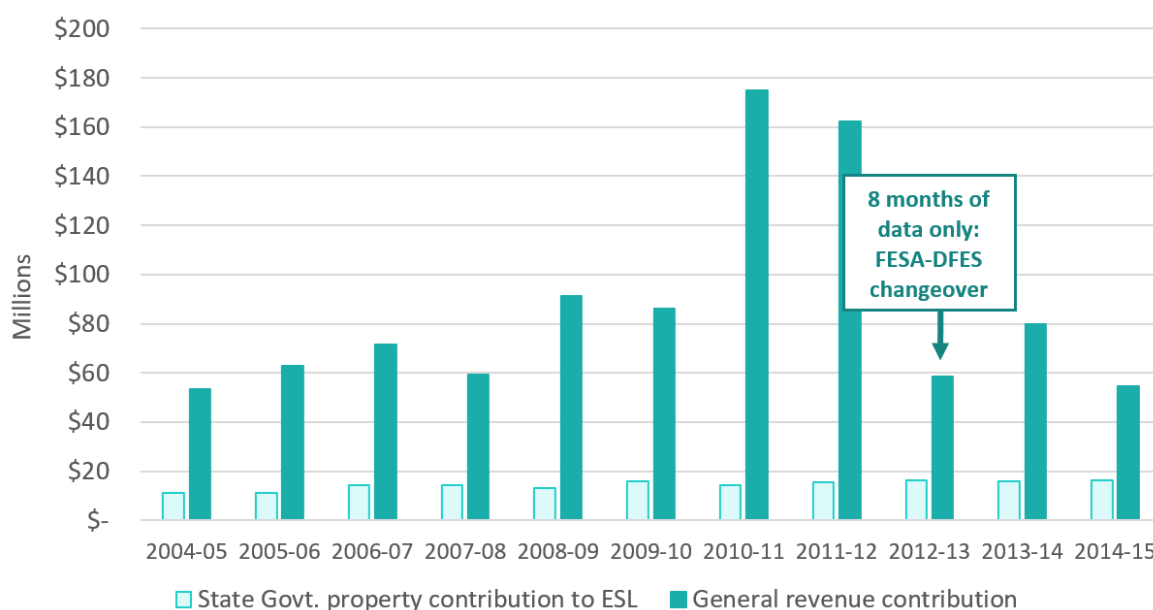
¹¹⁷ *Fire and Emergency Services Regulations 1998*, regulation 9.

¹¹⁸ The Valuer-General is an independent statutory officer appointed under the *Valuation of Land Act 1978*.

¹¹⁹ Fire and Emergency Services Authority, *A replacement funding system for emergency services*, Perth, Government of Western Australia, 2002, p. 24.

¹²⁰ Department of Fire and Emergency Services, *Emergency Services Levy Question & Answer Guide 2016-17*, Perth, Government of Western Australia, 2015, p. 4.

Figure 6 State Government ESL paid on its own properties, and general revenue contribution 2003-2004 to 2014-15 (\$ real 2015-16)



Source: DFES data provided to the ERA; Department of Treasury; ERA analysis.

The State Government was also to continue to fund the following programs from general government revenue:

- Wildfire Assistance Scheme – This scheme is used when bush fire brigades and local governments exhaust their local resourcing and funding capabilities when faced with major emergencies.
- Unallocated Crown Land Scheme – This scheme involves the Department of Land Administration (now Department of Lands) funding FESA's resource commitment to fire prevention activities on selected Unallocated Crown Land throughout Western Australia.
- OCN Scheme¹²¹ – This scheme is drawn upon to provide additional funding when SES units are involved in major emergencies.

2.5.1.2 Local government contribution and financial effect

Under the previous funding arrangement, local governments funded 12.5 per cent of the costs of the Career Fire and Rescue Service from local government rates. When the ESL was introduced, this contribution was discontinued. Local governments were to instead contribute to emergency services through ESL payments on their own property holdings.¹²²

Local governments were expected to receive net savings of approximately \$18 million each year. This comprised: \$9 million in savings from career fire districts; \$9 million in savings

¹²¹ The OCN in 'OCN Scheme' stands for the Operational Code Numbers, which was a terminology used by DFES up until March 1, 2015. (Source: Communication with DFES on 15 June 2017.)

¹²² Fire and Emergency Services Authority, *A replacement funding system for emergency services*, Perth, Government of Western Australia, 2002, p. 24.

from bush fire brigades; and \$2 million in savings from SES units. These savings were offset by additional costs of \$2 million from ESL collected on local government property.¹²³

Additionally, local governments were to receive approximately \$2 million each year in fees for collecting the ESL through the local government rate billing system.¹²⁴ Local governments currently receive \$2.25 million collectively in ESL administration fees.¹²⁵ The amount is determined by the Minister and paid annually.¹²⁶ However, according to WALGA's estimates, the cost of administering the ESL appears to be increasing, as shown in Table 2. However, WALGA did not provide data supporting these figures.

Table 2 Local government ESL administration costs (\$ real 2015-16)

Year	2012-13	2013-14	2014-15	2015-16
ESL administration costs	\$3,406,329	\$3,563,828	\$3,894,670	\$3,965,372

Source: WALGA report provided to the ERA.

2.6 Administration of the Emergency Services Levy

The ESL is established by the *Emergency Services Levy Act 2002*, Part 6A of the *Fire and Emergency Services Act 1998*, and the *Fire and Emergency Services Regulations 1998*.

Part 6A of the *Fire and Emergency Services Act 1998* establishes roles for the Minister for Emergency Services (the Minister), the FES Commissioner and local governments to administer the ESL.

The Minister is responsible for deciding the total amount of ESL revenue to raise, based on advice from DFES. In doing so, it must consider estimated emergency services expenditure in the coming year, and the amount of funding appropriated by Parliament for the services provided under the emergency services Acts. The Minister may also consider any other matter deemed relevant in determining the levy. The annual budget for DFES (including ESL revenues) is approved by Parliament through the annual State budget process.

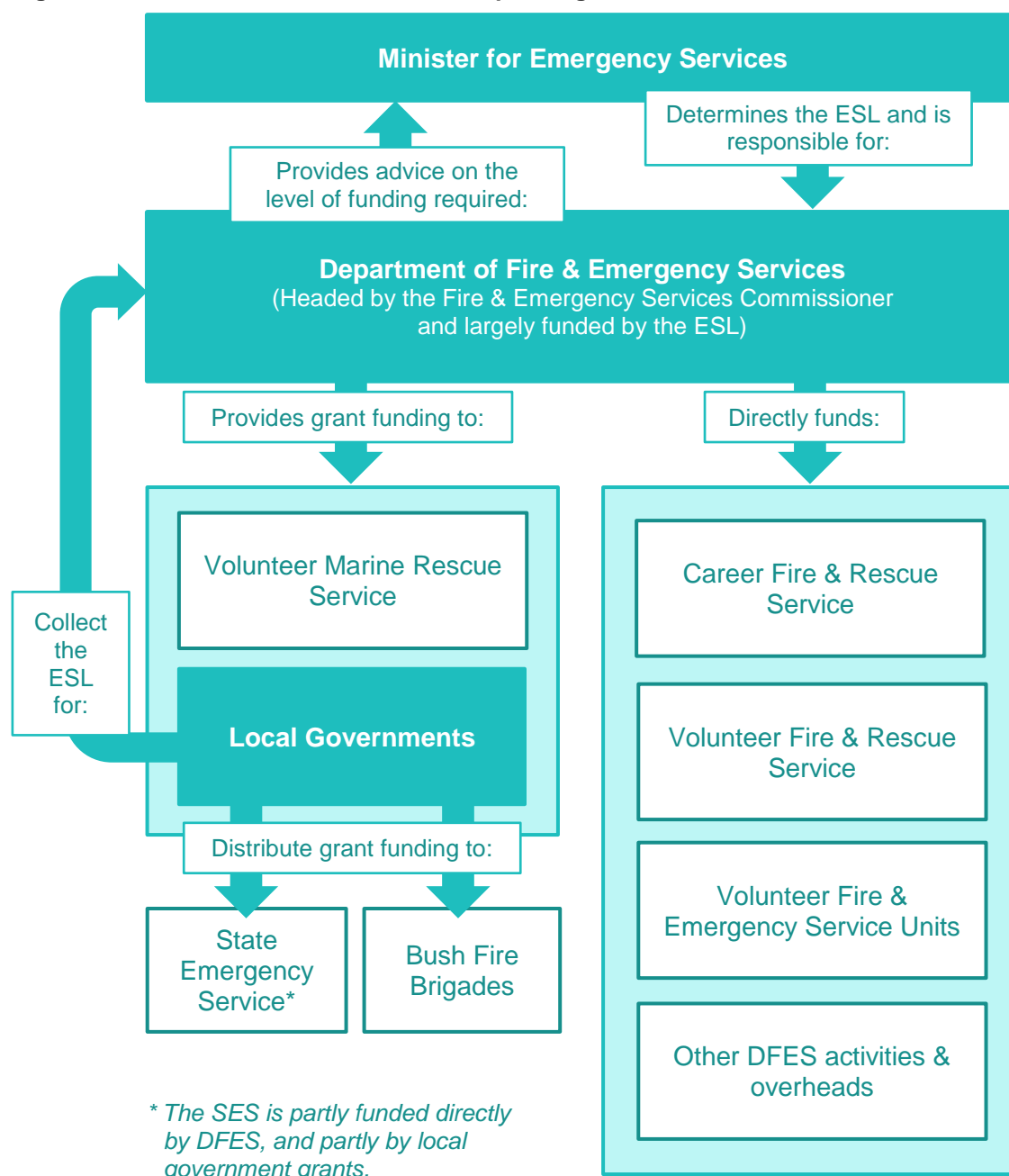
Figure 7 shows the main parties involved in the administration and use of the ESL.

¹²³ Fire and Emergency Services Authority, *A replacement funding system for emergency services*, Perth, Government of Western Australia, 2002, p. 24.

¹²⁴ Fire and Emergency Services Authority, *A replacement funding system for emergency services*, Perth, Government of Western Australia, 2002, p. 24.

¹²⁵ Department of Fire and Emergency Services, *Emergency Service Levy Manual of Operating Procedures 2016/17*, Perth, Government of Western Australia, 2015, p. 27.

¹²⁶ Department of Fire and Emergency Services, *Emergency Service Levy Manual of Operating Procedures 2016/17*, Perth, Government of Western Australia, 2015, p. 22.

Figure 7 Collection, administration and spending of the ESL

Under the *Fire and Emergency Services Act 1998*, the amount of ESL levied on a property must be determined as a rate in the dollar of the gross rental value of the land as at 1 July. However, the Act allows the Minister to apply different levy rates by location (known as ESL category areas), which are set depending on the level of service available in each location. The Minister may also determine a minimum and maximum levy for properties, which varies by land use and by ESL category. Rates for 2016-17 are provided in Section 2.7.

Most ESL funds raised are collected by local governments on behalf of DFES. Under the *Fire and Emergency Services Act 1998*, local governments are required to assess the amount of ESL payable by property owners, and serve a written notice. Local governments do not have discretion over the amount raised and simply apply the rate method as advised by DFES (refer to Section 2.7). A local government will usually provide the assessment

notice as part of a council rates notice.¹²⁷ All ESL funds collected by local governments are forwarded to the FES Commissioner to fund fire and emergency services.

The FES Commissioner pays a fee to local governments for collecting the ESL from ratepayers. When setting fees, the Minister must consider the actual costs incurred by local governments, and consult with parties that represent the interests of local governments.

The ESL is also payable on properties owned by the State Government, local governments, and Government corporations. In these cases, DFES issues assessment notices directly.

2.7 Calculating the Emergency Services Levy

The amount of ESL that must be paid on a property depends on the gross rental value¹²⁸ of the property, the location of the property (known as its ESL category), and the purpose for which the property is used. There are currently five ESL categories.

With the exception of ESL Category 5 (which has a fixed charge), the ESL charge is calculated as a rate in the dollar of the gross rental value of the property. The rate in the dollar applied to a property varies according to the relevant ESL category. Accordingly, different rates are applied in different locations, meaning that properties that have greater access to emergency services are required to contribute more for these services. The ESL rates applied in 2017-18 to each category are set out in Table 3.

The Minister for Emergency Services has determined minimum and maximum amounts that may be applied to each property. These vary by ESL category and by land use. Minimum and maximum charges per property for 2017-18 are set out in Table 4.

¹²⁷ For State Government and Commonwealth property, DFES invoices the property owners directly.

¹²⁸ Gross rental value is 'the gross annual rental that the land might reasonably be expected to realise if let on a tenancy from year to year upon the condition that the landlord was liable for all rates, taxes and other charges thereon and the insurance and other outgoings necessary to maintain the value of the land'. (Landgate, *Valuations for rating and taxation*, Perth, Government of Western Australia, <https://www0.landgate.wa.gov.au/for-individuals/land-values/rating-and-taxing>, (accessed on 11 January 2017.)

Table 3 ESL categories

ESL Category	Location	Type of emergency response	ESL rates for 2017-18
Category 1	Perth metropolitan fire district	Network of career fire and rescue stations and SES.	\$0.013259
Category 2	Regional cities	Career fire and rescue station, plus a volunteer fire and rescue service brigade and SES.	\$0.009944
Category 3	Urban metropolitan area	A volunteer fire and rescue service brigade and/or a bushfire brigade supported by the network of career fire and rescue stations in the metropolitan region and SES.	\$0.006629
Category 4	Country towns	Volunteer fire and rescue service and SES. <i>or</i> A bushfire brigade with breathing apparatus, and SES.	\$0.004641
Category 5	Pastoral/rural areas	Communities supported by the State-wide SES network and generally by a bush fire brigade.	\$75 fixed charge
Mining tenement			\$75 fixed charge

Source: State Law Publisher.¹²⁹

Table 4 Minimum and maximum charges for 2017-18

ESL Category	Vacant, residential and farming		Commercial, industrial and miscellaneous	
	Minimum	Maximum	Minimum	Maximum
Category 1	\$75	\$395	\$75	\$225,000
Category 2	\$75	\$296	\$75	\$168,000
Category 3	\$75	\$197	\$75	\$112,000
Category 4	\$75	\$138	\$75	\$78,000
Category 5	\$75 per rate notice			
Mining tenement	\$75 per rate notice			

Source: State Law Publisher.¹³⁰

¹²⁹ State Law Publisher, 'Fire and Emergency Services (Determination of Emergency Services Levy) Notice 2017', *Government Gazette No. 116 of 2017: Part 2*, Perth, Government of Western Australia, 2017.

¹³⁰ State Law Publisher, 'Fire and Emergency Services (Determination of Emergency Services Levy) Notice 2017', *Government Gazette No. 116 of 2017: Part 2*, Perth, Government of Western Australia, 2017.

DFES also calculates the Average Residential charge for properties in each ESL category when calculating each year's ESL rates. Table 5 shows the Average Residential Charge for each ESL category for 2017-18.

Table 5 Average Residential ESL charges for each ESL category in 2017-18

ESL Category	Average Residential Charge
ESL Category 1	\$278
ESL Category 2	\$166
ESL Category 3	\$133
ESL Category 4	\$127
ESL Category 5	\$75 fixed charge

Source: DFES.

There are few exemptions from the ESL. Under section 5 of the *Fire and Emergency Services Regulations 1998*, exempt land includes: land owned by a local government that is not improved land; land subject to a mining tenement (other than a mining lease); land that has been granted an exploration permit for petroleum; and land that is contaminated and does not receive services under the emergency services Acts.

The *Fire and Emergency Services Act 1998* also defines the Crown as a land owner.¹³¹ A local government is required to pay ESL charges on Crown-owned improved property vested in its local district, except when the property is leased to a third party.¹³²

2.7.1 Technical calculation process

DFES uses an in-house program to calculate ESL rates each year.¹³³ The program runs on the basis that there are fixed ratios between ESL rates in each category. (That is, Category 2 rates are always a certain percentage of Category 1 rates and so forth.)¹³⁴

A simplified version of the annual ESL rate calculation is as follows:

1. Landgate sends valuation rolls to DFES ESL calculation staff, and these rolls are loaded into the program. The rolls are files containing the raw data for calculating the ESL – that is, the number of properties, the ESL category of each property, and the GRV of each property.
2. DFES financial staff send the total revenue requirement for the coming year to the DFES ESL calculation staff. (The total revenue requirement is simply the amount of money DFES needs to raise via the ESL to fund its operations.)
3. DFES ESL calculation staff enter the total revenue requirement into the model, as well as a preliminary 'minimum' and 'maximum' charge for each category.

¹³¹ *Fire and Emergency Services Act 1998*, section 3A.

¹³² Department of Fire and Emergency Services, *Emergency Services Levy Manual of Operating Procedures 2016-17*, Perth, Government of Western Australia, 2015, p. 6.

¹³³ Communications with Department of Fire and Emergency Services, 12 April 2017 and 9 June 2017.

¹³⁴ These ratios were set by DFES (then FESA) when the ESL was introduced. They are 1.0 (Category 1), 0.75 (Category 2), 0.5 (Category 3), 0.35 (Category 4), and a fixed charge for Category 5 deemed 'fair' by DFES. The ERA understands that they are retained for consistency reasons, and that there is no particular mathematical basis for the way in which they were originally chosen.

4. ESL calculation staff run the program, which provides ESL rates for each category that yield a total income equal to the required revenue. In this phase, the program runs many iterations until it finds a combination where a given set of ESL rates deliver the required revenue while still maintaining the fixed ratios between ESL categories.
5. DFES ESL calculation staff review how many property owners hit the 'minimum' and 'maximum' limits under the ESL rates determined by the program. If too many property owners are hitting either limit, the ESL calculation staff change the limits and re-run the program until a satisfactory balance is reached.

The setting of minimum and maximum limits is a subjective process. When the ESL was introduced, the targets were 'no more than 20 per cent of ESL payers in each category on the minimum charge, and no more than 5 per cent on the maximum charge'. However, ESL calculation staff have advised that this is not a strict rule. ESL calculation staff aim for a fairly smooth result where most property owners pay neither the minimum nor the maximum, but an amount in-between.¹³⁵

¹³⁵ Communications with Department of Fire and Emergency Services, 8 June 2017.

3 Framework for considering the Emergency Services Levy

3.1 Introduction

This chapter describes the framework the ERA has used to consider how emergency management, including the provision of emergency services, should be funded.

This chapter partially fulfils the term of reference requiring the ERA to consider whether the current allocation of ESL funds towards prevention and response reflects best practice in managing the risk of bushfire and other hazards, by considering the types of emergency management activities¹³⁶ that should be funded by the ESL. Chapter 5 completes this consideration of this term of reference by assessing how funding should be allocated across activities to reflect best practice emergency management – although noting that not all of these activities should be funded by the ESL.

This chapter is structured as follows:

- an assessment of whether it is appropriate to fund emergency management from a special purpose levy (such as the ESL), rather than general government revenue;
- a discussion of principles for determining which aspects of emergency management expenditure should be funded from the ESL; and
- a discussion of how some other costs of undertaking emergency management should be funded, including DFES administration costs and costs of local government in undertaking emergency management; and
- a discussion of the principles for designing a special purpose levy.

3.2 Should emergency management be funded by a special levy?

Most government services are funded through general government revenue. However, emergency management in Western Australia (and some other Australian states) is funded through a property-based special purpose levy.¹³⁷

In the past, some states funded emergency services (and in some cases broader emergency management activities) through insurance-based levies. However, more recently, most states have moved to a property-based levy. In introducing property-based levies, state governments did not make clear economic or social arguments for funding emergency management (including emergency services) from special purpose levies rather

¹³⁶ Prevention, preparedness, response and recovery

¹³⁷ The ESL is what is referred to as a 'hypothecated revenue'. The hypothecation of a tax is the dedication or earmarking of revenue raised from a specific tax for a particular service. (Source: Keable-Elliott, I., *Hypothecated taxation and the NHS*, London, Centre Forum, 2014, p. 11.)

than general government revenue.^{138,139,140} The merits of property-based levies were generally compared only to the insurance-based levies that they were replacing (refer to Appendix D for a more detailed discussion of the reasons given by states for introducing property-based levies to fund emergency management).

Property-based levies are a more appropriate means of funding emergency management than insurance-based levies. Property-based levies are fairer because all property owners contribute to the costs of emergency management, not just those that insure their property.¹⁴¹ Property-based levies also impose fewer costs on the economy than insurance-based levies because they cause fewer unintended changes to behaviour. For example, insurance-based levies discourage people from taking out insurance, which is a means of managing risk.¹⁴² Property-based levies may also allow the government greater flexibility to apply different charges according to the risk of an area or according to the capacity of a property owner to pay.

One stakeholder, Mr Ron de Gruchy, questioned whether it is appropriate to fund emergency services from a special purpose levy.

“There should not be any Levy at all - THIS IS THE MAIN ISSUE. The use of a Levy to fund a State Government Department is totally wrong. It is tantamount to imposing a Levy to fund the Police Department, the Education Department, the WA Fisheries Department, the Health Department, the Attorney-General's Department, the Department of Sport & Recreation etc. etc. etc.”¹⁴³

Public policy experts generally consider that it is preferable to fund government services from general government revenue than special purpose levies.¹⁴⁴ Special purpose levies may create problems that can be avoided by using general government revenue. In particular, special purpose levies may result in funding levels that are too high or too low for the services they fund.¹⁴⁵ In practice, this is not an issue for the ESL, because rates are set to collect the exact amount of revenue required (as discussed in Section 2.7.1). Special purpose levies may also interfere with the design of the broader tax system.¹⁴⁶

Funding specific services through special purpose levies, rather than through general government revenue, may also reduce the level of scrutiny of expenditures on those services by governments and treasury departments. This is because services that are funded through general government revenue must compete for funding with all other

¹³⁸ Fire and Emergency Services Authority, *A replacement funding system for emergency services*, Perth, Government of Western Australia, 2002.

¹³⁹ Victorian Department of Treasury and Finance, *Victorian Fire Services Property Levy: options paper*, Melbourne, Government of Victoria, 2011.

¹⁴⁰ New South Wales Treasury and the Ministry for Police and Emergency Services, *Funding our emergency services: discussion paper*, Sydney, Government of New South Wales, 2012.

¹⁴¹ New South Wales Treasury and the Ministry for Police and Emergency Services, *Funding our emergency services: discussion paper*, Sydney, Government of New South Wales, 2012, p. 4.

¹⁴² New South Wales Treasury and the Ministry for Police and Emergency Services, *Funding our emergency services: discussion paper*, Sydney, Government of New South Wales, 2012, p. 3.

¹⁴³ WA Self-Funded Retirees Inc., *Submission to the Emergency Services Levy Review*, 3 April 2017, p. 1.

¹⁴⁴ McCleary, W., *The earmarking of government revenue: a review of some World Bank experience*, The World Bank Research Observer, Vol. 6(1), 1991, pp.81-104.

¹⁴⁵ Keable-Elliott, I., *Hypothecated taxation and the NHS*, London, CentreForum, 2014, p. 15.

¹⁴⁶ Keable-Elliott, I., *Hypothecated taxation and the NHS*, London, CentreForum, 2014, p. 17.

services, enforcing a higher level of scrutiny. Services with their own funding source have a reduced need to compete with other services for funding.

Special purpose levies that are not closely aligned to a specific purpose (or group of services) have few benefits.¹⁴⁷ However, funding services from special purpose levies that are closely aligned to a specific service (or group of services) can have some advantages.

For example, special purpose levies may help taxpayers understand how much they are contributing to a particular service. This may foster debate about how much people are willing to pay for a service.¹⁴⁸

Special purpose levies may also be useful for generating approval for revenue-raising measures, particularly for services that have strong public support.¹⁴⁹ Undertaking emergency management, in particular providing emergency services, appears to have a high level of public support, as evidenced by the willingness of communities to fundraise to provide these activities and to act as volunteers.

Special purpose levies may also help to make governments more accountable to the public about how they are spending revenue, and help ensure funds are spent how the public wants.¹⁵⁰ Alignment of government and public interests is an important consideration for the ESL. While stakeholders have a strong interest in prevention, governments may have a tendency to underfund prevention relative to other emergency services.¹⁵¹ This is addressed in more detail in Section 3.3.3.1.

A special purpose levy (like the ESL) may be a more efficient way of funding prevention than general government revenue.^{152,153} This includes cases where those who benefit from prevention cannot be identified or excluded. For example, a flood levy could benefit all or part of a community depending on the severity of the flood, and it is not possible to exclude property owners from being protected. Another case is where there are ‘flow on’ benefits to the community. For example, controlled burns decrease the risk of fire for other property owners.

Other agencies, such as Western Australian Police¹⁵⁴ and the Department of Child Protection and Family Support,¹⁵⁵ have called for the ESL to be used to fund the emergency management expenditures of other agencies as well as DFES. There are some good reasons for using special purpose levies to fund emergency management activities. However, extending the ESL to fund the emergency management expenditures of other

¹⁴⁷ Special purpose levies that are closely aligned to specific services are ‘strongly’ hypothecated. Hypothecation is strong when the revenues from the special purpose levy are only used to fund a particular programme or service, and there is no other source of funding for that programme. Hypothecation is ‘weak’ when it does not meet either or both of these conditions. (Source: Keable-Elliott, I., *Hypothecated taxation and the NHS*, London, CentreForum, 2014, p. 11.)

¹⁴⁸ Keable-Elliott, I., *Hypothecated taxation and the NHS*, London, CentreForum, 2014, p. 13.

¹⁴⁹ Keable-Elliott, I., *Hypothecated taxation and the NHS*, London, CentreForum, 2014, p. 14.

¹⁵⁰ Keable-Elliott, I., *Hypothecated taxation and the NHS*, London, CentreForum, 2014, p. 13.

¹⁵¹ Productivity Commission, *Natural Disaster Funding Arrangements*, Inquiry Report No. 74, Melbourne, Government of Australia, 2014, Vol. 1, p. 13.

¹⁵² Productivity Commission, *Natural Disaster Funding Arrangements*, Inquiry Report No. 74, Melbourne, Government of Australia, 2014, Vol. 2, p. 405.

¹⁵³ The Productivity Commission did not discuss efficient ways to fund other aspects of hazard management.

¹⁵⁴ Western Australian Police, *Submission to the Emergency Services Levy Review*, 28 February 2017, p. 2.

¹⁵⁵ Department of Child Protection and Family Support, *Submission to the Emergency Services Levy Review*, 10 March 2017, p. 2.

agencies may undermine public support for the ESL. Community support for the ESL will be best maintained when the revenue is used for clearly-defined and specific purposes¹⁵⁶ that have a high level of public support and clear social benefits. Using the ESL to fund a broader range of government expenditures may erode public trust in the use of the ESL.

Further, the emergency management activities of other agencies are already funded appropriately through general government revenue. Funding through general government revenues ensures these expenditures receive a high level of scrutiny and must compete for funding against other government priorities. On this basis, calls to fund the emergency management expenditures of other agencies from the ESL should be resisted. These services should continue to be funded from general government revenue.

In conclusion, the ESL has been an appropriate means of funding a clearly defined set of emergency management activities (that is, the emergency management activities of DFES, along with the costs of the bush fire brigades and the State Emergency Services). Through the ESL, the government has more flexibility to make decisions about how different property owners should contribute funding for these activities (for example, based on capacity to pay).¹⁵⁷ The ESL has also been a stable and reliable source of funding for services that the community deems necessary.¹⁵⁸

3.3 Funding different types of emergency management activities

The following section outlines responsibilities for emergency management and the implications for who should pay for different emergency management activities, describes the four phases of emergency management, and draws conclusions as to the specific expenditures that should be funded by the ESL.

3.3.1 *Principles for identifying services the Emergency Services Levy should fund*

This section sets out some principles to identify the types of activities that should be paid for by property owners and those that should be provided by the Government and funded by the ESL.

Applying an economic framework, goods and services can be categorised as private goods, public goods and merit goods.

A private good is bought and owned by an individual, business or government. Its use precludes use by another.¹⁵⁹ In the context of emergency management, a private good may include the installation of rain water tanks or grading fire breaks on private property.

A public good is a service that everyone can access (whether they choose to or not), and which may be used simultaneously by many people without other users being

¹⁵⁶ Keable-Elliott, I., *Hypothecated taxation and the NHS*, London, CentreForum, 2014, p. 11.

¹⁵⁷ Fire and Emergency Services Authority, *A replacement funding system for emergency services*, 2002, p. 2.

¹⁵⁸ Fire and Emergency Services Authority, *A replacement funding system for emergency services*, Perth, Government of Western Australia, 2002, p. 17.

¹⁵⁹ Musgrave, R. A., *A Multiple Theory of Budget Determination*, FinanzArchiv / Public Finance Analysis, Vol. 17, No. 3, 1956, pp. 333–343.

disadvantaged.¹⁶⁰ Some emergency management activities are public goods, including for example, community safety campaigns and emergency management plans.

Merit goods are less clearly defined and more subjective than public goods, but tend to have one or both of the following characteristics.¹⁶¹

- The goods are so important that governments and the community consider that everyone should have access regardless of ability or willingness to pay (for example, health and education).
- The community benefits when these goods are consumed, not just the person directly consuming the service (for example, vaccination protects individuals from disease, but also provides 'herd immunity' for the broader public¹⁶²).

In the context of emergency management, response may be considered a merit good. Fire and emergency services are regarded as essential in developed societies – everybody should have access regardless of ability and willingness to pay. People benefit when their neighbour's property is protected, not just when their own property is protected.¹⁶³

Broadly speaking, the ESL should be used to fund public and merit goods, but not private goods. The Productivity Commission says property owners should have primary responsibility for managing risks to their own property.

“Households, business and governments are generally best placed to manage natural disaster risks to their own assets – asset owners typically have a clear incentive to identify and implement the risk management options that most closely align with their risk appetite.”¹⁶⁴

It follows that property owners (including the State and local governments) should pay for emergency management on their own land, rather than being funded from the ESL. For example landowners should be responsible for cleaning up in advance of storms and cyclones, pruning trees to ensure that they do not come in contact with power lines, establishing and maintaining fire-breaks, and conducting prescribed burns.

However, as discussed in Section 3.3.3.1, property owners may not spend enough on these activities, since the benefits are long-term, uncertain, and shared with other property owners. As such, there may be a case for the State Government to use ESL funds to coordinate these activities across different land tenures in a specific area.

This position is consistent with the views of OEM. OEM states that expenditure related to mitigation and prevention should be permitted under the ESL, but should not replace a land

¹⁶⁰ Public goods are non-excludable and non-rival. Non-excludable means that it is not possible to prevent individuals from using a service. Non-rival means that one person's use of a service does not diminish the availability of that service for use by other people. An example of a public good is national defense. (Source: Katz, M. and Rosen, R., *Microeconomics (2nd Edition)*, Irwin, Illinois, 1994, pp. 630-631 and 634.)

¹⁶¹ Pulsipher, A. G., *The Properties and Relevancy of Merit Goods*, Finanzarchiv – Public Financial Analysis, New Series, Vol. 30, No. 2, 1971, pp. 266-286.

¹⁶² Gordis, L., *Epidemiology (Fifth Edition)*, Amsterdam, Elsevier, 2013, pp. 26-27.

¹⁶³ Fire and Emergency Services Authority, *A replacement funding system for emergency services*, Perth, Government of Western Australia, 2002, p. 17.

¹⁶⁴ Productivity Commission, *Natural Disaster Funding Arrangements*, Inquiry Report No. 74, Melbourne, Government of Australia, 2014, Vol. 1, p. 13.

holder's responsibility for managing their risk.¹⁶⁵ OEM has suggested that the State Government “can and should support planning and coordination concerning bushfire risk across land tenures – the principle being that synergies arise out of collaboration across similar risks”.¹⁶⁶

The ESL should be used to fund emergency management activities that everyone benefits from (whether they choose to or not), and where one person's benefit does not reduce the benefit of another.¹⁶⁷ This is because some of these activities (like developing emergency management plans and community safety campaigns) need to be provided by the government. The private sector will not provide such services because it cannot prevent people from benefiting and so cannot charge for their use.

The ESL should also fund services that everyone should have access, and that benefit the broader community not just the user. Such services could be provided by the private markets. However, people may not be willing to buy these services and some people may not be able to afford these services.¹⁶⁸ Government provision, funded by a levy, helps ensure that everyone receives at least a minimum level of service, and that the service is affordable to all.

In conclusion, the ESL should be used to fund activities that:

- help to coordinate prevention of emergency events (for example, coordinating emergency management activities across different land tenures in a specific area);
- benefit the community, but which people are unable to buy or provide for themselves (for example, emergency management plans and community safety campaigns); and
- everyone should have access to (regardless of ability or willingness to pay), and which benefit the broader community not just the user (for example, response).

The ESL should not be used to fund emergency management activities that primarily benefit individual property owners or are the responsibility of State and local governments, except where it is part of a broader coordinated process.

How these principles are applied across the four phases of emergency management (being prevention, preparedness, response and recovery) is discussed in the following sections.

3.3.2 *Phases of emergency management*

Measures to prevent or reduce the effects of disasters can be undertaken before, during, or after a disaster. There are four main phases of emergency management. These are

¹⁶⁵ Office of Emergency Management, *Submission to the Emergency Services Levy Review*, 9 March 2017, p. 4.

¹⁶⁶ Communication with Office of Emergency Management, 14 June 2016.

¹⁶⁷ Roberts, R. D., 1987, *Financing public goods*, Journal of Political Economy, Vol. 95 (2), pp. 420-437. (Roberts also notes subsidies to private spending as an alternative means of financing public goods.)

¹⁶⁸ Pulsipher, A. G., *The Properties and Relevancy of Merit Goods*, Finanzarchiv – Public Financial Analysis, New Series, Vol. 30, No. 2, 1971, pp. 266-286.

prevention, preparedness, response, and recovery.^{169,170} A range of specific emergency management activities are included in each of these four phases. Some activities are specific to particular hazards, while others can be used to treat a number of different hazards.

Emergency management (and hazard management more broadly) is undertaken by many parties, not just by hazard management agencies. The private sector, not-for-profit sector, other government agencies, and private individuals all have roles across the phases of emergency management.¹⁷¹

Prevention is aimed at reducing the probability of a natural disaster occurring, or reducing the effects of a natural disaster by limiting the exposure and vulnerability of people and assets to natural disasters.¹⁷² Prevention may include conducting prescribed burns to reduce fuel loads, or building flood levees.

Preparedness aims to ensure authorities, the community, and individuals are ready to act in the event of a disaster.¹⁷³ Preparedness may include community education programs, establishing natural hazard plans, and ensuring equipment is ready in the event of an emergency.

Prevention and preparedness can be further categorised into 'hard' and 'soft'.^{174,175} Hard risk-management measures are generally construction-focused, reinforcing existing infrastructure to reduce the risk posed by natural hazards such as floods, earthquakes, and cyclones,¹⁷⁶ or building infrastructure, such as fire and storm shelters. Soft prevention and preparedness tends to focus changing people's behaviour and decisions¹⁷⁷ – for example, conducting education campaigns, or undertaking land-use planning.

Response involves actions that are taken immediately before, during, or after a disaster to reduce the effects on the community.¹⁷⁸ Response may include, for example, putting out a bushfire or a structural fire, or evacuating people from low-lying areas before a storm surge.

¹⁶⁹ Council of Australian Governments, *National Strategy for Disaster Resilience*, Canberra, Government of Australia, 2011, p. 3.

¹⁷⁰ Some organisations and literature use the term 'disaster risk reduction' instead of 'prevention' and 'preparedness' to discuss similar concepts – for example, the United Nations uses this phrasing in its United Nations Office for Disaster Risk Reduction. (Source: United Nations Office for Disaster Risk Reduction, *What is Disaster Risk Reduction?*, United Nations, <https://www.unisdr.org/who-we-are/what-is-drr>, (accessed on 13 June 2017).)

¹⁷¹ Council of Australian Governments, *National Strategy for Disaster Resilience*, Canberra, Government of Australia, 2011, p. 4.

¹⁷² Australian Institute for Disaster Resilience, *Manual 1: Emergency management in Australia Concepts and principles*, Canberra, Government of Australia, 2004, p. 15.

¹⁷³ Australian Institute for Disaster Resilience, *Manual 1: Emergency management in Australia Concepts and principles*, Canberra, Government of Australia, 2004, p. 15.

¹⁷⁴ Productivity Commission, *Natural Disaster Funding Arrangements*, Inquiry Report No. 74, Melbourne, Government of Australia, 2014, Vol. 2, p. 390.

¹⁷⁵ van den Honert, R.C., 2016, *Improving Decision Making about Natural Disaster Mitigation Funding in Australia—A Framework*, Resources, Vol. 5 (3), pp. 1-23.

¹⁷⁶ van den Honert (2016) gives the example of building flood levees.

¹⁷⁷ van den Honert (2016) gives the example of running hazard awareness education campaigns.

¹⁷⁸ Australian Institute for Disaster Resilience, *Manual 1: Emergency management in Australia Concepts and principles*, Canberra, Government of Australia, 2004, p. 15.

Recovery involves restoring a community to normal function after a natural disaster.¹⁷⁹ Recovery may include cleaning up after a natural disaster, restoring services to normal working order, and providing counselling services to people affected by a disaster.

Figure 8 shows the four phases of emergency management.

Figure 8 The four phases of emergency management

<p>Prevention</p> <p>Acting in advance to reduce the likelihood or minimise the effects of a hazard event.</p> <p><i>Examples:</i></p> <ul style="list-style-type: none"> <i>Hazard reduction burns</i> <i>Maintenance of electricity assets</i> <i>Arson deterrence campaigns</i> 	<p>Preparedness</p> <p>Working to ensure effective response and recovery when a hazard arises.</p> <p><i>Examples:</i></p> <ul style="list-style-type: none"> <i>Community safety programs and resources</i> <i>Constructing fire shelters</i> <i>Establishing warning systems</i>
<p>Response</p> <p>Acting before, during and after a hazard event to control the effects and minimise damage.</p> <p><i>Examples:</i></p> <ul style="list-style-type: none"> <i>Firefighting</i> <i>Conducting evacuations</i> <i>Traffic management</i> 	<p>Recovery</p> <p>Restoring normal function to communities affected by a hazard event.</p> <p><i>Examples:</i></p> <ul style="list-style-type: none"> <i>Rebuilding and restoring services</i> <i>Cleaning up hazardous materials</i> <i>Providing counselling and financial support</i>

Generally, preparedness and prevention occur before a natural disaster, while response and recovery occur during and after a natural disaster. However, there can be overlap between phases. For example, prevention may occur during the recovery phase to improve the resilience of the community in advance of the next natural disaster. This may involve improving assets, systems, and facilities (known as betterment), rather than simply restoring them to pre-disaster standards.¹⁸⁰ The distinctions between the four categories can be somewhat limiting and artificial, and at times, a single action may not fit neatly into one category.¹⁸¹

There is some ambiguity as to whether purchasing response-focused capital items falls into the ‘preparedness’ category or the ‘response’ category. This is particularly evident in the case of fire management – is purchasing a fire truck a ‘preparedness’ activity since it is purchased before the fire, or is it a ‘response’ activity, since the truck is to be used to actively control the immediate effects of a hazard or disaster? Many guides to prevention,

¹⁷⁹ Australian Institute for Disaster Resilience, *Manual 1: Emergency management in Australia Concepts and principles*, Canberra, Government of Australia, 2004, p. 15.

¹⁸⁰ Productivity Commission, *Natural Disaster Funding Arrangements*, Inquiry Report No. 74, Melbourne, Government of Australia, 2014, Vol. 2, p. 373.

¹⁸¹ Cronstedt, M., *Prevention, preparedness, response, recovery – an outdated concept?*, Australian Journal of Emergency Management, 2002, Vol. 17 (2), p. 10.

preparation, response, and recovery are silent on this issue, since the 'four phase' model tends to categorise activities rather than assets.¹⁸² In practice, capital equipment contributes to preparedness¹⁸³, prevention, and response.¹⁸⁴

3.3.3 Prevention

Many submissions to this review have stated that there needs to be a greater focus on prevention, frequently taking the view that this should be funded via the ESL.¹⁸⁵ For instance:

“Prevention should be given an equal if not greater resourcing than the other factors of emergency management activities. At present ESL funds are primarily spent on Preparation and Response. In the long term, increased funding on prevention should be reflected on reduced costs associated with Response and Recovery.”¹⁸⁶

However, some stakeholders commented that property owners should remain responsible for funding prevention. DFES and OEM state that land managers (such as the Department of Parks and Wildlife and Botanical Gardens and Parks Authority) should remain responsible for funding direct land management responsibilities related to emergency risk (for example, bushfire).¹⁸⁷ OEM supports provisions being made for extraordinary expenses (for example, major bushfires). OEM submits that expenditure related to mitigation and prevention should be permitted under the ESL, but should not replace a land holder's responsibility for managing their risk.¹⁸⁸

The ERA sought clarification from OEM on the types of expenditures that it considered should be funded from the ESL.¹⁸⁹ OEM suggested that the State Government “can and should support planning and coordination concerning bushfire risk across land tenures – the principle being that synergies arise out of collaboration across similar risks”.¹⁹⁰ OEM considers that DFES, as the hazard management agency for fire, has a role “assisting communities of land owners and those at risk from bushfires across that land in identifying, assessing and treating bushfire risks”.¹⁹¹ OEM further notes that DFES firefighting resources (which are funded from the ESL) “are ideally suited – and benefit from – utilisation

¹⁸² For example, Australian Institute for Disaster Resilience, *Manual 1: Emergency management in Australia – Concepts and principles*, Canberra, Emergency Management Australia, 2004, p. 5; and Carter, W. N., *Disaster management: a disaster manager's handbook*, Manila, Asian Development Bank, 1992, pp. 52-55.

¹⁸³ Strategic planning to understand the number and location of assets (say, fire trucks) needed is a preparedness activity.

¹⁸⁴ Capital equipment is used to conduct prevention and response activities.

¹⁸⁵ These stakeholders include, for example, the Gidgegannup Progress Association, Mr van Rijnswood, the Emergency Services Volunteers Association, Cascade Scadden Fire Review, Mr Mangini, Pastoralists and Graziers Association, and the Bushfire Front.

¹⁸⁶ Gidgegannup Progress Association (Inc.), *Submission to the Emergency Services Levy Review*, 27 February 2017, p. 3.

¹⁸⁷ Department of Fire and Emergency Services, *Submission to the Emergency Services Levy Review*, 10 March 2017, p. 1; OEM, *Submission to the Emergency Services Levy Review*, 9 March 2017, p. 4.

¹⁸⁸ Office of Emergency Management, *Submission to the Emergency Services Levy Review*, 9 March 2017, p. 4.

¹⁸⁹ Communication with Office of Emergency Management, 14 June 2016.

¹⁹⁰ Communication with Office of Emergency Management, 14 June 2016.

¹⁹¹ Communication with Office of Emergency Management, 14 June 2016.

in servicing this need where there is broad public good. It maximises the utility of existing, specialised (and limited) resources”.¹⁹²

OEM states:

“By way of example, the DFES Bushfire Risk Management Plan process is a recognised methodology for planning and executing risk management strategies that protect more than one land holder. It makes sense to use ESL funded resources and people to coordinate and assist across communities. Risk treatment is more than response alone. It is more cost effective to use resources (in this case expertise and trucks etc.) to plan and execute prescribed burning. It’s a more productive cooperative effort that shares responsibility, though does not remove the land owners own end-of-line responsibility to manage his/her own risk.”¹⁹³

The Shire of Harvey considers that government agencies that own land (and hence the risk associated with that land) are reluctant to fund mitigation. These agencies (including Main Roads WA, Railway Reserves, Water Corporation, and the Department of Lands) should be included in the ESL categories and levied to fund prevention programs. (The State Government is required to contribute ESL revenue on government land.) The Shire of Harvey also considers that there should be a strategy for fire mitigation works on Australian Government land such as defence reserves and airports.^{194,195}

Stakeholders have argued that prevention is important and has not been given sufficient priority. It is likely that prevention has been under-funded and that additional expenditure on prevention could result in benefits to the community (as discussed in more detail in Chapter 5).

Prevention has important benefits, but this does not mean the ESL should be used to fund it. It is important that all property owners (including State and local governments) remain responsible for undertaking prevention on their own land. This may include, for example, cleaning up in advance of storms and cyclones, pruning trees to ensure that they do not come in contact with power lines, and establishing and maintaining fire-breaks, and conducting prescribed burns. The incentives for property owners to fund these activities, and their responsibilities and obligations to themselves and their neighbours, would be reduced if they were subsidised by the Government.

ESL revenue should be used to fund the costs of the prevention undertaken by DFES that cannot be undertaken by individual property owners and require government involvement. This means using the ESL to fund aspects of prevention that benefit the community in

¹⁹² Communication with Office of Emergency Management, 14 June 2016.

¹⁹³ Communication with Office of Emergency Management, 14 June 2016.

¹⁹⁴ Shire of Harvey, *Submission to the Emergency Services Levy Review*, 24 February 2017, p. 2.

¹⁹⁵ The Australian Government manages Commonwealth lands, such as defence establishments and Commonwealth national parks, and is responsible for weed management on this land. (Source: Department of the Environment and Energy, *Policies and Programmes*, <http://www.environment.gov.au/biodiversity/invasive/weeds/government/policies.html>, (accessed on 19 June 2017).) The Commonwealth has an integrated regime to protect the environment at leased federal airports. Airport operators are required to implement their Airport Environment Strategy. The Department of Infrastructure and Regional Development oversees this through Airport Environment Officers. (Source: Department of Infrastructure and Regional Development, *Airport Planning & Regulation*, Canberra, Government of Australia, <https://infrastructure.gov.au/aviation/airport/planning/>, (accessed on 19 June 2017).)

general, rather than specific property owners. Examples of types of prevention activities that might be funded from the ESL include:

- prevention planning – for example, undertaking risk assessments, the development of plans for conducting prevention, and developing and maintaining tenure-blind databases on where prevention activities need to be conducted;
- oversight – such as covering the costs of ensuring that property owners are complying with their legal obligations; and
- public infrastructure – providing infrastructure that protects communities at large (for example, community bushfire shelters), but not infrastructure that solely protects individual properties.

The ERA welcomes feedback from stakeholders on any other activities that would meet this criterion.

The ERA agrees with OEM that contributing to the costs of the Bushfire Risk Management Plan (BRMP) process would be an appropriate use of the ESL, if ongoing funding is not available from Commonwealth grants.¹⁹⁶ The BRMP is a State-wide, tenure blind program that assists local governments in assessing bushfire related risks to the community and its assets, and helps prioritise treatment strategies to address those risks.¹⁹⁷ Under the principles set out by in this chapter, the ESL should be used to fund the development of plans, but not the implementation of plans (that is, application of treatment options). The implementation of plans should continue to be funded by property owners.

There may also be a case for using some ESL revenue to coordinate direct prevention activities by DFES, bush fire brigades and State Emergency Service units on land. Prevention contributes towards public safety (which is an outcome that everyone should have access to) and the benefits from prevention conducted across the landscape are shared. OEM makes a good case that the FES Commissioner, as the public authority for fire could have an important role to ensure that on-the-ground prevention is undertaken in a coordinated way across land tenures, potentially using DFES resources (that is, staff and equipment) to undertake these activities.

However, there is ambiguity about the extent to which DFES may legally undertake prevention and whether such activities may be funded by ESL revenue. This issue is discussed in more detail in Section 3.3.3.1.

¹⁹⁶ DFES reports that current BRMP projects are partly funded by the National Disaster Resilience Program, and partly from general government revenue. This arrangement is due to end in June 2017. However, the National Disaster Resilience in an ongoing Australian Government contribution that can be used to fund prevention activities aligned with its priorities. The BRMP could also be funded through the National Bushfire Mitigation Program. A completed or ongoing completion of a BRMP is a criteria for a successful grant applicant. However, there are no indications that the National Bushfire Mitigation Program will be renewed after 2017. (Source: Communication with Office of Emergency Management, 19 June 2017. Department of Fire and Emergency Services, *Bushfire Mitigation Grant – Guidelines for Applicants 2016-2017*, Perth, Government of Western Australia, <https://www.dfes.wa.gov.au/waemergencyandriskmanagement/bushfiremitigationgrants/Pages/default.aspx>, (accessed on 16 June 2017).)

¹⁹⁷ Department of Fire and Emergency Services, *Office of Bushfire Risk Management: Bushfire Risk Management Guideline Launch*, Perth, Government of Western Australia, 2015, <https://www.dfes.wa.gov.au/waemergencyandriskmanagement/obrm/Documents/OBRM-Bushfire-Risk-Management-Plan-Guidelines-Launch-Dec-2015.pdf>, (accessed 19 June 2017).

If the ESL is used to fund prevention on public or private land, consideration could be given to recovering these costs directly from beneficiaries, where they can be identified. The Productivity Commission considers that user pays charging should be the preferred choice for recovering the costs of prevention.¹⁹⁸ The Productivity Commission recommends that prevention should only be funded from government revenue if these expenditure cannot be recovered from beneficiaries.¹⁹⁹ There are already provisions under some legislation to recover costs. For example, section 33 of the *Bush Fires Act 1954* allows local governments to direct private land owners to undertake prevention activities. If private land owners do not comply, local governments may undertake these activities and recover the costs from the owner.

Primary responsibility for funding prevention should remain with property owners. The ESL should not be used to fund direct prevention activities on land, except where DFES, bush fire brigades and State Emergency Service units coordinate prevention across land tenures. The ESL should be used to fund prevention activities undertaken by DFES, bush fire brigades, and State Emergency Service units that can only be undertaken by the State Government, where everyone benefits and one person's benefit does not reduce the benefit to others. This includes: prevention planning (for example, developing and maintaining tenure-blind databases); oversight (for examples, ensuring property owners are complying with their legal obligations); providing public infrastructure (for example, community bushfire shelters).

The ERA notes that it has not examined the financial implications of recommendations on the types of prevention that the ESL should fund, and may undertake this analysis in preparing its final report.

3.3.3.1 Supporting appropriate expenditure on bushfire prevention

Expenditure on prevention is important, and there may be some evidence that prevention has not received sufficient funding. This section covers the reasons why prevention may not receive sufficient funding, and identifies some mechanisms to ensure prevention receives adequate funding from government and property owners.

Governments and property owners may have a tendency to not allocate sufficient funds to prevention,^{200 201} for several reasons.

¹⁹⁸ Productivity Commission, *Natural Disaster Funding Arrangements*, Inquiry Report No. 74, Melbourne, Government of Australia, 2014, Vol. 2, p. 404.

¹⁹⁹ Productivity Commission, *Natural Disaster Funding Arrangements*, Inquiry Report No. 74, Melbourne, Government of Australia, 2014, Vol. 2, p. 404.

²⁰⁰ The Productivity Commission found that government investment in mitigation is insignificant compared to post-disaster expenditure, stating that: "[f]or example, Australian Government mitigation expenditure was only 3 per cent of what it spent post-disaster in recent years. Mitigation expenditure by state governments is likely to be higher, but information on this expenditure is not comprehensive. Overall, the clear impression is one of insufficient investment in mitigation." (Source: Productivity Commission, *Natural Disaster Funding Arrangements*, Inquiry Report No. 74, Melbourne, Government of Australia, 2014, Vol.1, p. 9.)

²⁰¹ Deloitte Access Economics found that the ratio of government expenditure on post disaster to pre disaster is \$10 to \$1. (Source: Deloitte Access Economics, Australian Business Roundtable for Disaster Resilience and Safer Communities, *Building our nation's resilience to natural disasters*, 2013, p. 8.)

First, the benefits of prevention are shared.²⁰² Property owners may under-invest in prevention, because the property owner does not receive all of the benefits: neighbouring property owners will also benefit when prevention is conducted.

Second, governments and property owners may only focus on short-term benefits and costs when making expenditure decisions. As noted by the Productivity Commission, “some costs of mitigation are generally upfront and certain, unlike the benefits which can be long-term, uncertain and only realised if a disaster occurs.”²⁰³

Third, some prevention activities may be unpopular with some people. For example, some people have negative views about prescribed burns because the smoke may be a health hazard,²⁰⁴ cause commercial damage (such as to grape crops²⁰⁵) or raise concerns about environmental damage. However, many people support prescribed burning because it reduces the likelihood and intensity of fires.

Prevention is important, but this does not necessarily mean that it should be funded from ESL revenue. Other mechanisms may help to ensure prevention receives adequate funding from government and property owners.

DFES has prepared a concept paper on the development of new emergency services legislation, which considers how shortcomings of existing legislation could be addressed.^{206,207} New emergency services legislation could address barriers to expenditure on prevention, by clarifying the responsibilities of DFES and local government²⁰⁸ to undertake prevention and whether this may be funded from the ESL. Stakeholders are unclear as to whether DFES may legally undertake prevention and whether ESL revenue may be used to fund prevention. DFES notes in its submission that the “*Bush Fires Act*

²⁰² Economists sometimes describe shared benefits as ‘positive externalities’. An externality arises when the activity of one entity directly affects the welfare of another entity in a way that is not transmitted by market prices. Source: Rosen, H. S., *Public Finance*, Irwin McGraw-Hill, United States, 1995, p. 91.

²⁰³ Productivity Commission, *Natural Disaster Funding Arrangements*, Inquiry Report No. 74, Melbourne, Government of Australia, 2014, Vol. 2, p. 382.

²⁰⁴ ABC News, *Asthma sufferers struggle to breathe while bushfire prevention burns cover Perth in smoke*, 8 June 2017, available from: <http://www.abc.net.au/news/2017-06-08/smoky-days-hit-perth-asthma-sufferers/8598216>, (accessed on 8 June 2017).

²⁰⁵ ABC News, *Margaret River wine growers worried their grapes will be tainted by prescribed burning*, 22 March 2017, available from: <http://www.abc.net.au/news/2017-03-22/margaret-river-wine-growers-concerned-over-prescribed-burn/8378216>, (accessed on 8 June 2017).

²⁰⁶ Department of Fire and Emergency Services, *Concept Paper: Review of the Emergency Services Acts*, Perth, Government of Western Australia, April 2014.

²⁰⁷ There are currently three emergency services Acts in Western Australia, being the *Fire Brigades Act 1942*, the *Bush Fires Act 1954*, and the *Fire and Emergency Services Act 1998*. In October 2006, the Community Development and Justice Standing Committee recommended that the emergency services Acts be repealed, and replaced with one comprehensive and consolidated piece of legislation. (Source: Legislative Council Community Development and Justice Standing Committee, *Inquiry into Fire and Emergency Services Legislation*, Perth, Parliament of Western Australia, 2006, p. 11.)

²⁰⁸ Local governments have the power, but not the obligation, to ensure prevention activities are undertaken by private property owners within their local boundaries. However, there are no equivalent provisions to oblige local governments to undertake risk prevention activities on their own land. (Source: Department of Fire and Emergency Services, *Concept Paper: Review of the Emergency Services Acts*, April 2014, pp. 39-40.)

1954 has specific provisions casting primary obligation for fire prevention upon owners and occupiers of land”.²⁰⁹ In a subsequent section of its submission, DFES notes:

“The functions that the ESL can support are currently determined by legislation. A needs analysis may identify functions that fall outside the current legislative framework. If the ESL is considered to be the primary funding source for enhanced capability for the State then consideration will need to be given to legislative changes.”²¹⁰

Former emergency services minister, Mr Joe Francis, told Parliament that being able to “use the ESL to fund mitigation” would require “an amendment” to legislation.²¹¹

Some stakeholders consider that legislation is clear that ESL may be used for prevention. For example, Cascade Scadden considers that “it is within scope of the legislation that created and governs the ESL for ESL funds to be spent on mitigation activities”.²¹² However, the Department of Lands submits that it would be “useful to remove any doubt” as to whether the ESL may legally be applied to prevention, given “conflicting views”.²¹³ New emergency services legislation (if introduced) should clarify the obligations for DFES and local governments to undertake prevention, and whether prevention may be funded from the ESL.

There should also be greater transparency about the adequacy of State Government expenditure on land for which it is responsible. Together, the Department of Lands and the Department of Parks and Wildlife (DPAW) have significant land management responsibilities, as described in Chapter 2.

The Department of Lands states that it has struggled to attract adequate funding from general government revenue for mitigation of fire risk on unmanaged reserves and unallocated Crown land. The Department of Lands receives \$450,000 a year (unindexed over the past decade) for fire mitigation, while DPAW receives \$360,000 a year. The Department of Lands submits that a fully costed fire preparedness and prevention program on unallocated Crown land and unmanaged reserves would cost \$5.56 million a year over a ten year period.²¹⁴

²⁰⁹ Department of Fire and Emergency Services, Submission to the Emergency Services Levy Review, 10 March 2017, p. 2.

²¹⁰ Department of Fire and Emergency Services, Submission to the Emergency Services Levy Review, 10 March 2017, p. 2.

²¹¹ Francis, J.M., Emergency Services Levy – Motion, *Hansard*, Assembly, 16 September 2015, p. 9.

²¹² Cascade Scadden Fire Review, *Submission to the Emergency Services Levy Review*, 10 March 2017, p. 1.

²¹³ Department of Lands, *Submission to the Emergency Services Levy Review*, 14 March 2014, p. 5.

²¹⁴ Department of Lands, *Submission to the Emergency Services Levy Review*, 14 March 2014, p. 3.

DPAW has received Royalties for Regions funding to undertake prescribed burns. However, a grant from Royalties for Regions may not be a long-term and sustainable source of funding.

“Prescribed burning throughout the State was boosted this year with the introduction of the Department’s *Enhanced Prescribed Burning Program*, established in response to the O’Sullivan bushfire near Northcliffe in January 2015. Additional funding of \$20 million over four years through Royalties for Regions was allocated to the program. In 2015–16, Parks and Wildlife achieved 154,149ha of prescribed burning in the south-west forest regions, including about 5147ha that were burnt for pine plantation protection. This was the greatest area of prescribed burning achieved by the Department in this area since 2009–10.”²¹⁵

It is important that the State Government provides sufficient funding to the Department of Lands and DPAW to undertake prevention on land for which they are responsible. OEM should prepare an annual estimate of the amount of funding required by each agency to conduct prevention on its estates.²¹⁶ This amount should be disclosed in the annual reports of OEM, Department of Lands and DPAW and compared to the actual amount provided by the State Government for those activities in that year. This will allow the public to assess whether the State Government is funding prevention appropriately.

The Office of Bushfire Risk Management advises that local governments are not required to publish their Bushfire Risk Management Plans or treatment strategies. Local governments should be required by OBRM to publish their Bushfire Risk Management Plans and treatment strategies. This will assist property owners in the local government area identify risks to their property and determine appropriate treatment options. It will also assist stakeholders such as DFES and OEM in making decisions about allocation of ESL funds.

In conclusion, prevention has important benefits, which are shared across the community. Governments and property owners may not spend enough on prevention, and so there may be a need for additional measures to support an appropriate level of expenditure. These measures should include clarifying legal responsibilities for undertaking prevention activities, publishing information about the funding needs of DPAW and the Department of Lands to conduct prevention on the estates for which they are responsible, and publishing the Bushfire Risk Management Plans of local governments. The effectiveness of measures to support prevention expenditures could be assessed after five years.

3.3.4 Preparedness

Stakeholders generally supported maintaining or increasing expenditure on preparedness from ESL revenue. The Pastoralist and Graziers Association considers that effective prevention and response depends on preparation, so adequate funding needs to be directed to fit-for-purpose equipment and training.²¹⁷ The Gidgegannup Progress Association considers that current resourcing for preparedness needs to be maintained in

²¹⁵ Department of Parks and Wildlife, *Annual report 2015-16*, Perth, Government of Western Australia, p. 11.

²¹⁶ OEM would not be responsible for determining the appropriate prescribed burning program on this land.

²¹⁷ Pastoralists and Graziers Association, *Submission to the Emergency Services Levy Review*, 10 March 2017, p. 4.

the short to medium term.²¹⁸ The Shire of Manjimup considers that prevention and preparedness should receive a high level of importance and be funded appropriately.²¹⁹

The State Emergency Service Volunteers Association notes that DFES does very little to engage the community (in terms of preparation) unless there is an imminent threat, particularly when compared to FESA's past work.

"In the pre-ESL role of FESA there was a lot of work done in preparation of the communities to a number of natural disasters[.] This preparation included school based programs, school talks by SES Volunteers and attendance at [Local Emergency Management Committee] meetings by SES Volunteers and the SES District Manager for the area. It was these relationships that prepared the community for natural disasters such as cyclones, storms and floods. Since the formation of DFES in 2012 these programs and preparation of the communities appears to have decreased and in many instances, has endangered the community and increased the cost to the state during a disaster or possible disaster."²²⁰

The ESL should be used to fund the preparedness activities of DFES, bush fire brigades and the State Emergency Service only where: everyone in the community benefits from the services; or government provides the service because of strong social benefits. This would include emergency response plans, community warning systems, emergency communications, mutual aid agreements, public education and information, and community refuge shelters.

3.3.5 Response

Stakeholders generally supported ESL revenue being used to fund response. DFES states that it is essential that funding is allocated to ensure a 'ready state' of response capability.²²¹ The Gidgegannup Progress Association²²² and the Shire of Manjimup²²³ say that all response activities need to be funded by the ESL. The Gidgegannup Progress Association comments that direct recovery of response costs from affected property owners is not appropriate. The United Firefighters Union in Western Australia states that there should not be any reduction in funding available for response.²²⁴

Some stakeholders consider response funding should be a priority for ESL funding. The Shire of Harvey considers that ESL funding should primarily be allocated to frontline services, including prevention and response.²²⁵ The Shire of Augusta Margaret River states

²¹⁸ Gidgegannup Progress Association, *Submission to the Emergency Services Levy Review*, 27 February 2017, p. 4.

²¹⁹ Shire of Manjimup, *Submission to the Emergency Services Levy Review*, 10 March 2017, p. 1.

²²⁰ State Emergency Service Volunteers Association, *Submission to the Emergency Services Levy Review*, 13 March 2017, p. 6.

²²¹ Department of Fire and Emergency Services, *Submission to the Emergency Services Levy Review*, 10 March 2017, p. 2.

²²² Gidgegannup Progress Association, *Submission to the Emergency Services Levy Review*, 27 February 2017, p. 5.

²²³ Shire of Manjimup, *Submission to the Emergency Services Levy Review*, 10 March 2017, p. 1.

²²⁴ United Firefighters Union of Australia West Australian Branch, *Submission to the Emergency Services Levy Review*, 17 March 2017, p. 2.

²²⁵ Shire of Harvey, *Submission to the Emergency Services Levy Review*, 24 February 2017, p. 1.

that a reduction in response funding could endanger the community and increase the costs of disaster.²²⁶

However, some stakeholders expressed concern that the allocation of ESL funding may be overly focussed on response. The Shire of Murray notes that the *Local Government Grant Scheme Manual for Capital and Operating Grants* appears to be response-focussed and does not provide funding for prevention, preparedness, or recovery. The Shire also states that, despite the manual being response-focussed, there are significant response items for which local governments are ineligible (for example, traffic management and machinery hire at DFES managed incidents).²²⁷

The Western Australian Local Government Association states that, based on survey results, there is a perception of over-spending on response at the expense of all other activities, in both regional and metropolitan areas.²²⁸

The community expects that response services will be made available during times of need. The ESL should be used to fund the response expenditures of DFES, the bush fire brigades and State Emergency Services units. This would include, for example, response to structural fires, conducting evacuations for floods and cyclones, traffic management during an emergency. However, the ESL should not be used to fund response expenditures by public and private property owners to manage risks on their own land (for example, purchasing fire hydrants or other private firefighting equipment).

3.3.6 Recovery

Several stakeholders commented in favour of using the ESL to fund recovery efforts or specific recovery activities. The Australian Red Cross considers that funding programs should provide for recovery activities that address the psychosocial impacts of disasters (not just physical loss), and provide for sustained resilience building and recovery.²²⁹

The Shire of Mundaring states that funding for recovery would ideally provide for the development of recovery arrangements and recovery capability. The Shire of Mundaring notes that funding could also be used to establish a reserve fund that local governments could access following a significant incident.²³⁰

Several stakeholders opposed the use of ESL revenue to fund recovery activities. DFES notes in its submission that recovery services are already provided via other avenues, including State and Australian Government agencies. It states that the non-linear and unpredictable nature of recovery costs and their potential inclusion in the ESL funding model would challenge the ESL's equity and sustainability principles.²³¹ DFES indicates that funding recovery from the ESL would challenge equity principles because decisions would need to be made about whether to recoup recovery costs just from the affected area or from the broader community. Funding recovery from the ESL would challenge sustainability

²²⁶ Shire of Augusta Margaret River, *Submission to the Emergency Services Levy Review*, 9 March 2017, p. 2.

²²⁷ Shire of Murray, *Submission to the Emergency Services Levy Review*, 24 February 2017, p. 3.

²²⁸ Western Australian Local Governments Association, *Submission to the Emergency Services Levy Review*, 13 March 2017, p. 19.

²²⁹ Australian Red Cross, *Submission to the Emergency Services Levy Review*, 10 March 2017, p. 2.

²³⁰ Shire of Mundaring, *Submission to the Emergency Services Levy Review*, 3 March 2017, p. 1.

²³¹ Department of Fire and Emergency Services, *Submission to the Emergency Services Levy Review*, 10 March 2017, p. 2.

principles because the costs of recovery are highly variable and unpredictable from year to year, whereas levies should remain stable over time.²³²

Mr Eddie van Rijnswood states that recovery has always been excluded from ESL funding. Recovery has been handled well by welfare organisations and local government, in conjunction with the national disaster relief funding arrangements.²³³ Similarly, the Emergency Services Volunteers Association says in its submission that recovery should be covered under disaster relief funding, rather than via the ESL.²³⁴

The Pastoralists and Graziers Association expresses concern that funding of recovery through the ESL may reduce incentives for people to engage in prevention and preparedness (which would reduce the need for recovery expenditure), and from taking out insurance.²³⁵

The Shire of Augusta Margaret River states that local governments, with assistance from the State Government, should continue to be responsible for recovery in the event of an incident.²³⁶ The Shire of Manjimup says in its submission that the recovery costs of high-impact incidents should be funded from State and/or Australian Government revenue.²³⁷

ESL revenue is not currently spent on recovery. There are already appropriate mechanisms for funding recovery costs outside of ESL funding. These arrangements involve the public, private, and not-for-profit sectors.

The primary mechanism for funding recovery is the Western Australia Natural Disaster Relief and Recovery Arrangements (WANDRRA), which is jointly funded by the State and Australian Governments. These arrangements are used to provide assistance to communities to recover from eligible natural disaster events (including bushfires, earthquakes, floods, storms, cyclones, storm surges, landslides, tsunamis, meteorite strikes, and tornados).

WANDRRA is invoked for eligible emergencies where the anticipated costs of relief and recovery activities are expected to exceed \$240,000.²³⁸ Relief is available to individuals and families, small businesses, primary producers, local governments, and State Government agencies.²³⁹

WANDRRA does not cover compensation for losses suffered, assistance where adequate insurance could have been obtained, nor assistance for losses incurred as a result of a

²³² Communication with Department of Fire and Emergency Services, 29 June 2017.

²³³ van Rijnswood, E., *Submission to the Emergency Services Levy Review*, 8 March 2017, p. 1.

²³⁴ Emergency Services Volunteers Association Inc., *Submission to the Emergency Services Levy Review*, 10 March 2017, p. 3.

²³⁵ Pastoralists & Graziers Association of WA, *Submission to the Emergency Services Levy Review*, 10 March 2017, p. 5.

²³⁶ Shire of Augusta Margaret River, *Submission to the Emergency Services Levy Review*, 9 March 2017, p. 1.

²³⁷ Shire of Manjimup, *Submission to the Emergency Services Levy Review*, 10 March 2017, p. 1.

²³⁸ Office of Emergency Management, *Western Australia Natural Disaster Relief and Recovery Arrangements*, Perth, Government of Western Australia, <https://www.oem.wa.gov.au/funding/wandrra>, (accessed on 29 May 2017).

²³⁹ Office of Emergency Management, *Western Australia Natural Disaster Relief and Recovery Arrangements*, Perth, Government of Western Australia, <https://www.oem.wa.gov.au/funding/wandrra>, (accessed on 29 May 2017).

drought, frost, heatwave, epidemic, or event where human activity is a significant contributing factor.²⁴⁰

The Productivity Commission notes that funding arrangements need to clearly define roles and responsibilities (and how these relate to private and public risks), and have strong, transparent, and credible commitment mechanisms so that governments avoid *ad hoc* policy responses, myopic policy settings, and disincentives for private risk management.²⁴¹ Extending ESL funding to recovery expenditures could undermine existing arrangements, create confusion, and cause unintended consequences, including weakening incentives for asset owners to treat their own risks appropriately.

The ESL is not an appropriate mechanism to fund recovery costs. Recovery expenditures vary greatly from year to year, depending on the number and scale of disasters, and the extent they affect communities. Special purpose levies such as the ESL are better suited to funding expenditures that are relatively stable and predictable from year to year.

Expenditures on recovery are important, but the ESL should not be used to fund the costs of recovery. This is because comprehensive arrangements already exist for funding recovery, and extending ESL funding to recovery could undermine existing arrangements.

3.4 Using the Emergency Services Levy to fund other expenditures

3.4.1 Administration

The ESL is currently used to fund the administration costs of DFES. There are valid arguments for and against the ESL being used to fund DFES administration costs.

A key argument against funding DFES administration costs from the ESL is that doing so does not align with stakeholder expectations. Stakeholders have expressed concern that the DFES administration costs are growing, while the purposes for which ESL grant funding may be applied to are becoming more constrained.

The City of Swan recommends the structure and size of DFES be reviewed to determine future emergency management needs.²⁴²

An anonymous submission recommends public employees be paid from the general government revenue, rather than from ESL revenue. This stakeholder notes that when the ESL was introduced, it was promoted on the basis that it would enable volunteer organisations to obtain new equipment and buildings. However, the stakeholder further notes that 51 per cent of ESL is 'disappearing into the public service' and questions whether it is fair that only property owners pay the salaries and superannuation of DFES staff.²⁴³ In

²⁴⁰ Office of Emergency Management, *Western Australia Natural Disaster Relief and Recovery Arrangements*, Perth, Government of Western Australia, <https://www.oem.wa.gov.au/funding/wandrra>, (accessed on 29 May 2017).

²⁴¹ Productivity Commission, *Natural Disaster Funding Arrangements*, Inquiry Report No. 74, Melbourne, Government of Australia, 2014, Vol. 1, p. 13.

²⁴² City of Swan, *Submission to the Emergency Services Levy Review*, 10 March 2017, p. 2.

²⁴³ Anonymous, *Submission to the Emergency Services Levy Review*, 18 February 2017, p. 1.

fact, DFES employees include all career firefighters (who provide front-line services to property owners), not just head office staff.

Several stakeholders suggested that the administration costs of DFES should be funded from general government revenue. Cascade Scadden and Mr Kevin Forbes (Chief Bushfire Control Officer, Shire of Plantagenet) consider that funding DFES administration costs through general government revenue would be consistent with how other government departments are funded.²⁴⁴ WAFarmers and the Shire of Harvey state that the ESL was established to fund frontline services, not administration costs.²⁴⁵ The Shire of Manjimup considers that:

“Given the concerns that costs associated with administration of the ESL reduces the amount of funding that would otherwise be available for Prevention, Mitigation, Response actions, the Shire wishes to submit that “State Government Employees, other than Career Fire Stations, should be funded from General Revenue and not ESL funds”.²⁴⁶

Funding DFES administration costs through general government revenues rather than the ESL may lead to increased scrutiny of these costs. This is because services that are funded through general government revenues must compete for funding with all other services.

However, there are also arguments in favour of funding DFES administration from the ESL. DFES incurs administration costs in undertaking emergency management activities, including frontline services. Funding these costs from the ESL is consistent with the expectation of service principle, upon which the ESL was based.

The expectation of service principle indicates that, if society expects to benefit from emergency management in any geographic location, then society needs to pay for the cost. Most of the cost is in having the standby capacity to respond when a disaster occurs. So society needs to contribute to the base capacity, and not just the additional cost of responding (such as call-out costs).²⁴⁷

Alternatively, the ESL could be used only to fund administration costs that directly support preparedness, prevention, or response. However, it would be administratively complex to distinguish between administration costs that directly support frontline activities and general administration costs.

Weighing up these considerations, the ESL should be used to fund the administration costs of DFES, both to meet the expectation of service principle and for simplicity.

Further information on growth in DFES administration expenditures can be found in Chapter 4. Options for providing greater oversight of DFES expenditures are discussed in Chapter 8.

²⁴⁴ Cascade Scadden Fire Review, *Submission to the Emergency Services Levy Review*, 10 March 2017, p. 3; Shire of Plantagenet, Chief Bushfire Control Officer, *Submission to the Emergency Services Levy Review*, 13 February 2017, p. 1.

²⁴⁵ WAFarmers, *Submission to the Emergency Services Levy Review*, 10 March 2017, p. 3; Shire of Harvey, *Submission to the ESL review*, 24 February 2017, p. 1;

²⁴⁶ Shire of Manjimup, *Submission to the Emergency Services Levy Review*, 10 March 2017, p. 1.

²⁴⁷ Fire and Emergency Services Authority, *A replacement funding system for emergency services*, Perth, Government of Western Australia, 2002, pp. 17-18.

3.4.2 Funding local government responsibilities

Local governments have a role in providing emergency management (including emergency services) across all 27 prescribed hazards. The ESL is currently used to contribute to some of the preparedness and response activities of local government (such as maintaining and equipping bush fire brigades and State Emergency Service units). This raises a question about the extent to which it is appropriate to fund emergency management undertaken by local government through a State Government revenue, and whether this creates disincentives for local governments to fund these activities.

Stakeholders have different opinions on whether local government services should be funded by the ESL. The Chair of SEMC, Mr Frank Edwards, considers an examination should be made of what risks local governments and other agencies “own” and should therefore be expected to fund as part of normal business.²⁴⁸

A number of local governments have stated that the ESL should fund a greater range, or higher proportion of local government expenditures. The City of Geraldton notes that it is struggling to cover the cost of emergency services and expects that all of its costs should be covered by the ESL.²⁴⁹ The City of Canning considers that ESL funding should be used to fund local government initiatives on prevention or preparedness to ensure ratepayers are not levied twice.²⁵⁰ The City of Swan states that its total expenditure is higher than the contribution from DFES, leaving a gap of around \$500,000 that the City meets through municipal funds.²⁵¹ The Shire of Manjimup identifies a range of preparedness and response costs incurred by local governments that it considers should be funded from the ESL.²⁵²

The City of Swan said in its submission that there is an equity issue as the ESL funds some specific costs for DFES, but not for local governments. For example, the City of Swan is required to pay half the costs of the Community Emergency Services Manager role through municipal funds, while the DFES share is paid by ESL revenue.²⁵³ Similarly, the Shire of Mundaring notes that the ESL only covers half the cost of the Community Emergency Services Manager paid for by DFES, not by local government. The Shire of Mundaring submits that the ESL should fund the full cost of the Community Emergency Services Manager.²⁵⁴

The Western Australian Local Government Association states that a major challenge for local governments is that many of the emergency management activities they undertake are not eligible for ESL funding through the Local Government Grants Scheme.²⁵⁵ The Western Australian Local Government Association considers that the budget and payment processes in the Local Government Grants Scheme reflect historical linkages between local

²⁴⁸ Edwards, F., *Submission to the Emergency Services Levy Review*, 9 March 2017, p. 2.

²⁴⁹ City of Greater Geraldton, *Submission to the Emergency Services Levy Review*, 20 March 2017, p. 1.

²⁵⁰ City of Canning, *Submission to the Emergency Services Levy Review*, 10 March 2017, p. 3.

²⁵¹ City of Swan, *Submission to the Emergency Services Levy Review*, 10 March 2017, p. 2.

²⁵² Shire of Manjimup, *Submission to the Emergency Services Levy Review*, 10 March 2017, p. 2.

²⁵³ Shire of Manjimup, *Submission to the Emergency Services Levy Review*, 10 March 2017, p. 2.

²⁵⁴ Shire of Mundaring, *Submission to the Emergency Services Levy Review*, 3 March 2017, p. 2.

²⁵⁵ Western Australian Local Government Association, *Submission to the Emergency Services Levy Review*, 13 March 2017, p. 20.

governments, brigades, units and DFES, rather than contemporary emergency management arrangements or legislative responsibilities.²⁵⁶

“By way of example, Local Governments are required to administer SES capital and operating grants even though they have no legislative responsibility for SES. Additional burden for Local Governments which effectively act as an intermediary and carry the expenses associated with SES facilities. Site costs associated with SES facilities are not eligible under the LGGS and Local Governments are expected to fund this through their own sources even though they are a DFES responsibility.

The intended role and function of the LGGS is to enable DFES to finance the approved capital and operating costs associated with the provision and maintenance of an effective bush firefighting and state emergency service for Local Governments.

In a contemporary emergency management context, Local Governments require sustainable funding for a range of responsibilities that are bestowed upon them. A comprehensive review would assess the expansion of the ESL to include access to funding for items not currently deemed eligible and that fall into the prevention and preparedness aspects of emergency management.”²⁵⁷

There are arguments in favour of funding all local government costs of providing bush fire brigades and State Emergency Service units from ESL revenue. This would ensure the ESL is closely aligned with the provision of specific services, and would ensure all Western Australian communities receive at least a minimum level of emergency services.

As discussed in Section 3.2, special purpose levies mainly have benefits when used to fund clearly defined and specific services. In practice, this means that special purpose levies should be used only to fund particular emergency management activities.²⁵⁸ Failure to meet these conditions will undermine transparency, accountability, and trust because revenues may not be used for their intended purpose.²⁵⁹ The ESL was originally intended to fund the operating and capital costs of DFES, bush fire brigades, and State Emergency Service units.²⁶⁰

The ESL was introduced on the basis that emergency services should be accessible to all, and should be affordable for all.²⁶¹ On this basis, the ESL should fund the full costs of the bush fire brigades and State Emergency Service units in providing response activities, and prevention and preparedness activities that have community-wide benefits. The ESL should also be used to fund the prevention costs of bush fire brigades and State Emergency Service units to the extent that they coordinate prevention across land tenures.

The ESL should be used to fund the full costs of Community Emergency Services Managers, employed by local governments. Community Emergency Services Managers contribute to the management and support of front-line services of prevention, preparedness, and response, including those of bush fire brigades and State Emergency

²⁵⁶ Western Australian Local Government Association, *Submission to the Emergency Services Levy Review*, 13 March 2017, p. 20.

²⁵⁷ Western Australian Local Government Association, *Submission to the Emergency Services Levy Review*, 13 March 2017, p. 20.

²⁵⁸ Keable-Elliott, I., *Hypothecated taxation and the NHS*, London, CentreForum, 2014, p. 11.

²⁵⁹ Western Australian Local Government Association, *Submission to the Emergency Services Levy Review*, 13 March 2017, p. 21.

²⁶⁰ Fire and Emergency Services Authority, *A replacement funding system for emergency services*, 2002, p. 24.

²⁶¹ Fire and Emergency Services Authority, *A replacement funding system for emergency services*, 2002, pp. 17-18.

Service units. This cost can be readily identified and isolated from broader emergency services expenditures by local governments.

However, the ESL should not fund the other administration costs of local governments to provide bush fire brigades and State Emergency Service units. This is because it would be difficult to establish which costs are incurred in providing these services as opposed to other emergency services provided by local governments.

Local governments have called for the ESL to fund a broader range of emergency management activities because local governments are struggling to cover the cost burden.

Australian Government financial assistance grants provide local governments with additional funding.²⁶² These grants are allocated through a local government grants commission process to ensure that each local government in the State is able to function at a standard not lower than the average standard of other local governments.²⁶³ This process does recognise that some local governments will incur higher emergency management costs.²⁶⁴ However, local governments cannot be directed by the Australian Government to spend these grant revenues for a particular purpose, such as emergency services.²⁶⁵

The key question is whether the local government grants commission process adequately recognises that some local governments face higher emergency services costs than others, and compensates these local governments accordingly. The ERA has not been able to form a conclusion on this, and seeks comments from stakeholders. If the local government grants commission process does not adequately recognise the emergency management needs of local governments, then the process may need to be adjusted.

However, local governments should not receive additional assistance through the ESL to fund emergency management activities simply because they have chosen to use Australian Government grants to fund other services. Funding these services from the ESL would reduce incentives for local governments to raise revenue from their rate base, and would reduce alignment between the ESL and funding for specific services.

In conclusion, the ESL should fund the full costs of the bush fire brigades and State Emergency Service units in providing response activities, and prevention and preparedness activities that have community-wide benefits. The ESL should also be used to fund the prevention costs of bush fire brigades and State Emergency Service units to the extent that they coordinate prevention across land tenures. The ESL should be used to fund the full costs of the Community Emergency Services Managers, but not the other administration costs of local government to provide bush fire brigades and State Emergency Service units.

²⁶² Department of Local Government and Communities, *Local government financial assistance grants*, Perth, Government of Western Australia, 2017, <https://www.dlgc.wa.gov.au/GrantsFunding/Pages/LG-General-Purpose-Grants.aspx>, (accessed on 7 June 2017).

²⁶³ Department of Local Government and Communities, *Local government financial assistance grants*, Perth, Government of Western Australia, 2017, <https://www.dlgc.wa.gov.au/GrantsFunding/Pages/LG-General-Purpose-Grants.aspx>, (accessed on 7 June 2017).

²⁶⁴ The Terrain Disability recognises that some local governments incur greater costs in bush fire prevention and control due to topographic conditions. The Cyclone Disability recognises local governments that incur pre-cyclone clean-up costs, planning costs and increased insurance costs. (Source: Western Australian Local Government Grants Commission, *Methodology for the distribution of Commonwealth Financial Assistance Grants to local governments in Western Australia*, Perth, Government of Western Australia, 2015.)

²⁶⁵ Department of Local Government and Communities, *Local government financial assistance grants*, Perth, Government of Western Australia, 2017, <https://www.dlgc.wa.gov.au/GrantsFunding/Pages/LG-General-Purpose-Grants.aspx>, (accessed on 7 June 2017).

The ESL should not be used to fund the broader emergency management responsibilities of local governments.

3.5 How the Emergency Services Levy should be raised

Taxes and levies are important sources of revenue for governments.²⁶⁶ They help to fund the goods and services governments provide their citizens. However, all taxes and levies impose costs on the economy. These costs can be reduced by ensuring that taxes and levies are well-designed.

Many of the principles that apply to good tax design may be applied to the design of a levy. This section draws on the principles of good tax design to identify four principles of good levy design, being equity, efficiency, simplicity, and effectiveness. Each principle is described below, with a discussion of how the ESL performs against each principle.

3.5.1 Equity

In taxation, 'equity' refers to fairness in the distribution of the tax burden. A levy is equitable if the total amount recovered is raised in a fair manner across the community.

There are a number of considerations in the equitable design of a levy. Three common considerations are user pays equity, horizontal equity, and vertical equity.

The user pays form of equity suggests that those who benefit from the services funded by the levy should pay for the cost of the benefits they receive.²⁶⁷

Horizontal equity refers to a situation where people in similar situations pay a similar amount. Vertical equity refers to a situation where those with a greater ability to pay contribute more than those with a lesser ability to pay.²⁶⁸ (This is also referred to as *progressivity*.)

In practice, these different forms of equity frequently conflict with each other, meaning that achieving one form of equity may compromise another. Governments are required to make decisions about how to achieve an appropriate balance between different forms of equity.

Equity is important because it reflects the fundamental values of a community, and levies that are perceived as inequitable or unfair may not be sustainable, since they may be rejected by the community.^{269,270} However, equity is also a difficult principle to assess because it can be subjective. Different members of society will have different views on how equity should be achieved. Governments have an important role in balancing the competing

²⁶⁶ The Economic Regulation Authority considers the ESL to be a charge for service, rather than a tax. A charge for service does not need to be set on a cost-recovery basis. (Source: T. Marney, Under Treasurer, letter to the Chairman of the Joint Standing Committee on Delegated legislation, 19 April 2012.)

²⁶⁷ Productivity Commission, *Natural Disaster Funding Arrangements*, Inquiry Report No. 74, Melbourne, Government of Australia, 2014, Vol. 2, p. 404.

²⁶⁸ The Treasury, *Re:think – Tax discussion paper*, Canberra, Government of Australia, 2015, p. 29.

²⁶⁹ The Treasury, *Re:think – Tax discussion paper*, Canberra, Government of Australia, 2015, p. 29.

²⁷⁰ Alley, C and Bentley, D., *A remodelling of Adam Smith's tax design principles*, Australian Tax Forum, Vol. 20, No. 1, pp. 624-679 (p. 622).

forms of equity, taking into account community interests and expectations. Most concerns raised by stakeholders about the method for raising the ESL relate to the principle of equity.

3.5.1.1 *Is the Emergency Services Levy equitable?*

The principle of equity was a primary consideration in the design of the ESL (as discussed in Appendix E). However, the ESL does not perfectly fulfil any of the forms of equity.

The ESL was not designed to meet the user pays form of equity. A policy decision was made to not directly recover the costs of services from individuals or geographic areas. Instead, the then government decided to apply a community rating principle, which shares costs amongst the community to ensure that these services are affordable for all.²⁷¹

The ESL was designed to partially achieve vertical equity, by using gross rental value in ESL calculations as a proxy for wealth, or capacity to pay. However, some stakeholders said gross rental value does not perfectly reflect capacity to pay.²⁷² This is discussed in further detail in Chapter 6.

The ESL category system seeks to ensure that property owners with access to similar levels of service pay the same rate, consistent with the horizontal equity. However, some features of the ESL (such as grouping provisions) interfere with this form of equity, as discussed in Chapter 6.

Stakeholders have expressed concern about the equity of the ESL, for a range of different reasons reflecting their circumstances and preferences. These concerns are addressed in more detail in Chapter 6. These include whether the ESL should be charged according to risk or service availability, whether cross-subsidisations between ESL categories are appropriate, whether a property-based levy should be used to fund marine search and rescue and road crash rescue services, and how properties should be grouped for the purpose of the ESL. In many of these cases there have necessarily been trade-offs between equity and the other principles of good levy design.

3.5.2 *Efficiency*

In general, an efficient levy is one that minimises *unintended* changes in levy-payers' behaviour (including incentives to work, save, invest or consume), while still raising the amount of revenue required.^{273,274} Unintended changes in behaviour impose a cost on levy payers and the broader economy, because levy payers make decisions they would not ordinarily make to reduce the amount of levy they pay. For example, a property owner may decide not to make improvements to their property, which they would otherwise benefit from, just to reduce their levy burden.

²⁷¹ Fire and Emergency Services Authority, *A replacement funding system for emergency services*, Perth, Government of Western Australia, 2002, p. 17.

²⁷² WA Self-Funded Retirees Inc., *Submission to the review of the Emergency Services Levy*, 27 March 2017, p. 2.

²⁷³ Note that many sources use the word 'neutrality' rather than 'efficiency' to refer to this concept.

²⁷⁴ Alley, C & Bentley, D, 'A remodelling of Adam Smith's tax design principles', *Australian Tax Forum*, vol. 20, no. 1, pp. 679-624 (p. 615).

However, some taxes and levies are deliberately designed to change behaviour.²⁷⁵ For example, a levy on tobacco may be efficient, because it is designed to reduce consumption, thereby addressing a public health problem.

The ESL is not designed to influence behaviour because property owners cannot influence the ESL amount they pay by reducing the risk of their property being affected by a disaster (for example, by clearing trees around buildings).

Levies are most efficient when they are applied to bases that are immobile rather than mobile. This is because people can avoid paying levies on mobile bases (such as insurance premiums) by conducting transactions in other jurisdictions. It is more difficult to avoid paying levies on immobile bases (such as land and property).²⁷⁶

Levies are also more efficient when they are applied to a broad base instead of narrow bases.²⁷⁷ A levy rate is applied to a base (for example, income, property value) to determine how much a levy payer owes. More levy payers have to contribute to a levy when it is applied to a broad base, so the rate needed to raise a given amount of revenue is lower compared to if it applied to a narrow base. Because the amount each person must pay is lower, there is less incentive for people to change their behaviour to avoid paying the levy.

3.5.2.1 *Is the Emergency Services Levy efficient?*

The ESL is efficient, because it is applied to a relatively immobile and broad base.

The ESL is applied to the gross rental value of property. Property value is a highly immobile base. Property taxes include the value of capital improvements, such as buildings. Existing capital improvements to land generally cannot be moved. However, a property tax could result in fewer improvements being made to land, but the cost is likely to be small given that the ESL is applied at a low rate.²⁷⁸

The ESL is also applied to a broad base and was designed to have few exemptions. The ESL applies to most types of property and property owners. These include:

- vacant land owners;
- not for profit organisations and other organisations exempt from State Government taxes, fees and charges;
- public financial and non-financial corporations;
- local governments; and
- State Government agencies.²⁷⁹

²⁷⁵ The Treasury, *Re:think – Tax discussion paper*, Canberra, Government of Australia, 2015, p. 165.

²⁷⁶ Daley, J. and Coates, B., *Property taxes*, Grattan Institute, Melbourne, 2015, p. 11.

²⁷⁷ Economic Regulation Authority, *Inquiry into Microeconomic Reform in Western Australia: Final Report*, Perth, Government of Western Australia, 2014, p. 12.

²⁷⁸ Daley, J. and Coates, B., *Property taxes*, Melbourne, Grattan Institute, 2015, p. 11.

²⁷⁹ Fire and Emergency Services Authority, *A replacement funding system for emergency services*, Perth, Government of Western Australia, 2002, p. 2.

Vacant land owned by a local government and mining tenements that are used only for exploration or prospecting purposes are also exempt from the ESL.²⁸⁰

The ESL is more efficient than the insurance-based levy that it replaced. This insurance levy resulted in unintended distortions, because property owners could choose to insure off-shore to avoid paying the levy. Property owners could also avoid paying the levy by self-insuring or under-insuring.²⁸¹

While efficient levies should not result in unintended distortions, they may be used to intentionally change the behaviour of those who pay them. Consideration could be given to using the ESL to encourage behavioural change through risk-based pricing. Risk-based pricing is discussed in Chapter 6.

3.5.3 *Simplicity*

Levies should be as simple as possible. There are several aspects to simplicity, including:

- ease of calculation and collection, with the overall costs of collecting the levy being as low as possible, including:²⁸²
 - the compliance costs incurred by those who pay the levy (for example, the time taken to fill out forms or remit payment); and
 - the government's administrative costs of managing the levy (for example, the cost of sending out notices, and of computer systems needed to manage levy collection);
- transparency and accountability, to the extent that the levy-collection system is visible, and easy to understand;²⁸³ and
- certainty, where the timing and manner of collection, and amount to be collected, are clear.²⁸⁴

Simple levies are convenient to pay, and straightforward to administer. This is important because it maximises the net amount of money raised by a levy, by minimising the work needed to collect that levy.

Simplicity, transparency, and certainty are also important because people are more likely to be compliant with levies that are easy to understand.²⁸⁵ Non-compliance may be accidental (where people are confused about their obligations), or deliberate (where people

²⁸⁰ Department of Fire and Emergency Services, *Emergency Services Levy Question and Answer Guide 2014/15*, Perth, Government of Western Australia, p. 3.

²⁸¹ Kobelke, J.C., Second Reading Speech: Fire and Emergency Services Legislation (Emergency Services Levy) Amendment Bill, *Hansard*, Assembly, 25 September 2002.

²⁸² OECD, *Addressing the Tax Challenges of the Digital Economy – Action 1: 2015 Final Report*, Paris, OECD Publishing, 2015, p. 20.

²⁸³ Alley, C and Bentley, D., *A remodelling of Adam Smith's tax design principles*, Australian Tax Forum, Vol. 20, No. 1, pp. 580-624 (p.617).

²⁸⁴ Alley, C and Bentley, D., *A remodelling of Adam Smith's tax design principles*, Australian Tax Forum, Vol. 20, No. 1, pp. 580-624 (p.622).

²⁸⁵ Alley, C and Bentley, D., *A remodelling of Adam Smith's tax design principles*, Australian Tax Forum, Vol. 20, No. 1, pp. 580-624 (p.612).

seek to exploit technical ‘loopholes’ in the system). Increased compliance reduces the amount of revenue that would otherwise be lost due to non-payment.

3.5.3.1 *Is the Emergency Services Levy simple?*

The ESL is a relatively simply levy, both in its administration and design.

With few exceptions, it is charged and collected via an existing system (that is, via council rates), and relies on a robust existing dataset (being gross rental value data from Landgate). Relying on these pre-existing systems and data minimises administrative costs to the Government. Costs to levy-payers are also minimised, since the levy is collected alongside rates they would already have to pay to local government.

The design of the levy itself is also relatively straightforward. There are only five categories of ESL rate, each of which reflects the level of service available in the area. The total minimum or maximum charge payable by a property owner is determined based on land use (for which there are only two types – residential and commercial). Applying a single rate to all properties would be simpler, but may raise equity concerns.

Finally, the ESL is a single levy – this means that DFES (and levy-payers) do not incur the additional expenses of collecting multiple levies on, say, land, motor vehicles, and vessels.

However, stakeholders have indicated that the rationale for the rates set by DFES (and their upward trajectory) is not sufficiently transparent, nor easy to understand. This problem arises in part from the ESL-setting process, where DFES determines required revenue for the year, then runs a model to determine the ESL rates that will raise the required amount of revenue. This process is explained in greater detail in Section 2.7.1. Because the budget-setting process is not visible to stakeholders, increases in the ESL may appear arbitrary or difficult to understand. The transparency of DFES’ budgeting procedure is discussed in Chapter 5.

3.5.4 *Effectiveness*

An effective levy is one that will continue to raise the revenue needed, both now and into the future. There are several aspects to effectiveness, including:

- sufficiency, where the total revenue raised by the levy is equal to the amount required;²⁸⁶
- sustainability, where there is reasonable certainty that the levy will continue to raise the amount required;²⁸⁷ and
- flexibility, where the design of the levy allows government to respond to new developments and changing revenue needs.²⁸⁸

²⁸⁶ OECD, *Addressing the Tax Challenges of the Digital Economy – Action 1: 2015 Final Report*, Paris, OECD Publishing, 2015, p. 20.

²⁸⁷ OECD, *Addressing the Tax Challenges of the Digital Economy – Action 1: 2015 Final Report*, Paris, OECD Publishing, 2015, p. 21.

²⁸⁸ OECD, *Addressing the Tax Challenges of the Digital Economy – Action 1: 2015 Final Report*, Paris, OECD Publishing, 2015, p. 21.

Effectiveness is important, because if a levy cannot raise revenue as required, it will have failed in its core purpose, and will need to be redesigned or replaced.²⁸⁹

In general, a levy that has a broad, non-volatile base will be more sustainable. As discussed above, ‘broadness’ of the base refers to the reach of the levy – that is, how many people, properties, or transactions it applies to. ‘Volatility’ refers to how sensitive the amount raised is to changing circumstances. For instance, a levy on property sales may be highly volatile, because property sales vary considerably with the economy. In contrast, a levy on land would be far less volatile, because the number of blocks of land is relatively stable and predictable. A levy with a broad, non-volatile base gives governments and policy-makers more certainty that sufficient revenue will be raised.

3.5.4.1 *Is the Emergency Services Levy effective?*

The ESL is highly effective, at least in the short term, because it is calculated based on DFES’ budgeted revenue requirement for the coming year. As explained in more detail in Section 2.7.1, DFES uses required revenue as a starting point, then runs a simple model to determine how high ESL rates need to be to meet that target. As a result, the ESL will always raise the right amount of money in any given year.

The sustainability of this process depends largely on DFES’ budgeting and expenditure decisions. If the budget (and hence the required revenue) does not grow unreasonably, then levy-payers are likely to accept any corresponding increase in the levy. However, as shown in Section 4.2.2, ESL revenue has grown by 6.2 per cent a year in real terms since the levy was introduced, and a number of submissions have raised concerns about this rate of growth.

Finally, the flexibility of the ESL and its ability to adapt to deliver revenue for changing circumstances is a consideration of this report. Chapter 7 contains a discussion of whether the ESL should be used to fund a rural fire service.

²⁸⁹ Alley, C and Bentley, D., *A remodelling of Adam Smith’s tax design principles*, Australian Tax Forum, Vol. 20, No. 1, pp. 580-624 (pp.618-619).

3.6 Recommendations

- The ESL should be used to fund prevention undertaken by the Department of Fire and Emergency Services, bush fire brigades and State Emergency Service units that have community-wide benefits or which involve coordination of prevention across land tenures.
- New emergency services legislation should clarify the extent to which the Department of Fire and Emergency Services and local governments are obliged to undertake prevention activities, and whether these activities may be funded from the ESL.
- The Office of Emergency Management should prepare annual estimates of the funding required by the Department of Lands and the Department of Parks and Wildlife to conduct prevention activities on their estates. These estimates should be published in the annual report of each agency, along with the amount of funding provided by the State Government.
- The Office of Bushfire Risk Management should require local governments to publish their bushfire risk management plans and treatment strategies.
- The ESL should be used to fund the preparedness activities of the Department of Fire and Emergency Services, the bush fire brigades and State Emergency Service units that have community-wide benefits.
- The ESL should be used to fund the response activities of the Department of Fire and Emergency Services, the bush fire brigades and State Emergency Service units.
- The ESL should not be used to fund the costs of recovery.
- The ESL should be used to fund the administration costs of the Department of Fire and Emergency Services.
- The ESL should be used to fund the full costs of the Community Emergency Services Managers in local government. However, it should not be used to fund the broader emergency service and management responsibilities of local government, or the administration costs linked to bush fire brigades and State Emergency Service units.

4 Department of Fire and Emergency Services revenues and costs

4.1 Introduction

DFES receives revenue from a range of sources, including the ESL and contributions from the State and Australian Governments. DFES incurs a variety of costs in providing emergency management and emergency services, including day-to-day operating costs, capital costs, and grants and subsidies paid to other parties. This chapter provides an overview of the revenues and expenditures of DFES, with a particular focus on the how the ESL is raised and applied.

This chapter addresses, to the extent possible within data constraints, the following components of the terms of reference:

- the current ESL expenditure applied to managing the emergency services (prevention of, preparedness for, response to and recovery from natural hazard emergencies); and
- the proportion of ESL funding directed towards each aspect of emergency management: prevention, preparedness, response and recovery.

The remainder of this chapter is structured as follows:

- an examination of the sources of DFES revenues, including changes in ESL rates and other revenue trends;
- an examination of the total costs of DFES, including information on cost trends, allocation of costs to operational functions, and forecast costs; and
- a discussion of ESL revenues and expenditures by regions in Western Australia.

On 1 November 2012, the Fire and Emergency Services Authority (FESA) was restructured, becoming DFES. This report generally refers to 'DFES' when discussing the agency's costs and revenues over time, but refers to 'FESA' when discussing specific costs, reports and events predating the restructure.

4.2 Revenues

4.2.1 *Sources of revenue for Department of Fire and Emergency Services*

DFES receives revenue from a number of sources, with Figure 9 showing the sources of total DFES revenues in 2015-16.

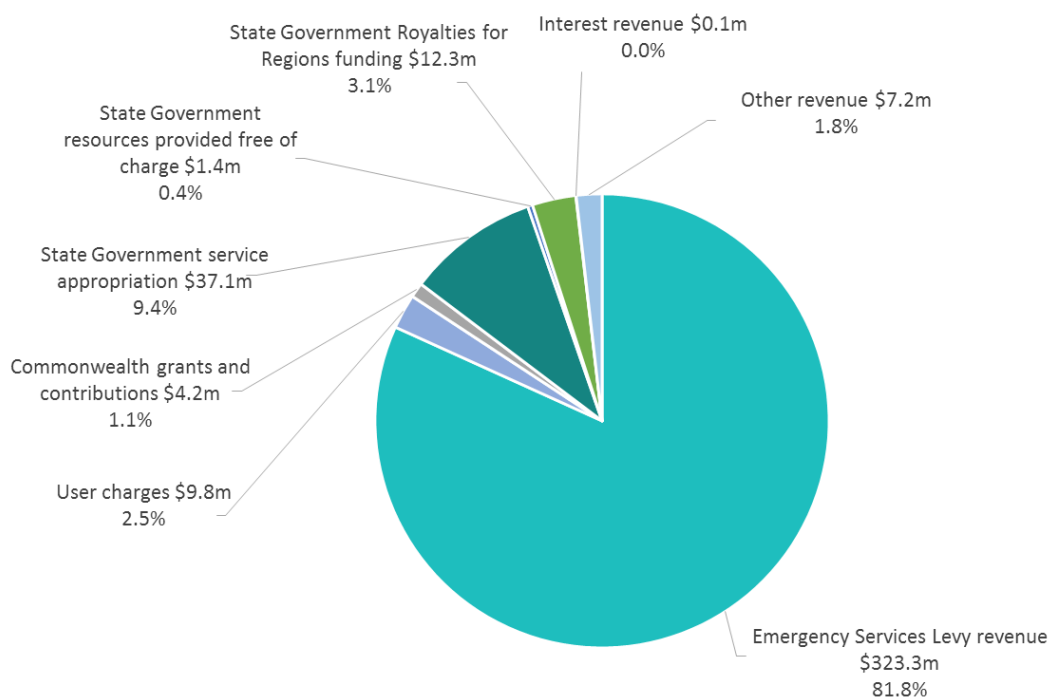
The ESL is the main source of revenue for DFES. In 2015-16, ESL revenue was \$323.3 million, or about 82 per cent of total income for DFES.^{290,291}

DFES also receives an appropriation from the State Government, which accounted for \$37.1 million or 9.4 per cent of DFES revenues in 2015-16. DFES applies the appropriation from the State Government to activities it may not legally fund from ESL revenues.²⁹² More information on what the ESL may and may not be used to fund is provided in Chapter 2, and Appendix F lists specific cost centres not presently funded by the ESL.

Grants from Royalties for Regions accounted for \$12.3 million or 3.1 per cent of DFES revenues in 2015-16. The Royalties for Regions grants were used for the south west emergency rescue helicopter, crew fire protection²⁹³ and the volunteer fuel card scheme.²⁹⁴

DFES also receives funding from the Australian Government, and user fees and charges (for example, fees for responding to false fire alarms).

Figure 9 DFES sources of revenue (2015-16)



Sources: DFES Annual Report 2015-16.

²⁹⁰ Department of Fire and Emergency Services, *Annual Report 2015/16*, Perth, Government of Western Australia, 2016, p. 72.

²⁹¹ 'Total income' includes all income from the State Government, including service appropriations, services received free of charge, and fund from Royalties for Regions.

²⁹² The ERA understands that ESL revenue may not be used for unexploded ordinance, surf lifesaving, and the salaries of the FES commissioner and the two deputy FES commissioners.

²⁹³ DFES describe the crew fire protection program as a state-wide initiative focussed on ensuring the safety and welfare of emergency services personnel in the context of bushfires. The initiative comprises the retro-fitting of existing firefighting appliances with burnover blankets, radiant heat shields, deluge, lagging and fire resistant panel systems and in-cabin air systems. (Source: Department of Fire and Emergency Services, *Annual Report 2015/16*, Perth, Government of Western Australia, 2016, p. 37.)

²⁹⁴ Department of Fire and Emergency Services, *Annual Report 2015/16*, Perth, Government of Western Australia, 2016, p. 74.

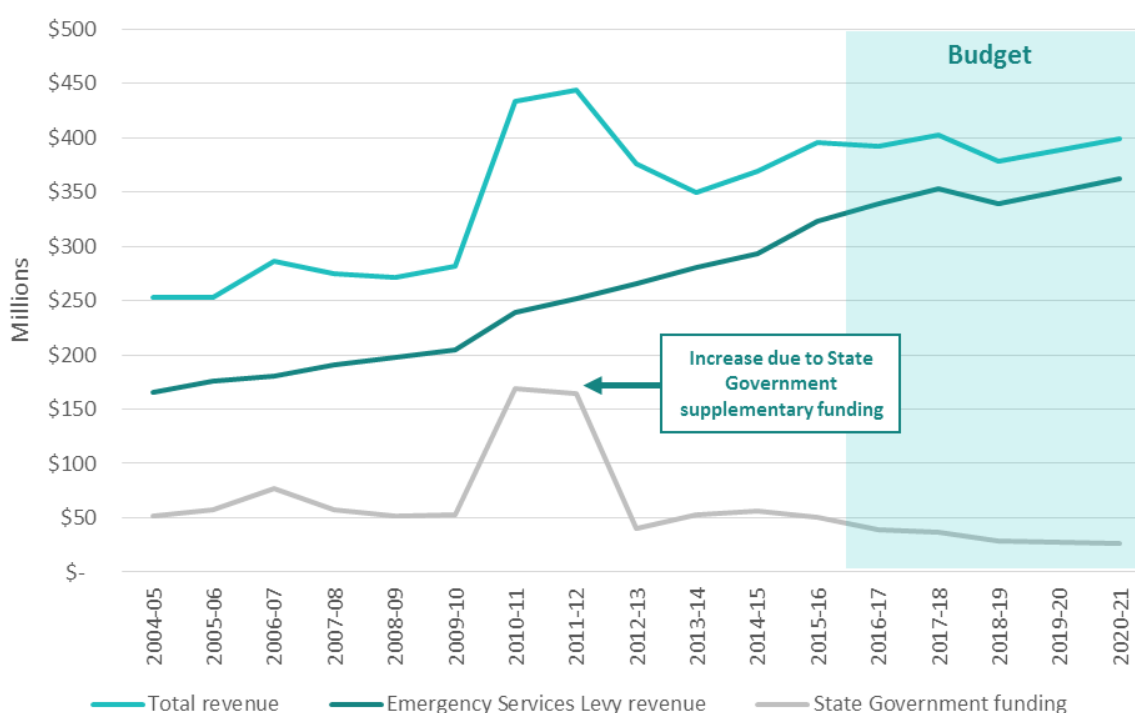
4.2.2 Historical components of Department of Fire and Emergency Services revenues

Since 2004-05, DFES total revenue (that is, ESL revenue plus all other sources of revenue shown in Figure 9) has increased by 4.2 per cent a year in real terms.²⁹⁵ Figure 10 shows DFES' historical and budgeted revenue by source.

ESL revenue has comprised most of DFES revenue since the ESL was introduced. The ESL as a proportion of total DFES revenues increased from 66 per cent of total revenue in 2004-05 to 82 per cent in 2015-16.²⁹⁶

ESL as a share of the total revenues of DFES is projected to continue to increase. Data provided by DFES indicates that the ESL revenue for 2016-17 is budgeted at \$338.9 million (86 per cent of total income), rising to \$362.5 million (91 per cent of total income) by 2020-21.

Figure 10 Estimated historical and budgeted DFES revenue by source (2004-05 to 2020-21, \$ real 2015-16)



Sources: DFES annual reports, and trial balance data and cost centre data provided to the ERA.

Since 2004-05, all sources of funding from the State Government as a share of total DFES revenues have decreased from 21 per cent of the total revenues of DFES to 13 per cent in 2015-16.

²⁹⁵ Rates are calculated using the Compound Annual Growth Rate (CAGR) method throughout this chapter. All nominal to real conversions are based on ABS CPI data (ABS Cat No 6401.0 Dec 2016).

²⁹⁶ 'Total income' includes all income from the State Government, including service appropriations, services received free of charge, and fund from Royalties for Regions.

The appropriation from the State Government peaked in 2010-11 and 2011-12. A number of extreme weather and natural hazard events occurred in those years, which caused FESA to incur significant unbudgeted expenses.²⁹⁷ FESA incurred additional costs arising from its role in administering the Western Australia Natural Disaster Relief and Recovery Arrangements (WANDRRA), as well as unbudgeted bushfire suppression operations, and SES response and recovery operations.^{298,299} In accordance with FESA's agreement with the Department of Treasury, FESA used its cash resources to meet unbudgeted costs over the periods, recouping these at the end of each year via the Supplementary Funding Process.³⁰⁰ These unbudgeted expenses were \$35.1 million in 2010-11,³⁰¹ and \$16 million in 2011-12³⁰² according to FESA annual reports.

The changes in the relative proportions of DFES revenues reflects both:

- strong growth in revenue collected from the ESL revenue, with ESL revenue collections increasing by 6.2 per cent a year in real terms since 2004-05; and
- a downward trend in State Government appropriations to DFES, reflecting a policy decision by government that all DFES expenditures should be funded by the ESL to the extent supported by legislation.³⁰³

The ESL has increased more quickly than DFES expenditure (discussed in Section 3.3.1) because State Government contributions have declined.

4.2.3 Emergency Services Levy average residential charge

The average residential charge for Category 1 (metropolitan) properties has increased from \$122 in 2004-05 (equal to \$160 in 2015-16 dollars) to \$260 in 2015-16. This increase over time is shown in Figure 11.

²⁹⁷ FESA's annual reports for these years note a range of natural hazard events, including four cyclones, a tornado, extensive flooding and thunderstorms, and the Perth Hills and Augusta-Margaret River bushfires. (Source: Fire and Emergency Services Authority, *Annual Report 2010-11*, Perth, Government of Western Australia, p. 138; Fire and Emergency Services Authority, *Annual Report 2011-12*, Perth, Government of Western Australia, p. 120.)

²⁹⁸ Fire and Emergency Services Authority, *Annual Report 2010-11*, Perth, Government of Western Australia, p. 28.

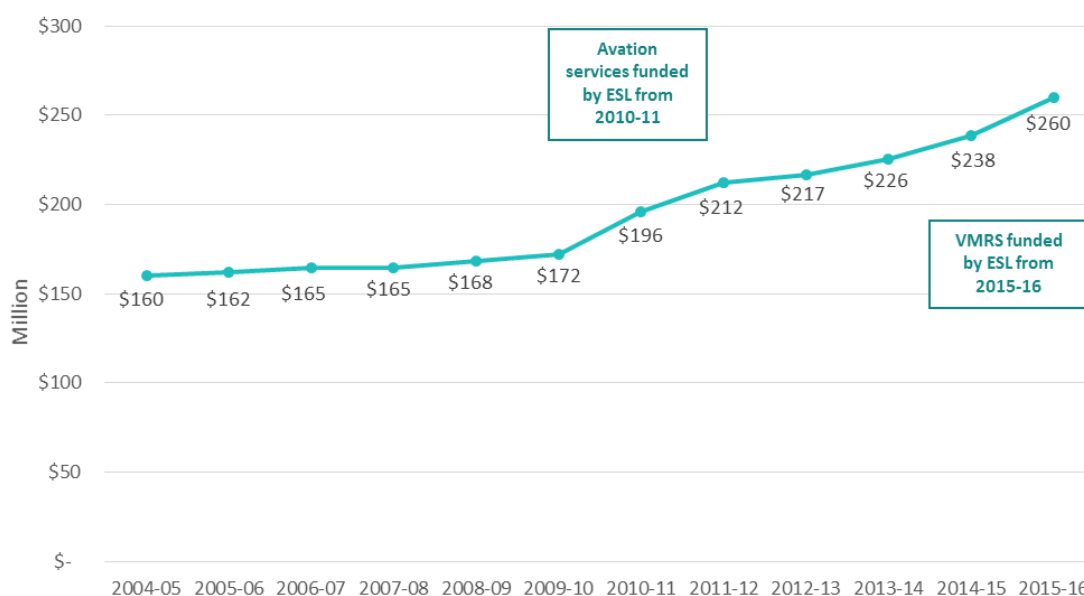
²⁹⁹ WANDRRA is invoked to 'provide financial assistance to communities whose social, financial and economic wellbeing have been significantly affected by an eligible natural disaster event'. (Source: Fire and Emergency Services Authority, *Annual Report 2011-12*, Perth, Government of Western Australia, p. 120.)

³⁰⁰ Fire and Emergency Services Authority, *Annual Report 2010-11*, Perth, Government of Western Australia, p. 28.

³⁰¹ Fire and Emergency Services Authority, *Annual Report 2010-11*, Perth, Government of Western Australia, p. 28.

³⁰² Fire and Emergency Services Authority, *Annual Report 2011-12*, Perth, Government of Western Australia, p. 26.

³⁰³ Quirk, M., Motion, *Hansard*, Assembly, 9 September 2015, p. 6029b-6041a.

Figure 11 Average Residential Charge (Category 1) 2004-05 to 2015-16 (\$ real 2015-16)

Sources: ERA analysis and DFES data provided to the ERA.

Additional services have been funded by the ESL since it was introduced. These services were previously funded from general government revenue. In 2010-11, the ESL began funding the aviation service contracted by DFES during emergencies, and in 2015-16, the ESL began funding the Volunteer Marine Rescue Services.³⁰⁴

Table 6 and Table 7 show the average residential charge for each ESL category in real and nominal terms over the same period.

Table 6 Average Residential Charge, 2004-05 to 2015-16 (\$ real 2015-16)

	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
Category 1	\$160	\$162	\$165	\$165	\$168	\$172	\$196	\$212	\$217	\$226	\$238	\$260
Category 2	\$112	\$107	\$116	\$121	\$104	\$114	\$148	\$127	\$133	\$144	\$135	\$144
Category 3	\$74	\$76	\$84	\$83	\$82	\$84	\$94	\$101	\$101	\$104	\$113	\$120
Category 4	\$54	\$56	\$57	\$59	\$55	\$61	\$73	\$72	\$76	\$79	\$81	\$85
Category 5	\$39	\$44	\$43	\$45	\$47	\$49	\$55	\$59	\$60	\$62	\$65	\$68

Source: DFES; ERA analysis.

Table 7 Average Residential Charge, 2004-05 to 2015-16 (\$ nominal)

	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
Category 1	\$122	\$128	\$133	\$139	\$144	\$152	\$179	\$196	\$205	\$220	\$236	\$260
Category 2	\$85	\$85	\$94	\$102	\$89	\$101	\$135	\$117	\$126	\$140	\$134	\$144
Category 3	\$56	\$60	\$68	\$70	\$70	\$74	\$86	\$93	\$96	\$101	\$112	\$120
Category 4	\$41	\$44	\$46	\$50	\$47	\$54	\$67	\$67	\$72	\$77	\$80	\$85
Category 5	\$30	\$35	\$35	\$38	\$40	\$43	\$50	\$55	\$57	\$60	\$64	\$68

Source: DFES.

³⁰⁴ Department of Fire and Emergency Services, *Emergency Services Questions & Answer Guide 2016/17*, Perth, Government of Western Australia, 2016, p. 1.

4.2.4 Volunteer services received free of charge

DFES receives a substantial amount of services free of charge from its volunteers. In 2015, the FES Commissioner stated that:

“Emergency services volunteers are critical to protecting Western Australian (WA) communities from disaster; providing over 95% of the emergency services response personnel. WA emergency services volunteers respond to over 7,500 incidents every year and support local communities to prevent, prepare for, respond to and recover from emergencies and disasters including fire, flood, storm, cyclone, road crash, land and sea searches and other rescues.”³⁰⁵

While it is clear that volunteers provide a high-value service to DFES and the community, it is difficult to put a dollar value on that service. DFES has not undertaken an analysis of the value of volunteers.³⁰⁶ The ERA acknowledges the difficulties of accurately assessing the value of volunteer time, and that DFES also invests money in training and equipping volunteers, as well as receiving services from them.

This chapter uses a simplified calculation to estimate the value of volunteer time contributed in 2015-16, based on volunteer data provided by DFES. (Volunteers also invest a significant amount of personal time in training, which is not captured in this calculation.)

Table 8 shows the number of volunteer hours contributed by members of bush fire brigades, VFES, SES, and VFRS in 2015-16.³⁰⁷ (DFES did not provide volunteer hours for the VMRS.) It also shows an estimate of the value of those hours.

In calculating the value of hours contributed by volunteers, this report considers a range of scenarios. Values have been calculated by multiplying an hourly wage by the number of volunteer hours.³⁰⁸ The report uses the minimum adult hourly wage in Western Australia³⁰⁹, full-time adult average weekly earnings in Australia³¹⁰, and the hourly wage of a regional firefighter in DFES³¹¹ to calculate the values in the respective columns.

³⁰⁵ Department of Fire and Emergency Services, *Emergency Services Volunteer Workforce Sustainability Strategy: 2015-2024*, Perth, Government of Western Australia, 2015, p. 2.

³⁰⁶ Communication with Department of Fire and Emergency Services, 26 May 2017.

³⁰⁷ Data provided by Department of Fire and Emergency Services, 2 March 2017. (*Item 14 – Volunteer Service Figures 28 February 2017.docx*)

³⁰⁸ The ERA has assumed a 40 hour working week for the estimate based on average Australian weekly earnings. All wage assumptions are based on figures from the 2015-16 financial year, except for the hourly rate of a regional firefighter which was only available for 2016-17.

³⁰⁹ Department of Commerce, *Western Australian minimum wage rates 2004-2015*, Perth, Government of Western Australia, https://www.commerce.wa.gov.au/sites/default/files/atoms/files/previous_mce_award_free_pay_rates_2004-2015_1116.pdf, (accessed on 7 June 2017).

³¹⁰ Australian Bureau of Statistics, 6302.0 – *Average Weekly Earnings, Australia, May 2016*, Canberra, Government of Australia, <http://www.abs.gov.au/AUSSTATS/abs@.nsf/allprimarymainfeatures/94F2364241C05F8CCA2580CF000D4673?opendocument>, (accessed on 29 June 2017).

³¹¹ Provided by the Department of Fire and Emergency Services on 21 June 2017. DFES notes that most “[t]he majority of Career Fire and Rescue Service firefighters (especially in country areas) are at Senior Firefighter rank”.

Table 8 Estimated value of volunteer hours (2015-16)

Volunteer Unit	Volunteer Hours	Value (based on minimum wage)	Value (based on average Australian weekly earnings)	Value (based on regional firefighter hourly rate)
Bush fire brigades	113,228	\$2,025,649	\$4,291,341	\$5,268,499
Volunteer Fire and Emergency Services	9,791	\$175,161	\$371,079	\$455,575
State Emergency Service	29,318	\$524,499	\$1,111,152	\$1,364,167
Volunteer Fire and Rescue Service	53,477	\$956,704	\$2,026,778	\$2,488,285
Total	205,814	\$3,682,012	\$7,800,351	\$9,576,525

Source: DFES, Department of Commerce, Australian Bureau of Statistics, Western Australian Industrial Relations Commission, ERA analysis.

In practice, volunteers undertake many tasks, including fighting fires, conducting searches, providing firefighters with transport, managing radio communications, and catering. The collective value of their time is unlikely to be as low as that based on the minimum wage, or as high as that based on the hourly rate of a regional firefighter. The value based on average Australian weekly earnings is probably the most reasonable estimate.

4.3 Costs

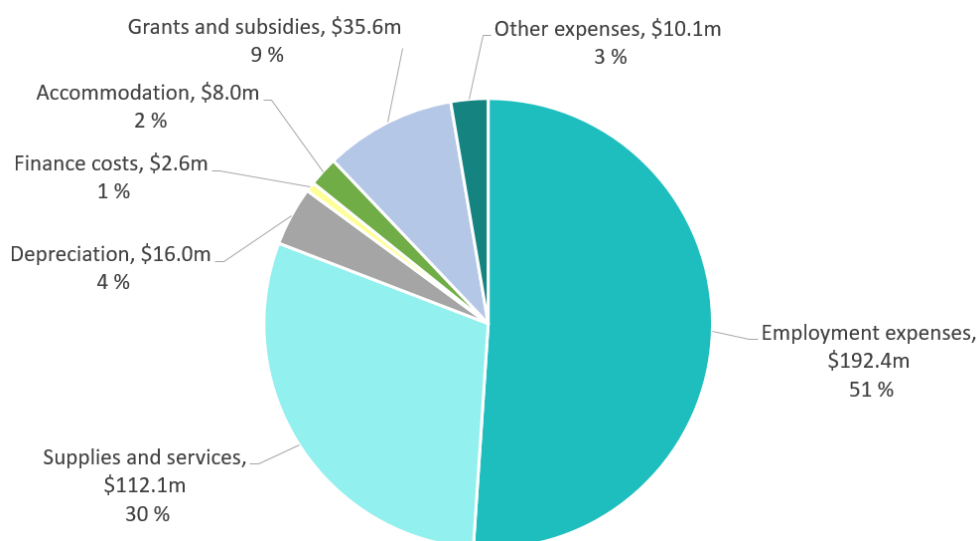
4.3.1 Operating costs

As shown in Figure 12, the major expense categories for DFES are employment expenses (51 per cent of total expenditures), supplies and services expenses (30 per cent), and grants and subsidies expenses (9 per cent). Each of these expense categories is discussed in more detail below.

DFES employment expenses include the salaries of DFES career firefighters.³¹² Additionally, many DFES staff who perform administrative work during non-emergency periods are uniformed officers, who take on an active emergency management role when emergencies take place.³¹³

³¹² DFES reports that there are 1,123 Career Fire and Rescue firefighters in Western Australia. (Source: Department of Fire and Emergency Services, *Career Fire and Rescue Service*, <https://www.dfes.wa.gov.au/aboutus/operationalinformation/Pages/fireandrescueservice.aspx>, (accessed 15 June 2017).)

³¹³ Communication with Department of Fire and Emergency Services, 16 March 2017.

Figure 12 DFES expenditure by category (2015-16)

Sources: ERA analysis; DFES Annual Report 2015-16.

Table 9 provides details of the types of costs allocated to each cost category.

Table 9 Types of costs included in DFES cost categories

Category	Details
Employment expenses	Wages and salaries (including long service leave and annual leave), overtime payments, the cost of protective clothing provided to DFES employees, and superannuation costs.
Supplies and services	Administration, advertising and promotion, communications, consulting, contractors, electricity and water, insurance premiums and claims, leases, maintenance, and travel costs.
Grants and subsidies	The cost of grants and subsidies provided to local governments, private fire brigades, various volunteer entities, and the Volunteer Marine Rescue Services Group.
Depreciation	The depreciation of DFES buildings, vehicles, plant and equipment, and leasehold improvement, as well as the amortisation of intangible assets (e.g. DFES software).
Accommodation	Lease rentals, and related repair and maintenance costs.
Finance costs	Interest expenses and loan guarantee fees.
Other expenses	Doubtful debts expenses, asset write-offs, employment on-costs, audit fees, and any other expenses incurred as a result of ordinary activities.

Sources: DFES Annual Report 2015-16.

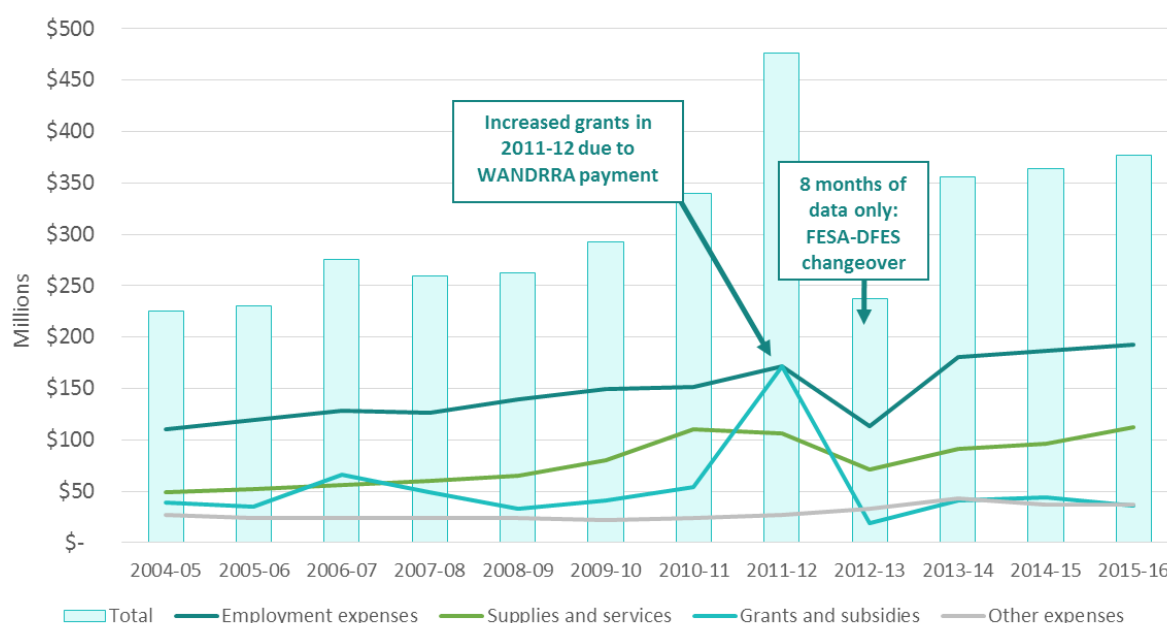
Figure 13 shows DFES' total expenditure over the period 2004-05 to 2015-16, along with trends in employment, supplies and services, grants and subsidies, and other expenses over the same period.

DFES expenditures have increased by 4.8 per cent a year in real terms since 2004-05.³¹⁴ During this period:

- employment expenses increased by 5.1 per cent a year in real terms;
- supplies and services expenses increased by 7.8 per cent a year in real terms;
- grants and subsidies paid out of the ESL to local governments and volunteer organisations decreased by 0.8 per cent a year in real terms; and
- other costs (including depreciation, accommodation, finance costs and other expenses) increased by 2.9 per cent a year in real terms.

DFES expenditures have increased by a similar amount to general government expenditure over the same period. Between 2004-05 and 2015-16, general government sector expenditure in Western Australia increased by 4.7 per cent a year in real terms.

Figure 13 DFES expenditure by category (2004-05 to 2015-16, \$ real 2015-16)

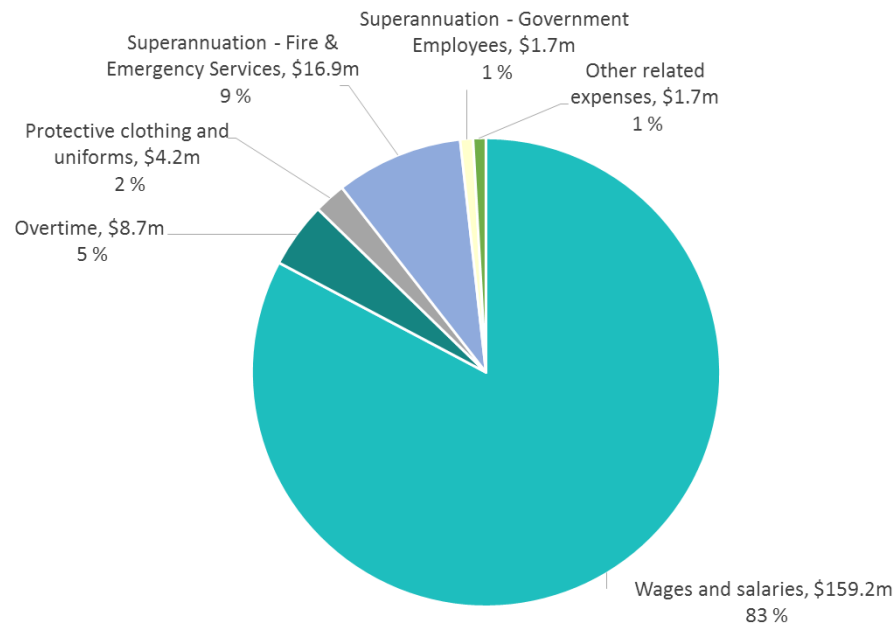


Sources: ERA analysis; DFES annual reports 2004-05 to 2015-16.

Employment costs

DFES' employment expenses cover the costs of career firefighters, employees providing planning and strategy services, and employees providing corporate services. Employment expenses accounted for 51 per cent, or \$192.4 million, of DFES expenditures in 2015-16. Wages and salaries accounted for most of this cost (83 per cent), as shown in Figure 14.

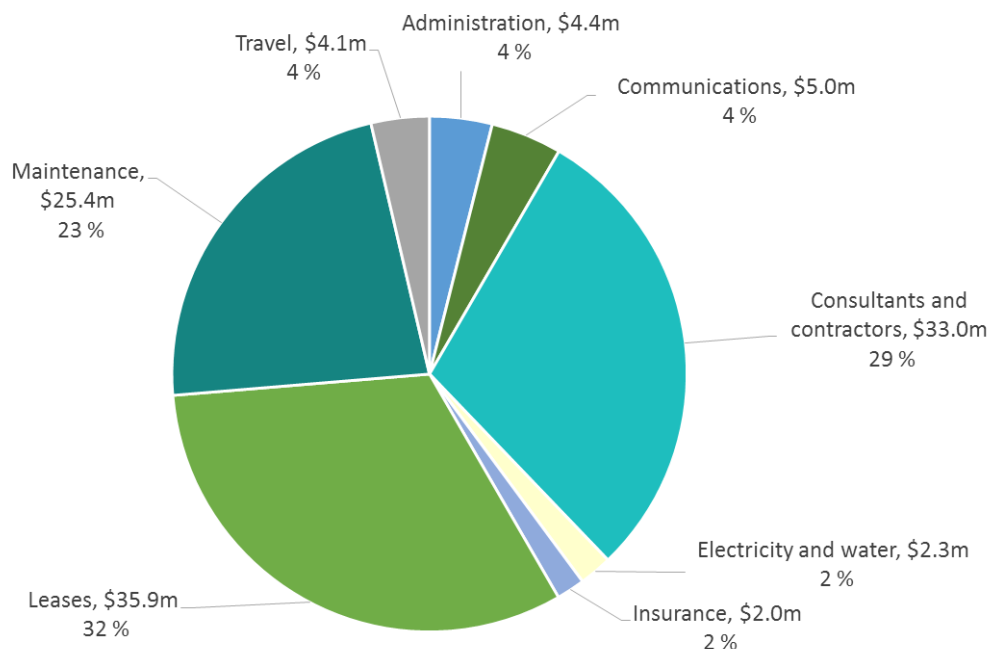
³¹⁴ Data from Department of Fire and Emergency Services' annual reports: 2004-05 to 2015-16.

Figure 14 DFES employment expenditure by category (2015-16)

Sources: DFES Annual Report 2015-16 and trial balance overtime data provided by DFES.

Supplies and services costs

Supplies and services expenses accounted for 30 per cent of DFES expenditures in 2015-16. The major components of supplies and services costs are maintenance, leases, and consultants and contractors, as shown in Figure 15.

Figure 15 DFES supplies and services expenditure by category (2015-16)

Source: DFES Annual Report 2015-16.

Grants and subsidies

Grants and subsidies accounted for 9 per cent of DFES expenditures in 2015-16. These grants and subsidies cover the costs of local government bush fire brigades and various volunteer entities including State Emergency Service units.³¹⁵

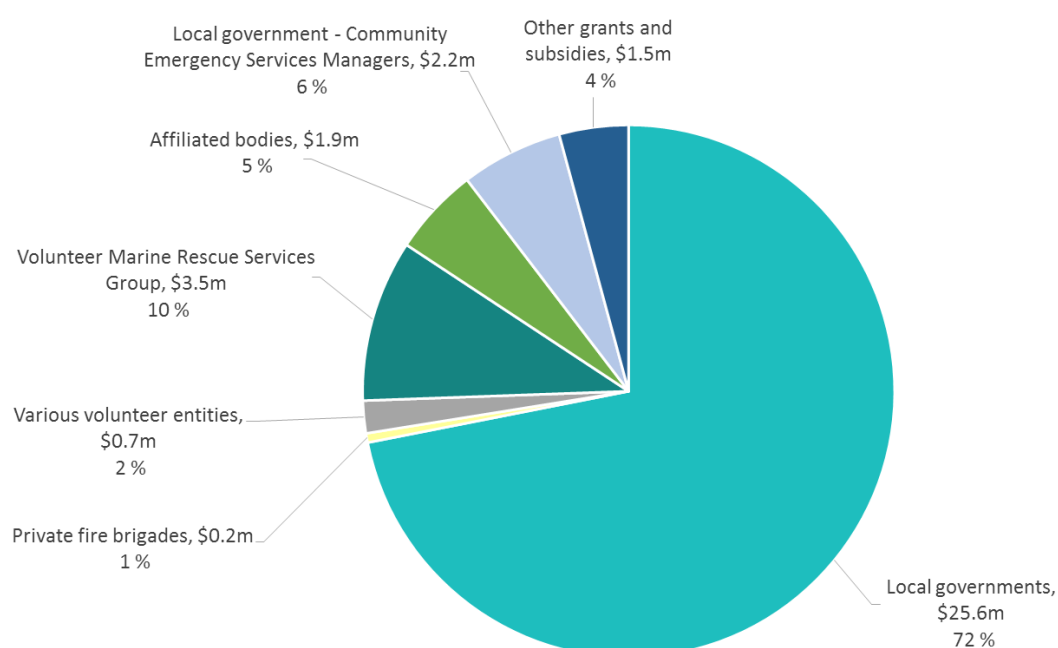
This category does not include the costs of Career Fire and Rescue Service units, Volunteer Fire and Rescue Service units, and Volunteer Fire and Emergency Services units. These units are managed by DFES, and are funded directly by DFES.³¹⁶ More information on funding allocation across specific emergency services is provided in Section 4.3.3 below.

Most grants and subsidies funding, for both capital and operating costs, is paid to local governments. For example, payments to local governments accounted for 72 per cent of this expenditure in 2015-16.

Under section 36A of the *Fire and Emergency Services Act 1998*, local governments are required to submit an annual estimate of their expenditure on fire and emergency services. The FES Commissioner approves the estimate, and pays local governments an amount equal to the approved expenditure.

Figure 16 provides a breakdown of grants and subsidies paid by DFES in 2015-16.

Figure 16 DFES grants and subsidies expenditure, including both operating and capital grants (2015-16)



Source: DFES Annual Report 2015-16.

Table 10 provides a more detailed breakdown of all grants and subsidies expenditure since 2004-05.

³¹⁵ Department of Fire and Emergency Services, *Emergency Services Levy Question & Answer Guide 2016/17*, Perth, Government of Western Australia, 2015, p. 2.

³¹⁶ Department of Fire and Emergency Services, *Emergency Services Levy Question & Answer Guide 2016/17*, Perth, Government of Western Australia, 2015, p. 2.

Table 10 Grants and subsidies by type, 2004-05 to 2015-16 (\$m real, 2015-16)

	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
Recurrent grants												
Local governments	22.5	19.7	19.8	18.9	8.4	8.3	8.6	9.3	4.7	11.2	9.1	10.4
Private fire brigades	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.2
NDRP/WANDRRA /AWARE programs	12.7	12.6	43.2	26.4	8.0	15.9	23.7	133.8	2.8	-	-	-
Various volunteer entities	1.3	1.7	-	-	0.7	0.7	0.9	0.7	0.2	0.8	0.7	0.7
Volunteer Marine Rescue Services Group	2.2	1.4	-	-	1.1	1.1	0.8	1.1	0.8	1.4	1.3	1.3
Affiliated bodies	-	-	-	-	1.1	1.1	1.0	1.1	0.1	1.8	2.0	1.9
Local government - Community Emergency Service Managers	-	-	-	-	0.2	0.4	0.6	1.2	1.1	2.0	2.1	2.2
Other grants and subsidies	0.3	-	3.1	3.4	0.2	0.2	0.3	0.3	0.3	1.5	0.6	1.5
Capital grants												
Local governments	-	-	-	-	12.6	11.7	14.9	22.4	8.8	21.4	26.7	15.2
Volunteer Marine Rescue Services Group	-	-	-	-	0.9	1.5	2.5	1.2	0.4	0.8	1.0	2.2
Total												
Total grants and subsidies expense	39.1	35.5	66.1	48.9	33.4	41.1	53.7	171.1	19.3	40.9	43.7	35.6

Source: DFES annual reports 2005-06 to 2015-16; ERA analysis.

Note: Annual report data for 2012-13 only represents eight months of expenditure (1 November 2012 to 30 June 2013), as this was the year FESA transitioned to DFES.

4.3.2 Capital expenditure

DFES has data on its capital expenditure between 2004-05 and 2015-16. This is shown in Table 11 below.

Table 11 DFES Capital Expenditure by Type, 2004-05 to 2015-16 (\$m real, 2015-16)

	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
Land	4.6	6.0	3.5	2.0	1.0	0.9	0.1	0.2	1.0	1.7	1.7	12.6
Buildings	21.3	6.5	6.7	17.1	11.5	14.1	21.4	22.7	5.0	6.3	8.5	16.2
Plant & Equipment	4.5	2.6	4.3	7.3	4.8	6.3	-11.6	3.0	3.0	-3.3	1.6	2.0
Vehicles	16.8	15.0	10.8	11.3	10.5	7.0	13.1	16.8	12.8	12.2	7.4	8.3
Software	0.0	0.1	0.1	0.2	0.0	0.7	0.1	0.4	0.2	0.0	1.1	0.0
Leasehold Improvements	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.1	0.3	0.0	0.0	0.2
Total	47.2	30.2	25.4	37.9	27.8	29.0	24.2	43.2	22.3	16.9	20.3	39.3

Source: DFES; ERA analysis.

Most DFES capital expenditure is used to purchase motor vehicles and buildings.

4.3.3 *Attributing Department of Fire and Emergency Services costs to activities*

The terms of reference for this review require the ERA to consider the current ESL expenditure, and proportions of expenditure, applied to prevention, preparedness, response, and recovery activities. The ERA has been unable to classify DFES expenditures to these categories because DFES does not undertake activity based costing.

Box 1 What is activity based costing?

Activity based costing is a costing method that identifies all the activities an organisation performs, and identifies how many resources each activity requires. In accounting, many central costs are counted as 'overheads' – for example, the costs of travel, administrative staff and supplies, water, and power. Activity based costing attempts to reduce the number of costs classified as overheads. This is done by assessing how much of each overhead resource is used by each activity. Overhead costs are then allocated to the organisation's activities, in proportion to the amount each activity uses.³¹⁷

An organisation that is using activity based costing will trace how much of each 'overhead' cost is used by each activity to understand why the cost occurred.³¹⁸

This allows organisations to better understand the true costs of their activities – for example, how much it costs per hour for the State Emergency Service to respond to an incident (or particular type of incident). The calculated cost will include all DFES costs directly associated with State Emergency Service, an appropriate proportion of costs that are shared by the State Emergency Service and other services, and an appropriate proportion of head office costs.

Activity based costing can be technically challenging and requires a thorough assessment of an organisation's activities and costs. However, it also helps the organisation identify activities that are costing more or less than anticipated, and use this data to perform more efficiently, and report more transparently to the public.

DFES does collect detailed real-time³¹⁹ data on the activities of career and volunteer workers across the State (for example, attendance at a road accident, prescribed burning activities). This data could form the basis of activity based costing in the future.

DFES reports on two types of activity: 'prevention services' and 'emergency services'. ERA analysis of data provided by DFES indicates that 'prevention services' are generally prevention and preparedness activities, while 'emergency services' are response activities. DFES does not have a category for recovery-related activities.

³¹⁷ Gupta, K. P., *Cost Management: Measuring, Monitoring & Motivating Performance*, Delhi, Global India Publications, 2009, p. 86.

³¹⁸ The Chartered Institute of Management Accountants, *Activity Based Costing: Topic Gateway Series 1*, London, CIMA, 2006, p. 5.

³¹⁹ That is, DFES know exactly how many staff and resources are deployed on the ground at any point in time, and have precise information about the location of each. This allows DFES to maintain a detailed, informative, and very current database of its activities and use of resources.

Figure 17 shows a summary of DFES' cost centre structure – that is, the way in which it categorises and records its costs. A more detailed version of this figure is provided in Appendix F, and provides examples of specific cost centres that fall into each category.

Figure 17 DFES Cost Centre Structure

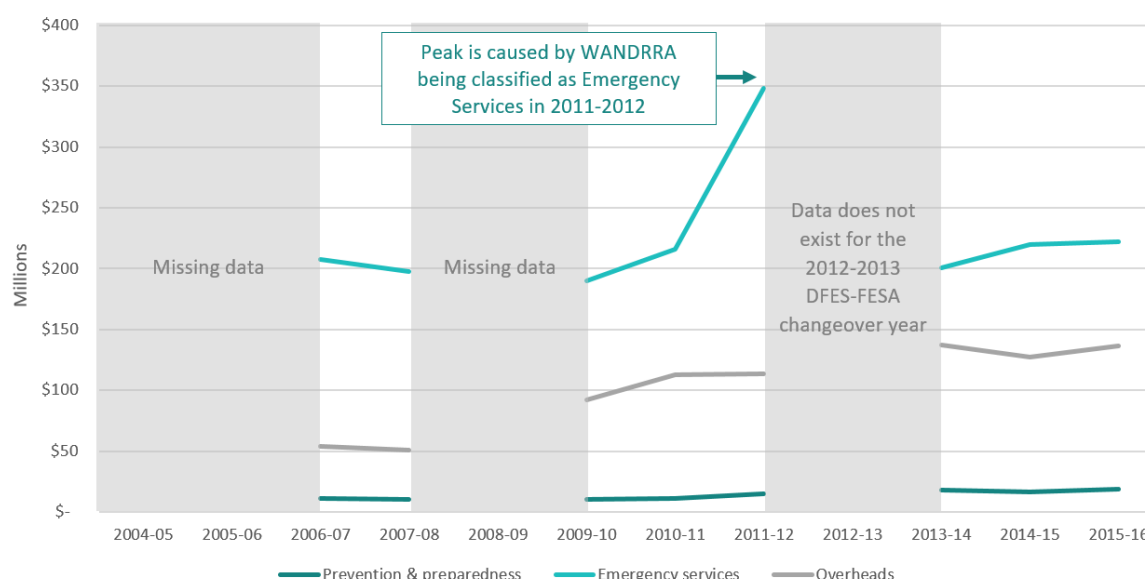
DFES costs	
Direct costs	
	<i>Prevention Services</i>
	Community Prevention
	Emergency Management Services
	<i>Emergency Services</i>
	Fire and Rescue Services – Career
	Fire and Rescue Service – Volunteer
	Bush Fire Services
	State Emergency Service
	Volunteer Marine Rescue Services
	Natural Disaster Relief Arrangements
	Local Government Grants (BFS and SES)
	FESA Unit Volunteers (Note: FESA Units are now named 'VFES Units')
	WA Emergency Rescue Helicopter Service
	FESA Aerial Services
Overhead costs	
	<i>Corporate Services</i>
	CEO Corporate
	Business Services Corporate
	Human Services Corporate

Source: DFES.

Figure 18 and Table 12 show DFES expenditure on corporate services overheads, prevention services, and emergency services from 2004-05 to 2015-16. DFES has been unable to provide some data. The relevant files for 2004-05, 2005-06, and 2008-09 have

been lost, and DFES cannot calculate the actual amount spent on each service during the 2012-13 FESA-DFES changeover year.³²⁰

Figure 18 DFES expenditure on corporate services overheads, prevention services, and emergency services (\$ real, 2015-16)



Source: DFES; ERA analysis.

Table 12 DFES direct expenditure by business area, 2004-05 to 2015-16 (\$m real, 2015-16)

	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
Emergency services	n/a	n/a	207.7	198.0	n/a	190.3	216.2	348.5	n/a	200.6	219.8	221.9
Prevention services	n/a	n/a	11.0	10.0	n/a	10.5	11.0	14.6	n/a	18.3	16.4	18.4
Overheads	n/a	n/a	53.7	50.6	n/a	92.1	112.7	113.6	n/a	137.4	127.3	136.5
Total	n/a	n/a	272.4	258.5	n/a	292.9	339.9	476.7	n/a	356.3	363.4	376.8

Source: DFES; ERA analysis. (Note: figures may not add exactly due to rounding.)

The data is presented in real dollars to allow for comparison from year to year. However, it should be noted that the original nominal data provided by DFES did not reconcile exactly to the DFES annual report for most years. DFES reports that this is likely due to minor, last-minute adjustments to the annual report.³²¹

Allocation of overheads

In 2015-16, overhead expenses accounted for 36 per cent of total DFES expenditure. Emergency services accounted for a further 59 per cent, and prevention services for 5 per cent.

³²⁰ Communications with Department of Fire and Emergency Services, 12 June 2017 and 13 June 2017.

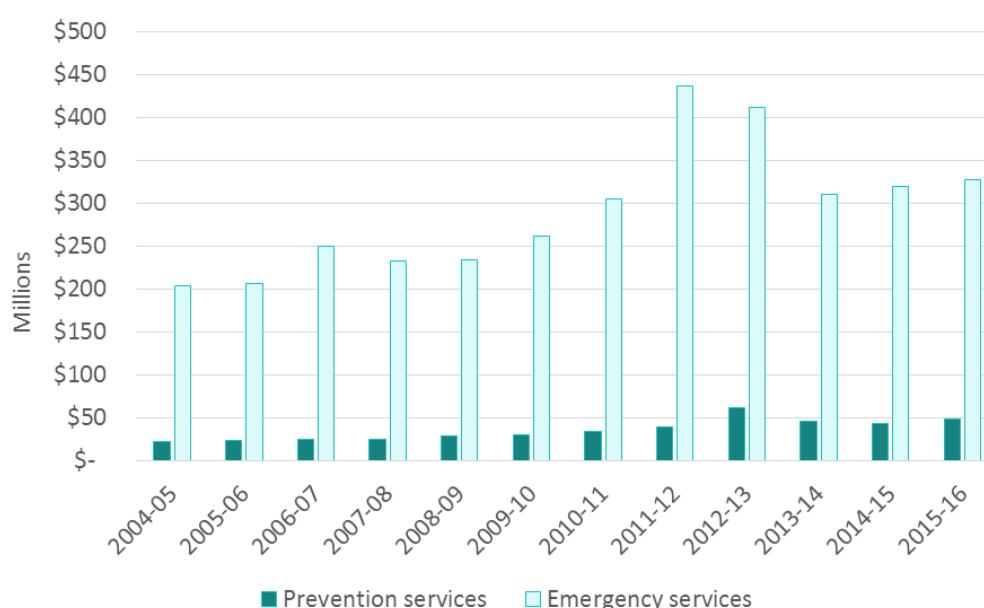
³²¹ Communication with Department of Fire and Emergency Services, 13 June 2017.

DFES performs a basic overhead allocation process for its annual report, using a cost allocation model to allocate overhead costs between prevention and emergency services. The model first transfers a portion of emergency services expenditure (approximately \$11.7 million in 2015-16, equivalent to four weeks' total emergency expenditure) to prevention services, recognising the roles of the Career Fire and Rescue Service, Volunteer Fire and Rescue Service, and State Emergency Service in community prevention. The model then allocates overhead costs based on the proportion of direct expenditure attributed to the categories of prevention and emergency services expenditure.

After allocating overheads, expenses for prevention services were \$46.78 million or 12.9 per cent of total expenses. Expenses on emergency services were reported as \$328.0 million, or 87.1 per cent of total expenses.³²²

Figure 19 shows the breakdown of emergency services and prevention services expenditure in DFES' annual reports from 2004-05 through to 2015-16. This expenditure includes allocated overheads.³²³ Expenditure on emergency services has been substantially higher than expenditure on prevention services in all years. Prevention services expenditure accounts for a relatively small proportion of DFES expenditures, but increased from 9.8 per cent of ESL expenditures in 2004-05 to 12.9 per cent in 2015-16.

Figure 19 Split between prevention services and emergency services expenditure published in DFES' annual reports (\$ real, 2015-16)



Source: DFES annual reports, 2013-14 to 2015-16.

The Department of Lands has paid DFES \$450,000 a year, under a memorandum of understanding, to undertake bushfire prevention activities on unallocated Crown land and

³²² Department of Fire and Emergency Services, *Annual Report 2015-16*, Perth, Government of Western Australia, 2016, p. 55.

³²³ DFES broadly allocates overheads as follows: every cost centre is designated as either 'prevention services', 'emergency services', or 'overheads' when it is created. At the end of the year, four weeks' of fire and emergency services expenses are transferred from 'emergency services' to 'prevention services' to recognise the prevention activities performed by these groups. Overheads are then allocated to either 'emergency services' or 'prevention services' based on the ratio between the two.

unmanaged reserves within rural towns since 2004.³²⁴ Removing this expenditure from the calculation would reduce the share of expenditure on prevention services slightly, to 12.8 per cent in 2015-16.

FESA's annual reports for 2010-11 and 2011-12 state that costs in those years were higher than anticipated, due to costs arising from FESA's role in administering WANDRRA, unbudgeted bushfire suppression operations, and SES response and recovery operations.^{325,326} In accordance with FESA's agreement with the Department of Treasury, FESA used its cash resources to meet unbudgeted costs over the periods, and recouped these at the end of each year via the Supplementary Funding Process.³²⁷ These unbudgeted expenses were \$35.1 million in 2010-11,³²⁸ and \$16 million in 2011-12.³²⁹ FESA's annual reports for these years highlight a range of natural hazard events, including four cyclones, a tornado, extensive flooding and thunderstorms, and the Perth Hills and Augusta-Margaret River bushfires.³³⁰

Prevention and preparedness (prevention services)

DFES is not the sole provider of prevention and preparedness services in the State. Other agencies, such as the Department of Parks and Wildlife (DPAW), and local governments have significant prevention and preparedness responsibilities. More information about the role and funding of these and other relevant agencies is provided in Chapter 2 and Chapter 5.

DFES generally refers to prevention and preparedness activities collectively as 'Prevention Services'. It categorises prevention services as:

- *Community prevention services* (for example, contracting mitigation works for the Department of Lands on unallocated Crown land, operating programs like At Risk Communities and the Blue Hydrant Marker Program, delivering unexploded ordnance services, undertaking fire investigation and analysis, and operating the Swan and Avon River Catchment Flood Warning system).
- *Emergency management services* (for example, jointly funding Community Emergency Service Managers to work with local governments, and operating the Office of Bushfire Risk Management).

A detailed list of all active DFES prevention services cost centres is provided in Appendix G.

³²⁴ Department of Lands has indicated that this arrangement existed with the Department of Lands and its various predecessor agencies since 2004. See also: Department of Lands, *Submission to the Emergency Services Levy Review*, 14 March 2014, p. 3.

³²⁵ Fire and Emergency Services Authority, *Annual Report 2010-11*, Perth, Government of Western Australia, p. 28.

³²⁶ WANDRRA is invoked to 'provide financial assistance to communities whose social, financial and economic wellbeing have been significantly affected by an eligible natural disaster event'. (Source: FESA, *Annual Report 2011-12*, Perth, Government of Western Australia, p. 120.)

³²⁷ Fire and Emergency Services Authority, *Annual Report 2010-11*, Perth, Government of Western Australia, p. 28.

³²⁸ Fire and Emergency Services Authority, *Annual Report 2010-11*, Perth, Government of Western Australia, p. 28.

³²⁹ Fire and Emergency Services Authority, *Annual Report 2011-12*, Perth, Government of Western Australia, p. 26.

³³⁰ Fire and Emergency Services Authority, *Annual Report 2010-11*, Perth, Government of Western Australia, p. 138; FESA, *Annual Report 2011-12*, Perth, Government of Western Australia, p. 120.

In 2015-16, \$6.3 million (or 13 per cent) of DFES prevention services expenditure related to emergency management services, and \$42.5 million (or 87 per cent) to community prevention services.

Response (emergency services)

Emergency services costs include the costs of operating the Career Fire and Rescue Services, Volunteer Fire and Rescue Service, Volunteer Fire and Emergency Services, Volunteer Marine Rescue Services, and State Emergency Service, as well as the cost of grants provided to local governments to operate bush fire brigades. They also include the costs of the Western Australian Rescue Helicopter Service and DFES aerial services.

Table 13 shows the components of direct DFES expenditure on emergency services over the 2004-05 to 2015-16 period. The largest component of DFES direct expenditure on emergency services is that incurred by the Career Fire and Rescue Service.

As discussed earlier in this chapter, DFES has been unable to provide some data. The relevant files for 2004-05, 2005-06, and 2008-09 have been lost, and DFES cannot calculate the actual amount spent on each service during the 2012-13 FESA-DFES changeover year.³³¹

Table 13 DFES direct expenditure: emergency services, 2004-05 to 2015-16 (\$m real, 2015-16) (excludes overheads)

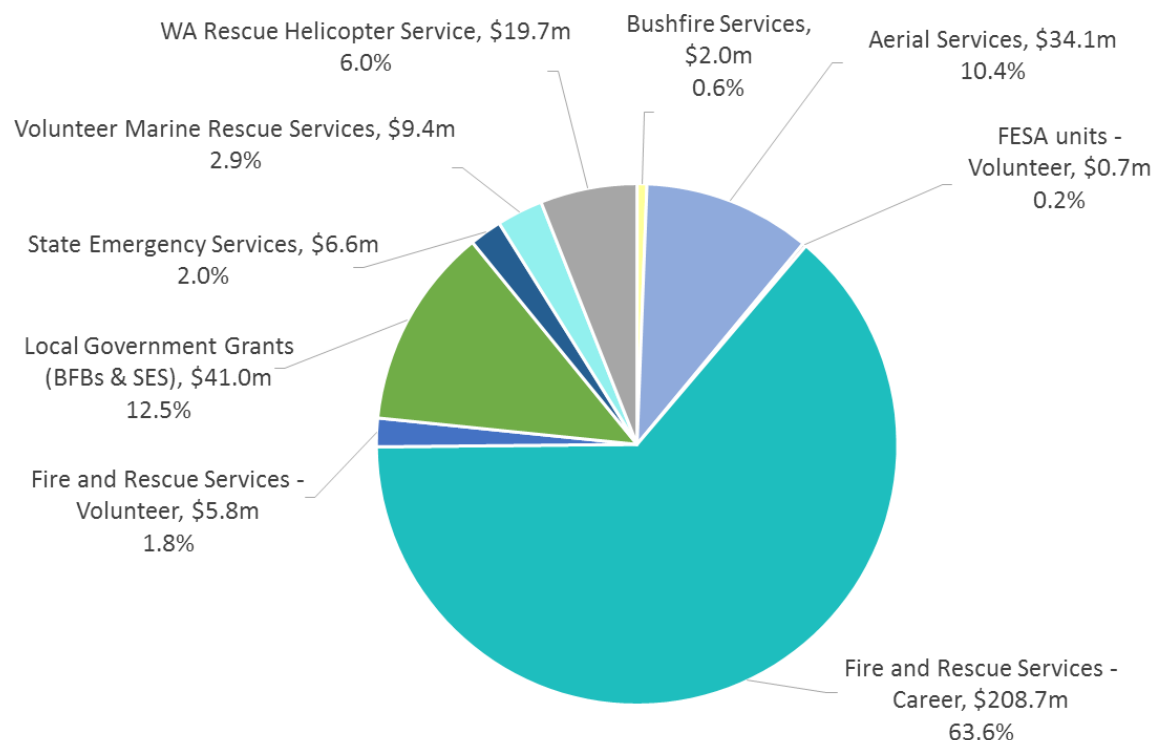
	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
Fire and Rescue Services - Career	n/a	n/a	113.9	121.1	n/a	118.5	126.5	137.9	n/a	129.2	137.8	142.6
Fire and Rescue Services - Volunteer	n/a	n/a	8.0	7.0	n/a	4.5	5.1	8.3	n/a	3.0	3.6	3.9
Local Government Grants (BFBs & SES)	n/a	n/a	22.7	22.0	n/a	22.6	26.0	34.1	n/a	33.8	36.8	25.3
Aerial Services	n/a	n/a	7.3	9.5	n/a	13.3	18.1	19.2	n/a	17.0	24.6	25.8
WA Rescue Helicopter Service	n/a	n/a	6.8	6.4	n/a	6.8	6.5	6.0	n/a	8.3	7.1	12.1
Volunteer Marine Rescue Services	n/a	n/a	2.6	3.2	n/a	4.2	4.6	4.2	n/a	4.3	4.4	5.8
State Emergency Service	n/a	n/a	2.6	2.5	n/a	3.5	4.1	4.4	n/a	3.6	3.6	4.6
Natural Disaster Relief Arrangements	n/a	n/a	42.0	24.4	n/a	15.3	22.7	131.5	n/a	0.0	0.0	0.0
Other costs	n/a	n/a	1.7	1.8	n/a	1.7	2.6	2.9	n/a	1.4	1.9	1.8
Total	n/a	n/a	207.7	198.0	n/a	190.3	216.2	348.5	n/a	200.6	219.8	221.9

Source: DFES; ERA analysis. (Note: figures may not add exactly due to rounding.)

³³¹ Communications with Department of Fire and Emergency Services, 12 June 2017 and 13 June 2017.

The components of DFES emergency services expenditure for 2015-16 are shown in Figure 20.

Figure 20 Allocated DFES emergency services expenditure by service (including overheads) (\$real, 2015-16)



Sources: Cost allocation data provided by DFES.

Career Fire and Rescue Service units, Volunteer Fire and Rescue Service units, and Volunteer Fire and Emergency Services units are managed by DFES, and are funded directly by DFES.³³² DFES does not perform a more detailed breakdown of expenditure for each of these services and has advised that any such breakdown would require broad assumptions to be made about the allocation of overhead costs. It is not possible to perform a more detailed analysis of the costs of each service because DFES does not undertake activity based costing.

The State Emergency Service is mentioned twice in the above breakdown. DFES has stated that the 'State Emergency Service' costs are the direct costs incurred in supporting units (for example, unit travel, training, and refreshments, regional office expenses, vertical rescue equipment, and the costs of the Pilbara and Kimberley offices where the State Emergency Service is under DFES' direct control). In contrast, 'Local Government Grants (BFB & SES)' refers only to the operating and capital grants paid by DFES to local governments in support of the State Emergency Service units and bush fire brigades.³³³

³³² Department of Fire and Emergency Services, *Emergency Services Levy Question & Answer Guide 2016/17*, Perth, Government of Western Australia, 2015, p. 2.

³³³ Communication with Department of Fire and Emergency Services, 8 June 2017.

Recovery

DFES does not have any significant recovery-related costs. Although DFES is not responsible for undertaking natural disaster recovery activities, it does have a role in administering the State's recovery capabilities, through WANDRRA. WANDRRA is invoked for eligible emergencies where the anticipated costs of relief and recovery activities are expected to exceed the Small Disaster Criterion, being \$240,000.^{334,335} The State's WANDRRA functions are currently coordinated by the Office of Emergency Management (OEM) within DFES, with assistance from other agencies when necessary.³³⁶ OEM is not funded through the ESL. WANDRRA relief and recovery activities are jointly funded by the State and Australian Governments.³³⁷

4.3.4 Forecast costs

The 2016-17 State Budget shows a projected increase in DFES expenses from \$386 million in 2016-17 to \$395 million in 2019-20, and an increase in ESL revenue from \$339 million to \$359 million over the same period, if the current funding model is retained.³³⁸ State Government appropriations are budgeted to be about \$18 million per year, but Royalties for Regions funding will fall from \$14 million in 2016-17 to \$2 million in 2019-20.

DFES has also provided more detailed indicative budget data for the years 2017-18 through to 2020-21, allowing for the assessment of future costs for each DFES function (that is, frontline services, corporate services, training and organisational development, compliance and technical advisory services, and community awareness and education).³³⁹

Figure 21 shows the average proportion of costs attributable to each function over the period. Frontline services account for just under half of the budgeted costs of DFES (47.3 per cent). Corporate services costs account for 31.9 per cent of budgeted costs over the period.

³³⁴ The Small Disaster Criterion is set by the Secretary of the Commonwealth Attorney-General's Department. It is the trigger for an event to be classified as an 'eligible disaster' under the joint Australian Government-State Natural Disaster Relief and Recovery Arrangements (NDRRA).

³³⁵ Fire and Emergency Services Authority, *Annual Report 2010/11*, Perth, Government of Western Australia, 2012, p. 138.

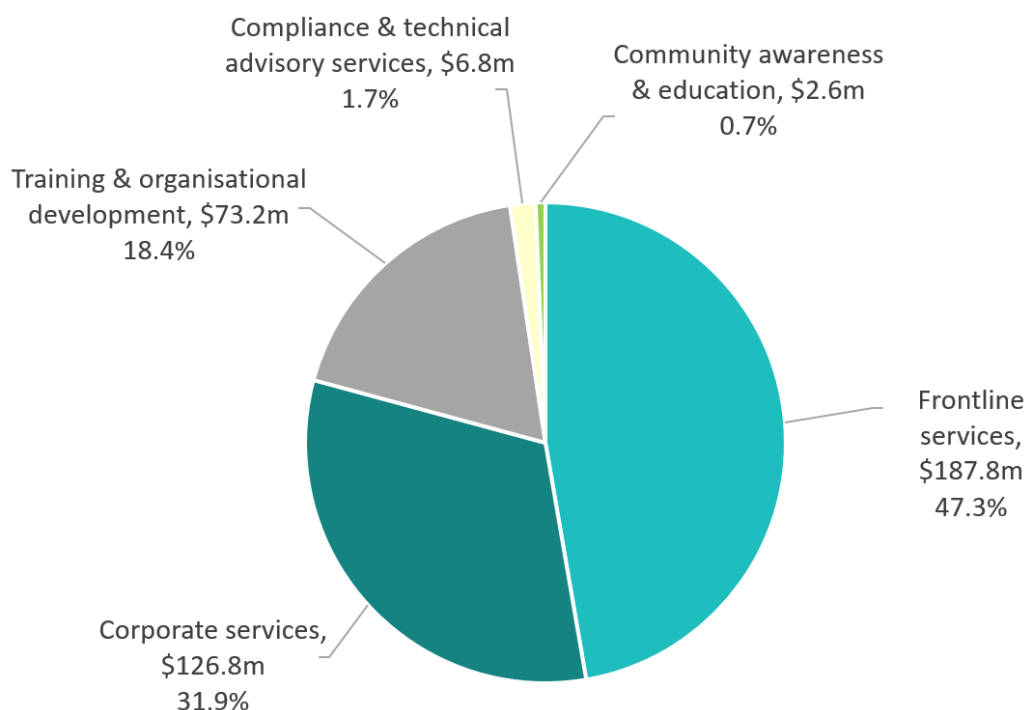
³³⁶ WANDRRA was administered by FESA (and subsequently DFES) until April 2013, when this responsibility was transferred to the Department of the Premier and Cabinet. On 1 December 2016, responsibility for administering WANDRRA was transferred from the Department of the Premier and Cabinet to OEM. (Source: Communication with Office of Emergency Management, 7 April 2017.)

³³⁷ Office of Emergency Management, *Western Australia Natural Disaster Relief and Recovery Arrangements (WANDRRA)*, Perth, Government of Western Australia, <https://www.oem.wa.gov.au/funding/wandrara>, (accessed 5 April 2017).

³³⁸ It is unclear how much this will increase average ESL rates, since ESL rates are also a function of the number of properties on valuation rolls, and uneven changes in GRV will also shift the average rate in each category.

³³⁹ Forecast costs are categorised by cost centre functions, unlike historical costs which are allocated to accounting categories.

Figure 21 Indicative budgeted average annual cost directly attributable to each function (2017-18 to 2020-21)



Source: Indicative budget data provided by DFES.

4.4 Regional distribution of costs and revenues

DFES has provided some data on the distribution of costs and revenues across its operational regions, and across ESL categories. This section presents cost and revenue data by region and by ESL categories (where available).

4.4.1 Revenue by region

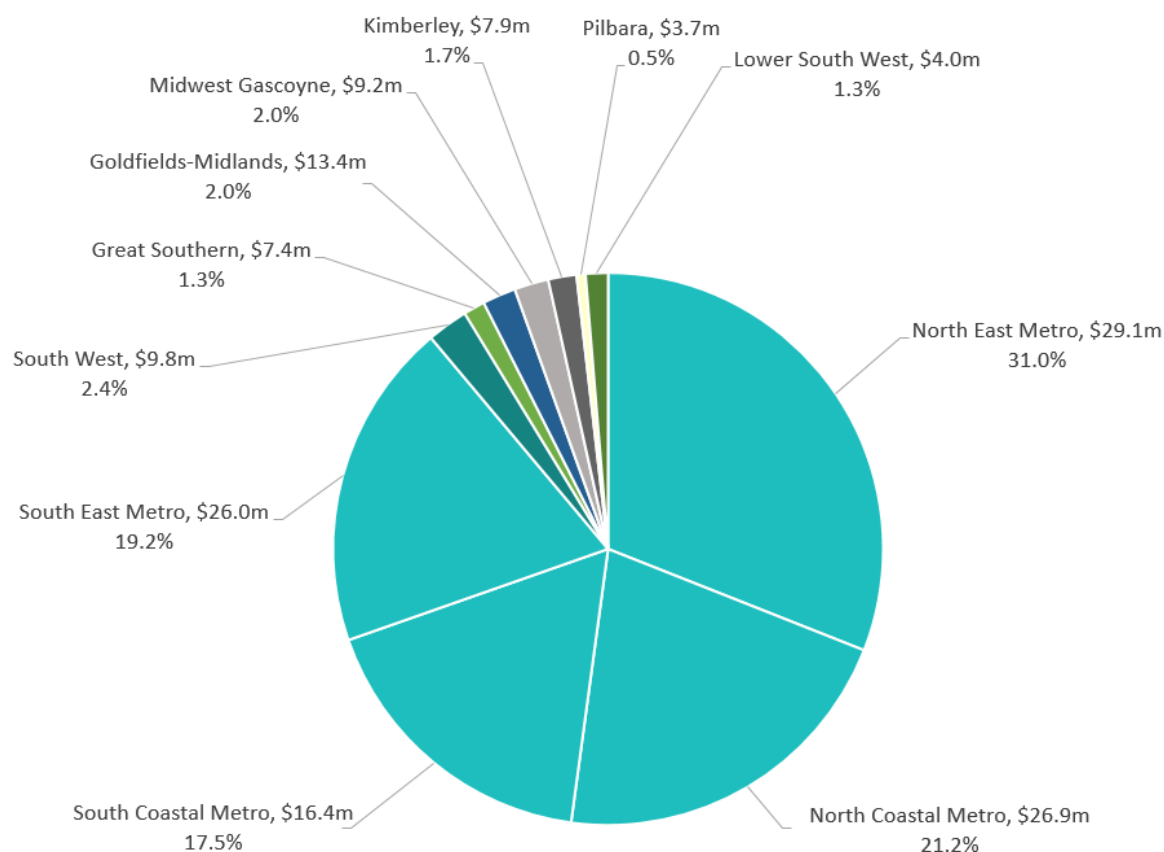
Figures provided to Parliament state that 82.3 per cent of ESL revenues were collected from metropolitan sources, and 17.7 per cent from regional sources in 2015-16.³⁴⁰ In these statistics, 'metropolitan sources' refer to Perth only; a further 5 to 6 per cent of ESL revenue comes from other metropolitan areas (being Albany, Bunbury, Greater Geraldton, Kalgoorlie-Boulder, and Mandurah).³⁴¹

Figure 22 shows the calculation of the average annual revenue raised from each region over the period 2005-06 to 2015-16. The data in the chart only shows revenue raised from rates on property by local governments. It does not include, for example, ESL collected directly by DFES on State Government property.

³⁴⁰ Mischin, M., Question without Notice 1177 – Answer advice, *Hansard*, Council, 10 November 2016, p. 7850b.

³⁴¹ Communication with Department of Fire and Emergency Services, 27 April 2017.

Figure 22 Average annual ESL revenue raised by geographic region (2005-06 to 2015-16) (\$ real 2015-16)



Source: ESL revenue data provided by DFES.

It is likely that the proportion of revenue raised by each region will be similar in future years. DFES has stated that its revenue split by region can be affected by the Valuer-General's property revaluations and by ESL boundary amendments, but 'generally remains fairly constant'.³⁴²

4.4.2 Revenue by Emergency Services Levy Category

Table 14 shows ESL revenue raised by category between 2004-05 and 2015-16.

Table 14 ESL revenue raised per ESL category, 2004-05 to 2015-16 (\$m real, 2015-16)

	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
Category 1	\$98	\$107	\$115	\$123	\$129	\$139	\$167	\$184	\$197	\$214	\$230	\$258
Category 2	\$8	\$9	\$10	\$11	\$10	\$11	\$15	\$13	\$15	\$16	\$16	\$17
Category 3	\$3	\$3	\$3	\$3	\$4	\$4	\$5	\$4	\$4	\$5	\$6	\$6
Category 4	\$5	\$6	\$7	\$8	\$7	\$9	\$11	\$10	\$12	\$13	\$14	\$15
Category 5	\$3	\$4	\$4	\$4	\$4	\$5	\$6	\$6	\$6	\$7	\$7	\$8

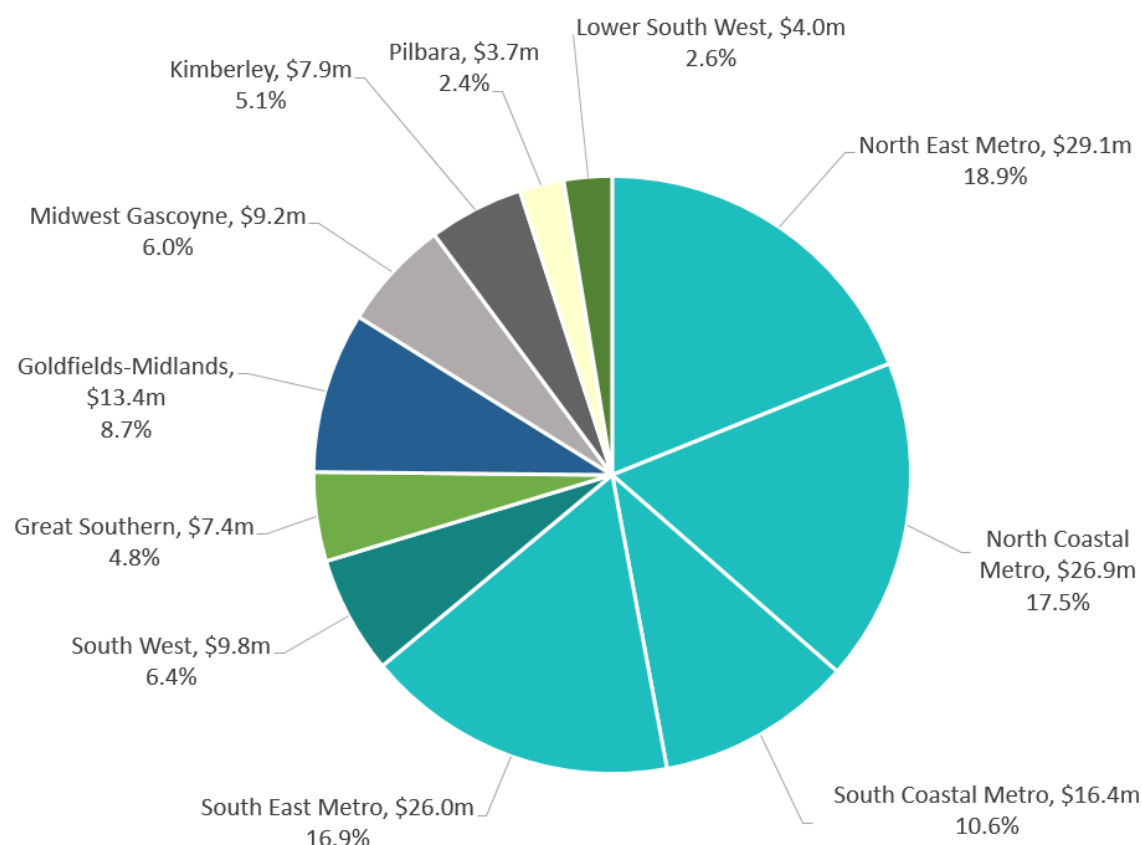
Source: ESL revenue data provided by DFES.

³⁴² Communication with the Department of Fire and Emergency Services, 7 April 2017.

4.4.3 Costs by region

Figure 23 shows budgeted costs attributable to each DFES region for 2016-17. These costs include all direct costs attributable to a specific region, including the Career Fire and Rescue Service, Volunteer Fire and Rescue Service, State Emergency Service, local government operating and capital grants, local government fees, and any other location-specific costs identified by the ERA. In the data provided by DFES, direct costs attributable to a region comprise about one third of DFES' total costs. These costs do not include corporate overheads and other costs that are not location-specific.

Figure 23 Budgeted direct expenditure (including grants) by region for 2016-17



Source: Indicative budget data provided by DFES.

4.4.4 Costs by Emergency Services Levy category

DFES does not collect data on costs by ESL category. DFES could do this if it implemented activity based costing and performed additional analysis.

4.5 Economic Regulation Authority assessment

The terms of reference for this review require the ERA to consider the current ESL expenditure, and proportions of expenditure, applied to operational activities.

DFES does not report against the categories of prevention, preparedness, response, and recovery. Instead, DFES classifies expenditures as 'prevention services' and 'emergency services'. Prevention services are generally prevention and preparedness expenses, while emergency services are generally response expenses. DFES does not have any significant recovery-related costs.

In 2015-16, overhead expenses accounted for 36 per cent of total DFES expenditure. Emergency services accounted for a further 59 per cent, and prevention services for 5 per cent. After allocating overheads, expenses for prevention services were \$48.8 million, or 12.9 per cent of total expenses. After allocation of overheads, expenses on emergency services were reported as \$328.0 million, or 87.1 per cent of total expenses.³⁴³

This chapter also provides an overview of DFES' revenue sources. DFES receives revenue from a range of sources, including the Emergency Services Levy, and contributions from the State and Australian Governments. DFES incurs a variety of costs in providing emergency services, including day-to-day operating costs, capital costs, and grants and subsidies paid to other parties.

Since 2004-05, DFES total revenues have increased by 4.2 per cent a year in real terms.³⁴⁴ Over this period, the share of ESL of total DFES revenues have increased from 66 per cent of total revenue in 2004-05 to 82 per cent in 2015-16,³⁴⁵ while appropriations from the State Government have decreased from 21 per cent in 2004-05 to 13 per cent in 2015-16.

DFES expenditures have increased by 4.8 per cent a year in real terms since 2004-05.³⁴⁶ During this period, grants and subsidies paid out of the ESL to local governments and volunteer organisations have decreased by 0.8 per cent a year in real terms.

DFES does not make all of the cost and revenue data provided in this chapter available to the public at present. Chapter 8 makes recommendations to improve disclosure and transparency which, if implemented, would result in the release of additional data.

³⁴³ Department of Fire and Emergency Services, *Annual Report 2015-16*, Perth, Government of Western Australia, 2016, p. 55.

³⁴⁴ Rates are calculated using the Compound Annual Growth Rate (CAGR) method.

³⁴⁵ 'Total income' includes all income from the State Government, including service appropriations, services received free of charge, and fund from Royalties for Regions.

³⁴⁶ Data from Department of Fire and Emergency Services annual reports: 2004-05 to 2015-16.

5 Best practice management of hazards

5.1 Introduction

The purpose of this chapter is to explain best practice management of natural hazards. It covers the principles and practices that constitute best practice hazard management, and discusses how funds should be allocated to hazard reduction activities. This information is directly relevant to DFES as a hazard management agency, but is also relevant to all those involved in hazard management – be they local governments, communities, businesses, or individuals.

This chapter partially addresses the term of reference requiring the ERA to consider whether the current allocation of ESL funds towards prevention and response reflects best practice in managing the risk of bushfire and other hazards. It builds on the discussion in Chapter 3 that considers the types of hazard management activities that should be funded by the ESL.

This chapter provides a broader overview of how hazards should be managed, and the principles that governments, businesses and individuals should use to make hazard management decisions. The remainder of this chapter is structured as follows:

- a discussion of funding responsibilities for hazard management in Western Australia, beyond the ESL;
- an overview of effective risk management;
- a brief discussion of trends in demand for emergency services and other emergency management activities in Western Australia;
- a discussion of investment in natural hazard prevention and preparedness, and how the costs and benefits of prevention and preparedness should be measured;
- an overview of best practice and standards for resource allocation; and
- a description of how DFES allocates funding to various activities, and an assessment of the appropriateness of this process.

5.2 Funding responsibilities for hazard management

Stakeholders to this review have emphasised the importance of ensuring that adequate revenue is directed towards prevention.³⁴⁷ However, it is important to remember that this review focuses only on the ESL and that the ESL funds only a sub-set of total emergency management and emergency service activities in Western Australia.

Natural hazard risk management is a collective responsibility. This principle is clearly stated in both the *National Disaster Resilience Strategy* – the Australian Government's framework

³⁴⁷ This includes, for example, the Gidgegannup Progress Association, Mr. van Rijnswood, Emergency Services Volunteers Association, Cascade Scadden Fire Review, Pastoralists and Graziers Association, Bushfire Front, and Shire of Manjimup.

for building disaster resilience across Australia³⁴⁸ – and by Western Australia's State Emergency Management Committee.³⁴⁹ Many individuals, communities, government organisations, and businesses in Western Australia work to reduce natural hazard risks on their own properties, and to reduce the potential for harm to others.

Reflecting this, there is a range of sources of hazard management funds in Western Australia, other than the ESL. The tables below provide information about some (but not all) official sources of funding for prevention, preparedness, response, and recovery in Western Australia.

Table 15 provides a non-exhaustive summary of funding sources for prevention, preparedness, and response in Western Australia.

Table 15 Funding prevention, preparedness, and response

Funding source	Agency Responsible	Amount ³⁵⁰
Mitigation Activity Fund	State Bushfire Coordinating Committee	\$15 million over 2016-2020
Royalties for Regions	Department of Regional Development WA	\$15 million to the Department of Lands over 2016-2020 \$20 million to Department of Parks and Wildlife over 2016-2020
Emergency Services Levy	Department of Fire and Emergency Services	approx. \$350 million per year
Natural Disaster Resilience Program	Attorney-General's Office via Office of Emergency Management	\$26.1 million per year nationally; WA to award \$2.2 million in 2017, awarded \$2.01 million in 2016 and \$2.8 million in 2015
National Emergency Management Projects	Australia-New Zealand Emergency Management Committee via Attorney-General's Office	\$3.6 million across 22 projects nationally in 2015-16; \$205,000 awarded to SEMC in 2015-16
National Bushfire Mitigation Program	Australian Government via Department of Fire and Emergency Services	\$15 million over 2014-2017; \$905,000 for WA over 2014-2017
All West Australians Reducing Emergencies	Office of Emergency Management	\$260,000 awarded in 2015; \$121,000 awarded in 2016

³⁴⁸ Council of Australian Governments, *National Strategy for Disaster Resilience*, Canberra, Government of Australia, 2011, p. 3.

³⁴⁹ State Emergency Management Committee, *2016 Emergency Preparedness Report*, Perth, Government of Western Australia, 2016, p. 2.

³⁵⁰ Department of Lands, *Submission to the Emergency Services Levy Review*, 14 March 2014; State Emergency Management Committee, *State Emergency Preparedness Report 2015-16*, Perth, Government of Western Australia, pp. 9, 81-82; Attorney-General's Department, *Resilience Funding*, Canberra, Government of Australia, <https://www.ag.gov.au/EmergencyManagement/Resilience-funding/Pages/default.aspx>, (accessed on 4

As detailed in Chapter 2, DFES also receives funding from Royalties for Regions, which has been used to fund the south west emergency rescue helicopter, crew fire protection³⁵¹ and the volunteer fuel card scheme.³⁵²

Table 16 provides a non-exhaustive list of recovery funding available in Western Australia.

Table 16 Funding recovery

Funding source	Agency Responsible	Amount ³⁵³
WA Natural Disaster Relief and Recovery Arrangements	Australian Government via Office of Emergency Management	\$25.5 million in 2016, \$26.6 million in 2015
Lord Mayor's Distress Relief Fund	City of Perth	Varies per disaster event ³⁵⁴
Disaster Recovery Payment	Department of Human Services	Varies per disaster event ³⁵⁵
Disaster Recovery Allowance	Department of Human Services	Varies per disaster event ³⁵⁶
Royalties for Regions	Department of Regional Development WA	\$12.3 million to Department of Fire and Emergency Services in 2015-16 FY

Beyond these government activities and funding sources, it is also important to recognise the extensive contributions made by others to prevention, preparedness, response, and recovery. Local governments, communities, volunteers, individuals, and businesses all

May 2017); State Emergency Management Committee, *Annual Report 2015-16*, Perth, Government of Western Australia, 2016, p. 84;
Office of Emergency Management, *Natural Disaster Resilience Program 2016-17: Guidelines for Applicants*, Perth, Government of Western Australia, <https://www.oem.wa.gov.au/Documents/Funding/NDRP/2016-17/201617NDRPGuidelinesforApplicants.pdf>, (accessed on 4 May 2017).

³⁵¹ DFES describes the crew fire protection program as a state-wide initiative focussed on ensuring the safety and welfare of emergency services personnel in the context of bushfires. The initiative comprises the retro-fitting of existing firefighting appliances with burnover blankets, radiant heat shields, deluge, lagging and fire resistant panel systems and in-cabin air systems. (Source: Department of Fire and Emergency Services, *Annual Report 2015/16*, Perth, Government of Western Australia, 2016, p. 37.)

³⁵² Department of Fire and Emergency Services, *Annual Report 2015/16*, Perth, Government of Western Australia, 2016, p. 74.

³⁵³ Department of Human Services, *Annual Report: 2015-16*, Canberra, Government of Australia, 2016, p. 92-93, <https://www.humanservices.gov.au/sites/default/files/8802-1610-annualreport2015-16.pdf>, (accessed on 4 May 2017); DFES *Annual Report 2015-16*, Perth, Government of Western Australia, 2016, p. 46.

³⁵⁴ The Lord Mayor's Distress Relief Fund raised \$8.1 million for the Waroona and District Fires Appeal (Source: Appeals WA, *Waroona and District Fires Appeal – Media Statement*, Perth, <http://www.appealswa.org.au/media.html>, accessed 4 May 2017).

³⁵⁵ FY 2015-16: \$4.2 million and \$6.8 million paid support residents affected by the South Australia Pinery bushfire and Western Australia Waroona bushfire. (Source: Department of Human Services, *2015-16 Annual Report*, Canberra, Government of Australia, 2016, p. 93.)

³⁵⁶ FY 2015-16: \$107,052 and \$115,966 paid to assist individuals affected by the South Australia Pinery bushfire and Western Australia Waroona bushfire. (Department of Human Services, *2015-16 Annual Report*, Canberra, Government of Australia, 2016, p. 93.)

invest their own time and money in hazard management, sharing responsibility with the State. The financial contribution of local government is described in Section 2.3.

Stakeholders have emphasised that prevention is important and has not been given sufficient priority. It is likely that prevention has been under-funded and that additional government expenditure on prevention could result in benefits to the community (as discussed in more detail in the remainder of this chapter).

While acknowledging the benefits of prevention, the ERA does not consider that it follows that all prevention activities should be funded from the ESL. The reasons for this are outlined in Chapter 3, which concludes that the ESL should be used to fund prevention that benefits the community in general (rather than specific property owners), except where prevention is part of a coordinated process across land tenures. That chapter also finds there is a need for clarity around what prevention activities DFES can do and should do under current legislation, and recommends that this be addressed.

5.3 Effective risk management

Natural disasters can impose great costs on society. These may include loss of life, damage to private and public property, lost productivity, stress and trauma, and damage to the natural environment.³⁵⁷

It is not possible to eliminate all risks. However, it is possible to reduce the damage caused by natural disasters. Individuals, businesses and governments can undertake emergency management activities before, during, and after natural disasters to reduce risk, and hence reduce potential losses.³⁵⁸ (Appendix H provides more detail on how risk is defined and measured.)

Individuals, businesses, and governments will incur costs if they choose to undertake risk management.³⁵⁹ Costs can be financial (for example, the cost of an insurance premium or the cost of an appropriate mitigation project). However, costs may also involve time and effort (for example, the time taken cleaning gutters and trimming branches, or the time involved in researching and understanding risks to make an emergency evacuation plan).

The choice to undertake these risk management activities does not happen in isolation. Governments must choose between spending limited funds on risk management and other activities and projects – for example, infrastructure, health, and education. Similarly, individuals have competing priorities – while clearing around the house or investing in a water tank may be an effective way to reduce risk, some people may not have the time or money to do these things.

With limited funds, it is not possible to undertake *every* risk management activity. Effective risk management involves setting priorities, and at times selecting one project at the expense of another.³⁶⁰ When doing so, it is important to choose the most effective activities:

³⁵⁷ Productivity Commission, *Natural Disaster Funding Arrangements: Issues Paper*, Melbourne, Government of Australia, 2014, p. 2.

³⁵⁸ Productivity Commission, *Natural Disaster Funding Arrangements*, Inquiry Report No. 74, Melbourne, Government of Australia, 2014, Vol. 2, p. 339.

³⁵⁹ Productivity Commission, *Natural Disaster Funding Arrangements*, Inquiry Report No. 74, Melbourne, Government of Australia, 2014, Vol. 2, p. 343.

³⁶⁰ Productivity Commission, *Natural Disaster Funding Arrangements*, Inquiry Report No. 74, Melbourne, Government of Australia, 2014, Vol. 2, pp. 343 - 344.

those that offer the best value, where the benefits outweigh the costs.³⁶¹ (Appendix H gives more detail on measuring the costs and benefits of reducing risk.)

5.4 Demand for emergency services

Demand for emergency services (and other emergency management activities) in Western Australia is likely to increase. This is due to anticipated changes in the State's natural hazard profile,³⁶² projected demographic changes,³⁶³ and public expectations about the level of service that emergency services organisations should provide.³⁶⁴

In its 2014-15 inquiry into natural disaster funding, the Productivity Commission noted that 'projections generally indicate that the frequency and intensity of several extreme weather events are likely to increase, resulting in potentially more frequent natural disasters in the future'³⁶⁵ and that '[c]limate change may impact on future costs through changes in the frequency and intensity of some extreme weather events'.³⁶⁶

OEM also highlights a number of risks specific to Western Australia:

"Hotter, drier conditions due to climate change, particularly in the South West, will have important consequences for [emergency management]. If climatic conditions continue along the current trajectory, the northern part of Western Australia will become increasingly cooler and wetter while the South West will be hotter and drier. This will increase the likelihood of floods in the north while heightening the threat of bushfires and heatwaves in the South West."³⁶⁷

Additional research has also highlighted the increasing risks posed to the State by bushfires,³⁶⁸ and by storms and cyclones.³⁶⁹ To take bushfire as an example, SEMC notes that '[a]s bushfire risk level is predicted to increase, so too is the size and nature of fire response services that will be required in the future'.³⁷⁰

Demographic changes are also driving increased demand for emergency services. Increasing numbers of Australians are settling in areas that are more exposed to natural

³⁶¹ Productivity Commission, *Natural Disaster Funding Arrangements*, Inquiry Report No. 74, Melbourne, Government of Australia, 2014, Vol. 2, p. 344.

³⁶² Office of Emergency Management, *2016 Emergency Preparedness Report*, Perth, Government of Western Australia, 2016, p. 16.

³⁶³ Office of Emergency Management, *2016 Emergency Preparedness Report*, Perth, Government of Western Australia, 2016, pp. 23 & 118.

³⁶⁴ Office of Emergency Management, *2016 Emergency Preparedness Report*, Perth, Government of Western Australia, 2016, pp. 4 & 8.

³⁶⁵ Productivity Commission, *Natural Disaster Funding Arrangements*, Inquiry Report No. 74, Melbourne, Government of Australia, 2014, Vol. 2, pp. 272-3.

³⁶⁶ Productivity Commission, *Natural Disaster Funding Arrangements*, Inquiry Report No. 74, Melbourne, Government of Australia, 2014, Vol. 2, p. 268.

³⁶⁷ Office of Emergency Management, *2016 Emergency Preparedness Report*, Perth, Government of Western Australia, 2016, p. 16.

³⁶⁸ State Emergency Management Committee, *Strategic Bushfire Stocktake (Draft) Green Paper – January 2016*, Perth, Government of Western Australia, p. 17.

³⁶⁹ Bushfire CRC, *Strategic Emergency Management in Australia and New Zealand: Discussion paper on the implications of research and future challenges: June 2013*, Melbourne, Bushfire CRC, 2013, p. 30.

³⁷⁰ State Emergency Management Committee, *Strategic Bushfire Stocktake (Draft) Green Paper – January 2016*, Perth, Government of Western Australia, p. 17.

hazards, such coastal regions and the peri-urban fringe.³⁷¹ In its 2016 *Emergency Preparedness Report*, OEM notes that increased density in such areas not only increases the potential losses in the event of a natural disaster, but also increases demand on emergency response and support services. It also states that demand for ‘proactive’ activities (that is, prevention and preparedness) will probably rise accordingly.³⁷²

The Bushfire CRC also anticipates an increased demand for services (and consequently increased costs) over coming decades, predicting an increase in community susceptibility to natural disasters as a result of demographic change.³⁷³

Finally, there is some evidence that public expectations of emergency service providers in Australia are increasing, with the Bushfire CRC finding that:

“[T]he research found perceptions that community and elected representative expectations were increasingly unrealistic and that while the political rhetoric included exhortations to enhance community resilience the reality was that resilience in some communities had actually declined. This results in greater expectations on emergency services in times of need with the anticipation of individualised or personal attention.”³⁷⁴

Australia’s National Strategy for Disaster Resilience also states that ‘[g]overnments’ desire to help communities in need, and pressure to help those affected may be creating unrealistic expectations and unsustainable dependencies’.³⁷⁵

5.5 Investing in prevention and preparedness

Stakeholder submissions to this review have focused heavily on the importance of investing in prevention and preparedness. There is strong evidence demonstrating the effectiveness of specific and well-targeted prevention and preparedness activities.

This section:

- discusses the merits of investing in prevention and preparedness;
- explains the importance of measuring the costs and benefits of investing in specific activities; and
- briefly discusses the risks of over-investment in response at the expense of prevention and preparedness.

³⁷¹ Productivity Commission, *Natural Disaster Funding Arrangements*, Inquiry Report No. 74, Melbourne, Government of Australia, 2014, Vol. 1, p. 7.

³⁷² Office of Emergency Management, *2016 Emergency Preparedness Report*, Perth, Government of Western Australia, 2016, p. 23.

³⁷³ Bushfire CRC, *Strategic Emergency Management in Australia and New Zealand: Discussion paper on the implications of research and future challenges: June 2013*, Melbourne, Bushfire CRC, 2013, p. 28.

³⁷⁴ Bushfire CRC, *Strategic Emergency Management in Australia and New Zealand: Discussion paper on the implications of research and future challenges: June 2013*, Melbourne, Bushfire CRC, 2013, pp. 5-6.

³⁷⁵ Council of Australian Governments, *National Strategy for Disaster Resilience*, Canberra, Government of Australia, 2011.

5.5.1 The merits of investing in prevention and preparedness

A natural hazard becomes a natural disaster when people are affected, causing a serious disruption to the functioning of a community or society³⁷⁶, and can have major environmental effects. Natural disasters are costly, in terms of destruction of property, and social, environmental, and other economic costs. Consequently, it is important to invest in activities that *prevent* natural hazards from becoming natural disasters, or at least reduce the cost of those natural disasters that cannot be prevented. This is particularly important in the current context, where the costs of natural disasters are rising, as are the frequency and severity of natural hazard events.³⁷⁷

Several stakeholders have made the point that prevention and preparedness can make communities less vulnerable to natural hazards, and so less in need of response services and recovery investment.³⁷⁸ This makes intuitive sense, as there will be less requirement for response and recovery services if a disaster does not occur, or if it occurs but is less severe.

Effective investment in prevention and preparedness (and consequently resilience) benefits society as a whole. The Productivity Commission has pointed out that more resilient communities that invest in prevention and preparedness are likely to experience lower disaster-related costs than other communities.³⁷⁹ These costs include damage to physical property, loss of life, trauma, and loss of productivity.³⁸⁰ Therefore investment in prevention and preparedness not only lowers government costs, but reduces the costs experienced by communities as a result of natural disasters.

There are many different types of prevention and preparedness activities. Some typical program areas are shown in Box 2 – these include activities that can be undertaken by governments, and those that can be undertaken by businesses and individuals. Used appropriately, each activity has the potential to save lives, property, and money. However, as explained in Section 5.5.2, not every prevention or preparedness activity offers good value. Poorly chosen activities can actually cost more than they save.

³⁷⁶ United Nations Office for Disaster Risk Reduction, *Terminology*, United Nations, <https://www.unisdr.org/we/inform/terminology>, (accessed 15 June 2017).

³⁷⁷ Productivity Commission, *Natural Disaster Funding Productivity Commission Inquiry Report*, Melbourne, Government of Australia, Vol. 2, 2014, pp. 272-3.

³⁷⁸ For example, the Gidjegannup Progress Association (p. 3), and Pastoralists and Graziers Association of WA (p. 5).

³⁷⁹ Productivity Commission, *Natural Disaster Funding Arrangements*, Inquiry Report No. 74, Melbourne, Government of Australia, 2014, Vol. 2, p. 373.

³⁸⁰ Productivity Commission, *Natural Disaster Funding Arrangements*, Inquiry Report No. 74, Melbourne, Government of Australia, 2014, Vol. 2, p. 2.

Box 2 Examples of prevention and preparedness program areas

Government prevention and preparedness activities	
Prevention <ul style="list-style-type: none"> - Building-use regulations and codes - Public education and information - Tax incentives / disincentives - Insurance incentives / disincentives - Zoning / land-use management - Protective infrastructure (e.g. levees) - Prescribed burning 	Preparedness <ul style="list-style-type: none"> - Emergency response plans - Warning systems - Emergency communications - Mutual aid agreements - Public education and information - Community refuge shelters
Private prevention and preparedness activities	
Prevention <ul style="list-style-type: none"> - Establishing fire breaks and clear zones - Hazard-resistant construction - Siting structures appropriately - Clearing tall grass and fallen trees 	Preparedness <ul style="list-style-type: none"> - Evacuation plans - Training programs and drills - Resource inventories - Private refuge shelters - Data backup systems - Private infrastructure (e.g. water tanks)

Source: Australian Institute for Disaster Resilience; ERA analysis.³⁸¹

Appendix G and Appendix H detail some of the specific prevention and preparedness activities carried out by DFES.

5.5.2 Measuring the costs and benefits of investing in prevention and preparedness

There have been a number of claims that a one-dollar investment in prevention and preparedness will generate a particular return from savings from future damage. The ERA does not consider these claims to be robust, and considers that the benefits of prevention and preparedness activities can only be measured on a case-by-case basis.

³⁸¹ Australian Institute for Disaster Resilience, *Manual 1: Emergency management in Australia – Concepts and principles*, Canberra, Emergency Management Australia, 2004, p. 5, and ERA research.

For example, the World Bank has frequently been quoted as saying that disaster risk reduction³⁸² activities save \$4 to \$7 dollars for each dollar invested. This statistic continues to be quoted, even though the World Bank itself no longer supports these figures:

“[M]any politicians and reports quote the World Bank as having calculated that [disaster risk reduction] saves \$7 (sometimes \$4-7) for every \$1 invested. One variation is that the World Bank and U.S. Geological Survey showed that \$40 billion invested in [disaster risk reduction] would have reduced disaster losses during the 1990s by \$280 billion. No original, verifiable citations, calculations, or methods have yet been found, so the World Bank no longer promotes these numbers.”³⁸³

“Additionally, myths have arisen surrounding [benefit cost ratios] for [disaster risk reduction]. The most infamous is the often-quoted ratio that the World Bank is purported to have calculated that [disaster risk reduction] saves \$7 (sometimes \$4–7) for every \$1 invested. The 7:1 ratio continues to be used today, often without citing a reference, for example, by top UN officials, government organizations (USAID), and NGOs (Center for American Progress; Oxfam). The World Bank no longer promotes that specific statement and recommends that the ratio not be used.”³⁸⁴

Similarly misleading representations have been made in Australia. For example, the Australian Red Cross states that ‘[t]he Australian Business Roundtable research found that every dollar spent on disaster risk reduction saves three to eight dollars in the costs of recovery.’³⁸⁵ However, on examining the referenced Australian Business Roundtable findings, it is evident that the three and eight dollars cited by the Australian Red Cross simply refers to the outcomes of two specific prevention projects.^{386,387}

The ERA rejects this generic approach of attributing a number of ‘dollars saved’ per ‘dollar spent’ on prevention and preparedness, and the implication that simply redirecting money to prevention and preparedness will necessarily have an economic benefit.

As explained in Section 5.5.1, prevention and preparedness activities are important because they have the potential to reduce future costs. However, not all prevention and preparedness activities are equally effective at reducing costs. Emergency management agencies, businesses, and individuals need to invest in the right activities, in the right locations to get the most value from prevention and preparedness spending. That is, the merits of prevention and preparedness spending should be assessed on a case-by-case basis. (However, certain types of activities have been consistently successful in certain types of environments – for example, prescribed burning in South-West forests.)

³⁸² Some organisations use the umbrella term ‘disaster risk reduction’ to refer to prevention and preparedness activities.

³⁸³ Kelman, I., *Background Note: Disaster Mitigation is Cost Effective*, World Development Report 2014, Oslo, Center for International Climate and Environmental Research, 2014, p. 3.

³⁸⁴ Shreve, C. M., *Does mitigation save? Reviewing cost-benefit analyses of disaster risk reduction*, International Journal of Disaster Risk Reduction, Vol.10, 2014, pp. 213-235.

³⁸⁵ Slayter, J., *Time to rethink our approach to disasters*, Australian Red Cross, 2016, <http://www.redcross.org.au/news/rethink-our-approach-to-disasters.aspx>, (accessed on 29 May 2017).

³⁸⁶ Australian Business Roundtable for Disaster Resilience and Safer Communities, *A better way to protect Australian from Natural Disasters*, Media Release, <http://australianbusinessroundtable.com.au/assets/documents/Media%20releases/Media%20Release2.pdf>, (accessed on 29 May 2017).

³⁸⁷ The Western Australian Farmers Federation made a similar point in its submission to this review, stating that the Productivity Commission had made a similarly generic claim of a saving of ‘\$11 in emergency management for every \$1 spent on mitigation’. However, The Western Australian Farmers Federation was unable to provide a citation for this statement upon request.

To make an assessment, it is necessary to compare how much an activity costs, and how much of a benefit it delivers. One widely-used tool for measuring this is called cost-benefit analysis. (Appendix H discusses this tool, its limitations, and some alternatives, in further detail.) The Productivity Commission considers that cost-benefit analysis is an appropriate way to assess the effectiveness of emergency management activities, and that “an overriding advantage of using cost-benefit analysis is the transparency, and therefore accountability, it brings to decision making”.³⁸⁸

Cost-benefit analysis considers all the costs and benefits of an activity over time.³⁸⁹ An analysis may not just consider the easily-measured costs and benefits (for example, raising a dam wall, or reconstructing a house), but also more subjective costs and benefits (for example lost productivity as a result of a disaster, or the value of a life saved).

The output of a cost-benefit analysis is called the ‘benefit-cost ratio’ – it is a number that attempts to summarise the overall value for money of an investment.³⁹⁰ If a prevention or preparedness activity has a benefit-cost ratio of less than one, it costs more than it saves. Conversely, if an activity has a benefit-cost ratio of greater than one, it saves more than it costs, and is likely to be a good investment.³⁹¹

After analysis, it may become evident that many different prevention and preparedness activities all have benefits that are greater than their costs. However, a government, business, or individual may only have the resources to invest in a few of those activities. In that case, they should choose to invest in those activities that have the highest benefit-cost ratio – that is, the activities that deliver the best value for money.

A number of case studies are provided in the boxes below. These case studies show benefit-cost ratios for different prevention and preparedness activities for various hazards in different parts of Australia. Broadly, the case studies show how different prevention and preparedness activities can have very different results, and how it is important to perform case-by-case analysis and choose carefully when prioritising prevention and preparedness activities.

Box 3 provides an overview of some cost-benefit analysis studies of bushfires in Western Australia. These studies not only highlight the value of investment in bushfire prevention and preparedness, but also the importance of choosing the most effective activities for each location.

³⁸⁸ Productivity Commission, *Natural Disaster Funding Arrangements*, Inquiry Report No. 74, Melbourne, Government of Australia, 2014, Vol. 2, p. 355.

³⁸⁹ The timing of costs and benefits is accounted for using a variable called a ‘discount rate’ – a factor that takes into account the time value of money – that is, the concept that it is more valuable to have a dollar immediately, than it is to have that dollar at some point in the future.

³⁹⁰ Infrastructure Victoria, *Moving from Evaluation to Valuation: Improving project appraisals by monetizing more economic, social and environmental impacts*, Melbourne, Government of Victoria, 2016, p. 11.

³⁹¹ Infrastructure Victoria, *Moving from Evaluation to Valuation: Improving project appraisals by monetizing more economic, social and environmental impacts*, Melbourne, Government of Victoria, 2016, p. 11.

Box 3 Cost-benefit analysis and bushfires in Western Australia

There have been two recent Western Australian studies demonstrating the benefits of investing in bushfire prevention and preparedness. The first of these focuses solely on the costs and benefits of prescribed burning in South-West forests. The second considers a broader range of activities in the South-West and the Perth Hills.

Study 1: Think Long Term: the Costs and Benefits of Prescribed Burning in the South West of Western Australia³⁹²

Prescribed burning can significantly reduce the potential severity of bushfires.³⁹³ This study combined economic modelling and bushfire simulation modelling to assess the costs and benefits of prescribed burns in the south-west of Western Australia over the short term (one year) and long term (15+ years). It found that short-term investments in prescribed burning in the region generate a benefit of 0.70 to 1.50 saved for each dollar invested. (So, under some scenarios, the benefits are somewhat smaller than the costs in any given year.) However, over the long term, the benefits were much higher. It showed long-term savings of between 10 and 47 dollars every year for each dollar invested, compared to a scenario where there was no prescribed burning.

Over the long term, it becomes increasingly likely that a community will be faced with a major natural hazard event. This analysis demonstrates that prevention activities – in this case, prescribed burning – can save money by preventing natural hazards from becoming disasters.

Study 2: Economic assessment of bushfire risk in management options in Western Australia: case studies in the Perth Hills and in the South-West of Western Australia³⁹⁴

This study examined the costs and benefits of three prevention and preparedness activities, in the Perth Hills and South-West regions:

- increased fuel reduction through prescribed burning and mechanical works (on DPAW-managed land only, on Shire-managed land only, and on both types of land);
- land-use planning to reduce future development in high-risk areas; and
- supporting the development of community groups to help property owners better manage fuels on their own land.

Perth Hills: Benefit-cost ratios (per year, assessed over a 10 year period)

Increasing fuel reduction (DPAW land)	Increasing fuel reduction (Shire land)	Increasing fuel reduction (Shire & DPAW land)	Community Engagement	Land-use Planning
4.64	1.78	4.68	0.92	15.26

The Perth Hills analysis showed that all options except for community engagement returned benefits that exceeded the costs of the activity. Land-use planning returned a significantly higher benefit for each dollar invested than any other activity. Interestingly, increasing fuel reduction on both DPAW-managed and Shire-managed land had a greater benefit than doing either activity alone. However, results for land in the South-West region were quite different:

³⁹² Florec, V., Pannell, D., Burton, M., Kelso, J. and Milne G., *Think Long Term: the Costs and Benefits of Prescribed Burning in the South West of Western Australia*, Bushfire and Natural Hazards CRC, Non-peer reviewed proceedings from the Bushfire and Natural Hazards CRC & AFAC conference, Brisbane, 2016.

³⁹³ State Emergency Management Committee, *Strategic Bushfire Stocktake (Draft) Green Paper – January 2016*, Perth, Government of Western Australia, 2016, p. 4.

³⁹⁴ Florec, V. and Pannell, D., *Economic assessment of bushfire risk in management options in Western Australia: case studies in the Perth Hills and in the South-West of Western Australia*, University of Western Australia, report prepared for the State Emergency Management Committee (SEMC) Secretariat, 2016.

South-West: Benefit-cost ratios (per year, assessed over a 10 year period)

Increasing fuel reduction (DPAW land)	Increasing fuel reduction (Shire land)	Increasing fuel reduction (Shire & DPAW land)	Community Engagement (Green Army)	Land-use Planning
2.09	0.59	1.98	0.41	0.13

Generally, activities in the South-West had a lower benefit-cost ratio than in the Swan Hills. The highest benefit activity was increasing fuel reduction on DPAW-managed land, while land-use planning returned the lowest benefit for each dollar invested.

This analysis shows that some strategies are far more effective than others, and highlights how different prevention and preparedness activities may be appropriate in different areas.

Cost-benefit analysis work by Deloitte also illustrates the value of investing in prevention and preparedness, and shows how the same activities can have different benefit-cost ratios when applied in different areas.

The Deloitte case studies provide a good overview of how the costs and benefits of prevention and preparedness activities can vary in different contexts.

Box 4 summarises Deloitte's findings on prevention activities for cyclone and floods in south-east Queensland, floods in New South Wales, and bushfires in Victoria.

Box 4 Deloitte Access Economics case studies***Floods and cyclones in Queensland***³⁹⁵

Building more resilient housing, or retrofitting existing housing, is an effective way to reduce the risk of damage caused by floods and cyclones. It is usually less expensive to ensure new houses are resilient (this is done by changing building standards), than to retrofit existing houses.

Deloitte examined the costs and benefits of making houses – both new and existing – more resilient to floods and cyclones in foreshore and inland South-East Queensland.

	Benefit-cost ratio for existing houses	Benefit-cost ratio for new houses
Foreshore only	0.19 to 0.75	1.24 to 3.09
Inland only	0.06 to 0.23	0.38 to 0.96
Foreshore and inland	0.07 to 0.28	0.47 to 1.17

Deloitte's analysis assumes a cost of between \$13,000 and \$52,000 to retrofit an existing house, and a cost of between \$2,600 and \$6,500 to achieve the same increase to resilience for a new house.

³⁹⁵ Deloitte Access Economics, *Building Our Nation's Resilience to Natural Disasters*, a report for the Australian Business Roundtable for Disaster Resilience & Safer Communities, Canberra, 2013, pp. 39-40.

All options result in some benefit. However, the benefits only consistently exceed the costs for improving the resilience of new houses in foreshore areas. The benefits are much higher for making new houses more resilient, because the costs of improving resilience are much lower. The benefits of investing in housing resilience in foreshore areas are greater than those inland areas, because foreshore areas are more vulnerable to floods and cyclones.

This demonstrates that improving the resilience of new houses in foreshore areas is clearly the best use of money, because the benefits are greater than the costs.

Floods in New South Wales³⁹⁶

Increasing the height of dam walls also increases resilience to floods. Deloitte assessed the costs and benefits of increasing the height of the Warragamba Dam wall by 23 metres to increase flood resilience in the flood-prone Hawkesbury-Nepean region.

Deloitte found that raising the dam wall would reduce flood costs in the region by 73 per cent. It calculated that raising the wall would cost about \$411 million over 5 years (from 2012), but would save \$3 billion in flood-related costs between 2013 and 2050. This gave a benefit-cost ratio of 8.5 dollars per dollar invested.³⁹⁷

Bushfires in Victoria³⁹⁸

Deloitte reviewed the costs and benefits of three very different bushfire prevention and preparedness activities in Melbourne's metropolitan fringe, a highly-populated area that is also at high risk of bushfires:

- **Building more resilient houses** (at an average compliance cost of \$14,931 per house): *This activity reduces the risk of fire spreading from house to house via embers. Deloitte estimated a benefit-cost ratio of 1.4 dollars saved per dollar invested, over the period from 2013 to 2050.*
- **Reducing ignition sources by burying electricity wires** (at a cost of \$690 million to treat 71,000 high-risk homes): *Faults in electricity transmission and distribution networks are a frequent cause of bushfires in Victoria. Deloitte estimated a benefit-cost ratio of 3.1 dollars saved per dollar invested, over the period from 2013 to 2050.*
- **Managing vegetation by clearing 5 metre areas around at-risk houses** (at a cost of \$200 a year for 71,000 high-risk homes): *A 5 metre clearance around the house reduces bushfire risk by 30 per cent. This can be achieved by establishing regulations, and conducting compliance and monitoring activities. Deloitte estimated a benefit cost-ratio of 1.3 dollars saved per dollar invested, over the period from 2013 to 2050.*

This analysis shows that there may be a variety of prevention options for a given risk, all of which yield a net benefit. As with the study of floods and cyclones in Queensland, the number of approaches that can be taken will depend on the level of resourcing available. In practice, the Victorian Government would also weigh the value of these three activities against the value of other risk management activities across the State.

³⁹⁶ Deloitte Access Economics, *Building Our Nation's Resilience to Natural Disasters*, a report for the Australian Business Roundtable for Disaster Resilience & Safer Communities, Canberra, 2013, pp. 43.

³⁹⁷ Deloitte noted that this was substantially higher than the (still substantial) benefit-cost ratio of 2.2 calculated by Molino Stewart for the same project, due to the choice of discount rate used in the calculation. This difference highlights one of the challenges with this kind of analysis – it can be difficult for experts to agree on the right assumptions to use when modelling costs and benefits.

The Deloitte case studies illustrate the potential benefit of investing in a variety of prevention. However, the case studies focus mainly on ‘hard’ prevention activities. Emergency management agencies can also undertake ‘soft’ prevention and preparedness activities (for example, community information programs). The Productivity Commission has pointed out that soft measures can also be effective - and sometimes less intrusive – than hard measures, although the benefits may be harder to quantify.³⁹⁹

The Western Australian case study in Box 3 assessed specific community engagement activities in the Perth Hills and South-West regions, and found the costs of the activity were greater than the benefits. However, the same study showed a benefit-cost ratio of 15.26 for land-use planning in the South-West region – another soft prevention activity. This shows that, as with hard mitigation, choosing the right soft prevention and preparedness activities can deliver significant savings.

The United Nations’ *Sendai Framework for Disaster Risk Reduction 2015-2030* emphasises the value of both hard and soft disaster risk reduction activities, stating that:

“Public and private investment in disaster risk prevention and reduction through structural [hard] and non-structural [soft] measures are essential to enhance the economic, social, health and cultural resilience of persons, communities, countries and their assets, as well as the environment. These can be drivers of innovation, growth and job creation. Such measures are cost-effective and instrumental to save lives, prevent and reduce losses and ensure effective recovery and rehabilitation.”⁴⁰⁰

5.5.3 Risks of over-investment in response

It is necessary to have the right level of response capacity in place to meet the needs of the community when faced with a natural disaster.

Governments and emergency management agencies have strong political incentives to invest in response capabilities. When a natural disaster occurs, they will inevitably be criticised for providing too little, but are rarely criticised for providing too much.⁴⁰¹

The results of investing in response are also highly visible to the community – for example, the State’s firefighters, emergency vehicles, and water-bombing aircraft. In contrast, the results of investment in prevention and preparedness can be politically invisible^{402,403} being

³⁹⁸ Deloitte Access Economics, *Building Our Nation’s Resilience to Natural Disasters*, a report for the Australian Business Roundtable for Disaster Resilience & Safer Communities, Canberra, 2013, pp. 47-48.

³⁹⁹ Productivity Commission, *Natural Disaster Funding Arrangements*, Inquiry Report No. 74, Melbourne, Government of Australia, 2014, Vol. 2, p. 373.

⁴⁰⁰ United Nations Office for Disaster Risk Reduction, *Sendai Framework for Disaster Risk Reduction 2015-2030*, United Nations, Geneva, Switzerland, 2015, p. 18.

⁴⁰¹ Kelly, C., *A framework for improving operational effectiveness and cost efficiency in emergency planning and response*, Disaster Prevention and Management: An International Journal, Vol. 4, Issue 3, 1995, pp. 25-31.

⁴⁰² Handmer, J., & Dovers, S., 2008, *Policy Development and Design for Fire and Emergency Management*, Australian Journal of Emergency Management, Vol. 1, No. 1, pp. 21-29.

⁴⁰³ Vohries, F., *The economics of investing in disaster risk reduction*, Working paper for the United Nations Office for Disaster Risk Reduction, 2012, Geneva, Switzerland, p. 16.

money spent to reduce the probable consequences of an event that may or may not happen in the future.⁴⁰⁴

Many submissions to this review expressed concern that DFES may be investing too much in response and too little in prevention and preparedness.

Over-spending on response at the expense of prevention and preparedness may have a number of negative effects. Long term costs may increase if less money is available for prevention and preparedness expenditures that have positive benefits. This is evidenced by many of the benefit-cost studies in Section 5.5.2, which show how a dollar invested in prevention and preparedness can save multiple dollars in the future.

Over-investment in response capacity and top-down disaster management can reduce a culture of self-reliance, replacing it with one where people simply expect highly-resourced emergency management agencies to be available to deal with every hazard. This reduces community resilience and increases vulnerability to natural disasters.⁴⁰⁵

Australia's National Strategy for Disaster Resilience emphasises that resilience is not merely a concern for emergency management agencies, but a shared responsibility across governments, businesses, individuals, and community organisations.⁴⁰⁶ SEMC's *2016 Emergency Preparedness Report* notes this issue too. Its report states that while Western Australians are generally committed to the principle of shared responsibility, 'there remain pockets of society that believe "it won't happen to me" or "someone will come and save me"'. The complacency of such people creates impacts broader than just to themselves and may affect the entire community.'⁴⁰⁷ The Pastoralists and Graziers' association also warned of the risks of eroding self-reliance in its submission, stating that '[t]he PGA is deeply concerned about government interventions that do, or could potentially, undermine self-reliance.'⁴⁰⁸

In summary, disaster response is a critical function of government, and particularly of emergency management agencies such as DFES. It is essential that they are resourced to meet this response role but, it is also necessary to be mindful that over-investment in response has consequences, particularly when it comes at the cost of effective prevention and preparedness. While the process of allocating funding to each area is not an exact science, it is evident that over-investment in one area at the expense of others may lead to inefficient outcomes and services that do not maximise the well-being of communities. However, this does not mean that DFES (nor the State Government) should be responsible for *all* prevention and preparedness. Disaster resilience is a shared responsibility, and prevention and preparedness can, and should, be funded from a range of sources, with property owners taking ultimate responsibility for risks on their land.

⁴⁰⁴ Neumayer, E., Plümper, T. and Barthel, F., 2014, *The political economy of natural disaster damage*, Global Environmental Change, Issue 24, pp. 8-19.

⁴⁰⁵ Clements, B. W. and Casani, J., *Disasters and Public Health: Planning and Response*, Butterworth-Heinemann, 2016, pp. 62-63.

⁴⁰⁶ Council of Australian Governments, *National Strategy for Disaster Resilience*, Canberra, Government of Australia, 2011, p. 2.

⁴⁰⁷ State Emergency Management Committee, *2016 Emergency Preparedness Report*, Perth, Government of Western Australia, 2016, p. 8.

⁴⁰⁸ Pastoralists and Graziers Association of WA, *Submission to the Emergency Services Levy Review*, 10 March 2017.

5.6 Best practices and standards for funding allocation

AS/NZS ISO 31000 Risk Management – Principles and Guidelines, is the main framework that describes best practices for risk management and resource allocation. It is the Australian and New Zealand version of the *ISO 31000* risk management standard. The standard aims, among other things to, help organisations, ‘effectively allocate and use resources for risk treatment’.⁴⁰⁹ The standard is relevant to the allocation of ESL funding, and is endorsed by the State Emergency Management Committee.⁴¹⁰

Box 5 What is the *ISO 31000* standard?

The ISO standards have been developed by the **International Organisation for Standardization**, an independent, non-governmental and international organisation. The International Organisation for Standardization aims to develop “world-class specifications for products, services and systems, to ensure quality, safety and efficiency”.⁴¹¹

The *ISO 31000* standard provides principles, a framework, and a process for managing risk, noting that “managing risk effectively helps organizations to perform well in an environment full of uncertainty”.⁴¹²

In practice, this means that the standard helps users develop ways to deal with the effect of uncertainty on objectives. This includes helping users design and implement a broad framework to manage risks facing the organisation, to consistently monitor and review the framework, and to continually improve it.⁴¹³

It also gives direction on how to communicate and consult more effectively with stakeholders, assess the context in which the risk occurs, perform a risk assessment (that is risk identification, analysis, and evaluation), and design treatments for the risk (that is, identifying and selecting risk management options, and preparing and implementing treatment plans).⁴¹⁴

Finally, it gives direction on how to monitor risk and review risks and risk management on an ongoing basis, as well as properly recording the risk management process for future users.⁴¹⁵

It is a comprehensive standard that provides an overview of risk, and the actions and decisions organisations need to manage risk. This standard is particularly relevant for organisations like DFES, who face risk as a part of their everyday business.

Figure 24 shows how *ISO 31000* relates the principles of effective risk management, with a framework for risk management and risk management processes.

⁴⁰⁹ International Organization for Standardization, *ISO 31000:2009 Risk management – principles and guidelines*, <https://www.iso.org/obp/ui/#iso:std:iso:31000:ed-1:v1:en>, (accessed 30 May 2017).

⁴¹⁰ State Emergency Management Committee, *Emergency Preparedness Report 2012*, Perth, Government of Western Australia, 2012, p. 7.

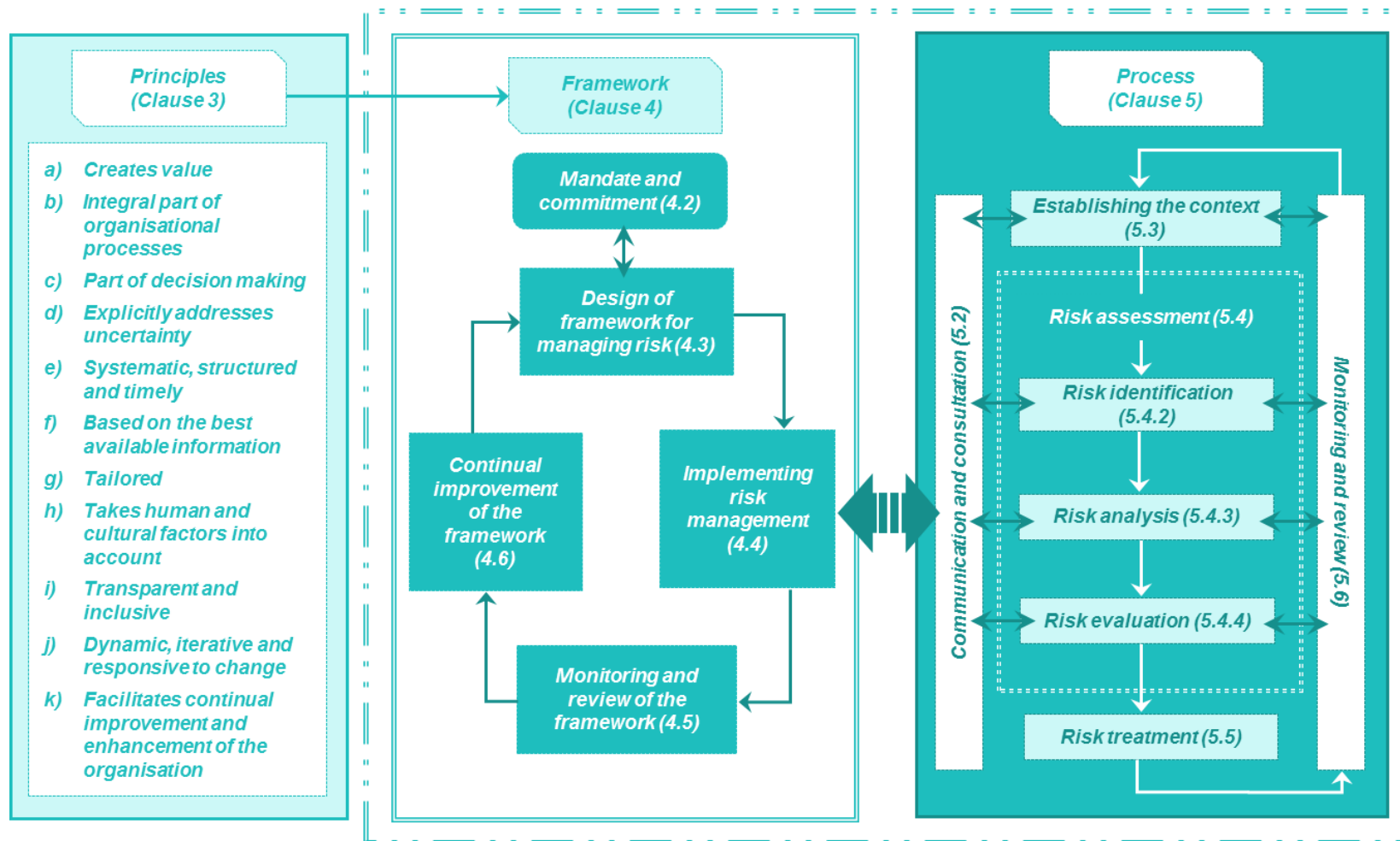
⁴¹¹ International Organization for Standardization, <https://www.iso.org>, (accessed 13 June 2017).

⁴¹² International Organization for Standardization, *ISO 31000 – Risk management*, <https://www.iso.org/iso-31000-risk-management.html>, (accessed 13 June 2017).

⁴¹³ International Organization for Standardization, *ISO 31000 – Risk management*, <https://www.iso.org/iso-31000-risk-management.html>, (accessed 13 June 2017).

⁴¹⁴ International Organization for Standardization, *ISO 31000 – Risk management*, <https://www.iso.org/iso-31000-risk-management.html>, (accessed 13 June 2017).

⁴¹⁵ International Organization for Standardization, *ISO 31000 – Risk management*, <https://www.iso.org/iso-31000-risk-management.html>, (accessed 13 June 2017).

Figure 24 Relationship between the risk management principles, framework, and process

Source: International Organisation for Standardisation: ISO 31000.

The 'framework' and 'process' boxes do not refer specifically to funding allocation. However, they do raise some key issues for best practice allocation of emergency management resources in Western Australia. The most relevant issues raised in the above figure are:

- *The feedback loop shown in the 'framework' box:* Good risk management (be it for natural hazards or other risks) requires ongoing monitoring, review, and improvement. This type of continuous evaluation allows an agency to adjust the allocation of resources in response to changing conditions, and also in response to lessons from past experience.
- *The identification, analysis, evaluation, and treatment process shown in the 'process' box:* An agency needs to go through each of these stages to make effective resource allocation decisions. These stages should be informed by communication and consultation, and by monitoring and review. Any lessons learned from the risk treatment phase are fed back through the monitoring and review process to inform and improve decision making in the future.

The *ISO 31000* provides a framework that can guide DFES in managing risk, and when paired with cost-benefit analysis, can help inform budgeting decisions to ensure that money is spent well. However, the framework should always be applied in context – that is, it should only be used to address risks and activities for which DFES is responsible. For example, as discussed in Chapter 3, the ESL should mainly be used to fund prevention activities that benefit the community in general, rather than specific property owners. These are largely management and coordination activities. This means that DFES would only apply the *ISO 31000* framework to risks and prevention activities that fall within this scope.

5.7 Department of Fire and Emergency Services budgeting and funding allocation processes

5.7.1 Overview of the Department of Fire and Emergency Services budgeting process

DFES follows the same procedures as other government agencies when engaging with the Department of Treasury annual budget allocation process.⁴¹⁶ Each year, Treasury assesses Western Australia's financial position and any policy direction from the State Government. This information is used to set parameters for the upcoming year's budget process – this essentially tells agencies how much money they have for the coming year. However, the budget process is flexible, in that agencies have the opportunity to:

- request adjustments to the forward estimates (that is, how much money is available for future years);
- seek funding to support new initiatives or respond to cost pressures; and
- formalise any State Government policy decisions that affect agency business.⁴¹⁷

⁴¹⁶ Material provided by Department of Fire and Emergency Services, *DFES' Budget Process Overview*, 2 June 2017.

⁴¹⁷ Description provided by Department of Fire and Emergency Services, 2 June 2017.

Each year, agencies (including DFES) prepare their annual budget submissions covering these areas. With the exception of seeking funding to support new initiatives, annual budget submissions do not generally deal with specific projects undertaken by the agency.

Within DFES, the Corporate Leadership Team is responsible for making the decisions that inform DFES' annual budget submission. The Corporate Leadership Team is the key decision-making body in DFES, and its role includes endorsing the annual budget and monitoring financial performance.⁴¹⁸ When developing the annual budget submission, the Corporate Leadership Team takes the following internal and external factors into account, as shown in Box 6.

Box 6 Factors considered when developing the DFES annual budget submission⁴¹⁹

External factors

- Forward estimates for the upcoming financial year;
- Government / Ministerial direction; and
- Treasury budget parameters.

Internal factors

- Issues, risks, and cost pressures raised from within DFES that require funding support. In addition to the Corporate Leadership Team, there are a number of formal committees that help DFES identify issues, risks, and cost pressures.

These committees include the Audit and Risk Committee, Program Management Committee, Local Government Grants Committee, Volunteer Marine Rescue Capital Grants Committee, Strategic Asset Management Plan Committee, Strategic Communications Committee, Volunteer Advisory Committees, Equity and Diversity Committee, and Health and Safety Governance Committee.

5.7.2 Department of Fire and Emergency Services funding allocation frameworks

DFES has formalised (or is in the process of formalising) two high-level frameworks to help decide how funds should best be allocated. These involve two main processes – the Strategic Planning Framework and the Capability Framework.⁴²⁰ These feed into the DFES budgeting process discussed in Section 5.7.1 and inform how funds are allocated.⁴²¹

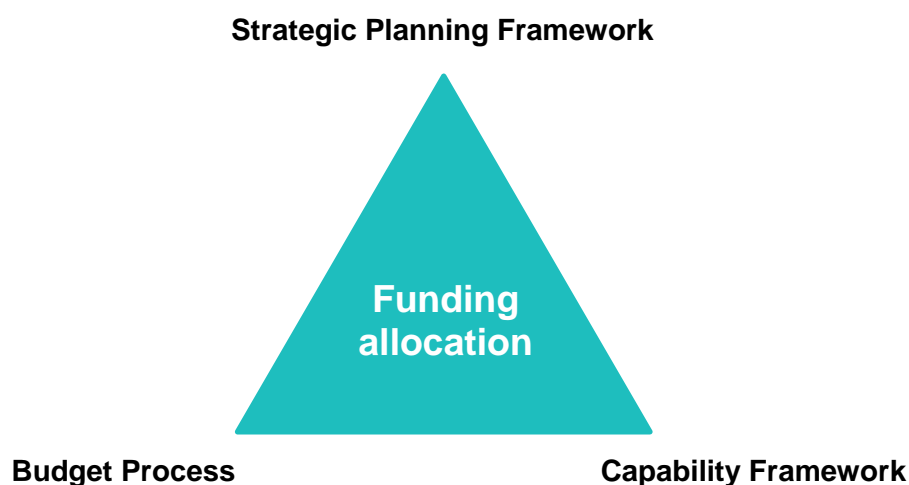
Figure 25 shows DFES' funding allocation and budgeting structure.

⁴¹⁸ Department of Fire and Emergency Services, *DFES Governance Framework – Version 3 (Issue Date: 20 October 2016)*, Perth, Government of Western Australia, 2016, p. 9.

⁴¹⁹ Department of Fire and Emergency Services, *DFES Governance Framework – Version 3 (Issue Date: 20 October 2016)*, Perth, Government of Western Australia, 2016, p. 9.

⁴²⁰ Material provided by Department of Fire and Emergency Services, *DFES' Budget Process Overview*, 2 June 2017.

⁴²¹ The information in this section was provided by Department of Fire and Emergency Services to the Economic Regulation Authority.

Figure 25 DFES funding allocation and budgeting structure

The Strategic Planning Framework provides the basis of the allocation of ESL funding across prevention, preparedness, response, and recovery.

DFES has stated that, in making this allocation, it develops a 'risk matrix' that outlines the type of hazards that may affect Western Australia, and the potential effect of each of those hazards. DFES gives less weight to the probability of any given hazard occurring, than to the potential effect of that hazard, on the basis that it will still have to respond, whether a likely event or an unlikely event occurs. Hence, in allocating funding to projects, it prioritises those that provide capacity to respond to a range of hazards, rather than actions and expenditure that specifically target single hazards.⁴²²

⁴²² Communication with Department of Fire and Emergency Services, 22 May 2017.

Box 7 DFES Strategic Planning Framework**Strategic Planning Framework**

The Strategic Planning Framework underpins the *DFES 2016-2028 Strategic Plan* – a document that outlines the agency's priorities over the next 12 years.

It sets six high level priorities and uses these to set specific organisational targets by 2020, 2024, and 2028. DFES uses these long term targets in developing its Annual Business Plan, and Program of Works. The Annual Business Plan and Program of Works detail the specific actions and projects DFES plans to undertake during the year.

The 6 priorities defined in the DFES 2016 2028 Strategic Plan are:

1. protection and preservation of life;
2. community warnings and information;
3. protection of critical infrastructure and community assets;
4. protection of residential property;
5. protection of assets supporting individual livelihood and community financial stability; and
6. protection of environmental and heritage values.

Source: DFES.

The Capability Framework is not yet complete, but is intended to provide DFES with an overarching framework to plan for the future and make budgeting decisions. It is designed to help DFES gather the information necessary to determine funding needs. As of June 2017, DFES was still working to finalise implementation of the Capability Framework.

Box 8 DFES Capability Framework**Capability Framework**

The Capability Framework involves the following steps:

1. Establishing the DFES organisational context (*'What we do, and why we do it?'*).
2. Capability modelling. This comprises two steps:
 - a. Modelling individual capabilities (*'What we should do?'*); and
 - b. Developing the Service Delivery Model (*'How we would like to operate'*).
3. Strategic planning (*'What we plan to do'*), leading to the development of the DFES Strategic Budget. This planning covers five sub-plans:
 - a. Strategic People Plan;
 - b. Strategic Asset Management Plan;
 - c. Strategic Information and Communication Technologies Plan;
 - d. Strategic Knowledge Plan; and
 - e. Strategic Accountability and Governance Plan.
4. Risk evaluation and prioritisation of capabilities, leading to the development of the DFES Business Plan (*'What we will do'*) which informs necessary modifications to DFES service delivery.

Source: DFES.

DFES has stated that it uses the 'Service Delivery Model' within the Capability Framework to identify hazard risk. The Service Delivery Model uses the *ISO 31000* standard approach to generate hazard probabilities and consequence levels. DFES uses information derived from this model to inform the strategic planning and risk evaluation phases of the Capability Framework.

5.7.3 Stakeholder comments on the Department of Fire and Emergency Services funding allocation process

The ERA has examined the ESL funding allocation process, bearing this in mind, as well as the *ISO 31000* standard discussed above. The ERA was also informed by discussions with DFES, and consultation with other expert stakeholders.

During this consultation, the ERA was informed that, in general, agencies tend to lack evidence when deciding how to allocate resources to manage risk, but that DPAW was an exception. (DPAW adopted the *ISO 31000* standard and brought all of its activities into alignment with the standard by 2012-13). The ERA was informed that DFES was yet to bring its activities into alignment with the standard at January 2016.

DFES should bring its practices fully into line with *ISO 31000*, and indeed some progress appears to have been made in this area. As noted above, the DFES Service Delivery Model already uses the *ISO 31000* standard to generate the probability of a natural hazard occurring, and its likely consequence.

Stakeholders have made a number of other comments on the DFES budgeting process.

WAFarmers has commented on the lack of transparency of the DFES budgeting process, saying that it "is difficult to determine whether funding is fit for future needs as the department's reporting of how ESL is allocated is vague".⁴²³ This issue is addressed in more detail in Chapter 8.

The Bushfire Front Inc. considers that, under its current budgeting process, it is difficult for DFES to know whether its expenditure provides value for money for the community. It proposes:

"What is needed is a clear investment strategy or investment framework that sets out goals and priorities. Against this framework, funds can be allocated to the most important areas; later the effectiveness of the expenditure can then be assessed against objectives and priorities."⁴²⁴

This weakness appears to be addressed to some extent in the *DFES 2016-2028 Strategic Plan*, which includes the following outcomes:

- Improved systems support consistent selection, planning and execution of corporate projects and initiatives (to be achieved by 2020); integrated systems support detailed and dynamic governance and monitoring of project related information including financial and human resourcing (to be achieved by 2024); and DFES project governance systems are aligned to best practice standards (to be achieved by 2028).

⁴²³ WAFarmers, *Submission to the Emergency Services Levy Review*, 10 March 2017, p. 4.

⁴²⁴ The Bushfire Front Inc., *Submission to the Emergency Services Levy Review*, 25 February 2017, p. 3.

- A benefits realisation function and processes are established (to be achieved by 2020); and benefits realisation is embedded in project methodology and adopted across DFES (to be achieved by 2024).
- Strategic decisions are informed by available evidence and data (to be achieved by 2020); DFES has a business intelligence system that provides timely and useful information (to be achieved by 2024), and DFES' systems allow automated decision support through analysis and scenario planning (to be achieved by 2028).⁴²⁵

The DFES strategic plan lacks a specific definition of 'best practice standards' (for instance, *ISO 31000*). However, the plan indicates a general intention to resolve the concerns raised by the Bushfire Front Inc. Similarly, the newly introduced DFES Capability Framework (still under development), discussed above, will allow DFES to undertake more effective risk mitigation and set appropriate budgetary priorities when allocating funding.

OEM considers that the DFES budgeting system may be improved. In its submission, OEM comments that ESL expense management 'should have a closer alignment with recognised risk management processes', stating that:

"It follows that expenses would be directed towards the most productive treatments and controls, and thus range over the full spectrum of treatments from prevention (or mitigation) and preparedness, to response and recovery. The difficulty will be identifying the varying risk burden faced across the state and developing a suitable decision mechanism."⁴²⁶

OEM has suggested a specific approach to do this, as outlined in Box 9.

Box 9 OEM proposal to improve allocation of DFES expenditure in line with risk

"Ideally, each local government area would have a fully developed emergency management risk plan – to a state-wide standard – complete with costed treatments. This plan would form the basis of a local government business case for ongoing funding support. Base, or foundational funding support to each local government, simply based on population, land use or land value (or a combination of these) would always be the start point, with an emergency management risk plan forming the basis for additional funding. OEM recognises that this is somewhat idealistic and would take years to reach maturity.

It is therefore suggested a staged approach would be required, perhaps commencing by more explicitly permitting prevention/mitigation expenditure in the first instance. Given DFES' state-wide remit, there would be a need for base level funding to ensure service viability, though district and local district distribution could be prioritised based on more rigorous risk-based methodology. In addition, there will also always be a need to coordinate functions and services state-wide (such as aviation, training, logistics, incident expertise, major incident coordination etc.). An interim first step could be to base distribution on land use / value and population index, with an assured level of base funding for service viability."⁴²⁷

⁴²⁵ Department of Fire and Emergency Services, *2016-2028 Strategic Plan*, Perth, Government of Western Australia, 2016, p. 24.

⁴²⁶ Office of Emergency Management, *Submission to the Emergency Services Levy Review*, 9 March 2017, p. 3.

⁴²⁷ Office of Emergency Management, *Submission to the Emergency Services Levy Review*, 9 March 2017, p. 3.

The specific process proposed by OEM is just one of a range of alternatives, but does illustrate that there are other approaches to risk-based funding allocation that DFES could consider.

5.7.4 Practical concerns with the Department Fire and Emergency Services funding allocation process

DFES complies with Treasury's budgeting process, and also that DFES has (and is continuing to develop) formal frameworks for funding allocation. The ERA has discussed the funding allocation process with DFES staff, and has examined internal DFES planning documents and strategies, and is concerned that the current process is not ideal.

DFES has stated that funding allocation priorities are decided by the Corporate Leadership Team in monthly meetings and planning days. During these meetings, members of the Corporate Leadership Team put forward ideas for funding, and those ideas to be implemented are selected after discussion and debate. The Corporate Leadership Team is informed by the Strategic Planning Framework and the Capability Framework (which is under development) during these sessions,⁴²⁸ and that a project proposal is required to be developed for each funding idea.⁴²⁹

Robust debate by agency leadership has an important role in the planning and funding allocation processes. However, the approach described by DFES appears quite informal, and the internal documents provided make no mention of cost-benefit analysis or other analytical techniques.

Throughout this review, the ERA has asked DFES for more information about its budgeting and funding allocation processes, but has had difficulty in obtaining this information. The ERA is unclear:

- how the Corporate Leadership Team decides which project proposals to fund, including the type of technical analysis it uses (cost-benefit analysis or otherwise);
- whether detailed technical analysis of funding allocation options (cost-benefit analysis or otherwise) is undertaken as a matter of course, and if so, at what stage of the idea-development or funding allocation process; and
- whether DFES undertakes post-implementation analysis of specific projects (cost-benefit analysis or otherwise) as a matter of course, and whether any such analysis is fed back into the Corporate Leadership Team's future funding allocation processes.

The ERA may provide further information and discussion on these matters in the final report, if more information becomes available.

While the ERA recommends the use cost-benefit analysis and other analytical techniques, DFES must have capacity to respond to a worst-case scenario. Under such a constraint, applying cost-benefit analysis can be difficult and may not always provide a definitive answer. However, it is still important to apply robust analytical techniques wherever

⁴²⁸ Communication with Department of Fire and Emergency Services, 22 May 2017.

⁴²⁹ Material provided by Department of Fire and Emergency Services, *DFES' Budget Process Overview*, 2 June 2017.

possible and take them into account when making decisions – even where the final decision must be tempered by other operational requirements and concerns.

5.8 Economic Regulation Authority assessment

There are three main issues with the funding allocation process of DFES.

The first, raised by several stakeholders, is the perception that DFES does not adequately consider risk when making decisions. (Stakeholders who raised this issue included OEM,⁴³⁰ and WAFarmers⁴³¹ among others.) It is important that stakeholders – including the State Government and indeed all Western Australians – can have confidence that DFES considers and manages risk appropriately. The best way to provide this confidence is to introduce strong and visible processes and good governance. A number of stakeholders do not feel there is sufficient evidence to demonstrate DFES' effectiveness in this area.

To address this, ERA considers that DFES should implement the *ISO 31000* standard across its entire business, with a particular focus on implementing the feedback and learning processes described in the *ISO 31000* framework.⁴³² It also considers that DFES should finalise and implement the Capability Framework as a priority.

The second issue is that DFES has not demonstrated a clear link between its funding allocation frameworks, the decision-making processes of the Corporate Leadership Team, and any use of quantitative evidence (including for post-project evaluation). DFES' Strategic Planning Framework and Capability Framework provide strategic direction, but DFES has not provided more detailed information about how the relative costs and benefits of various alternatives are measured.

There should be stronger protections around the decision-making process that mandate the use of robust quantitative analysis in both the decision-making and post-project review phases. While technical assessments may not provide a definitive result, and must be balanced with other concerns, they still provide important information for decision-makers.

The third issue is a stakeholder perception that DFES' decisions have a bias towards response rather than prevention, since DFES is a response-focused organisation. This perception is evident in the many submissions that criticised DFES' lack of investment in prevention. This perception has arisen, in part, because of a lack of clarity around what the ESL can be spent on, as well as DFES' position that prevention is the responsibility of property owners. This issue is discussed in Chapter 3, which recommends greater legislative clarity about DFES' obligations to undertake prevention activities, and whether these activities may be funded from the ESL. Without this clarity, it is difficult to come to a definitive conclusion as to whether DFES has spent 'too much' or 'too little' on any particular type of activity.

⁴³⁰ Office of Emergency Management, *Submission to the Emergency Services Levy Review*, 9 March 2017, p. 3

⁴³¹ WAFarmers, *Submission to the Emergency Services Levy Review*, 10 March 2017, p. 3

⁴³² DFES has not yet implemented *ISO 31000* across its entire organisation. However the Office of Bushfire Risk Management is working with DPAW, DFES, and local government to progress compliance with *ISO 31000* in relation to bushfire risk management. (Source: DFES, *Office of Bushfire Risk Management (OBRM)*, Perth, Government of Western Australia, <https://www.dfes.wa.gov.au/waemergencyandriskmanagement/obrm/Pages/default.aspx>, (accessed 16 June 2016).)

If the recommendations in Chapter 8 are adopted, this may reduce any overinvestment in response, since DFES will no longer be the primary agency responsible for providing advice on spending allocation. Equally importantly, these recommendations will provide more accountability and transparency regarding the governance processes that underpin the distribution of the ESL.

The recommendations made in Chapters 3 and 8 will allow for more efficient, transparent, and accountable decision-making about the allocation of ESL funds to prevention, preparedness, response, and recovery. These recommendations will see the allocation role assumed by OEM, rather than managed within DFES.

5.9 Recommendations

- The Department of Fire and Emergency Services should implement activity based costing to allow for robust analysis.
- The Department of Fire and Emergency Services should implement the *ISO 31000* standard across its business activities.
- The Department of Fire and Emergency Services should finalise and implement the Capability Framework.
- The Department of Fire and Emergency Services should require cost-benefit analysis to be prepared for all major funding allocation decisions.
- The Department of Fire and Emergency Services should require post-project cost-benefit reviews to be presented to senior decision-makers to enable assessment of the effectiveness of past decisions.

6 Method for setting the Emergency Services Levy

6.1 Introduction

The terms of reference for this review require the ERA to assess the extent to which the method for setting the ESL is appropriate now and into the future. In considering the method for setting the ESL, the ERA has taken into account future changes in expenditures on emergency management (including emergency services), principles for the design of taxes and levies, and practical design issues.

There are six main issues with the way the ESL is set. These issues are:

- cross-subsidisation between metropolitan and regional areas;
- whether the ESL should be set to reflect risk or according to availability of service;
- whether gross rental value (GRV) is an appropriate base for the levy;
- whether properties should be 'grouped' for the purpose of calculating the ESL;
- apparent inconsistencies in the treatment of vineyards; and
- the appropriateness of using a property-based levy to fund marine and road crash rescue services.

These issues are addressed in the remainder of this chapter, assessing any potential improvements that could be made to the method for setting the ESL, and any practical design concerns (for example, data availability).

In considering these issues, it is important to remember that principles of good levy design (described in Chapter 3), will inevitably overlap and compete with each other. Some degree of equity may be sacrificed to improve simplicity, or simplicity may give way to effectiveness. The objective of good levy design is to ensure an appropriate balance across the principles, to deliver a levy that meets its intended purpose.

6.2 Main issues

6.2.1 Cross-subsidisation

There is probably cross-subsidisation between metropolitan and regional areas. When there is a cross-subsidy, people in one ESL category pay more than the cost of what they receive, while those in other categories pay less. Both DFES⁴³³ and stakeholders have verbally told the ERA that Category 1 property owners pay more than the direct costs of the services they receive, while property owners in regional categories (4 and 5) pay less.⁴³⁴

⁴³³ Communication with Department of Fire and Emergency Services, 17 January 2017.

⁴³⁴ Additionally, the way DFES currently sets the ESL does little to remove cross subsidisation. The differences between Category 1, 2, 3, 4, and 5 rates are set as fixed ratios, and bear no relationship to the relative cost of providing services in each area.

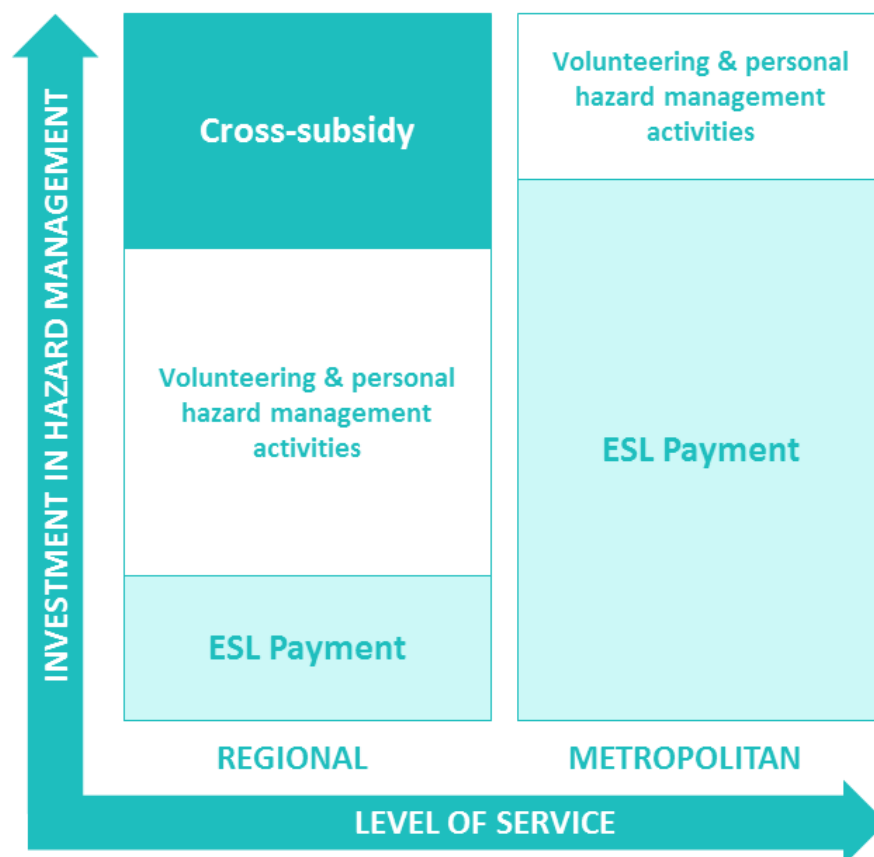
The extent of cross-subsidisation between Category 2 (non-Perth metropolitan), Category 3 (peri-urban) and other categories is unclear because of a lack of data.

There appears to be little objection in the community to the concept of cross-subsidisation when it comes to the ESL. This suggests there may be significant goodwill in the community that underpins a willingness to pay, not only to protect one's own assets, but to benefit other communities and environmental assets across the State.

Volunteer participation and voluntary prevention and preparedness activities offset cross-subsidisation to some extent. For example, rural property owners in Category 5 are more likely to invest in water tanks and fire-fighting resources, and to be members of volunteer local brigades. While people in rural areas pay less in ESL rates, they also receive fewer services, and invest more of their own resources in hazard management. The value of volunteer contributions is discussed in more detail in Chapter 4, which estimates that the value of time contributed by bush fire brigade volunteers was over \$4 million in 2015-16, based on the average Australian weekly wage.

This concept is shown in Figure 26. People living in regional areas pay lower ESL rates, but tend to spend more time both volunteering in the community, and reducing risk on their own properties. In contrast, metropolitan property owners pay higher ESL rates, but tend to spend less time volunteering, or preparing to defend their own properties. Additionally, metropolitan property owners have access to a higher level of service.

Figure 26 Metropolitan and regional investment in hazard management



Note: Diagram is for illustrative purposes only; it does not reflect actual values or percentages, and does not illustrate the full spectrum of services received and provided by property owners in each of the 5 ESL categories.

The way costs are recovered and cross-subsidised is an equity decision for the State Government, and in the case of the ESL there is no persuasive argument for removing the current cross-subsidy. A common economic argument for removing cross-subsidies is that they distort people's behaviours and choices, but in the case of the ESL, the ERA has not identified any such distortions.

However, it is concerning that it is currently not possible to quantify the extent of the cross subsidy.

It is important for both DFES and the State Government to have a clear understanding of cross-subsidisations within the system. This will enable better-decision making, and allow the State Government to make a conscious and informed policy decision as to the acceptable extent of cross-subsidisation.

The current circumstance has arisen because DFES does not collect and analyse data in a way that shows whether property owners in some categories subsidise those in others, and to what extent. However, DFES collects extensive, highly-detailed incident data, and it would be possible for DFES to perform the analysis necessary to understand the costs of land in each ESL category.

DFES should use its cost and incident data to determine annual direct costs of providing emergency management activities and emergency services to each of the five ESL categories of land. This will require DFES to undertake activity based costing, as recommended in Chapter 5. Doing so will allow DFES to measure the cross-subsidisation between categories, and to identify changes in patterns of cross-subsidisation over time, and greatly enhance its ability to provide analysis about hazards and spending patterns to the State Government.

Additionally, DFES should publish detailed information on the level of cross-subsidy across ESL categories, including information on how direct costs and overheads are recovered. This will provide greater transparency.

6.2.2 Reflection of risk in Emergency Services Levy pricing

Some stakeholders consider that the ESL should be set to reflect risk, rather than the availability of service. This would mean that ESL rates would be based on the probability, exposure, and vulnerability of either properties or regions to natural hazards, rather than being based on the level of service available.

The State Government made an explicit decision to charge by service availability rather than risk when establishing the principles on which the ESL was based.⁴³⁵ (Appendix E provides further information on the principles that informed the original design of the ESL.) Consequently, DFES currently sets the ESL to reflect the level of service available in each ESL category (as detailed in Chapter 2). This is consistent with the community rating principle, which aims to ensure that everyone receiving the same level of service pays the same rate irrespective of their level of risk. A move towards risk-based rates would be a significant departure from this policy.

However, several stakeholders have expressed an interest in moving from a service-based charge to risk-based rates, where the amount of ESL paid reflects how 'at risk' each area or property is. The Emergency Services Volunteers Association suggests that the method

⁴³⁵ Communication with Department of Fire and Emergency Services, 12 April 2017.

for setting the ESL could be improved by assessing the level risk in an area, fully costing all the requirements for addressing that risk, and allocating the area to an ESL category based on that assessment.⁴³⁶

The Shire of Mundaring considers that:

“[The ESL should consider] how best to equitably distribute the cost burden to the community relative to Emergency Management risk and experience rather than just the provision of Emergency Services.”⁴³⁷

The Emergency Services Volunteers Association also raised the possibility of a less major change than a move to a full risk-based approach, being the introduction of a sixth ESL category for bushfire prone areas, stating that: “A bushfire prone area in the Urban Metropolitan area is a higher risk than a regional city or country town with good bushfire management strategies in place.”⁴³⁸ The City of Canning made a similar proposal, suggesting that new ‘inner metro’, ‘rural’, and ‘urban fringe’ sub-categories could be introduced to better reflect risk.⁴³⁹

Other stakeholders (including DFES) have pointed out that a risk-based levy on individual properties would not be administratively feasible. For example, the Gidgegannup Progress Association states that:

“Individual assessment of relative risks posed to or by individual properties would be administratively very difficult or impossible to carry out and translate to financial terms.”⁴⁴⁰

Some stakeholders have also raised specific concerns with the ‘level of service’ concept in general, pointing out that two properties in the same ESL category may not receive the same level of service. For instance, many stakeholders have verbally raised concerns that Category 3, 4, and 5 services vary significantly from location to location, because these categories rely wholly, or in part, on the services of bush fire brigades. The quality of service provided by bush fire brigades can apparently vary significantly, depending on the capabilities of the local government in charge, as well as the nature of the geographic area covered by each bush fire brigade. The Grape Growers Association has previously stated that, even within Category 1, service levels can be inconsistent due to technical constraints:

“We strongly support the review of ESL boundaries based on DFES ability rather than time from the closest fire station. It is essential that ESL categories represent the service that DFES will supply. The Swan Valley is almost all ESL Category 1 but this service cannot be provided at this level. The response time for a DFES appliance has been used to set the category but on arrival the units require hydrant support at 200 metre intervals which is not available in most of the Swan Valley.”⁴⁴¹

⁴³⁶ Emergency Services Volunteers Association Inc., *Submission to the Emergency Services Levy Review*, 10 March 2017, p. 4.

⁴³⁷ Shire of Mundaring, *Submission to the Emergency Services Levy Review*, 3 March 2017, p. 2.

⁴³⁸ Emergency Services Volunteers Association Inc., *Submission to the Emergency Services Levy Review*, 10 March 2017, p. 4.

⁴³⁹ City of Canning, *Submission to the Emergency Services Levy Review*, 10 March 2017, p. 3.

⁴⁴⁰ Gidgegannup Progress Association (Inc.), *Submission to the Emergency Services Levy Review*, 27 February 2017, p. 7.

⁴⁴¹ Grape Growers Association of W.A. (Inc.), *Submission: Review of Emergency Services Act*, 21 July 2014, p. 2.

The City of Swan has made similar comments, noting that residents within its boundaries are rated as either Category 1 or Category 3, but there has been no noticeable improvement to the level of service provided for residents in Category 3.⁴⁴²

The ERA has asked DFES whether it would be feasible to depart from the community rating principle and design a system where rates better reflect risk. DFES' view is that the current approach is a pragmatic choice, and that it would be too difficult to introduce a workable and equitable risk-based approach to pricing ESL rates.⁴⁴³ DFES also raised a further concern about risk-based pricing in its 2014 review of the emergency services Acts, stating 'an increase in the ESL in certain [higher risk] areas may result in an expectation of a higher service in those areas, which would not necessarily be practical'.⁴⁴⁴

However, given the interest from stakeholders in the possibility of establishing a more risk-reflective system this report examines the possibility of risk-reflective pricing. In doing so, it considers the following principles:

- *User pays:* If ESL were better aligned with risk, property owners would pay for the services they need (and so the risks they impose on the system). However, this is a complex issue. For example, owners of expensive properties have more assets at risk. However they are not necessarily more vulnerable, or more exposed to natural hazards. In practice, 'user pays' for risk is a difficult issue, because it combines subjective concepts such as 'who has the most at risk', 'where is the risk highest', and 'who is most vulnerable to risk'.
- *Universality of service:* Some communities may simply be unable to pay a risk based charge. For example, remote communities in the Kimberley have limited resources but are exposed to cyclones and floods. This equity principle indicates that they should receive a minimum service level regardless of capacity to pay.

Charging by risk challenges the principle of simplicity. Charging according to the service available is relatively straightforward. It is more complex to assess the vulnerability, exposure, and probability of a natural hazard affecting each property or each region, and to set charges accordingly. This may be an expensive, contentious, and technically difficult process.

On the matter of variability of service within ESL categories, the ERA does accept that there are inconsistencies in actual service levels within each category. However this, in itself, is not a strong argument for moving to a risk-based rather than service-level-based ESL. With only a small number of categories covering the whole State, it is to be expected that there will be some variation. The challenges for DFES here are (1) setting ESL category boundaries appropriately – a task that is performed and reviewed on a regular basis, and (2) working effectively with local governments to promote a consistent level of service across the State.

On the matter of setting risk-based rates, it could be technically possible for the ESL to better reflect risk, if the State Government decided to move away from the founding concept that the ESL is a payment for service. However, on a practical level, pricing the ESL at a

⁴⁴² City of Swan, *Submission to the Emergency Services Levy Review*, 10 March 2017, p. 3.

⁴⁴³ Communication with Department of Fire and Emergency Services, 17 January 2017.

⁴⁴⁴ Department of Fire and Emergency Services, *Concept Paper: Review of the Emergency Services Acts*, Perth, Government of Australia, 2014, pp. 13-14.

level that reflects risk would be highly complex. This is because properties need to be classified and grouped in some way according to risk, for the purpose of setting ESL rates.

This could be done in one of two ways:

- *Risk rating individual properties:* Individual properties could be rated as Category 1, 2, 3, etc., depending on their individual risk characteristics, and charged the matching ESL rate.
- *Risk rating geographical areas:* Specific areas of the State could be given a risk rating based on the probability of a natural hazard occurring, the area's vulnerability, and its exposure, and charged a matching ESL rate. This would not be significantly different to the existing system, except that risk would be taken into account when setting ESL category boundaries. Additional categories may be required to better reflect the different levels of risk facing various parts of the State. This would allow the direct cost of providing services to these areas to be more accurately assessed and recovered from property owners.

The first option - the risk rating of individual properties - has certain efficiency and equity benefits, in that it encourages less risky land use (through property modification and land management), and ensures that owners who make lower-risk choices pay a lower rate. However, this option would be administratively expensive, complex, and essentially unworkable. It would involve widespread, subjective, and expensive data-collection to be undertaken on an ongoing basis. Additionally, it would be likely to create a major administrative burden, since individual property owners would have an incentive to dispute their property's risk-rating.

The second option – risk rating geographical areas – may be possible, and would be consistent with the fact that DFES already uses a geographical area system (being ESL categories) to set ESL rates. Theoretically, it could be based on a State-wide risk review conducted by OEM, informed by data from across government.

Three key pieces of information would be required to move to a geographical risk-based rating system:

- the amount of direct ESL expenditure by location (that is, by ESL category area);
- the probability of natural hazard risk across the State, and the vulnerability and exposure of each region; and
- how ESL category boundaries might best be set to reflect that risk.

DFES is in a position to determine the first of these via activity based costing (although it has not done so to date), and the other two are matters for an expert review, ideally by the Office of Emergency Management. This would result in a 'patchwork' of different risk-rated regions across the State, where residents in each region paid a rate based on that region's risk rating.

Such a move to geographical risk-based payment might be feasible, but would be an extremely large, complex, and potentially expensive undertaking. Introducing a risk-based levy would also move away from the cross-subsidy that was intentionally built into the ESL, and towards charging each rate payer for the direct costs they impose on the system. As discussed above, the ERA has not recommended that the State Government remove the cross-subsidy.

Based on these considerations, and on current data limitations, this report does not recommend a move to a risk-based ESL at present. However, given the interest from stakeholders, the State Government may choose to reconsider this policy when better data becomes available.

6.2.3 Gross Rental Value

Some stakeholders have suggested that GRV may not be the most appropriate base for calculating ESL rates.

GRV is defined under the *Valuation of Land Act 1978* as:

“[T]he gross annual rental that the land might reasonably be expected to realise if let on a tenancy from year to year upon condition that the landlord was liable for all rates, taxes and other charges thereon and the insurance and other outgoings necessary to maintain the value of the land.”

That is, GRV represents the annual equivalent of a fair weekly rental. It is determined by the Valuer-General, and is also used for determining council rates on urban land, calculating water charges, and charges for sewerage and drainage services.^{445,446}

A number of stakeholders have objected to the use of GRV as the basis for the ESL, on the grounds that it does not reflect risk, need for service, nor capacity to pay. The City of Canning states that:

“The current system is based on Gross Rental Values (GRV) in bands, on principal of perceived capacity to pay. The GRV bears no resemblance to need for service.”⁴⁴⁷

Mr. de Gruchy, President of WA Self-Funded Retirees Inc., states that:

“[T]here are a number of elderly homeowners who have lived in their house for 30 – 40 years, do not enjoy a high Income, but the GRV on their property has risen to high levels purely due to the location.”⁴⁴⁸

The Chair of SEMC⁴⁴⁹ and the Office of Emergency Management⁴⁵⁰ have both questioned whether capital improved value may be a better base than GRV.

Some stakeholders suggest replacing GRV with fixed levies charged by tables or bands. For example, the City of Canning suggested this may be a more equitable approach.⁴⁵¹

⁴⁴⁵ Landgate, *Valuation Roll Extracts*, Perth, Government of Western Australia, <https://www0.landgate.wa.gov.au/for-individuals/land-values/ValuationRollExtracts>, (accessed on 1 May 2017).

⁴⁴⁶ Where a fair weekly rental cannot be determined for a property, the Valuer-General sets its GRV as a percentage of the property’s value (being value of the land itself plus the estimated replacement cost of any improvements to the land).

⁴⁴⁷ City of Canning, *Submission to the review of the Emergency Services Levy*, 10 March 2017, p. 2.

⁴⁴⁸ WA Self-Funded Retirees Inc., *Submission to the review of the Emergency Services Levy*, 27 March 2017, p. 2.

⁴⁴⁹ Edwards, F., *Submission to the review of the Emergency Services Levy*, 9 March 2017, p. 3.

⁴⁵⁰ Office of Emergency Management, *Submission to the Emergency Services Levy Review*, 9 March 2017, p. 4.

⁴⁵¹ City of Canning, *Re: Review of the Emergency Services Levy*, 10 March 2017, p. 3.

Mr. de Gruchy proposes a number of solutions (including a levy charged through federal income tax, or a flat levy for each household).⁴⁵² This report does not address the idea of using a levy charged through federal income tax in detail, since federal legislation is outside the scope of this review. However, no other State or Territory administers a State-based levy via the Australian Government, and that such a system would probably encounter significant legislative and procedural barriers.

The choice of an appropriate base for the ESL is largely an equity issue. Using GRV is not a perfectly equitable solution, based on the following considerations:

- *User pays:* GRV is not a perfect measure of risk or need for service. For instance, as discussed above, low GRV properties in the north-west may be more highly exposed to cyclones and floods than high GRV properties in the metropolitan area. However, this is not a clear cut issue. For example, it might also be argued that people with high GRV properties have higher-value assets at risk.
- *Progressivity:* GRV does not perfectly reflect capacity to pay. For example, elderly property owners who have lived in their house for many decades can reside in a high GRV property, but have little capacity to pay. However, DFES does address this issue to some extent with pensioner and senior concessions (for example, Seniors Card holders receive a 25 per cent discount, and Pensioner Concessions Card holders receive a 50 per cent discount).⁴⁵³

Additionally, some farm property owners have a GRV set above the lease that could realistically be achieved from their property. The Grape Growers Association raised this concern in its submission to an earlier review:

“Many farmers have a GRV set at 5% of unimproved value and this presents values that cannot be achieved as leases. One example is a farmer with 8ha who has a GRV of \$110,000 and pays an ESL of around \$2,000. The GRV cannot be achieved as a lease with most vineyard leases being at no return but maintenance and repair in exchange for the crop. The 5% of unimproved land that has been applied to some is set by the Valuer General and appeals have failed. This is another example whereby the Valuers Act again does not recognise the Swan Valley Planning Act. Discussions and correspondence with that department has also produced no change. The only method possible to achieve a reasonable ESL rate is for DFES to strike a new rate category to overcome this anomaly.”⁴⁵⁴

However, this is a broader technical issue with the way the Valuer-General sets GRV for properties for which they cannot determine a reasonable rent. This process involves estimating a property's capital improved value⁴⁵⁵ and multiplying it by either 3 per cent for residential properties, or times 5 per cent for other properties. It is not an issue with the method for setting the ESL itself, and falls outside the scope of this review.

⁴⁵² WA Self-Funded Retirees Inc., *Submission to the review of the Emergency Services Levy*, 27 March 2017, p. 2.

⁴⁵³ DFES, *Emergency Services Levy (ESL) Concessions – Pensioners and Seniors*, http://www.dfes.wa.gov.au/emergencyserviceslevy/ESL%20Docs/ESL_Pensioner_Senior_Concessions.pdf (accessed 21 June 2017).

⁴⁵⁴ Grape Growers Association of W.A. (Inc.), *Submission: Review of Emergency Services Act*, 21 July 2014, p. 2.

⁴⁵⁵ Capital improved value is either the market value of the land, or the unimproved value of the land plus depreciated cost of improvements.

Using GRV is not a major efficiency issue. ESL rates are not likely to be a significant factor when it comes to choosing where to live, whether to improve land, or where to run a business.

One major advantage of GRV is that it is integrated with the local government systems used to calculate and charge rates (since rates are also charged based on GRV). This means that it is relatively simple to administer.

There are three main alternatives to GRV for the purpose of calculating ESL rates.⁴⁵⁶ These are unimproved value, and capital improved value, and the use of fixed charges. Unimproved value is the value of the land only, whereas capital improved value is the value of the land, buildings, and any other improvements made to the property – that is, the value that could be expected to be raised if the property were sold.

This report assesses the merits of each base below. In assessing each base, it makes some comments on whether each system reflects assets at risk. As discussed in Section 6.2.2 above, the relationship between ESL and risk is contentious in itself, given that the ESL was originally intended to be a payment for service. These comments on appropriate bases for the ESL should be read with this in mind.

1. *Unimproved land value*: This data is available on rolls maintained by Landgate.

Arguably, unimproved value is more efficient than GRV because it does not penalise property owners from making improvements to land. However, as discussed above, the ESL is unlikely to be material enough to change people's decision-making in this way. Further, unimproved value does not reflect assets at risk nor capacity to pay.

Unimproved value is arguably less equitable than other bases, since it does not take capacity to pay into account (on the basis that people with buildings and other property improvements will generally have a greater capacity to pay). Additionally, it ignores the fact that property owners with buildings and other property improvements also have more assets at risk.

2. *Capital improved value*: Capital improved value incorporates buildings and other property improvements into the base used to calculate the ESL. It may be more equitable, more reflective of risk, and better reflect capacity to pay than GRV.⁴⁵⁷

The Valuer-General can calculate the capital improved value of land for specific purposes.⁴⁵⁸ However, the Officer of the Valuer-General has stated that general capital improved value rolls are not maintained, as this is not required under the

⁴⁵⁶ One stakeholder also suggested a levy on income tax. The ERA does not consider this a feasible alternative, due to the legislative change and administrative complexities arising from using the Australian Government as the ESL collection agent (in the event the Australian Government were even willing to consider taking on this role.)

⁴⁵⁷ The *Henry Tax Review* noted that, when used to calculate taxes, GRV gives a similar result to capital improved value. The main difference is that GRV does not allow for the deduction of the costs a landlord would incur in maintaining the land. (Henry, K., Harmer, J., Piggott, J., Ridout, H., & Smith, G., *Australia's future tax system*, Canberra, Commonwealth Treasury, 2009, p. 258.)

⁴⁵⁸ For example, when it is necessary to determine an assessed value for land for which GRV cannot reasonably be calculated. Land owners' assistance may be sought in this case, to provide the Valuer-General with asset registers and other information about capital improvements to the land.

Valuation of Land Act 1978. (The Act only requires the Valuer-General to determine unimproved value and GRV.)⁴⁵⁹

Consequently, it is not possible to use capital improved value to determine the ESL, since the data is unavailable.

3. *Fixed charges*: A simple tiered system is not likely to address capacity to pay, or risk.

A variant of a fixed system is used in Queensland, where properties are classified into levy groups, and property owners pay a fixed amount based on their property's group and location. However, this system relies on an extremely detailed property database to equitably allocate properties into groups. The large number of groups and detailed property information allow risk to be taken into account.⁴⁶⁰

By way of example, the *Queensland Fire and Emergency Services Regulation 2011* currently differentiates between 168 types of property divided into 16 leviable groups. The property types detailed in the legislation are as specific as 'Oil or fuel depot, including refinery (licensed capacity of 25,000,001–50,000,000L)', 'Drive-in shopping centre (area devoted to buildings, roadways, parking and landscaping of 40,001–60,000m²)', and 'Office, shop or commercial premises, other than drive-in shopping centre (21–29 levels)'.

DFES has acknowledged the merits of the Queensland system, and suggested that the classification system used in Queensland acts as a good proxy for risk. However, Western Australia does not have a pre-existing property database of the kind used in Queensland, and it would be unjustifiably costly to develop one simply for the purpose of collecting the ESL.⁴⁶¹ Additionally, as discussed above, this report does not recommend a move to a risk-based system.

Overall, unimproved value is an inferior option to GRV, and lack of data makes the other two options unworkable. GRV remains the most practical option. Consequently, this report does not recommend any change to the current system.

6.2.4 Grouping of properties

Adjoining properties with the same owner may be grouped for ESL purposes, if all properties are used for the same purpose. Owners can apply for a 'group valuation' from Landgate and make a single ESL payment.

However, property owners with non-adjoining lots have to pay the ESL on each property. This can add up to more than what they would pay if their lots were grouped, because there is a minimum ESL charge on each lot.⁴⁶²

⁴⁵⁹ Communication with the Office of the Valuer-General, 22 May 2017.

⁴⁶⁰ Communication with Department of Fire and Emergency Services, 17 January 2017.

⁴⁶¹ Communication with Department of Fire and Emergency Services, 17 January 2017.

⁴⁶² In attempting to understand the extent of this issue, ERA has asked DFES for any internal analysis that it has undertaken on the implications of grouping of properties, particularly in the Swan Valley. DFES has informed the ERA that it has not done any analysis of this issue.

Stakeholders have taken two views on grouping of properties. The Association of Volunteer Bush Fire Brigades proposes:

“[A r]eview of corporate group ratings [is] needed to ensure the system is not being used to avoid full corporate contributions by grouping land holdings together for ESL liability.”⁴⁶³

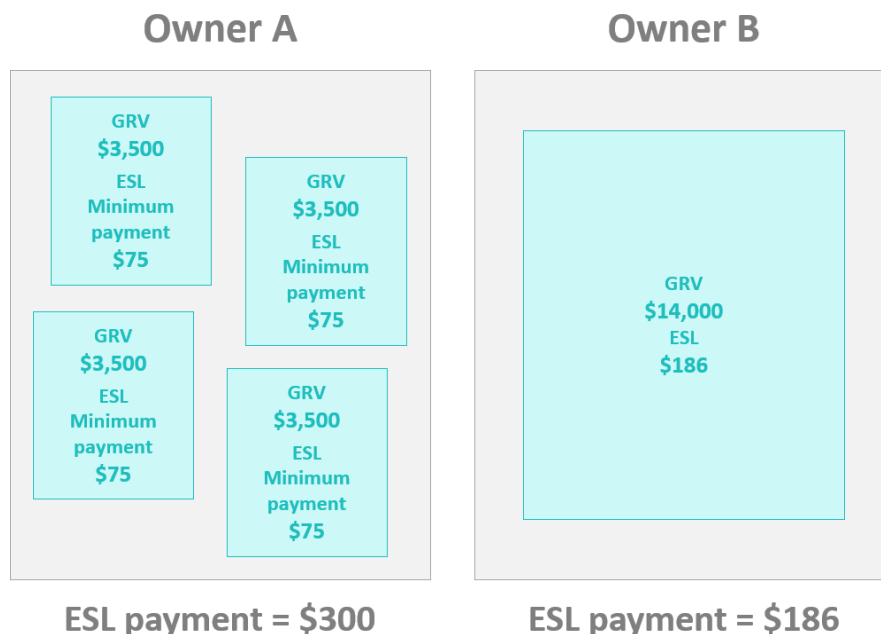
In contrast, the Grape Growers Association supports the grouping of properties, and considers that grouping should also be available for non-adjoining properties:

“The use of grouped ratings is common in the Swan Valley and is appropriate in an area where lot sizes are small and most farms consist of several lots and a grouped ESL is appropriate. However, the inequity here is that many farmers have multiple lots that are not adjoining and pay an ESL on every lot resulting in a much higher ESL cost. These farmers must also be given the opportunity to pay a single ESL fee.”⁴⁶⁴

This is largely an *equity* issue, since people who are receiving essentially the same services are not paying the same amount. Presently, property owners with adjoining lots effectively receive a discount.

Figure 27 provides a simplified illustration of the problem for two owners in Category 1. Owner A and Owner B both own four properties of the same size and value.⁴⁶⁵ Owner A's four properties are in different locations, so she pays the minimum rate of \$75 on each block. Owner B's blocks are joined, and assessed as a group. This results in Owner A paying a total of \$300 in ESL rates, while Owner B effectively receives a discount and only pays a total of \$186.

Figure 27 Comparison of treatment for grouped and ungrouped land (Category 1)



⁴⁶³ Association of Volunteer Bush Fire Brigades WA Inc., *Submission to the Emergency Services Levy Review*, 13 March 2017, p. 7.

⁴⁶⁴ Grape Growers Association of W.A. (Inc.), *Submission: Review of Emergency Services Act*, 21 July 2014, p. 2.

⁴⁶⁵ In this example, the ERA has assumed that Landgate's grouped GRV of the four adjoining blocks will be exactly equal to the sum of the values of the individual blocks (that is, $3,500 \times 4 = 14,000$). This is a simplification to illustrate the issue – in practice, the grouped GRV may not be exactly the same as the sum as the individual GRVs.

Grouping of properties is not likely to be a major efficiency issue. The ESL is unlikely to distort people's decisions about where to live and how to expand their business. This is because the cost of the ESL is only a small proportion of the total cost of purchasing and maintaining a new property, or expanding a business.

For some types of hazard (for instance, fire), it could be argued that grouped properties should be charged less than ungrouped properties because they create economies of scale. For example, two non-adjacent blocks that are both on fire will require two emergency crews, whereas two adjacent blocks that are on fire may only require one crew.

This may be the case in particular circumstances, and for particular types of hazard. However, overall, it is inequitable for some property owners to pay less through the grouping of properties for ESL purposes.

The simplest and most equitable solution would be to abolish grouping on all types of property. This would ensure that all property owners pay the ESL on each block of land they own.

Grouping of properties is done by Landgate, not by DFES. To abolish grouping, Landgate would need to amend the property rolls provided to DFES, to ensure that no properties are grouped for the purpose of the ESL.

6.2.5 Treatment of vineyards

Some stakeholders have questions whether vineyards are classified appropriately and consistently for the purposes of calculating the ESL.

There are two main property-use classifications each of which has a different maximum payment.⁴⁶⁶ Vacant land, farming (hobby), and residential property owners in ESL Category 1 will pay up to \$395 in 2017-18. Commercial, industrial and miscellaneous property owners will pay up to \$225,000.⁴⁶⁷

Some vineyard properties are classified as commercial or miscellaneous and others as farming (hobby). Those classified as commercial or miscellaneous will pay the higher maximum rate.

Given the large disparity between the maximum amounts payable, it is important that properties are classified appropriately. This is illustrated in Table 17, which compares hypothetical ESL payable for a variety of ESL Category 1 properties in different circumstances.

For property owners A and C, it makes no difference whether they are classified as farming (hobby) or commercial properties, since each will pay \$331 in ESL rates. Property B has a GRV of \$100,000, but because it is classified as farming (hobby), it meets the cap for its classification and the owner will only pay \$395. However, property D – a property of the same GRV as property B, but classified as commercial – must pay \$1,326. This is because the cap for commercial properties is \$225,000.

⁴⁶⁶ Department of Fire and Emergency Services, *Categories, Rates and Boundaries*, Perth, Government of Western Australia, Perth, Government of Western Australia, <https://www.dfes.wa.gov.au/emergencyserviceslevy/pages/categoriesratesboundaries.aspx>, (accessed 19 June 2017).

⁴⁶⁷ State Law Publisher, 'Fire and Emergency Services (Determination of Emergency Services Levy) Notice 2017', *Government Gazette No. 116 of 2017: Part 2*, Perth, Government of Western Australia, 2017.

Table 17 Comparison of ESL payable for Category 1 land with different classification

	ESL property use	GRV	ESL payable
Property A	Farming (Hobby)	\$25,000	\$331
Property B	Farming (Hobby)	\$100,000	\$395 (max)
Property C	Commercial	\$25,000	\$331
Property D	Commercial	\$100,000	\$1,326

Source: DFES; WA Government Gazette; ERA analysis.

The Grape Growers Association is concerned that the commercial classification is being used to raise additional ESL revenue:

“The ESL rate set for “Residential, Farming and Vacant Land” is set at a reasonable cost yet Swan Valley Farmers are currently rated as commercial. This falls under the category “Commercial, Industrial and Miscellaneous”. The question posed here is “when is a farmer not a farmer”? We believe that the aim here is to maximise revenue...”⁴⁶⁸

The Grape Growers Association is also concerned that rating vineyards as commercial does not reflect risk:

“Many farmers are rated as commercial and this is unrelated to either the cost of the DFES service provided or the associated risk. The grape growers are the least likely participants in the Swan Valley to need DFES services. Vineyards do not burn!”⁴⁶⁹

This report takes into account the following principles when assessing the classification of vineyards:

1. *User pays*: If vineyard owners are inconsistently treated as either a commercial farm or farming (hobby) farm, they will pay very different maximum charges.

However, large commercial vineyards may have additional assets at risk – for example, galleries, and restaurants. It is appropriate for such vineyards to pay full commercial rates.

2. *Progressivity*: Owners of very large commercial vineyards have a greater capacity to pay.

There are also some simplicity issues with the charging of vineyards. Currently, these properties are categorised using data provided by the Valuer-General. This is a straightforward method that uses a pre-existing system. The same data is used for other purposes, such as calculating rates and wastewater charges.

There is no merit in DFES creating its own classification system, simply to resolve the issue of vineyards. Such a task would be prohibitively expensive and complex, and difficult to justify when the Valuer-General already maintains detailed land classification data. DFES is not a land valuation agency, and is not in a position to classify land and monitor compliance with classifications.

⁴⁶⁸ Grape Growers Association of W.A. (Inc.), *Submission: Review of Emergency Services Act*, 21 July 2014, p. 2.

⁴⁶⁹ Grape Growers Association of W.A. (Inc.), *Submission: Review of Emergency Services Act*, 21 July 2014, p. 2.

There has already been an attempt to solve the issue of how vineyards should be classified. In 2013, Landgate (the agency of the Valuer-General) undertook a review of land use classifications in the Swan Valley that resulted in the reclassification about 50 per cent of the land classified as 'Vineyard residence' or 'Vineyard properties'. These properties, previously rated as 'Commercial' or 'Miscellaneous', were reclassified as hobby farming properties. As hobby farms, these properties are now subject to the lower maximum charge.⁴⁷⁰ As of 2016-17, only 27 of 273 vineyards in the Swan Valley are classified as commercial or miscellaneous.⁴⁷¹

However, Parliamentary debate in 2014⁴⁷² and the submissions to this review indicate that the issue may not have been wholly resolved.

Landgate is best placed to determine the classification of vineyard and other farming properties, being the independent expert agency for land valuation in Western Australia. However, the last review of land classifications in the Swan Valley took place in 2013. Given the amount of time that has passed since that review, Landgate should revisit the classification of vineyards in the Swan Valley to decide whether any adjustments are necessary.

Finally, this report notes the Grape Growers Association's comment that rating vineyards as commercial does not reflect risk. This issue of risk is addressed above in Section 6.2.2, which discusses arguments for a risk-rating model, as opposed to a fee-for-service model.

In researching this issue, the ERA has also found that the DFES 'Categories, Rates and Boundaries' web page⁴⁷³ provides very little information on what the different 'ESL Property Use' classifications mean. For example, there is little to help readers understand why one property might be classified as farming (hobby) and another as commercial or miscellaneous. There is also some ambiguity between the wording on the DFES website, which uses the term farming (hobby) and that in the Government Gazette, which merely uses the term farming. The lack of detail on the website, along with the variance in wording, is confusing for readers. The DFES 'Categories, Rates and Boundaries' web page should link users to further information on each property use classification, along with illustrative examples, and an explanation where the wording on the website varies from that in the Government Gazette.

6.2.6 Marine and road crash rescue services

The ESL is a property based levy that is also used to fund non-property-based services, such as the Volunteer Marine Rescue Services (VMRS), and DFES' road crash rescue

⁴⁷⁰ Francis, J. M., Emergency Services Levy - Administration – Grievance, *Hansard*, Assembly, 14 August 2014, p. 5310b-5312a.

⁴⁷¹ Data provided by Department of Fire and Emergency Services, 23 May 2017 (*Att A – Vineyards in the Swan Valley Region May 2017.xlsx*).

⁴⁷² Alban, F. A. and Francis, J. M., Emergency Services Levy - Administration – Grievance, *Hansard*, Assembly, 14 August 2014, p. 5310b-5312a.

⁴⁷³ Department of Fire and Emergency Services, *Categories, Rates and Boundaries*, Perth, Government of Western Australia, <https://www.dfes.wa.gov.au/emergencyserviceslevy/pages/categoriesratesboundaries.aspx>, (accessed 19 June 2017).

services. A number of stakeholders have objected to this use of the ESL. For instance, an anonymous submission comments that:

“[I]t is apparently suitable for land-owners to pay through their rates, for a service which is highly-unlikely to be needed by the vast majority of WA citizens. Would it not be appropriate to extract a levy from every registered ocean-going vessel, to at least partly fund the VMRS, rather than expect land-owners to pay?”⁴⁷⁴

The Shire of Murray makes the point that:

“Funding models for Volunteer Marine Rescue Service (VMRS) and Road Crash Rescue by Career and Volunteer Fire and Rescue Services (FRS) needs to be reviewed to determine the most appropriate way operational costs associated with these services are raised. A service model based on user pays needs to be developed (i.e. vehicle/boat registration licence levies).”⁴⁷⁵

When the ESL was established, *simplicity* was an important principle. Administering one levy (that is, the ESL on property) is simpler than administering multiple levies (for example, property, vehicles, and vessels.)

However, this simplicity comes at the cost of equity – particularly the user pays aspect.

This report considers the issues of vessels and vehicles separately.

Vessels

A levy on vessels would allow boat owners to pay the direct costs of the VMRS. In principle, this would be more equitable as only a small subset of property owners is also boat owners.

The direct costs of the VMRS are relatively clearly defined (\$5.8 million in 2015-16, for instance⁴⁷⁶). Additionally, unlike road rescue and other emergency services, the VMRS are relied on by a relatively small segment of the community. It is not appropriate to recover these costs from property owners via the ESL, and recommends the direct costs of the VMRS be funded via a levy on vessel registration, to be collected by the Department of Transport.

One concern with a move to a flat levy on vessels is that it would depart from the principle of progressivity. However, a flat levy is not the only option available to the Government. DFES’ *Concept Paper: Review of the Emergency Services Acts* offers a range of possible charging models for a vessel-based levy, including one scaled by the size of the vessel, and one that is a percentage of the registration fee.⁴⁷⁷ Either of these options would introduce an element of progressivity.

The VMRS is largely staffed by boat-owning volunteers. In the past, emergency services volunteers have questioned why they should have to pay a levy when they also volunteer

⁴⁷⁴ Anonymous, *Submission to the Emergency Services Levy Review*, 18 February 2017, p. 1.

⁴⁷⁵ Shire of Murray, *Submission to the Emergency Services Levy Review*, 24 February 2017, p. 5.

⁴⁷⁶ Data provided by Department of Fire and Emergency Services, 8 February 2017. (*Item 6 Output Cost Allocation for BCM 201516.xlsx*)

⁴⁷⁷ Department of Fire and Emergency Services, *Concept Paper: Review of the Emergency Services Acts*, Perth, Government of Australia, 2015, p. 15.

time and other resources. However, DFES has explicitly ruled out volunteer exemptions on practical grounds.⁴⁷⁸

Having considered these issues, this report finds that charging a separate levy for boats is equitable, and should be introduced.

The total amount recovered via levy should be equal to the direct costs of the VMRS. The amount recovered via the ESL should be reduced accordingly, since the costs of marine rescue will now be recovered via the new levy.

Vehicles

There are three main options for funding road crash rescue services. These are:

- continuing to fund these services via the ESL;
- funding these services via a levy on vehicles; or
- funding these services through an alternative source, such as the Road Trauma Trust Account.

The most persuasive argument for continuing to fund road crash rescue service via the ESL is a technical one. A variety of DFES units provide road crash rescue services, including the CFRS, VES, and SES. DFES does not currently identify the proportion of CFRS, VES, or SES time and resources spent on road crash rescue, since DFES does not currently use activity based costing. This means that it is currently difficult to separate road crash rescue costs from DFES' other costs, and so it is simplest to fund road crash rescue services through the ESL.

Funding road crash rescue services via a levy on vehicles has merit, and allows vehicle owners to pay the direct cost of DFES' road crash rescue services. This is similar to the equity argument made in favour of establishing a levy on boat owners. However, this issue is less pressing than that of boat ownership since:

1. most property owners also own a car;
2. those who use roads, but do not pay the ESL (because they are not property owners), generally pay the ESL indirectly through rent; and
3. road crash rescue benefits a wider range of people than just car owners – for instance, public transport users, pedestrians, and cyclists – a levy on car ownership would not capture these users.

As discussed above, DFES does not currently have the capacity to identify the direct costs of providing road crash rescue services, which means that it is not possible to calculate the amount that such a levy would need to raise. If DFES implements activity based costing, as recommended in Chapter 5, this problem may be resolved.

An alternative to a levy on vehicles could be to fund road crash rescue services from another source, such as the Road Trauma Trust Account, which receives revenue from speed and red light camera fines in Western Australia. These funds may only be used for road safety

⁴⁷⁸ Fire and Emergency Services Authority, *Emergency Services Levy Q&A Guide 2011/12*, Perth, Government of Western Australia, 2011, p. 10.

activities.⁴⁷⁹ However, this option is currently limited by the same problem facing a levy on vehicles, in that DFES cannot identify the direct cost of providing road crash rescue services. This means it is currently impossible to know how much money should be redirected from the Road Trust Trauma Account to DFES to fund road crash rescue services.

Having considered these three options, this report finds that DFES should continue to fund road crash rescue through the ESL, until activity based costing is established. Once DFES has the ability to identify the direct costs of road crash rescue services, the State Government may wish to consider alternatives such as a levy on vehicles, or use of funds from the Road Trauma Trust account. However, as explained above, reform of road crash rescue funding is a priority issue, and considers that it is both simple and reasonable to fund it via the ESL.

6.3 Proposed method for setting the Emergency Services Levy

The method for setting the ESL is reasonably well-designed. Benefits from major reforms to the way the ESL is raised are unlikely to outweigh the costs. Nevertheless, there is scope to improve the design of the ESL through adjustments.

Section 6.2 describes two changes that should be made to the method for setting the ESL:

- grouping of properties should be removed for the purpose of calculating the ESL;
- the direct costs of the VMRS should be funded via a separate levy on vessel owners, with the total amount raised via the ESL to be reduced accordingly; and

Additionally, Landgate should review the current classification of vineyards in the Swan Valley.

6.3.1 Financial implications of proposed method

The overall effect of the recommendations made in this chapter should be revenue neutral. That is, the proposed changes to the method should make no change to the overall amount of revenue raised to fund emergency services and emergency management. The following section discusses the financial implications of the proposed method for setting the ESL.

Grouping of properties for ESL purposes

It is not possible to quantify the effect on ESL rates of ungrouping properties for ESL purposes. This calculation could only be performed if Landgate developed new rolls for DFES with groupings removed.

However, the removal of grouping will ensure that property owners currently receiving beneficial treatment will then pay the full amount of the ESL on the properties they own. This should result in a small reduction in ESL rates overall.

⁴⁷⁹ Office of Auditor General, *Managing the Road Trauma Trust Account – Report 15 – November 2012*, Perth, Government of Western Australia, 2012, p. 6.

A levy to fund Volunteer Marine Rescue Services

The total amount collected via the ESL should decrease slightly with the introduction of a levy on vessels, since property owners will no longer bear the costs of the VMRS. DFES' modelling shows that the VMRS cost about \$5.8 million to operate in 2015-16, prior to allocation of administrative overheads.⁴⁸⁰

Table 18 shows the actual ESL rates for 2017-18, and the hypothetical rates that would have been charged with the VMRS removed from ESL budget (assuming the cost of the VMRS in 2017-18 remained about the same as the cost in 2015-16 – that is \$5.8 million⁴⁸¹.)

Table 18 ESL Average Residential Charge (2017-18) with and without VMRS costs

ESL Category	ARC – 2017-18 Actual	ARC – 2017-18 less VMRS
Category 1	\$278	\$273
Category 2	\$166	\$163
Category 3	\$133	\$131
Category 4	\$94	\$93
Category 5	\$75	\$74

Source: DFES.

In April 2014, DFES performed some analysis to estimate the revenue that could be raised from a levy on vessels. Table 19 shows some of the approaches considered by DFES at the time. This modelling suggests it would be feasible to raise a levy to cover the costs of the VMRS using one of a number of approaches.

Table 19 DFES assessment of vessel levy yields (April 2014)

Approach	Levy per vessel	Yield
Scaled fee model (low yield)	\$5 for a vessel up to 5m to \$50 for a vessel over 20m	\$786,225
Scaled fee model (high yield)	\$25 for a vessel up to 5m to \$450 for a vessel over 20m	\$3,931,125
Percentage model (low yield)	5 per cent of registration fee	\$784,097
Percentage model (high yield)	50 per cent of registration fee	\$7,840,970
Flat fee model (low yield)	\$5 flat fee	\$500,735
Flat fee model (high yield)	\$50 flat fee	\$5,007,350

Source: Reproduced from 'Concept Paper: Review of the Emergency Services Acts – April 2014'.

Note: Yield is based on 98,144 recreational vessels in 2013-14. DFES did not consider adding the levy to vessels other than recreational vessels.

A levy-collection arrangement with the Department of Transport would also require an up-front investment in systems and legal costs, and would likely involve an ongoing payment to the Department of Transport, in the same way local governments are remunerated for collecting the ESL.

⁴⁸⁰ DFES cost allocation workbook for 2015-16 Annual Report calculations, provided to the ERA.

⁴⁸¹ Data provided by DFES, 8 February 2017. (*Item 6 Output Cost Allocation for BCM 201516.xlsx*)

Classification of vineyards

Changes to the classification of vineyards would be unlikely to make a significant difference to ESL rates overall, since these properties only represent a small fraction of all properties in Western Australia.

6.4 Recommendations

- The basic structure of the ESL system should be retained.
- The Department of Fire and Emergency Services should use its cost and incident data to determine the direct costs of providing emergency services to each of the five ESL categories.
- Gross rental value should be retained as the basis for calculating ESL rates.
- Grouping of properties should be discontinued for the purpose of calculating the ESL.
- Landgate should conduct another review of land classifications in the Swan Valley to ensure that vineyards are classified appropriately.
- A levy on boat registrations should be introduced to fund the direct costs of the Volunteer Marine Rescue Services.
- Road crash rescue services should continue to be funded from the ESL.

7 Funding a rural fire service

7.1 Introduction

The terms of reference for this review require the ERA to consider the extent to which the ESL should be available to fund the administrative and/or operational costs of a rural fire service, and effect on ESL rates of using the ESL to fund a rural fire service.

The Ferguson report on the 2016 Waroona bushfire recommended the State Government establish a rural fire service to address perceived issues in rural fire management. These issues included insufficient capacity and unsuitable governance to deliver rural fire services. The report also found the Career Fire and Rescue Service and volunteer brigades used different fire management and leadership approaches, leading to coordination and operational difficulties, and disconnected communities from decision making.⁴⁸²

On 23 June 2017, the State Government hosted a bushfire mitigation summit to examine bushfire management, including the effectiveness of prescribed burning and other mitigation strategies, resourcing, and the responsibilities of local governments and landowners. The summit also included discussion of the outcomes of the Ferguson report and other major bushfire reviews.⁴⁸³

The cost of a rural fire service will vary depending on its model, including its role, level of resourcing, and governance arrangements. The State Government has not committed to establish a rural fire service and has not announced a rural fire service model.

Some stakeholders have told the ERA that it should develop and cost the rural fire service model that will best address deficiencies in rural fire management and will be the most cost-effective. It is beyond the scope of this review to examine the merits of a rural fire service or form a view on the best model of a rural fire service. This report does not take a position on whether the State Government should establish a rural fire service, and does not consider the merits of each model that has been costed as part of this review.

This chapter is structured as follows:

- a discussion of whether the ESL should be used to fund a rural fire service;
- a discussion of factors that will affect the cost of a rural fire service;
- a description of the models of rural fire service that have been costed;
- estimates of the cost of a rural fire service; and
- a discussion of the effect of funding a rural fire service through the ESL on ESL rates.

⁴⁸² Ferguson, E., *Reframing Rural Fire Management: Report of the Special Inquiry into the January 2016 Waroona Fire*, Perth, Government of Western Australia, Vol. 1, p. 256.

⁴⁸³ Office of Emergency Management, *Bushfire Mitigation*, Perth, Government of Western Australia, <https://www.oem.wa.gov.au/Pages/BushfireMitigationSummit.aspx>, (accessed 19 June 2017).

7.2 Should the Emergency Services Levy fund a rural fire service?

The ERA is required to consider the extent to which the ESL should be available to fund administrative and/or operational costs of a rural fire service.

Of the 23 submissions that comment on whether the ESL should, at least in part, fund a rural fire service, 16 state that they support this proposal. One submission does not support the ESL funding a rural fire service, and the remaining six do not provide a definitive position (refer to Appendix A for a summary of submissions).

The submissions that support the ESL funding a rural fire service do so on the following grounds.

- Funding a rural fire service from the ESL is consistent with the intent of the ESL and emergency services legislation.⁴⁸⁴
- The ESL is the most equitable means of funding a rural fire service.⁴⁸⁵
- A rural fire service will increase prevention activities and therefore decrease the need to spend ESL funds on fire response in the long term.⁴⁸⁶ These savings can be used to fund a rural fire service.
- Current ESL revenue is sufficient to fund a rural fire service if DFES reduces its expenditure by improving efficiency and transferring some responsibilities, such as managing volunteers, to the rural fire service.⁴⁸⁷
- ESL funds allocated to DFES for rural fire management should be reallocated to a rural fire service as DFES has not fulfilled its role in rural fire management.⁴⁸⁸

Some submissions do not explicitly provide support for the ESL funding a rural fire service, but note the importance of equitable access to emergency services across the State.

A number of submissions state that, although they support the ESL funding a rural fire service, this should not lead to an increase in ESL rates. Some stakeholders, including the Association of Volunteer Bushfire Brigades, say that DFES' expenditure should be thoroughly and independently assessed to determine cost savings that can be used to fund a rural fire service.⁴⁸⁹

⁴⁸⁴ For example, Association of Volunteer Bush Fire Brigades WA Inc., *Submission to the Emergency Services Levy Review*, 13 March 2017, p. 11.

⁴⁸⁵ For example, Mangini, J., *Submission to the ERA ESL Review*, 10 March 2017, p. 9.

⁴⁸⁶ For example, Cascade Scadden Fire Review, *Submission to the Emergency Services Levy Review*, 10 March 2017, pp. 1-2.

⁴⁸⁷ For example, City of Swan, *Submission to the Emergency Services Levy Review*, 10 March 2017, p. 3.

⁴⁸⁸ For example, Shire of Plantagenet, Chief Bushfire Control Officer, *Submission to the Emergency Services Levy Review*, 13 February 2017, p. 1.

⁴⁸⁹ For example, Association of Volunteer Bush Fire Brigades WA Inc., *Submission to the Emergency Services Levy Review*, 13 March 2017, p. 8.

Some other stakeholders are concerned that the ESL will not be sufficient to fund a rural fire service, and that to do so would require a significant increase in ESL rates. The Shire of Harvey says in its submission that ‘the ESL was not set up to fund a rural fire service’.⁴⁹⁰

Some stakeholders state they do not support the establishment of a rural fire service, or that a rural fire service would increase the cost of service provision. For example, the United Fire Fighters Union notes a rural fire service will duplicate bureaucracy, and increase ESL rates and therefore costs for families and businesses.⁴⁹¹

Chapter 3 established principles on the emergency management activities that should be funded from the ESL. The ESL should be used to fund prevention, preparedness, and response activities that everyone in the community benefits from, or which governments have a role in providing because they have strong social benefits.

In terms of prevention, this would mean funding prevention planning and coordination activities, oversight, and perhaps some public infrastructure.

The ESL should generally not be used to fund emergency management activities that primarily benefit individual property owners (for example, putting in appropriate fire-breaks and conducting prescribed burns), as these costs should continue to be funded by property owners (including state and local governments). The ESL may, however, be used to fund prevention undertaken by emergency management agencies as part of a coordinated process across land tenures.

Additionally, the ESL should be used to fund the administration costs of DFES, because these expenditures support the provision of prevention, preparedness and response activities.

If a rural fire service is funded through the ESL, the emergency management activities funded by the ESL should be consistent with those listed above. This approach will best ensure that governments and private property owners have appropriate incentives to manage risks for which they are responsible.

The efficient costs of a rural fire service, if established, should be funded through the ESL to ensure that at least a minimum level of service is available to all.⁴⁹² The ESL currently supports this principle. Funding emergency services in rural areas through general government or local government revenue may lead to a situation where local governments and communities have to fund these emergency services through *ad hoc* funding arrangements and fund raising. This was the situation the ESL was designed to address.⁴⁹³

Funding a rural fire service through the ESL will best achieve equity between rural and metropolitan property owners.

⁴⁹⁰ Shire of Harvey, *Submission to the Emergency Services Levy Review*, 24 February 2017, p. 1.

⁴⁹¹ United Firefighters Union of Australia West Australian Branch, *Submission to the Emergency Services Levy Review*, 17 March 2017, p. 1.

⁴⁹² This is consistent with universality of service principle on which the ESL was based. The universality of service principle suggests that access to fire and emergency services are not discretionary in a developed society. The nature of disaster means that ‘we are each protected only when we are all protected.’ (Source: Fire and Emergency Services Authority, *A replacement funding system for emergency services*, Perth, Government of Western Australia, 2002, p. 17.)

⁴⁹³ Fire and Emergency Services Authority, *A replacement funding system for emergency services*, Perth, Government of Western Australia, 2002, p. 2.

As discussed in Chapter 6, people living in the metropolitan area appear willing to contribute to the costs of rural emergency management. When the ESL was originally implemented, the State Government determined that requiring individual communities to fund their own services would favour areas with dense or large populations because of the high capital costs of maintaining response capacity.⁴⁹⁴ DFES is not required to ensure the spending on emergency management matches funds raised in the area they are spent.⁴⁹⁵ Indeed, one of the objectives of the ESL was to ensure that regional communities have access to essential emergency services regardless of cost and ability to pay. This report assumes that this approach will continue if the ESL funds a rural fire service. This report does not advocate any particular approach for recovering the costs of a rural fire service across ESL categories, but presents two options later in this chapter.

The willingness of property owners in the metropolitan area to contribute to the costs of a rural fire service may have limits. For example, the community is unlikely to support a rural fire service if it incurs inefficient costs, and this may undermine broader support for the ESL.

In conclusion, the ESL should fund the full efficient costs of a rural fire service to provide response services, and prevention and preparedness activities that have community-wide benefits. The ESL should also be used to fund the prevention costs of a rural fire service to the extent that it coordinates prevention across land tenures. The ESL should also be used to fund the administration costs of a rural fire service.

7.3 Factors that will affect the cost a rural fire service

The cost of a rural fire service will depend on its model.

Stakeholders had different views on the model of a rural fire service the ERA should cost. For example, the Pastoralists and Graziers Association says in its submission that the “RFS [rural fire service] would be a relatively small administrative ‘hub’ where the bulk of the rural bushfire fighting capacity is dispersed across rural landscape”.⁴⁹⁶ In contrast, Cascade Scadden Fire Review says in its submission that a core function of a rural fire service would be prevention activities⁴⁹⁷ and the United Firefighters Union says in its submission ‘there is a need to better resource existing professional and volunteer Brigades and DFES regional offices to improve mitigation and prevention’.⁴⁹⁸

Many factors will affect the cost of each model of a rural fire service. These include:

- whether a rural fire service has a coordination role only, or also has operational responsibilities;
- whether operational functions are undertaken by volunteers or paid career fire fighters;

⁴⁹⁴ Fire and Emergency Services Authority, *A replacement funding system for emergency services*, Perth, Government of Western Australia, 2002, pp. 17-18.

⁴⁹⁵ Fire and Emergency Services Authority, *A replacement funding system for emergency services*, Perth, Government of Western Australia, 2002, p. 23.

⁴⁹⁶ Pastoralists and Graziers Association of WA, *Submission to the Emergency Services Levy Review*, 10 March 2017, p. 9.

⁴⁹⁷ Cascade Scadden Fire Review, *Submission to the Emergency Services Levy Review*, 10 March 2017, p. 6.

⁴⁹⁸ United Firefighters Union of Australia West Australian Branch, *Submission to the Emergency Services Levy Review*, 17 March 2017, p. 6.

- the geographic area a rural fire service covers, which could range from those areas currently serviced by a bush fire brigade to all areas outside the metropolitan region;
- whether a rural fire service shares resources, such as offices and operational centres, with other organisations; and
- governance arrangements, including whether a rural fire service is established as a statutory authority separate from DFES.

These considerations will affect costs such as wages, offices, and equipment, and have informed the design of the low and high cost models.

7.4 Rural fire service models

It is not possible to cost all of the possible models of a rural fire service.

This report includes two models of a rural fire service – one low cost and one high cost – to indicate the range of possible costs for a rural fire service. Any variations of these models should fall within the cost range.

The models are:

- *Model 1:* A rural fire service that coordinates existing resources and volunteers.
- *Model 2:* A rural fire service that coordinates existing resources and volunteers and has career fire fighters for day-to-day operations.

The main difference between the two models is that model one uses a single team that coordinates existing resources, whereas model two is a professionalised service that duplicates some of DFES' functions and requires significant investment in additional resources.

A detailed description of these models is provided in Table 20.

The following assumptions have been applied to both models:

- A rural fire service is responsible for rural fire management only (it is not responsible for other hazards).
- A rural fire service is responsible for all areas outside the metropolitan region.
- A rural fire service undertakes a coordination role (but may have additional roles depending on the model).
- The Office of Bushfire Risk Management continues to undertake bushfire risk management planning.
- A rural fire service is responsible for allocating ESL funds to local governments (discussed in Chapter 8).
- The Department of Parks and Wildlife (DPAW) continues to be responsible for fire management on land it manages.

Table 20 Models of a rural fire service

Consideration	Model 1	Model 2
Role and responsibilities	The rural fire service coordinates rural fire management and oversees volunteer brigades undertake operational activities.	The rural fire service coordinates rural fire management and has paid career firefighters to undertake operational activities. The rural fire service is also responsible for undertaking prevention activities on State and local government land.
Contribution of volunteers	The rural fire service is a volunteer based organisation that does not employ career firefighters.	The rural fire service employs career firefighters who are supported by volunteers.
Staff requirements	The rural fire service has a team of about 30 to 40 paid staff. These staff have administration and coordination roles.	The rural fire service has a larger team of paid staff who have varying roles, including administration and coordination, and incident response.
Head and regional offices, and operational centres	The rural fire service shares its head and regional offices, and operational centres, with other organisations, including DFES and DPAW.	The rural fire service has its own head and regional offices, and operational centres.
Equipment	The rural fire service does not require its own firefighting equipment. Volunteers use equipment owned by volunteer brigades.	The rural fire service owns trucks and other equipment.

These models have been costed by estimating the cost of the following categories:

- human resources, including fire fighters and administration staff;
- headquarters, regional offices and operations centres; and
- equipment, including trucks, personal protection equipment, uniforms and bedding.

These cost categories have been estimated using on information from the Department of Fire and Emergency Services (DFES) and the Department of Parks and Wildlife (DPAW). Cost estimates include data from DPAW's Fire Management Services branch in some cases, as it is the most relevant data source given its size and fire management function.

Assumptions have been made where information was not available. These assumptions are as follows:

Model one

As outlined in Table 20, model one is a rural fire service that coordinates existing resources and volunteers. To do this, it will require a small administration team, similar to DPAW's Fire Management Services branch. Model one will cost approximately \$4.2 million, consistent with the cost of DPAW's Fire Management Services branch.

Model Two

Model two coordinates existing resources and volunteers, and also has career fire fighters for day-to-day operations. The assumptions for model two are in Table 21.

Table 21 Rural fire service cost assumptions

Cost category	Model two assumptions
Human resources	
<i>Firefighters</i>	<p>30 firefighters (including station officers) for each Rural Fire Service (RFS) station. <i>(This is based on the average staff levels of regional Career Fire and Rescue Service (CFRS) stations. DFES provided this data.)</i></p> <p>120 new RFS stations, assuming each of the Volunteer Fire and Rescue Service and Volunteer Fire and Emergency Service units are replaced with a RFS station. <i>(This is based on current station numbers. DFES provided this data.)</i></p> <p>Each firefighter costs \$105,000 a year, plus a 35 per cent loading for superannuation, allowances, long-service leave and workers compensation. <i>(This is based on the average firefighter cost. DFES provided this data, including the percentage loading.)</i></p>
<i>Administration</i>	100 administration staff, with a salary of \$100,000 each. <i>(This is an ERA assumption.)</i>
Headquarters	
<i>Construction</i>	<p>\$30 million construction cost. <i>(This is based on the cost to construct DPAW's new Bunbury offices, which will accommodate 100 workers. DPAW provided this information.)</i></p> <p>Straight line depreciation over 50 years. <i>(DFES Local Government Grants Manual, p. 18)</i></p> <p>Finance costs are not included in calculations. DFES advises the approach to funding capital expenditure varies depending on DFES' cash flow.</p>
<i>Overheads</i>	\$500,000 a year <i>(This is a DPAW estimate.)</i>

Regional offices/operations centres	
Overheads	<p>Seven joint regional offices and operational centres (one located in each of DFES' seven regions). <i>(This is an ERA assumption).</i></p> <p>Overheads (including leases and depreciation) of \$1 million for each location. <i>(This is calculated from:</i></p> <ul style="list-style-type: none"> • <i>DFES' estimate that each of its regional offices costs \$650,000 (excluding some items such as depreciation and leases); plus</i> • <i>the ERA's assumption of the cost of excluded overheads (that is, depreciation and leases).</i> <p><i>DFES was unable to provide an estimate for all overheads in its regional offices).</i></p>
Equipment	
Trucks	<p>\$1.9 million in fire trucks is required for each RFS station. <i>(This is based on the average cost for each CFRS station. DFES provided this information).</i></p> <p>120 new RFS stations. <i>(This is based on current Volunteer Fire and Rescue Service and Volunteer Fire and Emergency Service station numbers. DFES provided this data.)</i></p> <p>Straight line depreciation over 20 years. <i>(DFES Local Government Grants Manual, p. 14)</i></p> <p>Finance costs are not included its calculations. DFES advises the approach to funding capital expenditure varies depending on DFES' cash flow.</p>
Truck maintenance	<p>5 per cent of the truck purchase price (each year). <i>(This is an ERA assumption, informed by information from DFES.)</i></p>
PPE, uniforms, footwear and bedding	<p>5 year depreciable life. <i>(This is an ERA assumption, informed by information from DFES.)</i></p>

7.5 Cost of a rural fire service

It is not possible to provide a specific or reliable cost of a rural fire service until the State Government announces a model of a rural fire service. This is consistent with the view of many stakeholders, including the Association of Volunteer Bushfire Brigades,⁴⁹⁹ the Western Australian Local Government Association⁵⁰⁰ and DFES.⁵⁰¹

Of the stakeholders that did comment on the cost of a rural fire service, their estimates of its cost varied substantially.

The foundations of a rural fire service already exist. This includes the Office of Bushfire Risk Management, the network of DFES and DPAW regional offices, the state and regional operations centres and volunteer brigades and their assets.

For this reason, some stakeholders consider a rural fire service would not be expensive, or require an increase in ESL rates. In particular, some stakeholders, including the Bushfire Front⁵⁰² and the Gidgegannup Progress Association⁵⁰³, suggest existing DFES resources could be redirected to a rural fire service, or a rural fire service could be funded by savings from increasing the operational efficiency of DFES.

For example, the Association of Volunteer Bush Fire Brigades says in its submission:

“We do not expect the RFS [rural fire service] to be used as a vehicle for an increase in ESL revenue through higher tax levels. We expect government to ensure the ESL and DFES expenditures are thoroughly and independently assessed to identify cost savings through the restructure as a result of the RFS [rural fire service], and general efficiencies through change in DFES operations.”⁵⁰⁴

Only the marginal cost of a rural fire service has been considered in determining the effect on ESL rates. This means that where existing resources have been reallocated to a rural fire service, these resources have not been included in cost estimates.

The estimated costs of a rural fire service do not include possible savings from rationalising or restructuring DFES’ resources, as this is outside the scope of the review. Whether DFES is operating efficiently is discussed in more detail in Chapter 8.

A small number of stakeholders consider a rural fire service would be high cost. For example, the United Firefighters Union considers a rural fire service will cost about \$400 million.⁵⁰⁵ The Union does not provide information on how it estimated this figure. However, the Hon. Stephen Dawson, on behalf of the Minister for Emergency Services,

⁴⁹⁹ Association of Volunteer Bush Fire Brigades WA Inc., *Submission to the Emergency Services Levy Review*, 13 March 2017, p. 11.

⁵⁰⁰ Western Australian Local Government Association, *Submission to the Emergency Services Levy Review*, 13 March 2017, p. 22.

⁵⁰¹ Department of Fire and Emergency Services, *Submission to the Emergency Services Levy Review*, 10 March 2017, p. 5.

⁵⁰² The Bushfire Front Inc., *Submission to the Emergency Services Levy Review*, 25 February 2017, p. 5.

⁵⁰³ Gidgegannup Progress Association (Inc.), *Submission to the Emergency Services Levy Review*, 27 February 2017, p. 8.

⁵⁰⁴ Association of Volunteer Bush Fire Brigades WA Inc., *Submission to the Emergency Services Levy Review*, 13 March 2017, p. 11.

⁵⁰⁵ United Firefighters Union of Australia West Australian Branch, *Submission to the Emergency Services Levy Review*, 17 March 2017, p. 6.

said the \$400 million 'was not an estimate, but a figure used to demonstrate the unaffordability of a Western Australian rural fire service comparable with eastern states models'.⁵⁰⁶

The cost of the two models of a rural fire service have been estimated using the assumptions in Section 7.4. These assumptions enable cost estimates to include the cost of different expenditure categories, including wages and office facilities. These estimates have only been used to demonstrate the scale of these categories to provide an approximate cost of a rural fire service. A more detailed analysis is not possible until a specific model of a rural fire service is identified.

The State Government is yet to announce the outcomes of its Bushfire Mitigation Summit. If the State Government develops a preferred rural fire service model(s), these can be costed with greater accuracy for the final report.

Table 22 shows that the annual cost of a rural fire service, based on the assumptions and cost estimates, will be between \$4.2 million and \$560 million.

Table 22 Annual cost of a rural fire service (\$ million)

Cost category	Model One		Model Two	
	Capital expenditure	Operating expenditure	Capital expenditure	Operating expenditure
Human resources	-	\$4.2	-	\$520.3
Fire fighters	-	-	-	\$510.3
Administration staff	-	\$4.2	-	\$10
Headquarters	-	-	\$0.6	\$0.5
Construction	-	-	\$0.6	-
Overheads	-	-	-	\$0.5
Regional offices/operations centres	-	-	-	\$7.0
Overheads (including leases)	-	-	-	\$7.0
Equipment	-	-	\$17.5	\$11.4
Trucks - capital	-	-	\$11.4	-
Trucks - maintenance	-	-	-	\$11.4
PPE, uniforms, footwear and bedding	-	-	\$6.1	-
Sub total	-	\$4.2	\$18.1	\$539.2
TOTAL MARGINAL COST		\$4.2		\$557.3

(Refer to Section 7.4 for rural fire service models and modelling assumptions.)

As discussed in Section 7.4, the cost estimates represent a range that a rural fire service may cost. If the State Government decides to establish a rural fire service, it will probably develop a model that falls within this cost range.

The cost of a model of a rural fire service is primarily driven by the cost of firefighters.

⁵⁰⁶ Western Australia, Legislative Council, *Debates*, 13 June 2017, p. 715-716.

Model one is relatively inexpensive because it coordinates existing resources and volunteers. It does not have any new paid firefighters. Model two has a significantly higher cost because it has an additional 3,600 paid firefighters. The average salary for a firefighter is \$105,000 plus superannuation, allowances and other on costs,⁵⁰⁷ which is estimated to be about 35 per cent based on advice from DFES. The average cost of a firefighter, including allowances and other on costs, is about \$142,000.

Other costs, including the cost of headquarters, regional offices and equipment, are insignificant compared to the total cost of firefighters. This means that where a particular model falls within the cost range will depend on how many paid firefighters it has.

The cost estimates assume a rural fire service is established within DFES. However, establishing a rural fire service as an independent statutory authority will not add substantially to its cost. In the case of model one, resources could continue to be shared with other organisations, with some additional resources potentially being required. In model two, a rural fire service will have extensive resources and would be unlikely to require any additional resources if it was an independent statutory authority. The exception is that an independent authority would also require its own Chief Executive Officer (at a cost of about \$250,000⁵⁰⁸). It may also require a small team of additional corporate services staff (for example, payroll).

For model one, this may represent a material percentage increase in the cost of a rural fire service. However it is immaterial in the context of total ESL revenue.

7.6 Effect on Emergency Services Levy rates

A rural fire service will cost between \$4.2 million and \$560 million. As discussed earlier in this chapter, the ESL should fund a rural fire service, providing the cost of a rural fire service is efficient.

Table 23 shows the new ESL rates required to fund each rural fire service model if all property owners in the State contribute to its cost. New ESL rates have been calculated so the contribution from each ESL category is consistent with the current percentage of total ESL revenue collected from each category.⁵⁰⁹

ESL rates would need to increase by about 1.2 per cent to fund model one and about 166 per cent for model two.⁵¹⁰

⁵⁰⁷ Long service leave and workers' compensation.

⁵⁰⁸ Based on the average 'Chief Executive Officer' salary of Western Australian Government organisations with a Chief Executive Officer. (Source: Salaries and Allowances Tribunal, *Determination of the Salaries and Allowances Tribunal for Clerks and Deputy Clerks of the Parliament, Public Service Holders included in the special division of the public service and persons holding offices prescribed in Salaries and Allowances Regulation Number 3*, Perth, Government of Western Australia, 2016, <https://www.sat.wa.gov.au/SpecialDivisionAndPrescribedOfficeHolders/Documents/Special%20Division%20and%20Prescribed%20Office%20Holders%20Determination%2021%2006%202016.pdf>, (accessed on 29 June 2017).)

⁵⁰⁹ Mining tenements have been included in category 5. Both categories paid a fixed rate of \$75 in 2017-18. Most mining tenements are outside the Perth and Peel region.

The cost has not been allocated to Albany, Bunbury, Geraldton and Kalgoorlie as these centres are in ESL category 3 (along with metropolitan peri-urban areas) because they each have a Career Fire and Rescue Service station.

⁵¹⁰ All averages are weighted by the number of properties in each ESL rate category.

Table 23 New ESL rates

Rate category	Model one	Change	Model two	Change
Category 1	0.013422	1.2%	0.035288	166.1%
Category 2	0.010067	1.2%	0.026466	166.2%
Category 3	0.006711	1.2%	0.017644	166.2%
Category 4	0.004698	1.2%	0.012351	166.1%
Category 5	\$76	1.3%	\$200	166.7%

Table 24 and Table 25 shows the new minimum and maximum rates applied to the new rates in Table 23. The method used to calculate the minimum and maximum rate is consistent with DFES' current process, as described in Section 2.7.1.

The change in rates is consistent with the rate increase for each ESL category.

Table 24 New minimum and maximum payment (vacant land, residential and farming)

	Rate category	Model one	Change	Model two	Change
Maximum payment	Category 1	\$400	1.3%	\$1,054	166.8%
	Category 2	\$300	1.4%	\$790	166.9%
	Category 3	\$200	1.5%	\$527	167.5%
	Category 4	\$140	1.4%	\$368	166.7%
	Category 5	\$76	1.3%	\$200	166.7%
Minimum payment		\$76	1.3%	\$200	166.7%

Table 25 New minimum and maximum payment (commercial, industrial and miscellaneous)

	Rate category	Model one	Change	Model two	Change
Maximum payment	Category 1	\$228,000	1.3%	\$600,000	166.7%
	Category 2	\$171,000	1.8%	\$450,000	167.9%
	Category 3	\$114,000	1.8%	\$300,000	167.9%
	Category 4	\$79,000	1.3%	\$208,000	167.7%
Minimum payment		\$76	1.3%	\$200	166.7%

If the rates in Tables 22, 23, and 24 are applied, total ESL revenue raised will be as outlined in Table 26.

Property owners in categories 1, 2, and 3 will contribute 92 per cent of the cost of a rural fire service, being \$3.9 million for model one and \$517.2 million for model two. Rural property owners (categories 4 and 5) will contribute the remaining 8 per cent, being \$0.3 million for model one and \$42.9 million for model two. This contribution is consistent with the current percentage of total ESL revenue collected from each category.

Table 26 Total revenue raised (\$ million)

Rate category	Model one	Change	Model two	Change
Category 1	\$286.2	1.2%	\$752.7	166.2%
Category 2	\$20.6	1.3%	\$54.1	166.2%
Category 3	\$8.2	1.2%	\$21.5	166.1%
Category 4	\$17.3	1.3%	\$45.6	166.4%
Category 5	\$8.3	1.3%	\$21.8	166.8%

Table 27 shows the average residential charge required to raise the revenue in Table 25.

The average residential charge (weighted across all ESL categories) will increase by \$2.41 (1.2 per cent) to \$220.52 for model one and \$362.74 (166 per cent) to \$580.84 for model two.

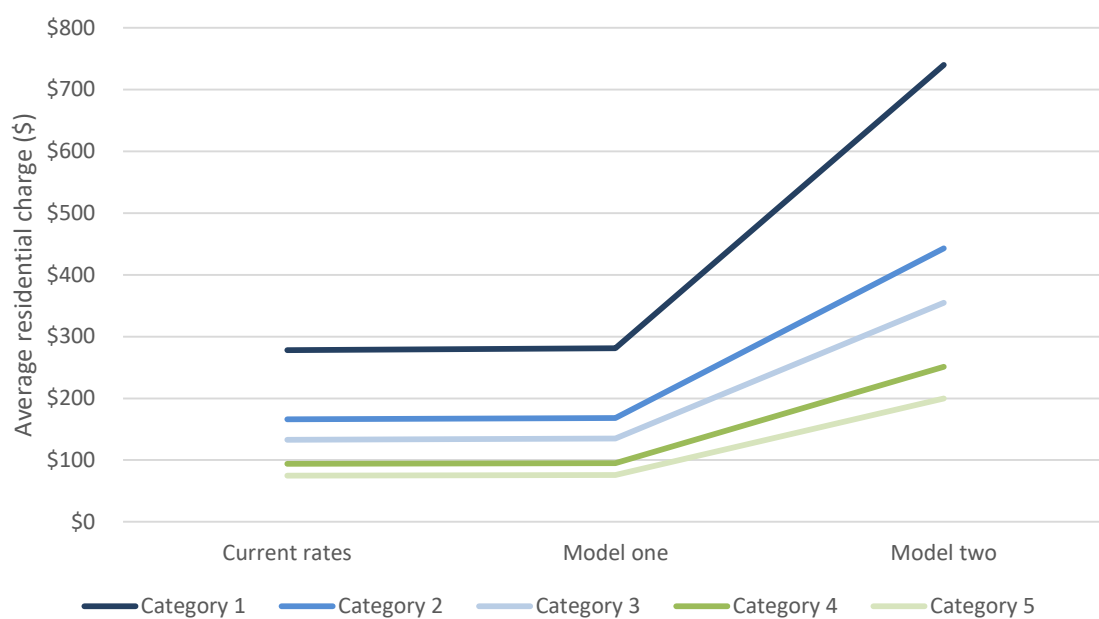
Table 27 Average residential charge

Rate category	Model one	Change	Model two	Change
Category 1	\$281	1.1%	\$740	166.2%
Category 2	\$168	1.2%	\$443	166.9%
Category 3	\$135	1.5%	\$355	166.9%
Category 4	\$95	1.1%	\$251	167.0%
Category 5	\$76	1.3%	\$200	166.7%
Weighted average	\$220.52	1.1%	\$580.84	166.3%

The actual charge paid by each property owner will vary depending on the gross rental value of their property (except for Category 5 and mining tenements as these pay a fixed charge).

The change in average residential charge for each category is shown in Figure 28.

Figure 28 Average residential charge if all property owners contribute to the marginal cost of a rural fire service



7.7 Recommendations

- If a rural fire service is established, the ESL should be used to fund the efficient costs of:
 - a. response activities;
 - b. prevention and preparedness activities that have community-wide benefits; and
 - c. the administration costs of a rural fire service.

8 Governance, transparency and accountability arrangements

8.1 Introduction

The terms of reference for this review require the ERA to consider the current transparency and accountability arrangements for the distribution of the ESL, and whether the ESL should be allocated by an agency other than DFES.

This chapter is structured as follows:

- a summary of previous inquiries that discussed the governance of the ESL;
- an assessment of the existing governance, transparency and accountability arrangements applying to DFES and its administration of the ESL;
- a discussion of how the governance arrangements applying to the ESL can be improved; and
- a discussion of how information on the ESL should be published.

8.2 Previous inquiries

Several previous inquiries have questioned the appropriateness of how the ESL is governed. The 2011 Keelty report on the 2011 Perth Hills bushfire questioned whether it is appropriate for DFES to both allocate and receive ESL funds.

The report recommended:

“The State Government move the responsibility for the management and distribution of the Emergency Services Levy to the Department of Finance.”⁵¹¹

The 2016 Ferguson report on the Waroona fire also discussed governance of the ESL. The report said stakeholders were concerned that revenue from the ESL has been used to fund the administrative costs of DFES rather than being applied to frontline services. Stakeholders called for a clear separation of responsibilities, for the rules to be revisited to ensure volunteers and local governments have access to the necessary funding for bushfire mitigation, and for fairer access to equipment and resources funding.⁵¹²

To address these concerns, the report recommended:

“The Department of Premier and Cabinet [] conduct an independent review of the current arrangement for the management and distribution of the Emergency Services Levy.”⁵¹³

⁵¹¹ Keelty, M. APM AO, *A Shared Responsibility: Perth Hills Bushfire Inquiry*, Perth, 2011, p. 22.

⁵¹² Ferguson, E., *Reframing Rural Fire Management: Report of the Special Inquiry into the January 2016 Waroona Fire*, Perth, Government of Western Australia, Vol. 1, p. 55.

⁵¹³ Ferguson, E., *Reframing Rural Fire Management: Report of the Special Inquiry into the January 2016 Waroona Fire*, Perth, Government of Western Australia, Vol. 1, p. 25.

The Community Development and Justice Standing Committee's 2006 report did not support removal of management of the ESL from Fire and Emergency Services Authority (FESA).

The Committee considered:

"...grants are appropriately placed with FESA as the "expert" agency in emergency services. The Committee is satisfied that FESA has established appropriate and transparent grant committee processes with adequate external representation. FESA reports annually on its grants allocation via its website. The Authority is also able to provide administrative support to the grant process resulting in cost efficiencies."⁵¹⁴

However, the Committee acknowledged FESA's allocation of ESL funds (through the grants process) could be improved,⁵¹⁵ and said:

"...it would be appropriate for the Auditor General to consider conducting an assessment of the effectiveness of the ESL, taking into consideration the impact of resource-to-risk assessment models employed in the distribution of the levy."⁵¹⁶

When FESA transitioned to DFES there were some changes in how the ESL was administered, in particular the quantity and type of information it published on the ESL and how funds are spent. This is discussed in more detail in Section 8.3.2 below.

8.3 Assessment of existing governance, transparency and accountability arrangements

Stakeholders have raised three main concerns about the administration of the ESL. These are:

- DFES has a conflict of interest as it is both a recipient and distributor of ESL revenue;
- there is a lack of transparency and accountability in how DFES spends ESL revenue; and
- DFES does not undertake adequate stakeholder consultation on the allocation of ESL revenue.

Each issue is described in more detail in the following sections, followed an assessment of the issues.

⁵¹⁴ Legislative Council Community Development and Justice Standing Committee, *Inquiry into Fire and Emergency Services Legislation*, Report No. 3 in the 37th Parliament, Perth, Parliament of Western Australia, 2006, p. 191.

⁵¹⁵ Legislative Council Community Development and Justice Standing Committee, *Inquiry into Fire and Emergency Services Legislation*, Report No. 3 in the 37th Parliament, Perth, Parliament of Western Australia, 2006, p. 191.

⁵¹⁶ Legislative Council Community Development and Justice Standing Committee, *Inquiry into Fire and Emergency Services Legislation*, Report No. 3 in the 37th Parliament, Perth, Parliament of Western Australia, 2006, p. 10.

8.3.1 Conflict of interest

DFES is both a recipient and distributor of ESL funds. This provides DFES with an opportunity to make decisions that benefit the organisation rather than being in the broader public interest.

DFES considers that conflicts are adequately managed.

“The range of controls and oversight in conjunction with their supporting legislative frameworks...ensure robust and transparent accountability for the administration of ESL funds. Further the existing legislation ensures that ESL funding can only be used for the purpose for which it was raised.”⁵¹⁷

DFES has stated that it manages any potential conflicts of interest by having different teams set ESL rates and allocate ESL funds. The Funding Services branch sets ESL rates in accordance with the process outlined in Section 2.7.1. The Corporate Leadership team, which includes managers from operations and capability commands, makes decisions about how the ESL is spent, as discussed in Section 5.7.

However, many stakeholders disagree and consider that DFES has a conflict of interest in managing ESL revenue.⁵¹⁸

For example, the Bushfire Front says in its submission:

“It is clear that DFES is failing to administer the ESL either efficiently or in accord with the original purpose of the funds, and that there is a grave conflict of interest in allowing DFES to allocate ESL funds to itself.”⁵¹⁹

Stakeholders have suggested that DFES has used its position to allocate ESL funds in a way that prioritises the Department’s objectives and requirements over those of other stakeholders.

For example, some stakeholders consider DFES has allocated too much ESL revenue to response.⁵²⁰ The Bushfire Front states that ‘these funds must be re-directed into bushfire mitigation, especially fuel reduction’.⁵²¹ There was a general theme in submissions that a greater proportion of ESL funds should be spent on prevention activities as they ‘provide a better return for the community than monies spent on response activities’.⁵²²

Some stakeholders consider that DFES treats the funding needs of stakeholders inequitably when compared to the requirements of DFES.⁵²³ The City of Greater Geraldton provides

⁵¹⁷ Department of Fire and Emergency Services, *Submission to the Emergency Services Levy Review*, 10 March 2017, p. 4.

⁵¹⁸ These stakeholders include, for example, the Bushfire Front Inc., Cascade Scadden Fire Review, City of Swan, Gidgegannup Progress Association (Inc.), Grape Growers Association (Inc.), Shire of Plantagenet Chief Bushfire Control Officer (Mr Forbes), Pastoralists and Graziers Association of WA and Shire of Mundaring.

⁵¹⁹ The Bushfire Front Inc., *Submission to the Emergency Services Levy Review*, 25 February 2017, p. 2.

⁵²⁰ These stakeholders include, for example, the Bushfire Front Inc., Shire of Murray and some local governments as represented by WALGA.

⁵²¹ The Bushfire Front Inc., *Submission to the Emergency Services Levy Review*, 25 February 2017, p. 1

⁵²² Cascade Scadden Fire Review, *Submission to the Emergency Services Levy Review*, 10 March 2017, p. 2.

⁵²³ These stakeholders include, for example, Shire of Denmark Chief Bush Fire Control Officer, City of Geraldton, City of Swan, Shire of Manjimup, Shire of Mundaring, Shire of Murray, State Emergency Service Volunteer Association, and Western Australian Local Government Association.

an example of all expenses for a DFES managed fire being eligible for ESL funding, but heavy machinery and volunteer meals being ineligible for a local government managed fire.⁵²⁴

Further, the Shire of Denmark's Chief Bush Fire Control Officer say in their submission:

"I believe that this differential treatment of two volunteer services both funded from the ESL is inequitable and contributes to the wide held belief that the BFS [bushfire service] is treated as the poor country cousin."⁵²⁵

Other stakeholders consider DFES' control over ESL has resulted in growth in the number of DFES staff and led to an inefficient organisation size and structure. FireStorm Training says in its submission:

"The current system allows an organisation with self-interests to control hundreds of millions of taxpayers' dollars that has resulted in building a megalithic bureaucracy..."⁵²⁶

Most stakeholders who comment on this issue consider that any conflict of interest would be best managed by ensuring that entities that receive ESL funds do not have a role in allocating ESL funds.⁵²⁷

These stakeholders have varying views on which organisation should administer the ESL. The Bushfire Front⁵²⁸ and Cascade Scadden Fire Review⁵²⁹ agree with the recommendations of the Ferguson report that the Department of Finance should administer the ESL. Other stakeholders suggest the Department of Treasury, the Public Sector Commission, the ERA or the Office of the Auditor General could administer the ESL.⁵³⁰

The Office of Emergency Management does not explicitly state it should administer the ESL. However, it does state in its submission it "administers a range of State and Australian Government grant programs to the emergency management sector", "has complete financial independence" and "has developed a broad and deep understanding of the State's emergency management arrangements, including the risks and capabilities that exist across the sector".⁵³¹

Several stakeholders consider that DFES should continue to allocate ESL funding including DFES, the Emergency Services Volunteer Association, and the United Firefighters Union, at least under some conditions. For example, DFES considers that the agency that should be responsible for allocating ESL funds depends on the "activities to be funded from the

⁵²⁴ City of Greater Geraldton, *Submission to the Emergency Services Levy Review*, 20 March 2017, pp. 2-3.

⁵²⁵ Shire of Denmark, Chief Bush Fire Control Officer, *Submission to the ESL review*, 28 February 2017, p. 1.

⁵²⁶ FireStorm Training, *Submission to the Emergency Services Levy Review*, 10 March 2017, p. 1.

⁵²⁷ These stakeholders include, for example, the Association of Volunteer Bush Fire Brigades Inc., Bushfire Front Inc., Cascade Scadden Fire Review, Shire of Plantagenet's Chief Bushfire Control Officer, City of Swan, CPSU/CSA, Department of Lands, FireStorm Training, Gidgegannup Progress Association (Inc.), Grape Growers Association of WA (Inc.), Mr van Rijnswood, Mr Mangini, OEM, Pastoralists and Graziers Association of WA, Shire of Manjimup, Shire of Mundaring, Shire of Murray and WAFarmers.

⁵²⁸ The Bushfire Front Inc., *Submission to the Emergency Services Levy Review*, 25 February 2017, p. 2.

⁵²⁹ Cascade Scadden Fire Review, *Submission to the Emergency Services Levy Review*, 10 March 2017, p. 5.

⁵³⁰ These stakeholders include, for example, Mr J. Mangini, the Pastoralists and Graziers Association, Mr E van Rinswood, and the Western Australian Local Governments Association.

⁵³¹ Office of Emergency Management, *Submission to the Emergency Services Levy Review*, 9 March 2017, p. 5.

ESL”, but notes that “should the activities currently funded by the ESL remain unchanged, the current model is considered appropriate”.⁵³²

The Emergency Services Volunteer Association and United Firefighters Union both say in submissions that DFES should distribute ESL funding given its knowledge as the relevant hazard management agency. However, the Emergency Services Volunteer Association says in its submission that ESL funding should be allocated in accordance with specific criteria to allay fears that the ESL funding allocations are being managed inappropriately.⁵³³

In addition to improving governance arrangements, several stakeholders, including Mr John Mangini⁵³⁴ and the Association of Volunteer Bush Fire Brigades,⁵³⁵ requested the ERA review DFES’ structure to ensure it is operating and allocating resources efficiently.

For example, the City of Swan says in its submission:

“...the current structure and size of DFES be reviewed as part of the ESL review process, to determine what is required to meet emergency management needs going forward.”⁵³⁶

8.3.2 Transparency

Another common theme in stakeholder submissions is that information on the administration of the ESL, including how and where funds are allocated, should be made transparent.

DFES is of the view its administration of the ESL is transparent, stating in its submission:

“All information regarding the administration and distribution of ESL funding is readily available to the public on the DFES website. In addition comprehensive audited financial reports are published annually in DFES’ Annual Report, which is tabled in Parliament as are DFES’ budget papers which are available on the Department of Treasury’s website.”⁵³⁷

Many stakeholders had different views, with volunteers,⁵³⁸ local governments,⁵³⁹ the United Firefighters Union⁵⁴⁰ and members of the public⁵⁴¹ stating in their submissions that the information DFES publishes on the ESL is insufficient, or calling for greater transparency.

⁵³² Department of Fire and Emergency Services, *Submission to the Emergency Services Levy Review*, 10 March 2017, p. 5.

⁵³³ Emergency Services Volunteers Association Inc., *Submission to the Emergency Services Levy Review*, 10 March 2017, p. 5.

⁵³⁴ Mangini, J., *Submission to the Emergency Services Levy Review*, 10 March 2017, p. 9.

⁵³⁵ Association of Volunteer Bush Fire Brigades WA Inc., *Submission to the Emergency Services Levy Review*, 13 March 2017, p. 8.

⁵³⁶ City of Swan, *Submission to the Emergency Services Levy Review*, 10 March 2017, p. 2.

⁵³⁷ Department of Fire and Emergency Services, *Submission to the Emergency Services Levy Review*, 10 March 2017, p. 4.

⁵³⁸ These include, for example, the Association of Volunteer Bush Fire Brigades WA Inc. and the State Emergency Service Volunteers Association.

⁵³⁹ Western Australian Local Government Association, *Submission to the Emergency Services Levy Review*, 13 March 2017, p. 2.

⁵⁴⁰ United Firefighters Union of Australia West Australian Branch, *Submission to the Emergency Services Levy Review*, 17 March 2017, p. 5.

⁵⁴¹ These include, for example, Mr. J. Mangini and Mr. E. van Rinjswoud.

Some of these stakeholders commented on a lack of information and the information provided not being published in appropriate categories.

“The process of both collecting and distributing ESL funds should be completely public with statistical data produced indicating where funds are sourced from and where funds are allocated to.”⁵⁴²

“DFES should release expenditure data at a more detailed level, such as separating direct career fire station staff and costs separate to its other activities, which should be reported on as individual activity hubs. Furthermore, this detail should further be refined to show spending by geographical area.”⁵⁴³

Some stakeholders, including the Association of Volunteer Bush Fire Brigades⁵⁴⁴ and the City of Swan,⁵⁴⁵ say not having access to information on the ESL makes it difficult to scrutinise or make DFES accountable for how ESL funds are spent. Some local governments feel that they do not have suitable information to assess how DFES administers the ESL, despite collecting ESL revenue and receiving some ESL funds as grants and for administration purposes. The Shire of Harvey calls for “the entire process [to] be open to scrutiny for all stakeholders including local governments and members of the community”.⁵⁴⁶

Information on the ESL is available in DFES’ annual report, but it can be difficult for stakeholders to understand this information as it is prepared for accounting purposes. For example, the Association of Volunteer Bush Fire Brigades presents some analysis in its submission demonstrating the disparity of growth between ESL revenue allocated to DFES and that allocated to bush fire brigades. The ERA attempted to replicate the analysis and found that an additional line item should have been included in the Association of Volunteer Bush Fire Brigades’ analysis. This demonstrates that the information DFES publishes on the ESL is not clear or easy to interpret.

8.3.3 Stakeholder consultation

In meetings with the ERA, some stakeholders say they have not been provided with the opportunity to be involved in decisions about ESL expenditure. Further, these stakeholders are of the view that, when DFES does consult on ESL expenditure, it is not a genuine attempt.

“In fact there are misleading comments on page 3 of the [local government grants scheme] manual about the SES VAC [State Emergency Service Volunteer Advisory Committee] being consulted. The interaction of the VAC may have been construed by the LGGs [Local Government Grants Scheme] manual author as consultation. Where the SES VAC has offered input, [] and usually not invited by DFES, does not constitute ‘consultation’ in any collaborative sense.”⁵⁴⁷

⁵⁴² Shire of Harvey, *Submission to the Emergency Services Levy Review*, 24 February 2017, p. 2.

⁵⁴³ Association of Volunteer Bush Fire Brigades WA Inc., *Submission to the Emergency Services Levy Review*, 13 March 2017, p. 2.

⁵⁴⁴ Association of Volunteer Bush Fire Brigades WA Inc., *Submission to the Emergency Services Levy Review*, 13 March 2017, p. 7.

⁵⁴⁵ City of Swan, *Submission to the Emergency Services Levy Review*, 10 March 2017, p. 2.

⁵⁴⁶ Shire of Harvey, *Submission to the Emergency Services Levy Review*, 24 February 2017, p. 2.

⁵⁴⁷ State Emergency Service Volunteer Association, *Submission to the Emergency Services Levy Review*, 13 March 2017, p. 5.

DFES does not consult the State Emergency Service Volunteer Advisory Committee on an annual basis when it reviews the Local Government Grants Scheme manual.

Some stakeholders, including Mr Alan Hawke, call for more meaningful collaboration when revising the local government grants scheme manual.⁵⁴⁸ Some stakeholders also question the appropriateness of decisions by DFES about the items that are eligible and ineligible to be purchased using ESL revenue as identified in the grants manual, saying they do not always reflect the needs of volunteer organisations.

The City of Bayswater State Emergency Service Unit provides the following example:

“When it comes to the Manual for Capital and Operating Grants, - it is full of discrepancies and confusion and the list of eligible/ineligible items has been drawn up without any consultation leading to such things as ‘Compass – hand held- 1 per brigade/unit’ as an SES unit that provides a search capability this is ludicrous.”⁵⁴⁹

Some stakeholders also feel that stakeholders are not provided a sufficient right to appeal when DFES makes decisions about the ESL.

Examples of comments from stakeholder submissions are:

“Emergency Service organisations that are funded by the ESL have no role in decision making and importantly no avenue to dispute DFES decisions, other than appealing to the [] Fire and Emergency Services Commissioner, on the use and distribution of the ESL. [The] Department of Fire and Emergency Services [has] changed the rules over time that they can now direct Local Government to change their applications to “do as they are told without any right of appeal...”⁵⁵⁰

“The ESL allocation to SES to require a deliberative process that includes stakeholders who have an effective say, with a right of appeal to an independent person, such as the Director-General for Finance”.⁵⁵¹

8.3.4 Economic Regulation Authority assessment of issues raised by stakeholders

DFES is subject to the same administrative and financial controls that apply to all State Government agencies in Western Australia. In the case of DFES, these controls include:

- compliance with the *Public Sector Management Act 1994* and the *Financial Management Act 2006*;
- compliance with legislation specific to DFES,⁵⁵² which ensures that ESL funds can only be applied for the purposes it was raised;⁵⁵³
- oversight by a Cabinet minister (being the Minister for Emergency Services);

⁵⁴⁸ Hawke, A., *Submission to the Emergency Services Levy Review*, 10 March 2017, p. 8.

⁵⁴⁹ Bayswater State Emergency Service, *Submission to the Emergency Services Levy Review*, 1 February 2017, p. 1.

⁵⁵⁰ Association of Volunteer Bush Fire Brigades WA Inc., *Submission to the Emergency Services Levy Review*, 13 March 2017, p. 7.

⁵⁵¹ Hawke, A., *Submission to the Emergency Services Levy Review*, 10 March 2017, p. 6.

⁵⁵² *Fire Brigades Act 1942, Bush Fires Act 1954, Fire and Emergency Services Act 1998*.

⁵⁵³ Department of Fire and Emergency Services, *Submission to the Emergency Services Levy Review*, 10 March 2017, p. 4.

- twice yearly consideration of the DFES budget by Treasury and the Economic and Expenditure Review Committee of Cabinet through the state budget process and the mid-year review;
- application of expenditure limits, salary caps and full time equivalent staff numbers; and
- annual financial audits by the Office of the Auditor General.

DFES is meeting its obligations under the *Financial Management Act 2006*. DFES has not received qualified audits from the Office of the Auditor General.⁵⁵⁴ However, these audits only provide assurance to Parliament that the financial statements and key performance indicators of DFES are based on proper accounts and are fairly presented.⁵⁵⁵ These audits do not examine whether DFES is acting in an efficient manner.

The Department of Treasury advised the ERA that, compared to other State Government agencies, DFES may be subject to additional scrutiny as part of the annual budget process. This is because the Department of Treasury considers the effect the ESL has on the household fees and charges model, as well as considering the overall DFES budget. However, the household fees and charges model does not determine whether an increase in ESL rates is reasonable or necessary. The model estimates the costs incurred by a representative household through the consumption of certain goods and services to show the effect of changes in major government tariffs, fees and charges.⁵⁵⁶

These external constraints are effective for their intended purpose. However, these constraints do not assess whether DFES allocates and spends the ESL efficiently.

There are other external constraints that could help to address some stakeholders' concerns. For example, some government agencies have the power to undertake reviews to determine whether other agencies are operating efficiently. There have not been general reviews of the performance of DFES.

The Office of the Auditor General has not undertaken a performance review of DFES, which would assess whether DFES is exercising restraint when it raises ESL rates and is spending ESL funds efficiently. The Department of Treasury and the Public Sector Commission have not undertaken a value for money audit or performance review of DFES. Such reviews would also help to determine whether DFES is operating efficiently, including in how it allocates and spends ESL revenue.

This report does not include a review of DFES as it is outside the scope of this review. However, it would be beneficial for an organisation such as the Department of Treasury to review DFES' structure and resources.

As discussed in Section 8.3.1, stakeholders consider DFES has a conflict of interest in its administration of the ESL, which has influenced its decisions about how it allocates the ESL. There is some evidence to support this view, but the evidence is not conclusive.

⁵⁵⁴ Communication with Department of Fire and Emergency Services, 14 June 2017.

⁵⁵⁵ Office of the Auditor General, *What we do*, Perth, Government of Western Australia, <https://audit.wa.gov.au/about-the-oag/what-we-do/>, (accessed on 13 June 2017).

⁵⁵⁶ Department of Treasury, *2016-17 Budget Paper No. 3 Economic and Fiscal Outlook*, Perth, Government of Western Australia, 2017, p. 283.

This evidence includes, for example, that: DFES' own-purpose expenditures have grown faster than ESL grant funding to volunteer organisations;⁵⁵⁷ the proportion of DFES' expenditures funded by the ESL increase from 66 per cent in 2004-05 to 82 per cent in 2015-16;⁵⁵⁸ and the types of goods that may be funded from ESL revenue under the local government grants scheme manual have decreased.⁵⁵⁹

Not all of these issues reflect decisions by DFES. The State Government has made policy decisions to maximise DFES expenditures that are funded through the ESL and minimise the expenditures funded through general government revenue. The State Government's contribution (from general government revenue) to DFES' funding decreased by 5.9 per cent a year in real terms from 2004-05 to 2015-16.⁵⁶⁰

Conflict of interest may be real or perceived, and to ensure good governance, both should be avoided. In this case, the issue is not only whether DFES has actually taken advantage of its conflict of interest in the administration of the ESL. It also matters that DFES could (or could be perceived to) take advantage of its conflict of interest. Many stakeholders who have made submissions to this review perceive that there is a conflict of interest in DFES administering the ESL (and some believe that DFES has already taken advantage of this). These perceptions are long-held, having previously been considered by the Community Development and Justice Standing Committee⁵⁶¹ in 2006 and in the Ferguson⁵⁶² and Keelty reports.⁵⁶³

Previous efforts to address DFES' conflict of interest have not resolved the issue. For example, the 2011 Keelty report recommended "the State Government move the responsibility for the management and distribution of the Emergency Services Levy to the Department of Finance".⁵⁶⁴ DFES and the Department of Finance examined this issue, but found no major benefit evident in transferring the assessment and collection of the ESL to the Department of Finance.⁵⁶⁵ Stakeholders and Mr Ferguson considered this recommendation of the Keelty report had not been implemented because the subsequent consideration of whether it should be implemented was not sufficiently inclusive or transparent.⁵⁶⁶

Such concerns will continue unless stakeholders consider that appropriate measures are in place to manage conflicts of interest. Additional external oversight of how ESL revenue is

⁵⁵⁷ As shown in Chapter 4, DFES expenditures increased by an average of 4.8 per cent a year in real terms between 2004-05 and 2015-16, compared to a 0.8 per cent a year decrease in ESL grants over the same period, based on data provided in DFES' annual reports between 2005-06 and 2015-16.

⁵⁵⁸ As shown in Chapter 4, based on data provided in DFES' annual reports between 2005-06 and 2015-16.

⁵⁵⁹ Shire of Murray, *Submission to the ESL review*, 24 February 2017, p. 5.

⁵⁶⁰ As shown in Chapter 4, based on data provided in DFES' annual reports between 2005-06 and 2015-16.

⁵⁶¹ Legislative Council Community Development and Justice Standing Committee, *Inquiry into Fire and Emergency Services Legislation*, Report No. 3 in the 37th Parliament, Perth, Parliament of Western Australia, 2006, p. xxxi.

⁵⁶² Ferguson, E., *Reframing Rural Fire Management: Report of the Special Inquiry into the January 2016 Waroona Fire*, Perth, Government of Western Australia, 2016, Vol. 1, p. 54.

⁵⁶³ Keelty, M. APM AO, *A Shared Responsibility: Perth Hills Bushfire Inquiry*, Perth, Government of Western Australia, 2011, p. 177.

⁵⁶⁴ Keelty, M. APM AO, *A Shared Responsibility: Perth Hills Bushfire Inquiry*, Perth, Government of Western Australia, 2011, p. 22.

⁵⁶⁵ Ferguson, E., *Reframing Rural Fire Management: Report of the Special Inquiry into the January 2016 Waroona Fire*, Perth, Government of Western Australia, Vol. 1, p. 55.

⁵⁶⁶ Ferguson, E., *Reframing Rural Fire Management: Report of the Special Inquiry into the January 2016 Waroona Fire*, Perth, Government of Western Australia, 2016, Vol. 1, p. 56.

applied is needed because DFES has an opportunity to use its dual role in allocating and spending ESL revenue to favour its own needs over that of other stakeholders. However, the additional oversight should be proportionate to the risk posed by the conflict of interest. This is discussed in more detail in Section 8.4.

Stakeholders also consider DFES does not provide enough information for them to understand how it allocates ESL funds (see the discussion in Section 8.3.2). This means that it is difficult for stakeholders to determine how DFES makes decisions regarding the ESL, and whether those decisions may have been influenced by its conflict of interest.

An important part of improving the system for administering the ESL will be to make it more transparent. This will provide stakeholders better information about the ESL so they can be informed on how DFES is allocating ESL funds.

DFES has reduced the amount and type of information it publishes on the ESL. Until 2013, DFES published a brochure on ESL administration that local governments included with rating notices. Relatively detailed information on how the ESL is spent (but not raised) was also available in the *State of the Service* report. DFES last published this report in December 2012.⁵⁶⁷

At present, only limited information on the ESL is available on DFES' website. This includes a brief overview of why the ESL was introduced, what it pays for and answers to frequently asked questions.

The DFES website also lists the volunteer organisations the ESL funds the operating costs of, and the general cost categories that are considered operating costs (for example, running and maintaining vehicles). Additional information about eligible items for State Emergency Service units and bush fire brigades is available in the local government grants manual. However, DFES does not publish information on the eligible items and the process for ESL fund allocation for volunteer organisations it administers (for example, the Volunteer Fire and Rescue Service).

DFES does not publish information on where ESL funds are raised (either by ESL category, or by local government area). It also does not provide information on revenue raised compared to expenses incurred in each ESL category or local government area. DFES has extensive data on the resources allocated to incidents by location, as well as accounting information on grants provided by local government area, and overall costs incurred. If DFES implements an activity based costing system (as recommended in Chapter 4), and uses this along with its incident data, it could produce and publish more informative data on how the ESL is allocated and spent.

DFES has structures and processes in place to obtain stakeholder input into grant allocations. This includes capital grants committees for the bush fire brigades and the State Emergency Service, and a State Emergency Service Advisory Committee. There is no Bush Fire Brigade Volunteer Advisory Committee.⁵⁶⁸

⁵⁶⁷ Department of Fire and Emergency Services, *State of the Service: December 2012*, Perth, Government of Western Australia, 2012.

⁵⁶⁸ Department of Fire and Emergency Services, *Local Government Grants Scheme (Bush Fire Services, State Emergency Services) – Manual for Capital and Operation Grants 2017/18*, Perth, Government of Western Australia, 2016, p. 3.

Despite these structures and processes, there may be potential for DFES to make decisions without sufficient stakeholder input, or to make decisions without taking that input into account.

There may not be sufficient controls on the use of ESL revenue by DFES, and DFES should improve its transparency or accountability in administering ESL revenue. This does not necessarily mean that DFES has made inappropriate decisions about how the ESL is spent. For example, many stakeholders think DFES should spend more on prevention, but the ERA broadly agrees with DFES that the main responsibility for prevention lies with property owners (see Chapter 3).

However, good governance requires that appropriate controls and processes are in place, and that these are seen by stakeholders to be applied appropriately. This has been demonstrated, so discusses reforms to the arrangements for administering the ESL in the remainder of this chapter.

8.4 Alternative governance arrangements

This report considers how governance arrangements for the ESL could be improved to improve accountability and transparency, and ensure DFES has appropriate incentives and constraints to best manage ESL funds. These include:

- whether an organisation other than DFES administers the ESL;
- which organisation should administer the ESL; and
- the process for administering the ESL.

8.4.1 *Should an organisation other than Department of Fire and Emergency Services administer the Emergency Services Levy?*

DFES is of the view it should continue to administer the ESL, providing the activities the ESL funds remain unchanged and ESL funding is not allocated to other State Government agencies. DFES considers it has relevant experience to administer the ESL.⁵⁶⁹

DFES is of the view it:

“...has emergency service expertise, financial management experience and adheres to the State Government financial controls, to ensure the accountable and efficient distribution of ESL funds in a cost effective and transparent manner”.⁵⁷⁰

While DFES has significant experience providing emergency services. However, despite this experience, DFES may not be the most appropriate organisation to administer the ESL.

⁵⁶⁹ Department of Fire and Emergency Services, *Submission to the Emergency Services Levy Review*, 10 March 2017, p. 5.

⁵⁷⁰ Department of Fire and Emergency Services, *Submission to the Emergency Services Levy Review*, 10 March 2017, p. 5.

As discussed in Section 8.3, most stakeholders suggested responsibility for administering the ESL be transferred from DFES to another organisation to overcome concerns about conflicts of interest in the administration of the ESL.

However, some stakeholders consider only an audit function is required. For example, the Kimberley Zone of the Western Australian Local Government Association says in its submission ESL expenditure should be reported and audited to ensure accountability of the organisation administering the ESL.⁵⁷¹ However, audits tend to be focused on ensuring accounting principles are met and funds can be accounted for, rather than assessing whether funds are spent appropriately.

The best option is for an organisation other than DFES to administer the ESL. However, if the State Government prefers DFES continue to administer the ESL, having an independent organisation undertake an audit and assurance function will help to address stakeholder concerns.

8.4.2 Which organisation should administer the Emergency Services Levy?

There are several attributes that an organisation that administers the ESL should have, which are outlined in Table 28. There is not a single organisation that has all of these attributes, however there are many organisations that meet several of these criteria to varying degrees. An assessment of which organisation is best placed to administer the ESL is in Table 28 and the discussion below.

⁵⁷¹ Kimberley Zone of Western Australian Local Government Association, *Submission to the Emergency Services Levy Review*, 7 March 2017, p. 7.

Table 28 Assessment of organisations that could administer the ESL

Criteria	Department of Finance	Department of Treasury	Department of Premier and Cabinet	Economic Regulation Authority	Office of Emergency Management	Office of the Auditor General	Public Sector Commission
The organisation does not benefit from the ESL.	✓✓	✓✓	✓✓✓	✓✓✓	✓✓✓	✓✓✓	✓✓✓
The organisation can make independent decisions.	✓✓✓	✓✓✓	✓✓✓	✓✓✓	✓ (if in DFES) ✓✓✓ (if independent of DFES)	✓✓✓	✓✓✓
The organisation has knowledge of emergency management and how emergency services should be provided.			✓	✓	✓✓✓ (emergency management) ✓ (emergency services)		
The organisation has experience in grant administration.	✓✓✓	✓✓	✓		✓✓		✓

Key

no tick – does not meet criteria

✓ – partially meets criteria

✓✓ – largely meets criteria

✓✓✓ – meets criteria

The 2016 Ferguson report on the Waroona Fire recommended the State Emergency Management Committee Secretariat (now the Office of Emergency Management (OEM)) have an assurance function including monitoring and reporting on the transparency of emergency management standards, preparedness, capability, service delivery and investment performance outcomes.⁵⁷²

OEM says in its submission to this review it “has expert knowledge of emergency management and grant administration”. It also states that although it is a sub department of DFES, “conflict of interest can be minimized by reinforcing the enhanced independence of OEM”.⁵⁷³

Other stakeholders, including the Pastoralists and Graziers Association⁵⁷⁴ and Cascade Scadden Fire Review,⁵⁷⁵ consider OEM should have a role in administering the ESL. For example, the Community and Public Sector Union/Civil Service Union says in its submission “The Office of Emergency Management...[should] be the body for distributing and managing the Emergency Services Levy”.⁵⁷⁶

OEM is responsible for emergency management, not provision of emergency services. While there is a difference between the two, OEM being responsible for administering the ESL would be complimentary to its existing emergency management role. Staff within OEM are better placed than staff in organisations such as the departments of Finance or Treasury to make decisions about emergency service priorities and how ESL funds should be spent.

Some other stakeholders, including the Pastoralists and Graziers Association,⁵⁷⁷ say the departments of Treasury or Finance could administer the ESL. The 2011 Keelty report and the 2016 Ferguson report also recommended the Department of Finance administer the ESL.⁵⁷⁸

The departments of Treasury and Finance have experience in administering grants and are independent of DFES. However, both organisations have responsibilities for the state budget, which means they may have an incentive to allocate ESL funds to activities that would otherwise be funded by general government revenue. They also do not have detailed knowledge of emergency management or emergency services.

The ERA and the Public Sector Commission should not administer the ESL.⁵⁷⁹ Although these organisations are independent and do not benefit from the ESL, administering the ESL would not be consistent with their purpose or functions. Further, these organisations

⁵⁷² Ferguson, E., *Reframing Rural Fire Management: Report of the Special Inquiry into the January 2016 Waroona Fire*, Perth, Government of Western Australia, Vol. 1.

⁵⁷³ Office of Emergency Management, *Submission to the Emergency Services Levy Review*, 9 March 2017, p. 4.

⁵⁷⁴ Pastoralists and Graziers Association of WA, *Submission to the Emergency Services Levy Review*, 10 March 2017, p. 8.

⁵⁷⁵ Cascade Scadden Fire Review, *Submission to the Emergency Services Levy Review*, 10 March 2017, p. 5.

⁵⁷⁶ Community and Public Sector Union/Civil Service Association, *Submission to the Emergency Services Levy Review*, 10 March 2017, p. 7.

⁵⁷⁷ Pastoralists and Graziers Association of WA, *Submission to the Emergency Services Levy Review*, 10 March 2017, p. 8.

⁵⁷⁸ Keelty, M. APM AO, *A Shared Responsibility: Perth Hills Bushfire Inquiry*, Perth, Government of Western Australia, 2011, p. 22; Ferguson, E., *Reframing Rural Fire Management: Report of the Special Inquiry into the January 2016 Waroona Fire*, Perth, Government of Western Australia, Vol. 1, p. 54.

⁵⁷⁹ The Gidgegannup Progress Association suggested the ERA or Public Sector Commission could administer the ESL. (Source: Gidgegannup Progress Association (Inc.), *Submission to the Emergency Services Levy Review*, 27 February 2017, p. 8.)

do not have experience in grants administration or detailed knowledge of emergency management or emergency services.

The Department of Premier and Cabinet is well placed to administer the ESL. This is because it is independent, does not benefit from the ESL and managing the ESL would complement its existing responsibilities for the Western Australian National Disaster Relief and Recovery Arrangements. The Department of Premier and Cabinet is also experienced in taking on specialist functions that require independent oversight or are a government priority.

However, OEM is best placed to administer the ESL due to its knowledge of emergency management, previous experience in grant administration and because it is not funded by the ESL. For these reasons, it is recommended responsibility for administering the ESL be transferred from DFES to OEM.

However, under current governance arrangements OEM sits within DFES. Although OEM is a sub department with an independent budget and decision making ability, it is ultimately responsible to the Fire and Emergency Services Commissioner. The potential for the Fire and Emergency Services Commissioner to influence OEM's decisions means OEM may have a conflict of interest when administering the ESL.

OEM would need to be made independent of DFES and the Fire and Emergency Services Commissioner to effectively administer the ESL. This would require changes to current governance arrangements, including removing OEM from DFES so that OEM does not report to the Fire and Emergency Services Commissioner. OEM should report directly to the Minister for Fire and Emergency Services on ESL matters, rather than the State Emergency Management Committee (SEMC), given the Commissioner is a SEMC member.

Without these changes, transferring responsibility for administering the ESL to OEM will not address current concerns about governance issues. If OEM is to remain within DFES, the Department of Premier and Cabinet to be the next best option for administering the ESL.

It is important the organisation that administers the ESL does not benefit from ESL funds. OEM should continue to be funded by general government revenue – not the ESL – so that it does not have a conflict of interest.

OEM's ESL administration activities should include advising the Minister for Emergency Services on the amount of ESL revenue required and ESL rates.

OEM, as the SEMC Secretariat, would also retain its existing functions and report to SEMC for all non-ESL related matters.

8.4.3 Process for administering the Emergency Services Levy

OEM (or any other organisation that administers the ESL) should use a transparent and consultative process when administering the ESL.

This could take many forms – for instance, a top-down approach where OEM makes decisions about funding requirements for the organisations it oversees, or a bottom-up approach, where organisations make decisions about funding requirements and present them to the OEM for approval.

The following is an example of a way in which OEM could administer the process, although it is by no means the only possible approach:

1. DFES and a rural fire service (if established) should make proposals to OEM detailing the amount of ESL revenue required for the coming financial year. DFES and a rural fire service (if established) should consult with local governments and volunteer brigades when developing these proposals.
2. OEM should determine the total ESL revenue required, and how ESL funds should be allocated between different stakeholder groups, being DFES, local governments and their volunteer brigades, and a rural fire service (if established).
3. OEM should then call for submissions from stakeholders to seek their views on the proposed high-level funding allocation. (This stage deals with the allocation of funds between stakeholder groups; it does not replace the grant allocation process. In this stage OEM will instruct DFES as to how much revenue local governments and volunteer brigades should receive collectively. However, DFES and a rural fire service will remain responsible for administering grants to specific local governments and brigades).
4. OEM should prepare and provide a report to the Minister for Emergency Services on proposed ESL revenue and rates, informed by stakeholders' views. Further detail on this stage is provided in the following section.
5. The Department of Treasury and the Economic and Expenditure Reform Committee (EERC) consider the increase in rates as part of the State Budget process.
6. The Minister for Emergency Services should approve ESL rates for the coming year, based on consultation with OEM.
7. Local governments should continue to collect ESL revenue on behalf of the State Government. Local governments should provide this revenue to DFES if a separate rural fire service is not established. If a separate rural fire service is established, local governments should provide ESL revenue directly to OEM so it can distribute it to both DFES and the rural fire service.
8. DFES and a rural fire service should distribute ESL funds internally, and to external stakeholders through the grants process.
9. At the end of each financial year, DFES (and a rural fire service, if established) should prepare a report to OEM outlining how ESL funds have been allocated, and the rationale for all allocation and expenditure decisions. OEM should consider the information in this report when preparing its initial proposal for how ESL funds should be allocated for the following year.

Stakeholders should be able to appeal to OEM should they object to allocation and expenditure decisions by DFES, local government or a rural fire service.

8.4.3.1 *Setting total Emergency Services Levy revenues and rates*

The *Fire and Emergency Services Act 1998* states the Minister for Emergency Services is responsible for setting ESL rates. Responsibility for advising the Minister for Emergency Services on ESL rates should be transferred from DFES to OEM.

In advising the Minister for Emergency Services, OEM should consider the total ESL revenue required. Total ESL revenue should be equal to expenditure needed to provide emergency services (beyond that already funded by State Government appropriations and other sources). This is essentially the process currently followed by DFES.

As explained in Chapter 5, there will be many expenditure proposals that will have benefits that exceed their costs, and with limited funds, agencies should choose the proposals that deliver the best value. Adopting every risk-reducing proposal would result in an untenable increase in ESL rates. Therefore, it is important for OEM to balance expenditure increases with a reasonable increase in ESL revenue.

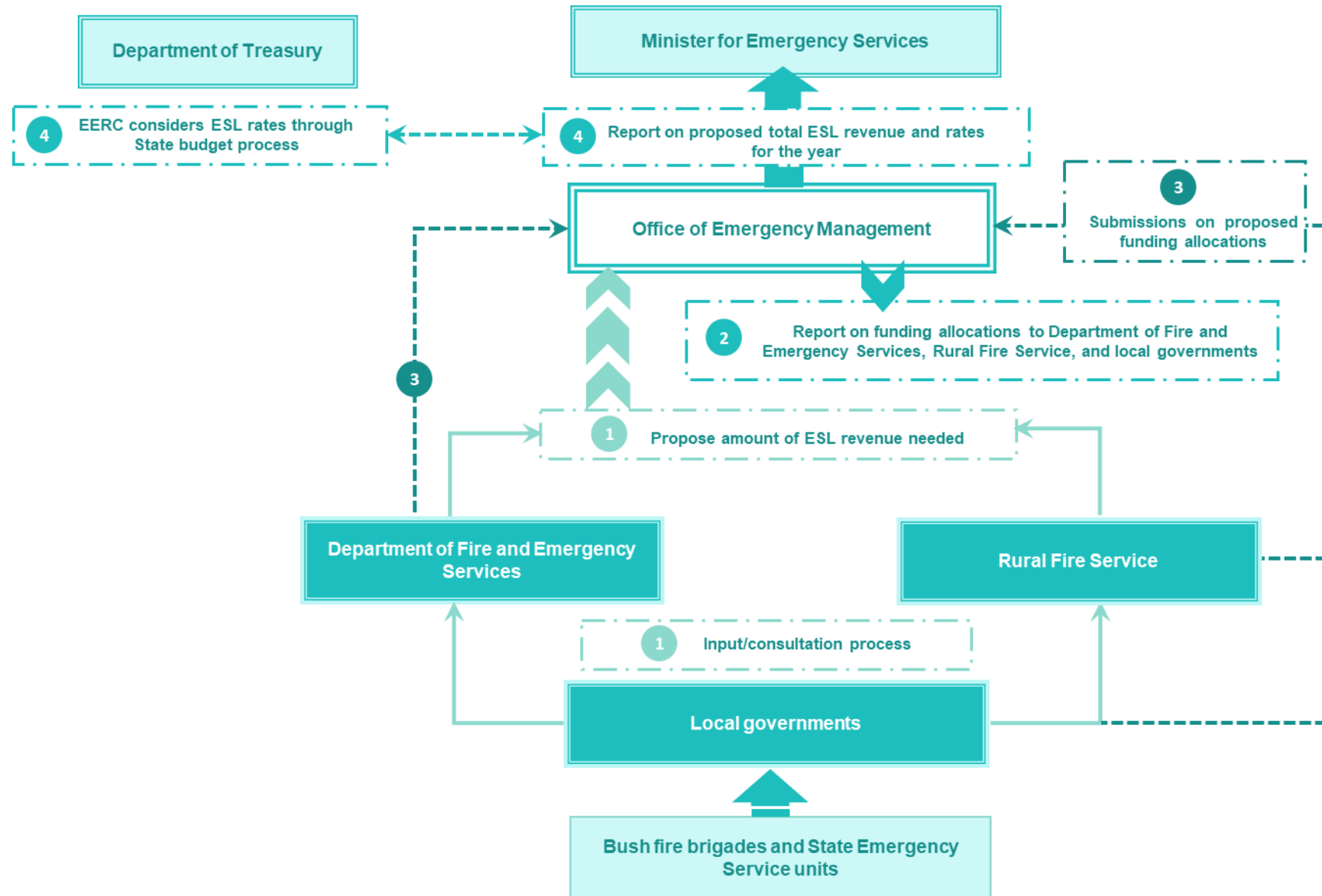
OEM will also need to monitor whether stakeholders are spending ESL funds efficiently to ensure increases in ESL revenue requirements are kept to a minimum, and also to ensure ESL funds are allocated appropriately.

OEM should also provide guidance to recipients on how ESL funds should be allocated between activities, such as prevention, preparedness and response, and between different hazards. OEM should seek stakeholders' views as part of the funding allocation process.

OEM should then prepare a report to the Minister for Emergency Services outlining total ESL revenue required and the proposed ESL rates, and explaining the rationale for any rate increases. This includes how ESL revenue will address risks. The Minister should table this report in Parliament to ensure OEM's advice is publically available, to improve the transparency of ESL administration.

Following the Minister's approval, OEM should publish the new ESL rates for the following financial year.

This process is illustrated in Figure 29.

Figure 29 Setting total ESL revenues and rates

8.4.3.2 Collecting Emergency Services Levy revenue

Local governments collect ESL revenue through rate notices to property owners. This is an efficient system, and means the State and local governments are not duplicating process and expenditure (for example, postage and production of rates notices).

The State Government has other systems that could be used to collect the ESL. For example, Water Corporation issues rate notices (which also use gross rental value), and the Office of State Revenue issues land tax statements (which uses unimproved value as a base). However, neither of these systems covers all property owners in the State.

Local governments should continue to collect ESL revenue and pass it on to DFES, unless the State Government establishes a rural fire service independent of DFES. In this case, local governments should provide ESL funds directly to OEM. This will enable OEM to determine how to divide ESL revenue between DFES and the rural fire service. In allocating funding between the two, OEM will need to consider the principle of cross-subsidisation, as discussed in Chapters 6 and 7.

Some local governments have raised concerns about collecting the ESL on behalf of the State Government. The City of Swan considers rate payers do not understand that ESL revenue goes to the State Government, and the ESL should be collected separately from local government rates to improve transparency.

“The collection of the ESL by Local Government within the rates notice essentially hides this charge, in particular, since the State Government stopped providing an explanation brochure of the ESL to accompany the rates notice. A high number of residents do not understand this revenue is not going to the Local Government but to the State Government. The City is of the view that it should be collected separately from Local Government rates as a standalone bill. This would make it more open and transparent.”⁵⁸⁰

Local governments are also concerned that they are not appropriately compensated by DFES for the costs of collecting ESL revenues.

For example, the Kimberley Zone of the Western Australia Local Government Association says in its submission that the Shire of Halls Creek receives \$4,000 a year from DFES to collect the ESL. The Shire says this amount has remained the same over the past 10 years, and falls short of the estimated \$15,000 a year it costs to collect the ESL. The Shire also estimates it is unlikely to recover from property owners about \$10,000 of the \$55,000 of ESL charges it invoiced in 2016-17.⁵⁸¹

The concerns of local government can be addressed through other means. In Section 8.5, it is recommended that OEM reinstate the annual brochure that accompanies rates notices, explaining the purpose of the ESL and that it is a State Government charge.

OEM should also determine how much it costs local governments to collect ESL revenue and compensate them accordingly through the ESL. This compensation should include a contribution to the costs of pursuing unpaid ESL debts. The amount paid from ESL revenue to for debt recovery costs should be proportionate to the share the ESL makes up of the

⁵⁸⁰ City of Swan, *Submission to the Emergency Services Levy Review*, 10 March 2017, p. 2.

⁵⁸¹ Kimberley Zone of Western Australian Local Government Association, *Submission to the Emergency Services Levy Review*, 7 March 2017, p. 8.

value of the total unpaid rate invoice. Local governments should also be compensated from the ESL for the value of any ESL revenue that they have been unable to recover.

In conclusion, local governments should continue to collect ESL revenue on behalf of the State Government. Local governments should pass this revenue on to DFES, except in the event that a rural fire service is established. In this case, local governments should provide ESL funds to OEM to allocate to DFES and a rural fire service. OEM should determine the costs to local government of collecting ESL revenue (including the costs of recovering unpaid debts and any ESL revenue that cannot be recovered) and compensate local governments accordingly.

8.4.3.3 *Allocating Emergency Services Levy funds*

OEM should oversee how ESL funds are allocated at a high level, given the transparency and accountability issues outlined in previous sections. OEM can provide a State-wide strategic view, informed by advice from DFES, local governments, and a rural fire service (if established) so that funds are divided between stakeholders based on levels of risk and resource requirements.

Grant applications

In general, local governments requested to remain responsible for administering grants to bush fire brigades and state emergency service units. The Western Australian Local Government Association says that stakeholders have identified a need for local government to play a greater role in distribution of ESL funds.⁵⁸²

OEM is of the view having local governments administer the ESL means there can be closer alignment with risk management processes. It says in its submission:

“Ideally, each local government area would have a fully developed emergency management risk plan – to a state-wide standard – complete with costed treatments. This plan would form the basis of a local government business case for ongoing support. Base, or foundation funding support to each local government, simply based on population, land use or land value (or a combination of these) would always be the start point, with an emergency management risk plan forming the basis for additional funding.”⁵⁸³

In contrast, an anonymous submission states that local government should not administer the ESL:

“That Local Govt [Government] no longer be required to administer ESL funds for SES [the State Emergency Service] and BFB [bush fire brigades]...”; and
 “That ESL grants be made directly to either [] brigades and units, or to their nominated DFES Manager.”⁵⁸⁴

Bush fire brigades and state emergency service units should continue to prepare grants applications and submit these to local governments. Local governments should assess

⁵⁸² Western Australian Local Government Association, *Submission to the Emergency Services Levy Review*, 13 March 2017, p. 11.

⁵⁸³ Office of Emergency Management, *Submission to the Emergency Services Levy Review*, 9 March 2017, p. 3.

⁵⁸⁴ Anonymous, *Submission to the Emergency Services Levy Review*, 18 February 2017, p. 6.

each grant application against the risks in their area, including risks identified in their bushfire risk management plans.

Each local government should submit the grant applications to DFES, or a rural fire service (if established). This should include a covering report outlining the priority items in the grant applications, and how funding these items will mitigate risk and enable volunteer organisations to undertake hazard management activities.

It is important for local governments to remain involved in ESL administration. Local governments provide valuable local knowledge, and are able to provide advice to the State Government on the priorities for each local area. Having volunteer brigades submit grant applications directly to the State Government would make it difficult to prioritise applications for local areas based on risk and resource requirements, and may reduce engagement between volunteer organisations, local governments, and the State Government.

Grant applications should be consistent with the eligible items outlined in the Local Government Grants Manual. As discussed in previous sections, a manual for DFES-aligned volunteer organisations should be published and should be as consistent with the Local Government Grants Manual as is practical.

Approval of grant applications

DFES, and a rural fire service (if established), should decide whether to approve grant applications.

Some stakeholders, including Cascade Scadden Fire Review,⁵⁸⁵ suggest that DFES should have to apply for an allocation of ESL funds.

An option is that DFES, and a rural fire service if established, could submit applications for funding to OEM. Although this would add another layer of scrutiny, it would also require OEM to make decisions about how DFES manages its budget. It is not necessary or appropriate for OEM to have this level of control over DFES' finances and decision-making.

However, it is important for OEM to have oversight of DFES' expenditure of ESL funds, to address stakeholders' concerns that DFES has not spent ESL funds efficiently. OEM should also have oversight of a rural fire service's expenditure, if established.

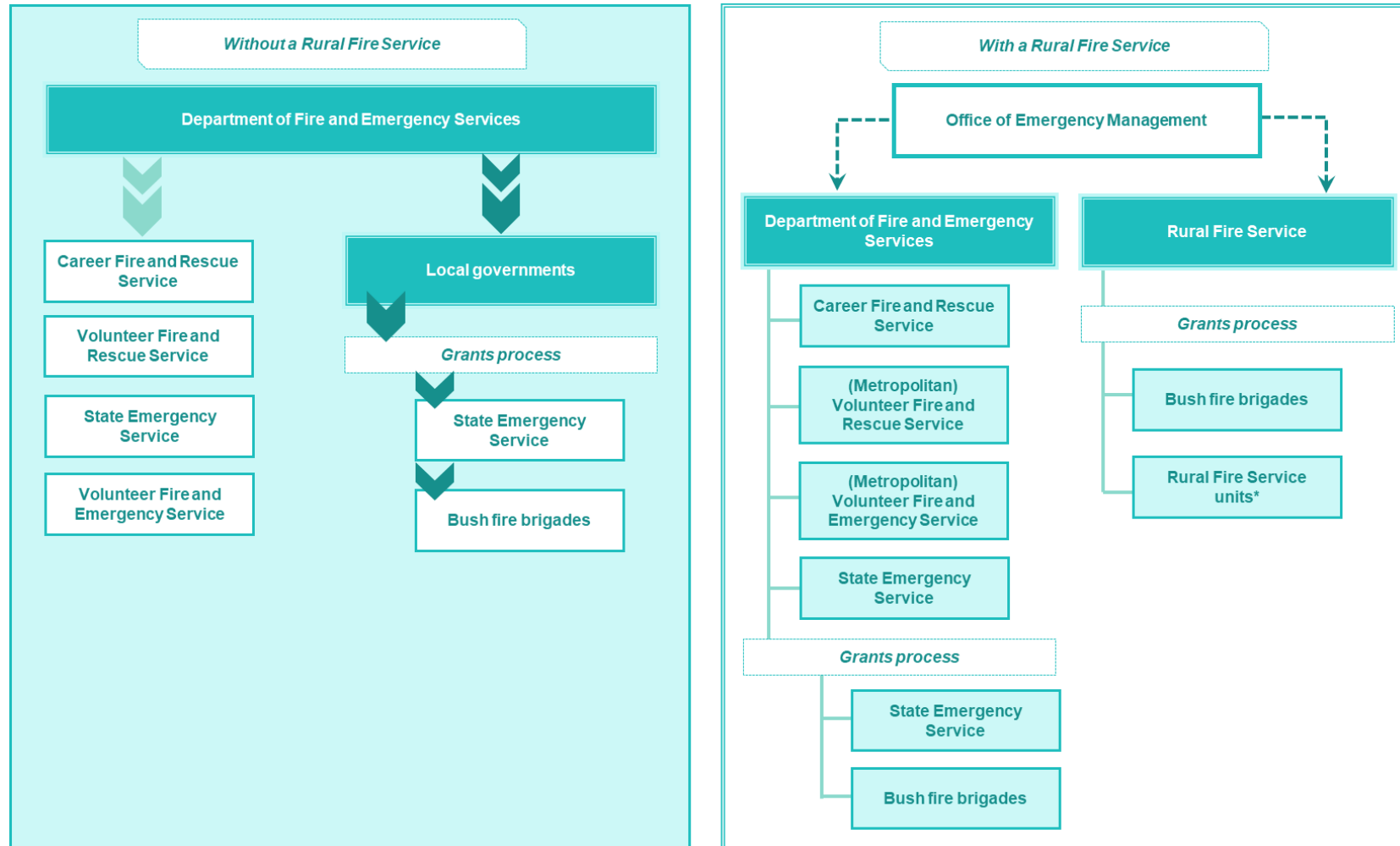
This oversight should take the form of OEM retrospectively reviewing DFES' and a rural fire service's expenditure and decisions on grant applications. OEM should also seek feedback from the Office of Bushfire Risk Management when reviewing how DFES and the rural fire service spend ESL funds.

OEM's review of ESL expenditure should inform how it proposes to set ESL rates for the following year.

This process is illustrated in Figure 30.

⁵⁸⁵ Cascade Scadden Fire Review, *Submission to the Emergency Services Levy Review*, 10 March 2017, p. 5.

Figure 30 Allocating ESL funds



Note: Rural Fire Service units may include rural Volunteer Fire and Rescue Service and Volunteer Fire and Emergency Services depending on the model.

8.4.3.4 *Right of appeal*

Several stakeholders, including Mr Hawke,⁵⁸⁶ have told the ERA the current governance arrangements do not include appropriate rights of appeal (as discussed in the Section 8.3.3). For example, the Association of Volunteer Bush Fire Brigades considers that appeals on grant application decisions should not be submitted to the Fire and Emergency Services Commissioner.⁵⁸⁷

It is important for stakeholders who receive ESL funds to have an appropriate right of appeal. The current arrangements, where stakeholders appeal to the Fire and Emergency Services Commissioner, is not appropriate because the Commissioner is the head of DFES, which is both a decision-maker and beneficiary of ESL funds.

OEM is best suited to consider any appeals regarding the allocation of ESL funds.

8.5 Reporting on Emergency Services Levy revenue and expenditure

As discussed in Section 8.3.2 and Section 8.3.4, the lack of publicly available information about how ESL revenue is raised and spent makes it difficult for stakeholders to hold DFES to account for its decisions and may contribute to a perception that DFES is not allocating ESL funds in the best interests of all stakeholders. Increasing the amount and quality of information available to stakeholders may alleviate some stakeholder concerns.

It is important that information published on the ESL can be readily understood by the general public. Some stakeholders, for example the Gidgegannup Progress Association⁵⁸⁸ and Mr John Mangini,⁵⁸⁹ consider that the information that DFES currently publishes is difficult to understand.

The organisation responsible for administering the ESL should prepare an annual report on the ESL. OEM should prepare the annual report, if it administers the ESL, with input from DFES and a rural fire service (if established).

The report should provide stakeholders with detailed information on where ESL funds are raised and how they are spent. This would include, for example, the total amount of ESL revenue and expenditure, growth in ESL revenue and expenditure, the amount of ESL revenue raised by ESL categories and local government areas, and the allocation of expenditures to metropolitan and rural regions and to each hazard management activity (for example, preparedness, prevention and response).

Publication of an annual report would be consistent with comments by stakeholders, including Cascade Scadden Fire Review⁵⁹⁰ and the Department of Lands⁵⁹¹, that DFES should publish a detailed breakdown of ESL expenditure. Publication of an annual report

⁵⁸⁶ Hawke, A., *Submission to the Emergency Services Levy Review*, 10 March 2017, p. 6.

⁵⁸⁷ Association of Volunteer Bush Fire Brigades WA Inc., *Submission to the Emergency Services Levy Review*, 13 March 2017.

⁵⁸⁸ Gidgegannup Progress Association (Inc.), *Submission to the Emergency Services Levy Review*, 27 February 2017, p. 7.

⁵⁸⁹ Mangini, J., *Submission to the Emergency Services Levy Review*, 10 March 2017, p. 8.

⁵⁹⁰ Cascade Scadden Fire Review, *Submission to the Emergency Services Levy Review*, 10 March 2017, p. 4.

⁵⁹¹ Department of Lands, *Submission to the Emergency Services Levy Review*, 14 March 2014, p. 6.

would also be consistent with the State Government's *Whole of Government Open Data Policy*.⁵⁹²

The organisation responsible for administering the ESL should also prepare an information brochure on the ESL to be included with local government rate notices. This notice would provide an overview of the type of information included in the annual report. This may partly address a comment made by the Department of Lands in its submission:

“...This detailed report would be most effective if included within the physical distribution of Local Government Rate Notices for the following year, so that every ESL Ratepayer would then be directly informed as to where their ESL rate contributions has gone.”⁵⁹³

The brochure should also explain that local governments collect the ESL on behalf of the State Government. The City of Swan considers rate-payers do not understand that ESL revenue goes to the State Government, and the ESL should be collected separately from local government rates to improve transparency. Reinstating the brochure should be sufficient to improve transparency, even if the ESL continues to be levied through local government rates.

⁵⁹² Government of Western Australia, *Whole of Government Open Data Policy*, Perth, Government of Western Australia, 2015.

⁵⁹³ Department of Lands, *Submission to the Emergency Services Levy Review*, 14 March 2017, p. 7.

8.6 Recommendations

- The Department of Treasury should undertake a review of the Department of Fire and Emergency Services' structure, resources and administration costs to determine whether services are efficiently delivered.
- The agency that advises the Minister for Emergency Services on ESL revenue and rates should not benefit from the ESL.
- The Office of Emergency Management should be given the oversight functions of advising the Minister for Emergency Services on the amount of ESL revenue required, and on ESL rates.
- The Office of Emergency Management should oversee how the Department of Fire and Emergency Services (and a rural fire service if established):
 - a. allocates ESL funds to stakeholders; and
 - b. spends its share of ESL funds.
- The Office of Emergency Management should be made independent of the Department of Fire and Emergency Services. It should report directly to the Minister for Emergency Services rather than the Fire and Emergency Services Commissioner.
- The Office of Emergency Management should consult stakeholders when:
 - a. determining the ESL revenue to be allocated to stakeholders; and
 - b. advising the Minister for Emergency Services on ESL revenue and rates.
- The Office of Emergency Management should prepare a report to the Minister for Emergency Services recommending total ESL revenue and rates. The Minister should table the report in Parliament within 28 days of receiving it.
- The Department of Fire and Emergency Services (and a rural fire service if established) should provide a report to the Office of Emergency Management explaining how it has spent ESL funds and the rationale for this expenditure.
- The Office of Emergency Management should compensate local government for the cost of collecting ESL revenue (including the costs of recovering unpaid debts and any ESL revenue that cannot be recovered).
- The Department of Fire and Emergency Services should publish a capital grants manual for volunteer organisations it manages (for example the Volunteer Fire and Rescue Service).
- Grants manuals should be made consistent between all volunteer organisations where it makes sense to do so.

- The Office of Emergency Management should be the body of appeal for ESL-related issues, and the Fire and Emergency Services Commissioner's appeal role should be revoked.
- The Office of Emergency Management should prepare and publish an annual report on the ESL.
- The Department of Fire and Emergency Services should publish data in accordance with the State Government's *Whole of Government Open Data Policy*.
- The Office of Emergency Management should prepare a brochure on the ESL and provide it to local governments to distribute with rate notices. The brochure should explain the purpose of the ESL and that it is a State Government levy, and describe how ESL revenue is raised and spent.

Appendix A List of stakeholders consulted

The ERA received submissions from 40 stakeholders. Three stakeholders have requested that their submissions not be published and be treated as confidential. One stakeholder requested their identifying information to be redacted, but otherwise approved publication of their submission.

Association of Volunteer Bush Fire Brigades
 Anonymous
 Australian Red Cross
 Bayswater SES
 The Bushfire Front Inc.
 Cascade Scadden Fire Review Ltd
 Chair, State Emergency Management Committee
 Chief Bushfire Control Officer, Shire of Denmark
 Chief Bushfire Control Officer, Shire of Plantagenet
 City of Canning
 City of Greater Geraldton
 City of Swan
 Commissioner of Police
 Community and Public Sector Union/Civil Service Association
 Department of Child Protection and Family Support
 Department of Fire and Emergency Services
 Department of Lands
 Emergency Services Volunteers Association
 Fire Storm Training
 Gidgegannup Progress Association
 Grape Growers Association
 Kimberley Zone of WALGA
 Mr Alan Hawke
 Mr Eddie van Rijnswood
 Mr John Mangini
 Office of Emergency Management
 Pastoralists and Graziers Association
 Shire of Augusta-Margaret River
 Shire of Harvey
 Shire of Manjimup
 Shire of Mundaring
 Shire of Murray
 State Emergency Service Volunteers Association
 United Firefighters Union
 WA Farmers Federation
 Western Australian Local Government Association
 WA Self-Funded Retirees Inc.

The ERA has met with the following organisations and individuals in conducting this review:

Association of Volunteer Bush Fire Brigades
 Chair, State Emergency Management Committee
 Chief of Staff, Minister for Corrective Services
 Department of Agriculture and Food
 Department of Fire and Emergency Services

Department of Lands
Department of Parks and Wildlife
Department of Treasury
Emergency Services Volunteers Association
Kimberley Zone of WALGA
Office of Bushfire Risk Management
Office of Emergency Management
Office of the Auditor General
Pastoralists and Graziers Association
Public Sector Commission
State Emergency Service Volunteers Association
The Bushfire Front Inc.
United Firefighters Union
Volunteer Fire and Rescue Service Association
WA Farmers Federation
Western Australian Local Government Association

These meetings were confidential. When referencing these meetings in the report the ERA has excluded stakeholder information to maintain confidentiality, in accordance with section 55 of the *Economic Regulation Authority Act 2003*.

Appendix B Summary of submissions

Best practice management of natural hazards

Association of Volunteer Bush Fire Brigades

The Association of Volunteer Bush Fire Brigades (AVBFB) notes that the prevention, preparedness, response and recovery aspects of emergency management can be identified in terms of separate activities, but points out that they can be difficult to distinguish in terms of funding allocations. (For example, prevention activities such as mitigation burning require firefighting vehicles, which are also required for response activities.)

More specifically, AVBFB considers that DFES does not allocate sufficient funding to bush fire brigades, stating that while ESL revenue has increased by 198 per cent between 2004-05 and 2015-16 (and DFES expenditure excluding grants for bush fire brigades and State Emergency Service has increased by 171 per cent), grant funding for bush fire brigades has only increased by 68 per cent over the same period.

AVBFB states that there are several emergency services that are not currently funded by the ESL – namely the Volunteer Marine Search and Rescue Services and the Surf Life Saving service. AVBFB submits that it may be possible to fund these services via the ESL within a few years by restraining DFES' spending on non-frontline services, but considers that this should not take place until the current issues addressed in the ERA's issues paper are resolved.

AVBFB also states that the ERA needs to obtain and publish detailed information on DFES' current expenditure to allow stakeholders to suggest how ESL funding should be reallocated.

Additionally, AVBFB considers that ESL boundaries, and how they are assessed, need to be reviewed to take into account the full range of prevention, preparedness, response and recovery needs of the community, rather than just response.

Australian Red Cross

The Australian Red Cross submits that any future funding program for activities across prevention, preparedness, response and recovery should:

- support the community and non-government organisations in undertaking emergency planning and resilience building activities;
- provide for both preparedness and recovery activities that support the psychosocial impacts of disasters – not just physical loss; and
- provide for sustained resilience building and recovery activities, acknowledging that individuals' recovery journeys can be long and complex.

Bayswater SES

Bayswater SES receives ESL grant funding from the ESL through its local government. Bayswater SES expressed concern that they must spend the whole amount each year or risk having grants reduced by the unspent amount in subsequent years. As such, there is no incentive to be economical with the funds. Bayswater SES recommends a percentage

of funds be permitted to be carried-over a three year period to allow units to balance their spending more effectively.

Bayswater SES considers the Manual for Capital and Operating Grants contains discrepancies and is confusing. DFES wrote the list of eligible and ineligible items that can be purchased using ESL grants without any consultation. This has led to situations where only one handheld compass may be purchased for each brigade or unit. Bayswater SES considers this to be ludicrous for an SES unit that provides a search capability. Bayswater SES recommends that each group be invited to a yearly meeting to review and forward recommendations.

The Bushfire Front Inc.

The Bushfire Front has a long-held view that ESL funds are being mismanaged and that funds must be re-directed into bushfire mitigation, especially fuel reduction. The Bushfire Front considers fuel reduction will reduce damage caused by 'high intensity bushfires, saving multi-millions of dollars'.

The Bushfire Front notes DFES' operational priority is responding to urban structural fires, rather than bushfire mitigation and preparedness. DFES guidelines for the Local Government Grant Scheme prohibit the use of ESL funds for bushfire mitigation/fuel reduction burning. The Bushfire Front states that this flies in the face of good bushfire management and is not in the public interest.

The balance between prevention, preparedness, response and recovery activities will vary over time, according to priorities based on a State-wide risk assessment. However, there is a short term need to direct a major proportion of ESL fund to prevention and preparedness/damage mitigation to avert an immediate crisis.

The Bushfire Front submits that there are opportunities for significant savings and improved efficiency in the use of fire response funds, especially in the exorbitant (and often ineffective) use of water bombers.

The Bushfire Front does not advocate any change in the scope of activities funded by the ESL, but rather to the priorities for expenditure.

The Bushfire Front considers the need to have an investment strategy setting out priorities for ESL funding. To assist in development of an investment strategy, the following are needed:

- (i) cost work programs with clear and achievable objectives based on risk assessment;
- (ii) transparent guidelines as to how ESL funds will be directed to high risk areas; and
- (iii) a requirement that recipients of ESL funds, particularly DFES and LGAs, account for funds received and how they are spent, with public reporting.

Cascade Scadden Fire Review Ltd

Cascade Scadden Fire Review Ltd (Cascade Scadden) considers that a greater proportion of ESL funds should be spent on prevention and mitigation activities, and notes that funds spent on mitigation activities 'provide a better return for the community than monies spent on response activities'. In its submission, Cascade Scadden states that use of ESL funds

for these purposes is permitted under the terms of the *Fire and Emergency Services Act 1998*.

Cascade Scadden submits that DFES' operating costs should not be funded by the ESL, and rather that they should be funded directly by the State Government. It also states that increases in the ESL have not resulted in commensurate increases of funding for prevention services and frontline services, and considers that this has occurred because the rise in ESL funding has been offset by a reduction in State Government funding.

Cascade Scadden also considers that a greater proportion of ESL funds should be allocated to local governments. In support of this, it states that DFES only allocated 8.26 per cent of ESL funds raised in 2015-16 to local governments, and that 70 per cent of firefighting is done by bush fire brigades funded through those local governments.

Chair, State Emergency Management Committee

Mr Frank Edwards made a personal submission that does not represent the views of the State Emergency Management Committee and the Office of Emergency Management.

Mr Edwards submits that funding for the risks, for which the ESL is raised, should be allocated on the basis of risk assessment. Risk assessment will bring together the full range of risks and consequences into a hierarchy that will allow evidence based funding decisions to be made. These could be made public and could be used as an accountability mechanism to demonstrate the risk reduction component of funding allocation, separate from the response and recovery components.

The Office of Emergency Management is progressing a State Risk Project to determine and analyse the most significant risks across Western Australia (at State, district and local levels), including likelihood, consequences and treatment options. When this work is mature, it will provide a knowledge base that could contribute to funding decisions.

The Bushfire Risk Management Plans for local government can also provide risk and treatment data that can be used to make decisions on bushfire risk reduction or mitigation. Full funding of this project would assist understanding where best to spend funds and to achieve bushfire risk reduction.

An examination should be made of what risks local governments and other agencies (such as the Departments of Lands) "own" and should therefore be expected to fund as part of normal business. Consideration should also be given to whether funding options are needed to support particular local governments that face regular occurrences of high cost natural hazards (for example, cyclone, storm and flood).

The selected mechanism to allocate funding should consider risk and consequence profiles.

Mr Edwards submits that the areas of emergency services that are currently funded are accepted as valid and appropriate, and additional funding should be directed to fuel reduction burns in lands owned or managed by the State (including the Forestry Products Commission). The Department of Parks and Wildlife have recently received large injections of funding from Royalties for Regions for prescribed burns. However, a significant and assured funding stream is needed to manage the risk of catastrophic bushfires as expenditure priorities and levels will change with contributing factors and the effectiveness of previous risk reduction actions. The State Risk Project (when complete) will facilitate annual reviews of the State risk profile and help inform future funding decisions.

Current indicators seem to be that bushfire risk will increase in the South West of the State and “wet” events (cyclone, storm and flood) will increase in the North of the State. Risk mitigation and emergency response will require additional funding if public expectation is to be met.

Chief Bushfire Control Officer, Shire of Denmark

Mr Ross McDougall considers the allocation of ESL funding between various volunteer emergency services to be inequitable. There are severe restrictions on what the Bush Fire Service⁵⁹⁴ (which are managed by local governments) can purchase using ESL grants. There are no such restrictions on the Volunteer Fire and Rescue Service (which is managed by DFES).

For example, Bush Fire Service volunteers have to personally purchase, or seek funding from local governments to purchase dress uniforms to attend official functions, conferences and parades. Volunteer Fire and Rescue Service volunteers are automatically provided these clothing items regardless of request or need. Both types of volunteers should be provided these items on a need basis from ESL funds.

The list of items that are eligible or ineligible for purchase by the Bushfire Service using ESL grant funding is published on the DFES website in the Local Government Grants Scheme Manual. There is not a publically available list of items that are eligible and ineligible for purchase by the Volunteer Fire and Rescue Service. This differential treatment of two volunteer services, both funded by ESL, is inequitable and contributes to the wide held belief that the Bush Fire Service is treated as the poor country cousin.

Chief Bushfire Control Officer, Shire of Plantagenet

Mr Kevin Forbes AM considers that more funding needs to be allocated to local government and other land holder government agencies to improve fire prevention, especially hazard reduction burning in rural areas.

ESL funding should cover all operational aspects of DFES and a rural fire service, except for a component of administration. Administration should be Government funded as all other Government bodies are.

Some appliances used by DFES could be redesigned to a more user friendly, fit for purpose, lower cost appliance.

City of Canning

The City of Canning submits that funding towards prevention should be a priority. Currently, funds from the ESL cannot be used for mitigation purposes, instead it should rely on local governments and State agencies to fund costly mitigation programs. Using ESL for mitigation purposes would result in a reduction in actual incidents and the ESL costs passed to each ratepayer.

The City of Canning submits that funding allocations should be risk-based. This would assist councils with fewer resources to implement effective treatments.

⁵⁹⁴ The Bush Fire Service are also known as the bush fire brigades.

The City of Canning submits that ESL funding be used to fund local government initiatives on prevention or preparedness activities. This will ensure ratepayers are not levied twice.

The City of Canning submits that expenditures on emergency services are likely to increase with climate change and an increasing urban fringe as these properties are exposed to higher risk.

City of Greater Geraldton

The City of Greater Geraldton manages a Local Emergency Management Committee, thirteen bush fire brigades, supports the local State Emergency Service, and is home to the Geraldton Fire and Rescue Service and a Volunteer Marine Rescue Services group.

The City of Greater Geraldton submits that it is struggling to cover the cost burden and expects that all of its costs should be covered by the ESL, which local governments collect.

The City of Greater Geraldton submits that, it is required to pay for site works for new buildings and facilities for local emergency services groups. This imposes significant costs on local governments, which also have to surrender land for the project and administer a loan through the Western Australian Treasury Corporation to finance the project. The City of Greater Geraldton submits that DFES should finance and manage building projects for emergency services, with limited local government support.

The City of Greater Geraldton notes that the salary costs of its staff, who respond to disasters in other jurisdictions at the request of DFES, are ineligible for ESL funding.

The City of Greater Geraldton submits that it should be fully reimbursed for its actual costs for collecting the ESL.

The City of Greater Geraldton submits that ineligible items listed in the local government grant scheme manual should be critically reviewed by volunteer emergency services and local governments. The list of ineligible items includes items that are critical during incidents (for example, mobile pump units, radio networks, defibrillators).

The City of Greater Geraldton submits that transfer of responsibility for volunteer emergency services, from local governments to the State Government, would be more appropriate and transparent, and result in better value to the rate-paying community.

City of Swan

The City of Swan submits that prevention is the emergency management activity the City subsidises most. The City submits that more money needs to be allocated to prevention, specifically noting that insufficient money is allocated to managing State and federal land. The City of Swan submits that the community expressed concern with the way the ESL is managed, particularly the low priority placed on fuel reduction across all tenures in bushland areas.

The City of Swan submits that response is only a small part of the City of Swan's emergency management expenditures and that the proportion of its expenditure on prevention and preparedness will need to increase over time. The City of Swan submits that changes to population, population distribution, climatic changes and community expectations will increase the need for prevention and preparedness activities.

The City of Swan recommends the structure and size of DFES be reviewed to determine future emergency management needs.

The City of Swan submits that there are a number of items that should be claimable through the local government grants scheme and that more basic needs should be covered by the ESL. The City of Swan's total expenditure is higher than the contribution from DFES, leaving a gap of around \$500,000 that the City meets through municipal funds.

The City of Swan also submits that there is an equity issue. For example, the City of Swan is required to pay half the costs of the Community Emergency Services Manager role through municipal funds, while the DFES share is paid by ESL revenue.

Commissioner of Police

WA Police submits that the ERA may wish to consider recommendation that the ESL be extended to all hazards prescribed in the *Emergency Management Regulations 2006*, not just natural hazards.

Western Australian emergency management legislation defines 27 hazards, which are managed by eight different hazard management agencies. Each agency requires an allocation of expenditure to prevent, prepare for, respond to, and recover from hazards.

The Fire and Emergency Services Commissioner is designated as Western Australia's natural hazard risk management agency, but it is not the only agency responsible for natural hazard risk management in the State. Of the 27 defined hazards, eight may be considered natural hazards for which the Fire and Emergency Services Commissioner is responsible for six, (cyclone, earthquake, fire, flood, storm, and tsunami).

Community and Public Sector Union/Civil Service Association

The Community and Public Sector Union/Civil Service Association (CPSU/CSA) raises concerns about the level of funding available for prevention, fuel management, and community and economic recovery. It notes that the Department of Parks and Wildlife (DPAW), local governments, and other major land managers have major bushfire risk management roles, but currently have no access to ESL funding. In particular, it points out that DPAW is reliant on Royalties for Regions funding to carry out its fuel management role, and does not have a stable funding base. Consequently, the CPSU/CSA recommends that the scope of the ESL be expanded to contribute to bushfire fuel management and mitigation in multi-tenured priority hazard reduction zones around town sites. The CPSU/CSA also recommends that any ESL funding contributions to fuel management by DPAW and other land managers should be linked to outcomes and resource efficiency indicators on bushfire fuel management.

More broadly, the CPSU/CSA considers that the newly-established State Bushfire Coordinating Committee should develop a comprehensive bushfire policy framework for the State. (The CPSU/CSA understands that this is a priority for the Committee.) The CPSU/CSA states that this framework should identify the full suite of funding available for prevention, preparedness, response and recovery, as well as identifying any gaps, overlaps and opportunities for improvement.

The CPSU/CSA also states that volunteer funding via the ESL has dropped from about 10 per cent to 6 per cent over the past decade. It considers that the volunteer sector needs to be adequately resourced and that any funds allocated to agencies as an outcome of this review should not be at the expense of the volunteer sector.

Confidential submission

This stakeholder recommends that funds raised from a levy on rateable land, be used to prepare, prevent, respond and recover from emergencies that occur on and over land. This stakeholder submits that the ESL should fund land-based search and rescue organisations (that is, Volunteer Emergency Service, Fire and Rescue Service, State Emergency Service, Bush Fire Service or a rural fire service). Funding must be available for appropriate mitigation works, equipment and clothing, training, buildings and accommodation, victualling, maintenance, vehicles, travel and day-to-day expenses. This stakeholder submits that the ESL should also fund response expenses for operations and expenses for private contractors. This should include expenses for the Incident Controller and those reporting to the Incident Controller other than salary expenses.

This stakeholder recommends that public employees be paid from general government revenue, rather than ESL revenue. This stakeholder notes that when the ESL was introduced, it was promoted on the basis that it would enable volunteer organisations to obtain new equipment and buildings. However, this stakeholder notes that 51 per cent of ESL is disappearing into the public service. This stakeholder questions whether it is fair that only property owners pay the salaries and superannuation of DFES staff.

This stakeholder recommends that some portion of the ESL be set aside for prescribed-burning and be allocated to any department that has this role. This stakeholder notes that no ESL revenue is being spent on mitigation works, although it is the duty of the DFES Commissioner. ESL funding and training need to be provided to Bush Fire Service brigades and funding increased to the DPAW for prescribed burning.

Department of Child Protection and Family Support

The Department for Child Protection and Family Support (DCPFS) submits that the ongoing operational costs of the Register, Find, Reunite (RFR) service be funded through the ESL. DCPFS submits that the program fits well within the ethos and parameters of the ESL because it is of benefit to the community and all hazard management agencies.

RFR is a service operated and managed by the Australian Red Cross on behalf of the federal, state and territory governments. The service is a means to register and reunite people after an emergency, and provides data for recovery purposes.

DCPFS is the commissioning agency for RFR in Western Australia. DCPFS activates the program on behalf of the relevant hazard management agency. Bushfire is the main cause of activation.

Western Australia's contribution to RFR operational costs will be \$48,228 per year till 2020 (when the funding arrangement will be reviewed). DCPFS will fund this commitment in 2017-2018.

Department of Fire and Emergency Services

DFES considers that additional funding directed towards mitigation and preparedness activities would be highly beneficial for Western Australians. In making this point, it notes that:

- it remains essential that funding is allocated to ensure a 'ready state' of response capability, but states that 'this is a critical recurring investment and therefore should not translate to a consequential redirection of funding from preparedness and response to other activities';

- owners and occupiers of land have primary responsibility for fire prevention (including government agencies such as the Department of Parks and Wildlife, and local governments);
- additional funding for bushfire mitigation should be based on bushfire risk management assessments across the State (such as those performed as part of DFES' Bushfire Risk Management Planning Process); and
- the 'non-linear and unpredictable nature of recovery costs' means that they may be unsuitable for funding under the ESL model, especially given that they are already provided via other avenues, including the state and federal agencies.

DFES also notes that further investment in emergency services is likely to be required in the future, citing growth in urban and rural development, increased community expectations, changing technologies, increasing frequency of severe weather events, changes in farming practices, changes in community composition and demographic changes in the volunteer workforce.

Department of Lands

The Department of Lands (DoL) administers Western Australia's Crown land estate under the *Land Administration Act 1997*.

Western Australia has a land mass of 2.5 million square kilometres, of which 92 per cent is Crown land. Responsibility for managing Crown land is legally transferred to third parties via the grant of some form of land tenure. However, unmanaged reserves and unallocated Crown land comprise 38 per cent of Western Australia's land mass. The Department of Lands (and its Minister) is responsible for the on-ground management of fire and other risks on this land.

DoL has entered into long-standing agreements with DFES and DPAW to manage fire risk on unmanaged reserves and unallocated Crown land, but only to the extent possible within the quantum of funding available.

DoL submits that there has been a long struggle to attract adequate funding from the consolidated account for mitigation of fire risk on unmanaged reserves and unallocated Crown land. DoL receives \$450,000 a year (unindexed over the past decade) for fire mitigation, while DPAW receives \$360,000 a year. DoL submits that a fully costed fire preparedness and prevention program on this land would cost \$5.56 million a year over a ten year period.

The State Government has approved an allocation of \$15 million to establish a Mitigation Activity Fund. This fund will be available to owner/occupiers of State-owned land to complement existing efforts to mitigate high priority bushfire risks. DoL submits that these funds will be quickly exhausted within the four year period and is concerned that the pre-existing situation of inadequate funding will return.

DoL submits that the continued roll-out of the Bushfire Risk Management Process is absolutely critical to inform investment in on-ground mitigation.

DoL submits that a component of ESL funding should be used for prevention purposes. DoL submits that it would be useful to remove any doubt as to whether the ESL may legally be applied to prevention, given conflicting views on this point.

DoL submits that there is a need to model increases in demand for ESL funding in response to climate events, changes to the distribution of fire risk through-out Western Australia (for example, arising from increased development of bushland areas, and ageing population), and the increase in, and distribution of, rateable properties.

Emergency Services Volunteers Association

The Emergency Services Volunteers Association (ESVA) submits that ESL funding should be allocated across prevention, preparedness and response, based on analysis of the major risks across Western Australia. Recovery should be covered under disaster relief funding.

ESVA submits that bushfire is the greatest risk to Western Australian rural and urban interface communities. Prevention programs to protect those communities needs to be funded through the ESL. Emergency service organisations needs to focus more on prevention, preparedness and recovery so that communities can be better protected. The cost implications of response would be significantly reduced and emergency responders will be safer if there was a shift in focus to prevention. This would reduce the burden on ESL funding.

ESVA submits that all emergency services expenses should be covered by the ESL including: buildings refurbishment and rebuild, all emergency vehicles (supplied fit for purpose), personal protective equipment, personal protective clothing, training, logistics, IT, administration, management, bushfire risk management planning, mitigation and prevention.

ESVA submits that climate change is already having a major impact on emergency services with increasing size, complexity and duration of incidents. These changes place a burden on emergency services in terms of prevention, preparation, response and recovery activities.

Gidgegannup Progress Association

The Gidgegannup Progress Association (GPA) submits that prevention should be given equal or greater resourcing than other emergency management activities. It submits that ESL funds are primarily spent on preparation and response. Increased prevention should reduce costs of response and recovery.

GPA submits that current resourcing for preparedness needs to be maintained in the short to medium term. All response activities need to be funded by the ESL, because a direct recovery process from affected property owners is not appropriate. Recovery costs that would not normally be expected to be covered by insurance arrangements should be funded by the ESL, subject to special alternative funding arrangements being available.

GPA is disturbed by a trend by all levels of Government to place too much reliance on response to incidents, and not enough on mitigation. GPA observes that private property owners have less experience and confidence in managing risk due to changing population demographics.

GPA submits that there were few mega fires for a 40 year period following the 1961 fires due to a robust hazard reduction program including prescribed burning. From the early 2000s, Western Australia has experienced a large increase in the scale and intensity of bush fires, and an increase in property losses and loss of life.

GPA submits that contributing factors include a drying climate, leading to longer bush fire seasons and limited opportunities for hazard reduction burning. There are also more people living "in harm's way" (tree change effect).

GPA submits that organisational changes have also contributed to risk not being appropriately addressed. The Bush Fires Board (abolished in the late 1990's) was very prevention focussed, but was replaced by FESA, which was more response focussed. The Bush Fires Board carried out extensive hazard management activities on State Government land and supported local governments in prevention activities.

GPA submits that all those involved in hazard reduction need to be far better resourced and supported, either from the ESL or alternative Government funding. Using a remodelled ESL is the most equitable means of achieving the desired result.

GPA submits that temptation should be resisted to centralise bush fire stations by establishing fewer, larger and more widely spread stations. A prompt response to bush fire is critical to limiting the scale of an emergency. Centralisation can lead to a loss of community ownership and resilience.

Kimberley Zone of WALGA

The Kimberley Zone of WALGA group consists of four local governments comprising the Shires of Broome, Derby West Kimberley, Halls Creek and Wyndham East Kimberley who work on strategic projects that will assist the region.

The Kimberley Zone submits that the current ESL arrangements are effective, but could be improved by providing more funding for prevention and preparedness. The amount of levy and proportion of expenditure on prevention, preparedness, response and recovery should take into account:

1. Differences in population and geographic area of local government areas
2. Nature of hazards
3. Risk exposure and effective measures to mitigate risk

The Kimberley Zone submits that Kimberley Shires are characterised by small scattered populations in a vast geographical area that has a significant fire and flooding risk. In this context prevention (fire bans, breaks and controlled burns) and preparedness are more effective than a heavy investment in response.

The Kimberley Zone submits that the need for, and cost of, prevention (controlled burns, fire bans, fire breaks) and preparedness will increase in future should there be increased wet season rainfall leading to more fuel burn.

Mr Alan Hawke

Mr Hawke submits that the lack of any significant change in operating grants to State Emergency Service (SES) units since 2004 suggest that there has been no real effort to match operating expenditure to managing natural hazard risks.

Mr Hawke submits that there has been a consistent reduction in the proportion of available funds for operational purposes for SES units relative to ESL revenues over the past thirteen years. Effectively, SES units have to make do with the same funding, without regard to their changing local, demographic, environmental, social or economic conditions.

Mr Hawke attributes the lack of growth in SES funding to insufficient insight into the real needs of the SES compared with other forms of emergency services.

Mr Hawke submits that the local government grants scheme manual be rewritten to better define ineligible and eligible operational expenditure in terms that can be consistently and equitably applied to all SES units. This process should involve meaningful collaboration with SES units or their Volunteer Association.

Mr Hawke also suggests that the manual provided for a dispute resolution process focuses on interpreting what is and is not an eligible operational expenditure. Mr Hawke submits that there be an independent body (such as the Department of Finance) to which there can be an appeal of decisions by DFES on contentious items.

Mr Hawke submits that local governments can adversely affect the grant allocation to local SES units. SES units are wholly staffed by volunteers who have limited resources to contribute to grant allocation processes (particularly for capital grants). SES unit management must educate local government staff about how the SES contributes to resilience in the local community. The lack of appeals process for disagreements between local governments and SES units may mean that needs for local emergency services may not be satisfied.

Mr Hawke submits that SES units or their representative association should be allowed to take an active part in negotiating their ESL grant funding. Negotiations should have a right of appeal to an independent person, such as the Director-General for Finance.

Mr Hawke submits that SES units should be allowed to underspend their annual grant allocation without affecting the following years' allocation, and possibly allowing the use of a debit and credit system over a rolling five year period.

Mr Hawke submits that SES units be allowed a discretionary component of the ESL grant that can be spent at the discretion of the SES local manager on emergency service related items for local requirements.

Mr Eddie van Rijnswood

Mr van Rijnswood submits that prevention and preparedness should be the main focus of ESL funding. DFES and a future rural fire service should be funded to assist owners of risk or fuel to reduce and manage the respective hazard. This should occur through community engagement and monitoring. The responsibility for reducing hazard should reside with the agency that owns the risk and each agency should fund their own risk reduction programs.

Recovery has always been excluded from ESL funding. Recovery has been handled well by welfare organisations and local government. This has been in conjunction with the national disaster relief funding arrangements.

The ESL should fund a rural fire service (incorporating the Volunteer Emergency Service), DFES, Volunteer Fire and Rescue Service, the Volunteer Marine Rescue Services and the State Emergency Service.

Mr John Mangini

Mr Mangini submits that prevention should be given higher priority than preparedness, response and recovery. He submits that prevention is recognised as the cornerstone of risk management by reducing the long term impact of emergencies on communities. This will have the flow on effect of reducing the costs of response and recovery.

The abolition of the Bush Fires Board led to a dramatic reduction in hazard reduction efforts on Crown land. It also resulted in the support provided by the Bush Fires Board to local government in hazard reduction efforts largely disappearing. Local governments reduced their focus on fire management and hazard reduction. DPAW burning effort has also suffered in the last 15 to 20 years, with fire management staff nearly halved since the 1990s.

Mr Mangini submits that prevention activities, in particular fuel load management, need to be substantially increased across all tenures. All those involved in hazard reduction need to be better resourced and supported. DPAW fire management capacity needs to be rebuilt. The part of the Western Australian government estate not under control of DPAW needs to have its bushfire hazard more effectively managed. Local governments need to be better supported and devote significantly more resources to managing risks and supporting private landholders.

Mr Mangini submits that volunteers, which make up over 80 per cent of Western Australia's emergency response capacity, need to be well supported, encouraged and valued. The inequalities in what DFES may supply from ESL funds and what local governments can fund from ESL must be removed.

Mr Mangini notes that response and recovery are an unpredictable expense due to the high variability in emergencies from year to year. A financial buffer or reserve is required, which needs to be continually adjusted to due to changes in population demographics and as a result of climate change.

Mr Mangini notes that local governments can be hit hard by recovery expenses. Current state and national disaster funding arrangements cover some of this expense. Changes to ESL funding should be made to allow local governments to more effectively access funding. Mr Mangini submits that a potential change would be to remove the requirement on local governments to use contractors rather than their own staff and equipment to carry out recovery works where the cost will be above a certain limit. Mr Mangini considers this requirement to be ridiculous when local government staff may be available at the time.

Office of Emergency Management

The Office of Emergency Management (OEM) submits that ESL expenditure should have closer alignment with recognised risk management processes. Expenditure should be directed towards the most productive treatments and controls and therefore cover treatments ranging from prevention and preparedness, to response and recovery.

OEM submits that the main difficulty is identifying the varying risk burden across the state and developing a suitable mechanism to distribute funding. Ideally, each local government area would have a fully developed emergency management risk plan, including costed treatments. This plan would be the basis of a business case for ongoing funding support. Base funding for each local government would be based on population, land use or land value (or a combination of these), with an emergency management risk plan forming the basis for additional funding.

OEM recognises that this approach would take years to reach maturity and so a stage response would be required. This could begin by explicitly permitting prevention/mitigation expenditure. Local governments would need base level funding to ensure service viability, but district and local funding distribution could be prioritised based on more rigorous risk-based methods.

The State Bushfire Coordinating Committee will provide a mechanism to distribute funds for bushfire mitigation based on a risk methodology.

OEM submits that the services that should be funded by the ESL are those delivered by DFES, local governments and potentially a rural fire service.

Land managers (such as the Department of Parks and Wildlife, and Botanical Gardens and Parks Authority) should remain responsible for funding direct land management responsibilities related to emergency risk (for example, bushfire), but provisions should be made for extraordinary expenses (for example, major bushfires).

Expenditures on mitigation and prevention should be permitted under the ESL, but should not replace a land holder's responsibility for managing their risk.

OEM submits that ESL funding should be available for planning and preparing for tenure-blind risk mitigation and ensuring organisational capacity to deliver risk treatments.

Pastoralists and Graziers Association

The Pastoralists and Graziers Association (PGA) submits that prevention is the most important activity to fund from the ESL, followed by preparedness and response. PGA considers that proper prevention reduces the likelihood of fire or the intensity, velocity and longevity should a fire occur.

PGA submits that effective prevention and response depends on preparation, so adequate funding needs to be directed to fit for purpose equipment and training.

PGA questions whether the ESL should be used to fund recovery activities. PGA expresses concern that funding of recovery could reduce incentives for people to engage in activities that reduce the need for recovery activities and taking out insurance.

PGA submits that subsidiarity, self-interest, self-reliance and volunteerism should be encouraged and protected to reduce the amount of public funds that may be required to meet fire and emergency needs. This will reduce the amount of ESL that needs to be collected in the first place.

President of WA Self-Funded Retirees

Mr de Gruchy notes that the ESL is not designed to purely cover the cost of fighting fires. The ESL also covers road crashes, hazardous and toxic spills, storms, cyclones, floods, earthquakes, searches for missing persons, possibility of terrorist attacks, civil disturbances *et cetera*. Mr de Gruchy submits that there is a danger in only focusing on fighting fires.

Shire of Augusta-Margaret River

The Shire of Augusta-Margaret River submits that the ESL should continue to fund preparedness and response activities.

Local governments with assistance from the State Government should continue to be responsible for recovery activities in the event of an incident.

Preparation or mitigation activities have been the responsibility of private and public property owners and land custodians including local government and State Government agencies. Increased funding is likely to be needed for preparation activity to prevent fire incidents. However, the Shire of Augusta-Margaret River submits that the ESL should not be used as the funding source as this may have a detrimental impact on the preparedness and response activities of emergency services. Increasing the ESL to fund activities in

addition to preparedness and response activities will affect the financial capacity of property owners to fund prevention or mitigation.

The Shire of Augusta-Margaret River supports increased funding being allocated to prevention activities, but this should not reduce ESL funding for preparedness and response activities. If prevention activities are to be funded from the ESL, there needs to be a commitment that funding for preparedness and response activities is not reduced as this would risk the safety of our communities.

The Shire of Augusta-Margaret River submits that there is likely to be greater emphasis upon bushfire prevention or mitigation activities in the future particularly given the Shire of Augusta-Margaret River's recent experience with loss and damage of property arising from the 2011 Margaret River bushfires event. The community has a strong desire to protect the environment and recognises that the Shire of Augusta-Margaret River is in a bushfire prone area.

The Shire of Augusta-Margaret River submits it is essential that the ESL continue to provide funding support for voluntary bush fire brigades and other voluntary emergency services as regional communities are dependent upon these services when an emergency arises. In 2016-17, the Shire of Augusta-Margaret River received \$0.247 million in operating grants for bush fire brigades, but collected \$0.788 million of ESL. The proportion of operating grants for bush fire brigades received by the Shire of Augusta-Margaret River of ESL revenue collected from the Shire of Augusta-Margaret River has been declining.

Shire of Harvey

The council for the Shire of Harvey submits that ESL funding should primarily be allocated to frontline services, including mitigation and response.

The Shire of Harvey considers that DFES employment costs (including the operations of the Office of Emergency Management and Office of Bushfire Management) should be funded from general government revenue, rather than from the ESL.

The Shire of Harvey considers that less than 10 per cent share of ESL revenue returned to local governments via grants to be inadequate and inconsistent with the original intention of the ESL. The Shire of Harvey note that \$58 million in ESL revenue was raised from the South West in 2015-16, but only \$2.3 million was returned in grant funding.

The Shire of Harvey submits that government agencies that own land (and hence the risk associated with that land) are reluctant to fund mitigation. These agencies (including Main Roads WA, Railway Reserves, Water Corporation, Department of Lands) should be included in the ESL categories and levied to fund mitigation programs. There should also be a strategy for fire mitigation works on Australian Government land such as defence reserves and airports.

Shire of Manjimup

The Shire of Manjimup, via its Bush Fire Advisory Committee, makes the following recommendations regarding the allocation of ESL funding:

- Prevention and preparedness should receive a high level of importance and be funded appropriately.
- All costs of response should be fully funded by the ESL.

- A large percentage of the ESL should be allocated to appropriate fleet construction and maintenance.
- The recovery costs of high impact incidents should be funded from State and/or Australian Government revenue.
- The proposed rural fire service should have a strong role in mitigation and be funded adequately to manage mitigation programs, with a focus on constructing and maintaining urban interface low fuel buffers and access.

The Shire of Manjimup notes that local governments are currently responsible for any site costs associated with new capital works for bush fire brigades or State Emergency Service. It raises two concerns regarding this, being:

- the ability of small local governments to meet these costs; and
- the risk that local governments will select sites for capital works based on the cheapest site costs, rather than the most appropriate location.

The Shire of Manjimup submits that the ESL should be used to fund new capital and infrastructure works, rather than local governments being responsible for these costs. It also considers that the following costs should be covered by the ESL:

- the cost of operating local government fire safety and community awareness forums;
- the cost of purchasing and maintaining catering and welfare trailers;
- the costs of cleaning and maintenance of co-located facilities;
- the cost of contractor machine hire, and local government machine and staff costs associated with bushfire response;
- purchase costs for Permit to Burn books; and
- the insurance and maintenance costs associated with self-funded fire appliances (that is, those funded by the Shire or bush fire brigades).

The Shire of Manjimup further notes that brigade-owned slip-on units are not funded by the ESL. While it is recognised that these units form an integral part of bushfire response, there is also an inherent safety risk. The Shire of Manjimup recommends that operation guidelines for the use of slip-on units be developed, and that the capital and operating costs of slip-on units be funded by the ESL.

The Shire of Manjimup also considers that State Government employees, other than career fire fighters, should be funded from general revenue, rather than from the ESL.

Shire of Mundaring

The Shire of Mundaring submits that funding should be allocated to provide for prevention, preparedness, response and recovery activities, with a view to minimise the cost of emergencies to the community and state. The Shire of Mundaring currently applies funding from all sources of revenue to the full spectrum of these activities, but may only apply ESL funding to preparedness and response activities.

Funding for recovery would ideally provide for the development of recovery arrangements and capability. The Shire of Mundaring submits that funding could also be used to establish a reserve fund that local governments could access following a significant incident.

The ESL grants for local governments are too restrictive in how they may be applied and do not properly fund the legitimate costs of bush fire brigades. The ESL funds are unfairly and inequitably distributed.

The ESL should cover costs associated with:

- the local government share of the Community Emergency Services Manager;
- development of Bushfire Risk Management Plans;
- preparedness and community engagement costs;
- bushfire mitigation costs;
- the development of Local Emergency Management Arrangements and community emergency risk assessment processes;
- unfunded aspects of the volunteer bush fire brigades (such as medical assessments and police checks); and
- recovery costs.

Shire of Murray

The Shire of Murray notes that legislation requires the Minister to consult with local governments on amendments to the guidelines for the local government grant scheme. The Shire of Murray submits that there is no real evidence to demonstrate that an inclusive consultation process is being conducted at a local level. The guidelines suggest consultation with volunteer advisory groups, but local government input into this process is not apparent or understood.

The Shire of Murray submits that the guidelines for the allocation of funds are considered restrictive, but these restrictions do not seem to apply to DFES.

The Shire of Murray submits that the guidelines appear to be response focussed and do not provide funding for prevention, preparedness or recovery activities. The Shire of Murray submits that it can only access funding for these activities from local government rates and ad hoc grants from Australian and State Government programs. Despite the guidelines being response focussed, the Shire of Murray submits that there are significant response items for which local governments are ineligible (for example, traffic management and machinery hire at DFES managed incidents).

The Shire of Murray notes that the Council of Australian Governments agreed to adopt a whole of nation resilience based approach to disaster management in 2009. The national partnership agreement on natural disaster resilience provides funding to States to increase community resilience, including through mitigation work. The Shire of Murray submits that a similar model needs to be implemented in Western Australia to include prevention and preparation, rather than being solely response focussed. The Shire of Murray recommends that a high level State based cost-benefit analysis needs to be undertaken to determine the financial savings and benefits to community safety.

The Shire of Murray submits that ESL funding should be provided to develop local risk plans (that is, Bushfire Risk Management Plans, Emergency Risk Management projects), that feed into a State Risk Register. This register should be used to prioritise the treatment of risk irrespective of tenure.

State Emergency Service Volunteers Association

The State Emergency Service Volunteers Association (SESVA) submits that ESL funding should be allocated according to a risk rather than response.

SESVA notes that DFES does very little to engage the community (that is, preparation) unless there is an imminent threat. FESA formerly undertook considerable work preparing the community (in the form of school based programs and attending community meetings). Preparation of the community appears to have decreased, endangering the community and increasing the cost to the State during a disaster.

SESVA submits that delivery of training by DFES in many areas is virtually non-existent and volunteers are left to their own devices for specialised training in other areas. In 2000, a decision was made to conduct nationally accredited training so all volunteers could have transportable skills. SESVA submits that this was abolished for most State Emergency Service (SES) volunteer courses along with the SES training group. Now the training courses are basically designed by fire based people and done in the context of fire.

SESVA submits that there is no consultation with SESVA or its volunteers' advisory committee (SES VAC) on the local government grants scheme manual, including items ineligible for ESL funding. SESVA submits that there are misleading comments in the manual about consultation. The SES VAC may have provided input, but this does not constitute consultation in any collaborative sense.

SESVA submits that urgent review is required of how ineligible items are determined as the continual denial of required equipment or services is unfair on the communities and SES volunteers. In 2016, the local government grants scheme manual stated that a review would be conducted in 2016 for the 2017 manual. This did not happen and the review is now off the agenda.

SESVA submits that funding is denied for meals and water for operations that are not managed by DFES. SESVA units pay for meals out of their own pockets or through fundraising.

SESVA reports inconsistencies across the State and SES units. The local government grant scheme manual indicated that a large SES unit may only have three computers. SESVA submit that seven is the minimum amount of computers required. Some SES units have many more than the three required and provided by DFES. This inconsistency is unfair.

United Firefighters Union

The United Firefighters Union (UFU) submits that more resources need to be allocated towards mitigation and prevention, and additional operational personnel and equipment for outer metropolitan and country areas. UFU submits that additional resources should be allocated on the basis of risk and should include professional fire officers with established operational competencies, including structural response.

UFU submits that there should not be any reduction in funding available for response effort. UFU also submits that recovery operations need to be better coordinated and resourced.

UFU notes that funding recovery through the ESL would require a significant increase in the amount of ESL collected.

UFU submits that expenditures on emergency services are likely to change in the future due to climate change, expansion of infrastructure and population, ageing of the volunteer population, the need to resource isolated communities instead of relying on crews from other towns, the need to protect ports and marinas, and the cost of technology.

WA Farmers Federation

The WAFarmers Federation (WAFarmers) submits that the current system of ESL is distributing funds on a response based mechanism, as opposed to a risk based system, which neglects the requirements of mitigation. WAFarmers considers mitigation a highly important aspect of emergency management.

WAFarmers submits that DFES need to separate the gazetted fire districts and the ESL boundaries. This will allow funding to be allotted to high risk areas as well as meet the future needs of emergency management.

WAFarmers submits that current arrangements do not result in a great return to rural and regional areas. This is of particular concern as the peri-urban and remote areas carry some of the highest risk of emergency events occurring, particularly with bushfire and cyclones. Local government must apply for funding via a grant process. This does not ensure that funding is allocated where it is needed because of the competitive processes or because local governments may not apply. WAFarmers submits that this piecemeal approach has potential to leave particular communities under-resourced and vulnerable should an emergency event occur.

WAFarmers submits that DFES should receive funding from the consolidated account to pay for administration costs.

WAFarmers submits efficiencies can be made on machinery and equipment expenditures. Many new fleet land cruisers having very minimal firefighting capacity; an example of an expensive asset not being fit for purpose.

Volunteers and farmers have a raft of firefighting equipment that they bring during an emergency. DFES or the Rural Fire Service does not need to purchase new equipment on every occasion. WAFarmers submits that asset management and asset preservation could involve equipment being rotated from the metropolitan area into rural brigades. There is no requirement for each piece of equipment to be straight off the production line as this leads to fiscal wastage.

WA Famers submits that the ERA or the Auditor General should conduct a stocktake of the fire and rescue function throughout Western Australia. WAFarmers submits anecdotal evidence that a metropolitan fire station with full-time staff supplying a 24 hour service is only attending to approximately 50 call-outs per year. If correct, it does make it difficult to justify this service into the future.

Western Australian Local Government Association

The Western Australian Local Government Association (WALGA) has based its submission on a survey sent out to its members across Western Australia. The views of respondents appear to vary significantly, and as such, the submission does not make specific recommendations across all areas raised in the ERA's issues paper.

WALGA notes that, based on survey results, there is a perception of over-spending on response activities at the expense of all other activities, in both regional and metropolitan areas.

Additionally, WALGA states that, while DFES provides funding to local governments in return for administering ESL collection, this funding is generally not sufficient to offset the costs incurred by local government. WALGA suggests that this has resulted in a funding gap of \$1.7 million that is borne by the local government sector.

WALGA considers that the function of the Local Government Grants Scheme (LGGS) is to enable DFES to fund the costs of providing and maintaining an effective bush firefighting and state emergency capability for local governments. WALGA submits that a major challenge for local government is that many of the emergency services activities it undertakes are not eligible for ESL funding through the LGGS. WALGA also notes, for example, that local governments are required to administer SES capital and operating grants, even though they have no legislative responsibility for the SES, creating a further administrative burden. Local governments are also responsible for SES facilities site costs, with no recourse to recover these costs through the LGGS.

WALGA considers there is a need for a comprehensive review to consider the expansion of the ESL to include access to funding for items not currently deemed eligible for funding, and that fall into the prevention and preparedness aspects of emergency management.

Method for setting the ESL

Association of Volunteer Bush Fire Brigades

AVBFB considers that the current method for setting the ESL works efficiently in terms of collecting revenue. However, it submits that there may be room for minor adjustments to the thresholds, as well as an opportunity to move from a response-based approach to a risk-based approach.

It also states that corporate group ratings needs to be reviewed to ensure the system is not being used to avoid full corporate contributions by grouping land holdings together for the purpose of the ESL.

Chair, State Emergency Management Committee

Mr Edwards notes that any method for setting the ESL will attract some criticism. He raises the following concerns:

- the fairness of property owners of high-rise buildings in the CBD and major suburban shopping malls contributing to sea rescue and bushfire response in rural and semi-rural areas;
- the possibility that property owners in Category 5 areas may not receive any emergency response due to local factors such as availability of volunteers (but that there is no assessment of the risk of this happening until a response is needed);
- the effectiveness of the current model in producing equal value for money in terms of response across various geographical categories;
- whether it can be demonstrated that ESL revenue raised in each category is actually related to response in those category areas;

- the role of owner insurance in determining appropriate contributions;
- whether capital values may be better for assessing ESL rates than gross rental value; and
- whether the State should contribute to the ESL for large tracts of State-owned and managed land, which are subject to bushfires and impose risks on other properties.

Mr Edwards points out that, though the concept of an individual risk assessment of properties has been raised as a fair way to raise ESL revenue, the costs of such an assessment process would need to be balanced against the benefit of using those funds for mitigation or response.

Mr Edwards notes the current ESL system is based on general levels of response capability that are funded for locations. He submits that a future system should take both risk and the consequences of various response levels into account when determining what level of capability should be provided in each location. However, he does note that this is a difficult task and it may have already been performed to some extent in the development of the current ESL model.

Chief Bushfire Control Officer, Shire of Plantagenet

Mr Forbes states that current method of setting the ESL Levy is appropriate but that it cannot keep increasing at the rate it has over the past 13 years. He notes that the rural levy has doubled over this period.

City of Canning

The City of Canning submits that an equitable method for setting ESL rates would need to ensure that the levy reflects differences in the ability of property owners (and their tenants) to pay.

The City of Canning suggests that fixed levies (charged by tables/bands) may be equitable, particularly given that a significant portion of inner metropolitan properties would already be charged the maximum residential rate (\$375). This could be supplemented by a fee for service approach.

The City of Canning notes that the blanket metropolitan area rate does not consider the riskier urban fringe and submits that more categories could be introduced to take this risk into account (for example, inner metro, rural, urban fringe).

The City of Canning also submits that basing ESL rates on gross rental value bears no does not reflect service requirements.

City of Swan

The City of Swan submits that the ESL categories should be re-examined, since the current method of categorising properties is inequitable – for example, many farmers are rated as ‘commercial’ and so face a higher maximum charge than other groups, such as absentee owners and hobby farmers. These absentee owners and hobby farmers are a higher risk group and more likely to require DFES services, but pay a lower rate. The City of Swan supports a higher ESL rate for higher risk areas.

Confidential submission

This stakeholder submits that sea search and rescue should be funded from a levy raised from licenced ocean-going vessels. This stakeholder notes that, when the ESL was established, it was not deemed appropriate to use ESL revenue to fund sea-rescue. This stakeholder states that DFES now uses 10 per cent of its annual ESL revenue to fund the Volunteer Marine Rescue Services. This stakeholder considers that it is inappropriate for property owners to pay through their rates, for a service which is highly-unlikely to be needed by the vast majority of Western Australians.

Department of Fire and Emergency Services

DFES submits that a ‘current and future state needs analysis’ is required, before the appropriateness of the current method for setting the ESL can be assessed. However, it comments that:

- legislative changes may be necessary, if a needs analysis identifies functions that fall outside the current scope of the ESL (given that the functions the ESL can support are determined by legislation);
- if the ESL is to be used as a primary funding source for a different service in rural areas, it may be necessary to review the ESL-setting methodology to reflect the types of service available in each location; and
- in making decisions about funding current and future requirements, all potential funding sources should be considered – not just the ESL collected from property owners.

DFES does not provide a specific recommendation on improving the current method for setting the ESL. However, it notes that any change to the approach should take into account the principles that underpinned the original design of the ESL and the effects of any departure from those principles.

Emergency Services Volunteers Association

ESVA submits that the method for setting the ESL could be improved by charging according to the cost of the risk imposed in a geographical area, rather than the type of emergency response available in an area.

ESVA suggests introducing a new category for properties in designated “bushfire prone areas” (including some areas in Category 3). ESVA submits that a bushfire prone area in the urban metropolitan area is at higher risk than a regional city or a country town with good bushfire management strategies in place.

ESVA states that it may appear that the metropolitan area is funding country towns under the current system, but notes that the cost of a career fire station is considerably more than a station manned by volunteers in small towns.

Gidgegannup Progress Association

GPA considers that the current method for setting raising emergency services funding is reasonably equitable and considerably better than the method it replaced.

GPA submits that a risk-based levy would be problematic, given the administrative difficulty of determining risks posed to or by individual properties. It also states that risk is ‘most tied to the land which we occupy’, in support of maintaining the current system.

GPA believes that a small to moderate increase in the rate would be acceptable to most ratepayers provided there are substantial demonstrable prevention gains.

Grape Growers Association

GGA considers that the ESL rate for “Residential, Farming and Vacant Land” is reasonable. However, famers in the Swan Valley are rated as “Commercial, Industrial and Miscellaneous” rather than as “Residential, Farming and Vacant Land”. GGA submits that this is inequitable, that Swan Valley farmers do not receive the emergency services for which they pay, and that the aim of DFES is to maximise ESL revenue.

GGA further notes famers as commercial is neither related to the cost of the DFES service provided, or the risk posed by grape growers in the Swan Valley. GGA states that grape growers are the least likely to need emergency services because vineyards do not burn. The highest risk groups in the Swan Valley are hobby farmers and absentee owners, but those in that group pay the lowest rate.

GGA also considers that the use of gross rental value is unreasonable. The Valuer-General calculates gross rental value of farm land as 5 per cent of the unimproved value – a return that cannot be achieved through leases. GGA submits that the State should declare an additional ESL category to be applied to farms in the Swan Valley to address this anomaly.

GGA proposes a review of ESL boundaries based on the services DFES will supply, rather than response time from the closest fire station. It notes that response time has been used to set the ESL Category 1 boundary, but on arrival the units require hydrant support at 200 metre intervals, which is not available in most of the Swan Valley.

GGA notes that the current use of grouped ratings is appropriate in an area where lot sizes are small, and that most farms consist of several lots. However, an inequity results when famers have multiple lots that are not adjoining and are required to pay ESL on every lot, resulting in a higher ESL cost. GGA considers that farmers with multiple non-adjoining lots should also be able to pay a single ESL fee.

Mr John Mangini

Mr Mangini considers that the current method for setting raising emergency services funding is reasonably equitable and considerably better than the method it replaced.

Mr Mangini submits that a risk-based levy would be problematic, given the administrative difficulty of determining risks posed to or by individual properties. He also states that risk is ‘most tied to the land which we occupy’, in support of maintaining the current system.

Mr Mangini believes that a small to moderate increase in the rate would be acceptable to most ratepayers provided there are substantial demonstrable prevention gains.

Office of Emergency Management

OEM considers that there are some problems with the current method for determining ESL rates.

OEM states that the assumptions underpinning each category are too broad and lead to anomalies. For example, Category 5 (a flat levy) is applied to some country towns and also to pastoral properties in remote areas. The local government bush fire brigade services available in each of these types of area are vastly different, but the levy per property and linked service are the same. Similarly, Category 4 services are categorised together regardless of the nature of the risk or the capability within the serviced area.

OEM also notes that SEMC recommended (as part of an examination of bushfire related expenditure) that consideration be given to basing the ESL on the improved capital value of the relevant property. This is used in other jurisdictions and is arguably a better financial risk indicator than gross rental value.

Pastoralists and Graziers Association

PGA submits that a comprehensive, independent audit of fire and emergency risks across Western Australia, and the current capacity to manage those risks, should be undertaken as a starting point for setting the ESL. PGA states that this should occur across all land tenure types and across all governance jurisdictions (government departments and local governments). PGA submits that the audit entity must be independent given the numerous vested interests involved in the managing fire and emergency risks, and that an audit is essential to differentiate between 'needs' and 'wants' of stakeholders.

PGA submits that a comprehensive audit would help to identify and clarify complex land ownership arrangements. This is crucial issue for PGA members, as their properties may be bounded by a number of different land tenure types, each with a different responsible entity, which may or may not have sufficient budget and resources to manage fire.

President of WA Self-Funded Retirees

Mr de Gruchy submits that the Government should not use a levy to fund emergency services. He submits that it is tantamount to impose a levy to fund other government departments (such as health and education).

However, if the ESL is to remain, Mr de Gruchy considers that a rate in the dollar applied to gross rental value is a flawed approach for collecting revenue, because gross rental value does not reflect the ability of a land owner to pay a higher premium. Many wealthy homeowners live in modest dwellings that have low gross rental values. In contrast, there are elderly homeowners who have lived in their house for 30 to 40 years who do not enjoy a high income, but have experienced significant increases in the gross rental value of their property. These people do not have a greater ability to pay than others.

Mr de Gruchy submits that it is inappropriate to vary the amount property owners pay in ESL rates purely on the proximity of a residence to a fire station. He states that 'most fires are located in the country where the cost of helicopters and water bombers is much higher than a firetruck in the suburbs'. He considers that the burden of funding emergency services should be shared equally by everyone residing in Western Australia (that is, everyone pays the same amount).

Mr de Gruchy submits that if there is no political will to abolish the ESL, then a possible alternative would be to implement a levy like the Medicare levy, which is imposed on income tax. He considers that this will ensure that all taxpayers contribute, and that people on high incomes pay more than people on low incomes. Mr de Gruchy notes that this would require the Australian Government to collect the tax and remit it to Western Australia. This would involve an administrative cost, but he notes that the State is already incurring a cost in paying 138 local governments to collect ESL revenue.

Mr de Gruchy submits that alternative approaches could include:

- levying a flat amount on each household, similar to the flat rate applied by local governments for rubbish collection; or
- replacing the four categories for domestic residences with a single flat residential charge. Under this approach, the fixed charges for Category 5 (pastoral/rural areas) and mining tenements, and the charges for commercial and industrial premises should remain unchanged.

Shire of Augusta-Margaret River

The Shire of Augusta-Margaret River considers that it is not possible to specifically comment on whether the current method is appropriate for current and future needs. However, it notes that the calculation method used for property is reasonably straightforward and similar to that used for local government property rates and water rates, and that there is no concern with this calculation method.

Shire of Harvey

The Shire of Harvey does not comment specifically on the method used to calculate the ESL. However, it does note that the amount collected by the ESL should be able to grow 'as subdivisions and a greater land bank eventuates through natural growth'. It also states that any growth in ESL revenue should be used to respond to demand for frontline services resulting from greater occupied area and population, rather than being 'siphoned off to administration or non-frontline areas'.

Shire of Manjimup

The Shire of Manjimup considers that the current method for setting the ESL is appropriate.

Shire of Mundaring

The Shire of Mundaring submits that the ESL should be set so that the cost burden to the community is distributed according to risk, rather than according to the provision of emergency services.

Shire of Murray

The Shire of Murray submits that the current system of ESL collection, based on six categories and a Gross Rental Value is appropriate. It notes that the rate in the dollar requires review to accommodate greater expenditure on prevention and preparedness activities, but this may be offset by a reduction in local government rates to the extent that local governments currently fund ineligible items (that is, activities that cannot currently be funded via DFES grants) through rates.

The Shire of Murray submits that a separate user-pays funding model should be developed to fund the Volunteer Marine Rescue Services, and road crash rescue by Career and Volunteer Fire and Rescue Services. This could be based on vehicle and boat registration licence levies.

United Firefighters Union

In considering the method for collecting the ESL, UFU submits that detailed consideration needs to be given to the history of funding for bush fire brigades and the creation of legislation for collecting and disbursing ESL. UFU notes that a number of principles underpin the design of the ESL, including: cost neutrality, application of funds only to purposes for which the ESL was designed, efficiency and accountability, maintenance of existing service levels and fairness and equity.

WA Farmers Federation

WAFarmers considers that the current way in which ESL is set, and collected alongside rates, is sound.

Western Australian Local Government Association

WALGA considers that the ESL, as it currently stands, meets the taxation principles of equity, efficiency, and simplicity outlined by the ERA in its issues paper. However, it submits that this does not mean that the current arrangements are working effectively from the perspective of local government.

WALGA notes that members are concerned that the current level of funding generated by the ESL is not sufficient to cover all emergency services now or into the future. It submits that this is raising pressure on the local government sector to contribute additional funding to ensure that there is a suitable level of service for the community.

WALGA also states that members have raised concerns about the fairness of the system in the current economic climate, to the extent that it does not take into account individual circumstances and capacity to pay – particularly in an environment of rising unemployment.

Additionally, WALGA is concerned that emergency services are funded by a mix of hypothecated revenues (the ESL) and other sources (for instance, general revenue). It contends that the ESL is intended to fund all emergency services in Western Australia and states that in practice this does not occur. WALGA's concern is that the benefits of hypothecation are diluted by this mixing of revenue sources, since rate payers do not receive a clear signal about the true cost of providing emergency services.

Funding a Rural Fire Service

Association of Volunteer Bush Fire Brigades

AVBFB considers that the ESL should be used to fund the proposed rural fire services. It considers that the cost of funding rural fire services need not impose a significant burden on rate payers, stating that:

- such a service could be funded by cuts to DFES as it relinquishes its current responsibilities in the bushfire and volunteer sector;
- greater scrutiny and accountability for ESL spending will result in cost savings, which will release funding for the proposed rural fire service, and possibly also provide funding for increased mitigation burning.

AVBFB considers that a rural fire service should not be used as a vehicle to push for an increase in ESL revenue through higher charges. Rather, it expects the Government to

ensure that ESL and DFES expenditures are thoroughly and independently assessed to identify cost savings through the restructure, and through general efficiency gains in DFES' operations.

AVBFB requests that the ERA consults with itself and others with bushfire experience on any model it develops to be used to estimate the cost of the proposed rural fire service. AVBFB considers this is necessary to ensure that effort is not wasted on unnecessarily extravagant models and that the likely cost of the proposed service is not misrepresented to the ERA.

The Bushfire Front Inc.

The Bushfire Front submits that a rural fire service must in part be funded from the ESL. In time, if the rural fire service is effective and there are fewer intense wildfires, money will increasingly become available from consolidated revenue that was previously wasted on fire suppression costs that could have been avoided. These earned funds should also go back to the rural fire service.

Cascade Scadden Fire Review Ltd

Cascade Scadden submits that if a rural fire service is established:

- all operating costs should be funded by the State Government;
- the rural fire service should be required to make an application for any funds to an independent body that administers ESL funding; and
- the funds provided to the rural fire service should cover the costs of prevention and mitigation activities.

Cascade Scadden also notes that DFES should be funded in the same way.

Chair, State Emergency Management Committee

Mr Edwards submits that extra funding will be required if the rural fire service is going to add to existing capability.

While the concept of user pays for a rural fire service may appear attractive, the cost per property is likely to be excessive. A consideration is the State contribution as an owner of State lands, particularly given the known fuel loads and consequent risks to third party property. In some South West local government areas, up to 85 per cent of land is State managed forests with high fire risks. Mr Edwards questions whether, in these instances, whether the State will pay 85 per cent of the cost of response through an ESL type contribution or whether only private property holders will contribute.

Mr Edwards submits that any ESL cost imposition for a rural fire service must be equitable and affordable to land owners.

Chief Bushfire Control Officer, Shire of Plantagenet

Mr Forbes considers that a rural fire service must be funded by the ESL. DFES is currently claiming funding to operate rural fire management and support local governments. Even though they have failed in this role, a huge amount of money has been absorbed by DFES that must be reallocated to a rural fire service. Local government grants also need to be

extracted, along with truck replacement funding. This needs to be managed by a rural fire service.

Overall expenditure should not change greatly with the creation of a rural fire service, if the reduction of staff and assets of DFES is managed in an appropriate manner. Many current positions may not be able to justify their existence. There will be significant cost savings if expenditure on the operation of Cockburn Central office is reduced to an appropriate level.

The State Government may need to partially fund the administration of both DFES and a rural fire service. Mr Forbes submits that the ESL rate is currently high enough in rural areas where many people contribute thousands of dollars a year in labour to bush fire control.

City of Canning

On the matter of whether a rural fire service should be funded by the ESL, the City of Canning submits that the principle consideration should be equitable access to emergency services by all Western Australians across the State. ESL rates will increase if an additional service, such as a rural fire service, is funded under the current funding model.

City of Swan

The City of Swan supports the establishment of a rural fire service in principle. However, the City of Swan has reservations about the creation of another department to manage bushfires and the risk of multiple agencies in conflict. Community feedback is that a rural fire service should be funded from the ESL. This should occur at little or no extra cost with most resources being transferred from DFES to a rural fire service.

Confidential submission

This stakeholder submits that a rural fire service should be funded by the ESL. A rural fire service would meet the requirements of the *Fire and Emergency Services Act 1998* because it would be directly, or indirectly responsible, for bushfire mitigation, response and preparation. This stakeholder submits that the current funding to bush fire brigades can be directly transferred from DFES to a rural fire service, provided that DFES no longer controls ESL distribution.

This stakeholder submits that ESL rates would not need to increase to fund a rural fire service, provided an authority other than DFES distributes the ESL, avoiding the 'enormous waste of public money'.

This stakeholder submits that some personnel will need to be recruited to train and administer the rural fire service because DFES does not have employees that deal specifically with the bush fire brigades.

This stakeholder suggests that firefighting schools of excellence be established. These training centres would cater for a rural fire service, Department of Parks and Wildlife staff and volunteer bushfire fighters. This would ensure identical procedures will be learnt by the people who will be responding to wildfires in forest. This stakeholder notes this may increase expenditure by bush fire brigades as they currently do very little and very basic training.

Department of Fire and Emergency Services

DFES notes that the Government has yet to make a decision on the structure, form, and role of a rural fire service, and so it is difficult to estimate the future cost of such a service. It highlights the following issues that will inform the cost of a rural fire service:

- the extent of the need for any enhanced capability for rural fire management and bushfire risk management;
- whether a rural fire service will be an independent body, or a sub-department of another agency (thereby minimising costs by sharing existing corporate support services);
- whether funding for existing rural fire management and bushfire risk management services currently performed by other agencies will be consolidated and redirected to the new rural fire services; and
- the determination of an appropriate method to distribute ESL costs of a rural fire service.

DFES notes that (based on the current methodology and levels of service), the average residential charge for Category 1 properties will increase by approximately one dollar for every additional one million dollars of expenditure.

Department of Lands

DoL submits that it is difficult to conceive any argument against funding the proposed new rural fire service from the ESL, given the stated purpose of the ESL.

DoL submits that the cost of a rural fire service would depend on what the service is tasked to do, and whether it is formed from existing DFES staff. If staffing for a rural fire service comes from existing DFES, it should have minimal effect on ESL rates.

Emergency Services Volunteers Association

ESVA submits that a rural fire service should be funded by the ESL. However, this would require better alignment between the costs incurred in an area and the revenue raised from that area.

ESVA (along with other peak bodies) proposes that a rural fire service use and share many services already within DFES such as Training Centre, State Operations Centre, Metropolitan Operations Centre and Administration.

ESL will need to be reviewed carefully when a rural fire service is established as there will be duplication arising from two emergency service management organisations and, therefore, extra costs.

Gidgegannup Progress Association

GPA submits that a rural fire service should be funded by the ESL. A rural fire service would be responsible for managing fire risk on most Western Australian government land and private land across all tenures outside the gazetted (urban) fire districts. Managing that risk benefits all communities and so should be supported by the community on the basis of

shared responsibility. GPA submits that the ESL is (subject to the outcome of this review), the most equitable means of securing the funding required.

GPA submits that the cost of the rural fire service depends on the model. Most physical resources would be transferred from DFES to a rural fire service, except for Fire and Rescue Service stations and fleet, and a portion of administrative staff and premises. Overall, there should be no increase in staff employed by the Western Australian government to form the rural fire service. GPA submits that this may be an opportunity to reduce a bloated DFES bureaucracy.

GPA submits that ESL funding should be available for local governments to employ hazard mitigation staff. This may increase initial costs, but this would result in net benefits in the long term.

Mr Eddie van Rijnswood

Mr van Rijnswood submits that there is sufficient ESL funding to fund the transition to, and operate a rural fire service. The ESL has not been used efficiently and so savings could be possible under the revised arrangements.

Mr John Mangini

Mr Mangini submits that a rural fire service should be funded by the ESL. A rural fire service would be responsible for managing fire risk on most Western Australian government land and private land across all tenures outside the gazetted (urban) fire districts. All of the communities in areas covered by this rural fire service would benefit from managing fire risk. Therefore, the responsibility for supporting a rural fire service should be shared by these communities. Mr Mangini submits that the ESL is (subject to the outcome of this review), the most equitable means of securing the funding required.

Mr Mangini submits that the cost of a rural fire service depends on the model. Most physical resources would be transferred from DFES to a rural fire service, except for Fire and Rescue Service stations and fleet, and a proportion of administrative staff and premises. Overall, there should be no increase in staff employed by the Western Australian government to form the rural fire service.

Mr Mangini submits that the preferred model is for a rural fire service to be independent of DFES. Some personnel with extensive and credible bushfire management experience would be expected to transfer from DFES to a rural fire service. Mr Mangini considers that most DFES staff would not meet that test, resulting in significant redundancy costs to reduce the DFES management structure to reflect its reduced roles and responsibilities.

Mr Mangini submits that ESL funding should be available for local governments to employ hazard mitigation staff. This may increase initial costs, but this would result in net benefits in the long term.

Office of Emergency Management

OEM submits that a rural fire service should be funded from the ESL.

OEM submits that it is not in a position to quantify the likely cost of a rural fire service, but envisages the sum of all ESL grants provided to local governments (for their bush fire brigades) would be a suitable start point. OEM submits that additional costs would include a proportion of all DFES activities that provide bushfire-related services to local governments and their brigades, and to clients outside current ESL 1, 2 and 4 areas.

Pastoralists and Graziers Association

PGA supports the establishment of an independent rural fire service, with an independent chief officer and a rural-based independent administration, training and communications centre. PGA envisages this would be a relatively small administrative 'hub', with most rural bushfire fighting capacity dispersed across rural landscape.

PGA submits that most equipment and bushfire fighting personnel should be locally supplied, consistent with its principles of subsidiarity, self-reliance and volunteerism. If adopted, this model could result in the ESL rate being significantly reduced without compromising the quality of fire and emergency outcomes.

Shire of Augusta-Margaret River

The Shire of Augusta-Margaret River submits that a rural fire service should be funded by the ESL if this service is to be responsible for volunteer bush fire brigades. This would be consistent with current arrangements.

The Shire of Augusta-Margaret River submits that it would be concerned if another bureaucratic structure similar to DFES is created. Such a service should be part of DFES, rather than a separate entity, and this would allow synergistic benefits to be obtained with respect to resourcing, governance frameworks, policies and operational procedures.

Shire of Harvey

The Shire of Harvey supports the establishment of a rural fire service as a separate entity from DFES, with adequate resourcing. An equitable funding source will need to be established for a rural fire service. The ESL was not set up to fund a rural fire service.

Shire of Manjimup

The Shire of Manjimup states that it is difficult to assess whether a rural fire service should be funded by the ESL, in the absence of a more detailed model of that service. However, it makes the following recommendations, based on the assumption that bush fire brigades will remain the responsibility of local government:

- All State Government employees' salaries should be funded from general revenue, rather than by the ESL.
- Career Fire and Rescue stations and employment costs should be funded from the ESL.
- If the Community Emergency Services Manager program is retained, the employment cost of that program should be funded by the ESL.
- If a new headquarters is constructed for a rural fire service, the construction cost should be funded from general revenue, and ongoing maintenance should be funded by the ESL.
- If a new training facility is constructed for a rural fire service, the construction cost should be funded from general revenue, and ongoing maintenance should be funded by the ESL.

- Any mitigation activities performed by a rural fire service should be funded by the ESL.

The Shire of Manjimup notes that, in the absence of a model for the proposed rural fire service, its likely costs cannot be quantified. However, the Shire of Manjimup contends that there should be no rate increase in the ESL as a result of the introduction of a rural fire service.

Shire of Mundaring

The Shire of Mundaring submits that a rural fire service could be partly funded by the ESL.

The cost of a rural fire service is largely dependent on the structure of such a service. It is reasonable to conclude that such a service could consist of emergency service resources already in place in the areas concerned.

Shire of Murray

The Shire of Murray submits that the ESL is the appropriate mechanism for funding a rural fire service, with additional funding, should it be required, provided by the State.

State Emergency Service Volunteers Association

SESVA support a model whereby DFES has one commissioner with three separate service units (rural fire service, State Emergency Service, and Fire and Rescue Service) each with their own chief reporting to the Commissioner. All current support services based at Cockburn, Forrestfield and O'Connor would provide shared services. Shared services would include administration, state operations centre, metropolitan operations centre, communication centre and training academy.

United Firefighters Union

UFU strongly opposes the establishment of a separate rural fire service on the basis that it will duplicate bureaucracy rather than maximising economies of scale and efficiency.

UFU estimates that establishing a separate rural fire service will cost \$400 million, and annual operating costs will be tens of millions of dollars. UFU notes that ESL Category 1 rates will need to increase by one dollar for every \$1 million raised. As such, ESL rates would need to increase by \$400 per property in Category 1 to fund the establishment of the rural fire service. UFU submits that this cost would be unreasonable and untenable for many families and businesses.

UFU submits that all existing areas of responsibility should continue to be funded from the ESL and additional services should be funded through an increase in ESL charges to regions receiving those improved services. UFU submits that this would require significant legislative change and stakeholder consultation.

WA Farmers Federation

WAFamers submits that a rural fire service may require a one-off payment from consolidated revenue for its establishment. Once established, the operational costs of the rural fire service should be funded through the ESL.

WAFamers submits that Category 3, 4 and 5 levy payers will receive most benefit from the rural fire service. WAFamers submits that a review should be undertaken of these categories to ascertain how much funding they raise through ESL. A portion of this funding should be quarantined solely for the rural fire service.

WAFamers anticipates that a rural fire service will have shared services with SES and Emergency Services. As such, it is acceptable that remaining revenue from these categories be used to assist with shared services (for example communications centre and training facilities).

WAFamers submits that ESL revenue does not need to grow. Rather, revenue needs to be divided and distributed more effectively given there appears to be significant wastage.

Western Australian Local Government Association

WALGA states that the most local governments surveyed considered that the proposed rural fire service should be funded by the ESL. Most respondents also considered that this would require an increase in the ESL.

WALGA submits that, if it is determined that a rural fire service will assume responsibility for bush fire brigades (with local governments transferring this responsibility to the State Government), the LGGS would need to be reviewed. It considers that the LGGS could be expanded to focus on prevention and mitigation activities, which are not currently eligible for funding under the LGGS.

Governance arrangements

Association of Volunteer Bush Fire Brigades

AVBFB is concerned that there is a lack of governance around spending of ESL within DFES, while funds spent by bush fire brigades and the State Emergency Service (SES) are micro-managed by DFES.

AVBFB states that the information provided in DFES' annual reports is not sufficiently transparent. AVBFB submits that DFES should release expenditure data at a more detailed level, such as reporting its direct career fire station staff and costs separate to its other activities, which should also be reported on as individual activity hubs. Furthermore, this detail should further be refined to show spending by geographical area. AVBFB proposes that DFES publish the following:

- expenditure information for individual sections of DFES;
- spending on specific projects;
- allocations to specific areas and services; and
- spending by function at a detailed level (such as mitigation spending by Local Government Area).

AVBFB submits that there needs to be a mechanism in place that requires the Minister for Emergency Services to take into consideration the views of interested parties and the wider community, rather than relying only on DFES' budget proposals.

AVBFB proposes that:

- the Government transfer responsibility for allocation of ESL funding to a 'disinterested third party agency';
- this agency should take into account the views of a third party advisory body, comprising of representatives from emergency services funded by the ESL; and
- this advisory body should have recourse to the Minister for Emergency Services should it strongly disagree with the agency's proposed ESL allocation.

AVBFB also states that simply moving the allocation process from one agency to another will not guarantee improved results, particularly if DFES continues to be the sole source of recommendations to that other agency. AVBFB considers that the allocation process should be akin to a budget process, whereby DFES is just one of several organisations submitting requests for ESL funding.

The Bushfire Front Inc.

The Bushfire Front states that DFES do not appear to be subject to the sort of stringent financial controls experienced by other government agencies, nor have they recently been subjected to a serious functional review.

The ESL needs to be managed by an independent third party with input from DFES, DPAW, local governments, the Economic Regulation Authority and the Department of Finance. An appropriate independent body would be the State Emergency Management Committee.

The independent body should provide a public annual statement on (i) the framework used to determine the level and allocation, (ii) the total funds collected, (iii) the bodies to whom the funds were allocated, and (iv) the programs on which the funds were spent. The public should be advised the degree to which funding allocation supports government objectives for bushfire management. ESL expenditure should be subject to an independent audit.

Cascade Scadden Fire Review Ltd

Cascade Scadden considers that rate payers are entitled to know exactly how and where ESL funds are spent. It states that the body charged with administration and distribution of ESL funds should be required to:

- report annually on how ESL funds have been allocated to specific services and regions;
- undertake activity-based costing, to allow for accurate reporting on the amount spent on various ESL-funded activities; and
- provide a greater degree of detail about ESL spending than what is currently seen in DFES' annual reports.

Cascade Scadden is of the opinion that an independent body should be appointed to allocate ESL funding, and that this would avoid the risk of any conflict of interest affecting the proper administration of ESL funding. DFES should then have to apply to this independent body to receive ESL funding, as should all other recipients of ESL funding. Cascade Scadden considers that the Department of Finance might be an appropriate body to independently administer the distribution of ESL funding.

Chair, State Emergency Management Committee

Mr Edwards submits that sufficient information should be published to generally satisfy the public that an appropriate basis for administering and distributing the ESL funding exists.

In terms of accountability, the ESL should not be treated differently to other revenue raised for specific purpose. The accountability applied to DFES and the responsible Minister should provide the necessary accountability.

The portion of ESL funding that is distributed as grants and subsidies could be distributed by the Office of Emergency Management (OEM). OEM has expert knowledge of emergency management and experience in grant administration. Conflicts of interest arising from OEM's status as a sub-department of DFES can be minimized by reinforcing the recently enhanced independence of OEM. OEM has an assurance function with direct reporting responsibility to the Minister for Emergency Services. Additionally, OEM is not funded by ESL. SEMC has three members (including Chair, Deputy Chair and one other member) that are independent, which could constitute an oversight committee if required.

Chief Bushfire Control Officer, Shire of Plantagenet

Mr Forbes considers there is very little knowledge of how the ESL is distributed. Rural Shires have to justify every dollar they receive, whilst enormous amounts of money are wasted on unjustified positions in country and city offices of DFES. These offices should have a public budget to justify their existence.

There is very little accountability with DFES setting its own budget and receiving the ESL. DFES should have to apply to an external body for funding and justify its bureaucracy before receiving an allocation each year.

Mr Forbes considers that the distribution of ESL funding should be done by a board of knowledgeable people, or the ERA, or at worst State Treasury. Responsibility for allocating funding must be removed from DFES immediately given the pending creation of a rural fire service to allow appropriate levels of funding to be set for each organisation. Staffing levels, offices and vehicles all need to be addressed with outside input.

City of Canning

The City of Canning submits that there needs be better communication that the ESL is a State government charge. The current arrangements affect local governments, as rate payers only consider the total charge on their rate notice, not the contribution of different elements. The ESL reflects badly on the local government sector, particularly when the increase in ESL rates is greater than the local government component. The annual increase in ESL rates should be clearly communicated to the community by a means other than the local government rate notice.

The City of Canning suggests accountability arrangements similar to those applied to specified area rates be applied to the ESL as the ESL is collected based on location with varying rates across categories.

The City of Canning submits that administrative costs could be reduced if the ESL was collected by the Department of Finance alongside land tax processes. This would reduce duplication across roles and systems. The City of Canning further notes that the State has a second property billing authority in the Water Corporation, which applies the same collection approach as local governments.

The City of Canning submits that information has not been provided on how DFES determine the fees paid to local governments for collecting ESL rates. The City of Canning expresses concern that the City of Canning may receive less for its administrative efforts at the City's rate base grows and it collects more ESL revenue. The City of Canning is not aware of any consultation on these rates, but notes that this may be occurring through WALGA.

City of Swan

The City of Swan submits that there is greater need for transparency and accountability in where ESL money is going, how it is divided up and how decisions are made. Information about ESL financial management and distribution should be made publicly available in a way that a layperson can make a reasonable judgement as to whether the funds are being appropriately managed.

The City of Swan submits that a large number of residents do not understand that ESL revenue goes to the State government rather than to local governments. The City of Swan submits that ESL revenue should be collected separately from local government rates as a standalone bill.

The City of Swan submits that the local government grants scheme should be managed by an agency other than DFES because there is a conflict of interest in DFES allocating funding from which it benefits. The City of Swan does not have a view on which organisation allocates funding, provided it is not DFES.

The City of Swan submits that it should not be responsible for managing the finances for SES units, which are DFES brigades. This is a historical administration role.

The City of Swan is collecting ESL revenue from more properties, but the amount the City of Swan can claim in administration fees has not kept pace. The City of Swan has to perform a number of additional tasks to process the ESL.

Community and Public Sector Union/Civil Service Association

CPSU/CSA notes that, based on current levels of publicly available information, it is not possible to know whether the ESL is truly meeting its purpose, or to what extent it is subject to 'mission drift'. It states that it is essential that all major public levies collected for a specific purpose are publicly and transparently accounted, and recommends that the ESL revenue and expenditure should be reported in the State's annual budget processes, both for the agency tasked with administering the ESL and those agencies who receive funding from the ESL.

CPSU/CSU also considers that the ESL should be distributed by an independent body. Specifically, it recommends that the Office of Emergency Management (currently a sub-department of DFES) be established as an independent statutory authority, and that it then become the body responsible for distributing and managing funds raised via the ESL.

Confidential submission

This stakeholder submits that the public needs to know not just how the money was divided, but how the spending relates to prevention, preparedness, response and recovery. This stakeholder provides an example that in Victoria (and potentially NSW) volunteers were flown in to respond to the March 2010 Perth storm. This stakeholder submits that it is well known in SES circles that these volunteers were taken to a BBQ dinner to thank them for attending and flown back to Melbourne that day, as there was no work for them to do. This

stakeholder submits that such appalling waste of public money needs to be avoided with better training and public scrutiny.

This stakeholder recommends that DFES no longer be the entity responsible for distributing the ESL, so that any agency that can satisfy specific criteria related to ESL funding can apply for financial assistance.

This stakeholder also recommends that any brigade, unit or department that receives an ESL grant must keep financial records of how the money is spent and prove acquittal of the funds annually. (This stakeholder notes this process already exists for SES units.) This stakeholder also recommends that DFES produce a definitive guide for all brigades and units, explaining how ESL money may be spent. This stakeholder submits anecdotal evidence from a VFRS volunteer, that there is no requirement for each brigade to explain how ESL money was spent. One volunteer claimed that a brigade spent all of the money was on alcohol for socialising. The same volunteer claimed that another brigade banked the money and it has not been spent for years, with the brigade holding tens-of-thousands of dollars of public money in a trust account.

This stakeholder recommends that local governments no longer be required to administer funds for State Emergency Service units and bush fire brigades. Instead, ESL grants should be paid directly to brigades and units or their nominated DFES Manager.

Department of Fire and Emergency Services

DFES states that ‘all information regarding the administration and distribution of ESL funding is readily available to the public on the DFES website’, and points out that audited financial reports are also provided annually as a part of DFES’ Annual Report. It further notes that DFES’ budget papers are available on the Department of Treasury’s website.

DFES also considers that the current controls and oversight arrangements ‘ensure robust and transparent accountability for the administration of ESL funds’, further noting that existing legislation ensures that ESL funding can only be used for the purpose for which it was raised.

DFES strongly supports the continuation of the current reporting and accountability processes.

On the matter of which agency should be tasked with distributing ESL funding, DFES states that this would depend on the activities funded by the ESL, and the agencies responsible for those activities. It submits that, should the activities currently funded by the ESL remain ‘unchanged’, then it is appropriate for DFES to continue to administer the ESL. However, it notes that if a number of agencies were to receive ESL funding, this arrangement should be reconsidered.

Department of Lands

DoL submits that there is very little public reporting about the distribution and use of ESL funding. Public confidence would be enhanced through more extensive public reporting on the total amount raised annually, the various groups to which it is distributed, and the manner in which the funding is applied in each case. DoL submits that the latter would ideally include some breakdown against the different categories of emergencies (fire, rescue, accidents, chemical spills, natural disasters *et cetera*) and the risks (to life, property, and environment).

DoL supports information being published on the amounts raised from each local government area and the amounts returned to each local government area to highlight the extent of cross-subsidisation between metropolitan and rural areas.

DoL submits that the State Government's 'direct contribution to the ESL from the consolidated account should be published given assertions that the government is seeking to transfer its own funding obligations to the general public'. [Note: DoL's meaning here is not entirely clear, but appears that DoL is requesting disclosure of the amount of ESL paid by the State Government on its own land.] This should be complemented by additional information showing the Government's contribution to the management of fire risk on State owned and controlled land, from the range of different funding sources (consolidated account, Royalties for Regions, and other own-source revenues). This investment is typically embedded in the operating budgets of landholding agencies and utilities.

DoL notes that no entity in the State Government has a good grasp of fire-related investment across the Crown estate. The Minister for Emergency Services sought to quantify this expenditure through a bushfire stocktake, which was never made public. DoL submits that the results of the strategic stocktake of bushfire related activity and investment across the public sector should be used as an initial baseline, and each Government agency/entity should be required to update this annually. Understanding the available funding is important to support the Bushfire Risk Management Planning Framework.

DoL submits that there should be up-front disclosure of the initial budget when the ESL rate is set, followed by the release of a more detailed report at the end of each budget period. DoL suggests this report could be circulated to each rate payer, similar to the practise used by the Australian Taxation Office to explain the use of income tax.

DoL submits that State Treasury should receive initial ESL revenues from local governments and distribute the revenue in accordance with agreed instructions. DoL submits that SEMC should have a clear and mandated role in advising the Minister for Emergency Services on the quantum of ESL to be collected and the manner in which revenues should be distributed. This advisory role would extend to the funding needs of a rural fire service.

DoL submits that local governments that operate bush fire brigades should be able to put forward their annual funding requirements [to the body distributing ESL funding], to address concerns they receive insufficient funding.

Emergency Services Volunteers Association

ESVA submits that all information published about the administration and distribution of the ESL needs to be clear, transparent, and simple so all stakeholders can understand where the funding is being spent.

ESVA submits that an appropriate risk to resource model needs to be implemented for funding allocations. DFES should disclose the breakdown of funding allocation in their Annual Report. This information should be audited by an independent authority. DFES need to undertake activity based costing for more accurate reporting.

ESVA submits that DFES, as the hazard management organisation, should distribute the ESL in line with these criteria. This would allay all fears that the ESL funding allocations are being managed inappropriately.

Fire Storm Training

Mr Williamson, managing director of FireStorm Training submits that the current system for administering ESL funding allows a self-interested organisation to control hundreds of millions of taxpayers' dollars. This has resulted in a 'megalithic bureaucracy' that takes a 'one size fits all approach' to emergency services to the public that has let down rural and peri-urban communities and volunteer organisations.

Mr Williamson submits that DFES is engaging in anti-competitive behaviour in the management of its training services. Mr Williamson approached DFES about providing nationally accredited fire training to volunteers for local governments. Mr Williamson submits that he was advised by DFES that only DFES Pathways courses could be claimed through the ESL and that DFES does not recognise national units because they are not part of the Pathways system. Mr Williamson submits that local governments are responsible for creating, equipping and training volunteer bush fire brigades. DFES should not dictate that only its training services may be purchased.

DFES is a registered training organisation. As such, DFES is required to recognise nationally accredited qualifications as part of its registration. Mr Williamson submits that DFES has a policy stating that they recognise nationally accredited qualifications, but considers this policy only exists to maintain compliance with registration requirements and is clearly not intended for use.

Mr Williamson submits that DFES state they can issue national units if requested to do so. Mr Williamson advises that DFES cannot do this because the DFES course is not nationally accredited and DFES training is delivered and assessed by unqualified individuals. DFES could be deregistered if DFES attempts to issue nationally accredited qualifications.

Mr Williamson submits that DFES qualifications have no value outside the DFES system. Potential employers and volunteer organisations want employees and volunteers to have nationally accredited competencies.

DFES could compete with private companies to supply training services to local governments for their volunteers. Mr Williamson submits that competition would deliver savings to ratepayers and a more efficient approach to training volunteers. Awarding volunteers with nationally accredited qualifications would show that their service to the community is valued.

Mr Williamson submits that Treasury should distribute ESL funding using a predetermined formula that takes into account how the ESL is currently collected. He notes that this would deliver most of the ESL to DFES for use in cities and also to local communities where DFES provides little service.

Mr Williamson submits that correct regulation would ensure local governments use the ESL to upgrade and maintain firefighting assets, deliver nationally accredited training to volunteers and develop mitigation processes. Any unused funds would be returned to Treasury, reducing the need to increase ESL rates.

Mr Williamson submits that local governments should control the use of the ESL to ensure brigades receive equipment designed to suit local terrain and conditions, and to promote local business. Allowing local governments to control the use of ESL funding would result in little or no additional administration costs. Mr Williamson submits that it would alleviate the waste of time, resources and delays in replacing personal protective and other equipment, and deliver a more efficient system to the ratepayer.

Gidgegannup Progress Association

GPA submits that the community have a reasonable right to information about how ESL funds are managed, to provide assurance that funds are being used appropriately. GPA submits that published information should not be camouflaged in accountant speak.

Information should allow a layperson to be reasonably informed about how much is spent annually on buildings, fire units, equipment, other infrastructure, training, support for other agencies (such as local government), salary and wages. There should be a further breakdown into prevention, preparedness, response and recovery.

GPA submits that entities receiving ESL funds should report on how those funds are spent, and whether KPIs related to these are being met.

GPA submits that ESL revenue should not be distributed by an agency that receives or benefits from ESL funds. Distribution should be overseen by a body such as the ERA, or Public Sector Commissioner. DFES should not be in charge of managing funds, for which it is the prime beneficiary, and also for making decisions on distributions to local government, sometimes to the latter's disadvantage.

Grape Growers Association

GGA submits that the ESL must be managed by an independent body. Allowing DFES to set ESL rates is not in the best interests of those who have to pay the ESL. Discussions with DFES about the high cost of the levy have not been helpful and was met with the "we need the funding and can't help you" response.

Kimberley Zone of WALGA

The Kimberley Zone advises it recently entered a memorandum of understanding with DFES for the ongoing management and control of bush fire brigades and bush fire and emergency services in the Kimberley. The Kimberley Zone submit that this arrangement follows a successful three-year trial to a centralised emergency management agency in the Kimberley.

The trial involved DFES taking overall responsibility for all bushfire response activities across the region, including day to day management of bush fire brigades and volunteers from Kimberley local government authorities.

The Kimberley Zone submits that it has experienced the following successful outcomes from the trial.

- Brigade volunteers advise they now receive ongoing training and incident support deemed necessary to manage complex and sometimes long duration bushfire incidents.
- Consistent and effective mobilisation of all firefighting resources across the region direct from DFES Communication Centre after a triple zero call has been received and single reporting processes thereafter.
- Clear advantages of a single agency to manage all fire incidents from their inception, thus allowing an effective and graduated incident response across the region. Additionally, Incident Management Teams do not have to transition from a local government management incident(s) to DFES.

- Community warnings, including a telephone warning system, to advise the community of impacts of bushfire is a critical success due to the streamlined processes with single agency management and reporting lines.
- Local government, partnered with DFES, are now able to undertake fire prevention inspections and administer the part of the *Bush Fires Act 1954* that relates to the mitigation of bush fire hazards across all land tenures with greater effectiveness.

The Kimberley Zone submits that information should be published on the breakdown of expenditure per local authority area, and the split within each local authority area between prevention, preparedness, response and recovery.

The Shire of Halls Creek receives \$4,000 each year from DFES for collecting the ESL. This amount has remained the same over the last 10 years and not kept pace with actual costs. The actual cost of providing this services is estimated to be approximately \$15,000.

Mr Eddie van Rijnswoud

Mr van Rijnswoud submits that the ESL should be managed by a new independent agency that is not related to an agency that benefits from the ESL. That agency would receive submissions from agencies to justify their funding requirements.

Mr van Rijnswoud submits that transparency is required in annual reports. Annual reports should detail who contributed funds and when and where the funds were spent. Accounting should be conducted to commercial standards, with internal auditing and oversight by the Office of the Auditor General.

The new agency could conduct auditing roles and manage statutory and regulatory functions relating to emergency management. The new agency would be responsible for the setting of policy, procedures, collection and distribution and utilisation of ESL funds. The agency would monitor the performance of response agencies and compliance with recommendations from major incident reviews.

Mr John Mangini

Mr Mangini submits that the community has a right to information about how ESL funds are managed to provide assurance that funds are being used appropriately. Mr Mangini submits that published information should not be camouflaged in accountant speak.

The information should allow a member of the public to be reasonably informed about how much is spent annually on buildings, fire units, equipment, other infrastructure, training, support for other agencies (such as local government), and salary and wages. There should be a breakdown of the amount spent on prevention, preparedness, response and recovery.

Mr Mangini submits that entities receiving ESL funds should report on how those funds are spent and whether KPIs related to these are being met.

Mr Mangini submits that ESL funds should not be distributed by an agency that receives or benefits from ESL funds. Distribution should be overseen by a body such as the ERA, or Public Sector Commissioner. DFES is a beneficiary of ESL funds and so, should not be in charge of managing these funds. DFES should not be responsible for deciding on the distributions to local government, sometimes to the latter's disadvantage.

Office of Emergency Management

OEM submits that information about risk and capability profiles, and funding source and expenditure direction should be made public. OEM submits that ideally a web portal would be developed that shows a property owner's risk-capability index, ESL contribution and return on their levy and tax investment.

OEM submits that there should be greater clarity about the ESL 'money trail', including return on investment across both DFES and local government.

OEM submits that, as a general principle, the agency charged with ESL distribution should not have an interest in the outcome of an ESL-related decision. The normal budget setting and approval process of government effectively deal with DFES allocations, but the distribution to local governments has been a source of contention, given the perceived conflict of interest.

OEM notes that it has complete financial independence because it is not funded by the ESL. OEM has developed a broad and deep understanding of the State's emergency management arrangements, including the risks and capabilities that exist across the sector.

Pastoralists and Graziers Association

PGA considers the current level of reporting on the ESL to be unacceptably opaque and that the rigor and quality of reporting needs to be dramatically improved. PGA submits that reporting should include detailed breakdowns for:

- allocations to specific services, organisations, regions and activities;
- actual expenditures by specific services, organisations, regions and activities; and
- meaningful performance metrics.

PGA submits that other government agencies with fire and emergency responsibilities (for example, DPAW, Forests Commission and Department of Lands) should be encouraged or required to report allocations, costings and expenditures to a similar standard as required for the ESL.

PGA submits that the goal of transparency and accountability should be to ensure the ESL system is as lean as possible, translating to minimal collections from ratepayers and maximum benefit in terms of management of fire and emergency risks. PGA considers that detailed reporting will allow analysis of the effectiveness of expenditure and to design and implement improvements.

PGA recommends that a new reporting framework be established by a government entity that is independent of the entity responsible for administering and distributing ESL funding. The new framework should stipulate required levels of detail and performance metrics that need to be reported on. PGA submits that suitable independent entities could be the Departments of Treasury or Finance, or the ERA, if DFES were to continue to administer and distribute the ESL. The Office of Auditor General could also periodically assess ESL funded organisations to ensure that they are meeting the improved reporting requirements. The ERA and Office of Auditor General would be potential independent bodies, if the Departments of Treasury or Finance were responsible for administering and distributing the ESL.

PGA submits that current arrangements, whereby DFES is responsible for administering and distributing the ESL while also being the main recipient of ESL funding, do not meet best practice standards of governance and need to be changed.

PGA submits that responsibility for managing the ESL should be moved from DFES to the Department of Finance. Local government could continue to collect revenue on behalf of the Department of Finance, as this is an efficient collection mechanism.

Shire of Augusta-Margaret River

The Shire of Augusta-Margaret River of Augusta-Margaret River submits there is a need for greater transparency. The Shire of Augusta-Margaret River is of the view that increased information about the administration and distribution of ESL funding should be publicly available. The cessation of the ESL information leaflet has reduced transparency about the ESL levy. The ESL questions and answers publication, available on the DFES website, contains limited information.

The Shire of Augusta-Margaret River submits that DFES' proposed determination of the ESL and how it is to be distributed be considered and approved by an independent arbiter such as the Auditor General. Alternatively, the ESL could operate in a similar way to the Salaries and Allowances Tribunal which determines salary increases for parliamentarians, the judiciary, senior public servants, local government councillors and CEOs.

The Shire of Augusta-Margaret River notes that the ESL is currently distributed by DFES. The Shire of Augusta-Margaret River submits that the governance frameworks, policies and operational procedures are presumably in place and operating appropriately as the Shire of Augusta-Margaret River is receiving the operating and capital grant funds that are requested each financial year through the Local Government Grants Scheme. However, The Shire of Augusta-Margaret River submits that greater transparency is required and improvements can be made to the information provided to local governments when preparing submissions for funding. Improved feedback on the reasons for excluding requests from grant submissions or reducing grant submission amounts is also required.

The Shire of Augusta-Margaret River of Augusta-Margaret River submits that improved transparency and communication is needed on how rates and charges are determined because there is a lack of publicly available information. The Shire of Augusta-Margaret River considers that it is not possible to specifically comment on whether the current method is appropriate for current and future needs.

The Shire of Augusta-Margaret River receives advice from DFES in May or June each year advising the ESL rates and charging parameters for the new financial year. No reasons or justification are provided for the changed rates or information provided on the process followed to determine the new rates. The Shire of Augusta-Margaret River notes that the fixed charge has increased from \$30 when the ESL was first introduced to \$71 now, reflecting an average annual increase of 7 per cent.

The calculation method for properties is reasonably straight forward and similar to that used for local government property rates and water rates and there is no concern with this calculation method.

Shire of Harvey

The Shire of Harvey submits that the process for collecting and distributing ESL funds should be completely public, with data published indicating where funds are sourced from

and where funds are allocated. The entire process should be open to scrutiny by all stakeholders, including local governments and members of the community.

A transparent process would identify any leakages from the ESL and highlight what services are funded through the ESL. In this context, the Shire of Harvey notes that marine rescue would be better funded through a levy on boat registrations, rather than the ESL which is a property based levy.

ESL contributions for property owned by government agencies and government trading enterprises should be reported to ensure full transparency in the process.

The Shire of Harvey notes that the contribution by the government from the consolidated account has decreased from \$40 million in 2003-04 to \$5 million in 2015-16, despite a commitment to continue this funding. This decline in funding should be examined.

The State Government should make it clear that the ESL is not part of local government rates. This perception remains because local governments collect the ESL on behalf of the State Government.

The Shire of Harvey submits that the administration fee paid to local governments for the collection of the ESL should at least meet the cost of the collection process and be indexed. The administration fee is around 30 per cent less than what it was in 2004-05, despite the quantum of ESL revenue significantly increasing over this time.

Currently, local governments are responsible for any defaults on ESL rates by ratepayers. This is fundamentally wrong as the local government is the collection agency only and should have no exposure to bad ESL debts.

Shire of Manjimup

The Shire of Manjimup submits that each local government should be required to complete an annual return of expenditure for brigades funded by the ESL. It further recommends that a spot audit of local government's returns should be carried out on a three year rotation cycle. As with the current system, it considers that any requests to cover over-expenditure for any year should be made in writing, and be supported by appropriate evidence.

The Shire of Manjimup considers that the Department of Finance should administer ESL funding. It notes that clear parameters should be established, stating what the ESL funding is for, and how it is to be distributed. Under this model, it recommends that both the proposed rural fire service and DFES should make annual applications for funding, which should then be distributed based on a clear needs assessment.

Shire of Mundaring

The Shire of Mundaring submits that the ESL should be distributed according to a transparent and responsive methodology.

The ESL should be subject to a comprehensive acquittal procedure, be subject to an appropriate audit regime and public reporting. This should include the amount collected and details as to the recipients of disbursements and the amounts concerned.

The ESL should be distributed by an agency that is not directly or partly funded by the ESL funds.

Shire of Murray

The Shire of Murray submits that changes have been made to eligible expenditures in the local government grant scheme guidelines without consultation with local governments as required by legislation. There appears to be no transparency in how decisions about eligibility across current agencies are made and this needs to be addressed. The Shire submits that changes to the disbursement of the ESL and items that are ineligible for funding should be publicly disclosed along with the reason for the change.

The Shire of Murray recommends the following structure to improve accountability.

- Establishment of an ESL Management Group to determine eligible expenditures, with all stakeholders being represented.
- Establishment of a Risk Management Group under the Office of Emergency Management to determine appropriate mitigation programs for risks identified in the State Risk Register and to monitor implementation and completion of treatment projects.
- Establishment of an Audit Committee to provide mechanisms for the distribution of ESL funds and to audit annual acquittals.

The Shire of Murray submits that the Department of Finance, with input from the ESL Management Group should be responsible for distributing ESL funding.

The agency tasked with the distribution of ESL should provide an annual report to Parliament to ensure transparency and accountability. The Shire of Murray submits that all matters about the collection, disbursement and expenditure of the ESL should be publicly disclosed to ensure transparency and good governance.

State Emergency Service Volunteers Association

SESVA report problems with the administration of grants by DFES and local government, which have led to inefficiencies and poor outcomes.

SESVA submit that some local governments insist SES units use their contractors or workshops. This may result in poorer service or higher cost, to the detriment of the SES unit. One local government partially repaired an SES vehicle and then left it out of service because the rubbish truck was a higher priority.

The Mandurah SES unit was officially opened in June 2016, but the SES unit were unable to move in until 1 January 2017. SESVA submit that the unit is still not finished and DFES project management of this facility was very poor.

SESVA submit that a new SES general rescue truck was fitted out for service, then left at Fleet Services (DFES) until it was out of its new motor vehicle warranty. This was because no-one had written a training resource kit on how to operate it. Questions raised by a volunteer who found the vehicle sitting out in the open triggered a DFES District Officer to prepare a vehicle familiarisation document to allow the truck to be put into service (but not until after the truck was out of its new vehicle warranty).

SESVA recommend that each SES unit be permitted to use a bottom line accounting method, after the essentials have been allocated, to purchase items required to deliver service in line with their unit profile (which is set by DFES in consultation with the SES unit.)

United Firefighters Union

UFU supports the full disclosure of information on the administration and distribution of ESL funding, including how much is collected and spent in each local government area.

UFU supports more detail being released on bureaucratic expenditure, including the cost of external consultants and external service providers used by DFES and local governments. UFU supports sharing of operational knowledge and experience between jurisdictions, but does not support travel and expenditure to support non-operational matters, like human resources. On this basis, the UFU is critical of administrative civilian staff participating in forums coordinated by the Australasian Fire Authorities Council.

UFU submits that DFES is best placed to distribute ESL funding given its operational expertise in fire prevention, fire safety, mitigation, bushfire fighting, structural firefighting, rescue and the management of hazardous material incidents. UFU does not support the ESL being administered by Treasury or another agency without underlying operational competencies, knowledge and experience.

UFU submits that there is scope to reduce administrative constraints without detracting from sound accountability procedures. UFU notes that complex structures and processes established by DFES detract from successful procurement of the best and safest equipment and personal protective clothing for professional and volunteer personnel.

WA Farmers Federation

WAFamers submits that there should be full disclosure of how ESL has been allocated. The annual report for ESL should clearly outline a breakdown of how funds have been spent within each individual emergency service. Each emergency service should report expenditure on mitigation, response and training, as well as expenditure on equipment, uniforms, wages and salaries.

WAFamers submits that the Auditor General should conduct a full audit and review of how ESL is collected, distributed and accountability measures.

WAFamers submits that OEM should be responsible for holding and distributing the levy. OEM should be setting benchmarks so that each individual emergency service is spending ESL as effectively and transparently as possible. Funding should be allocated on a risk-based or needs system, rather than the current response mechanism being employed.

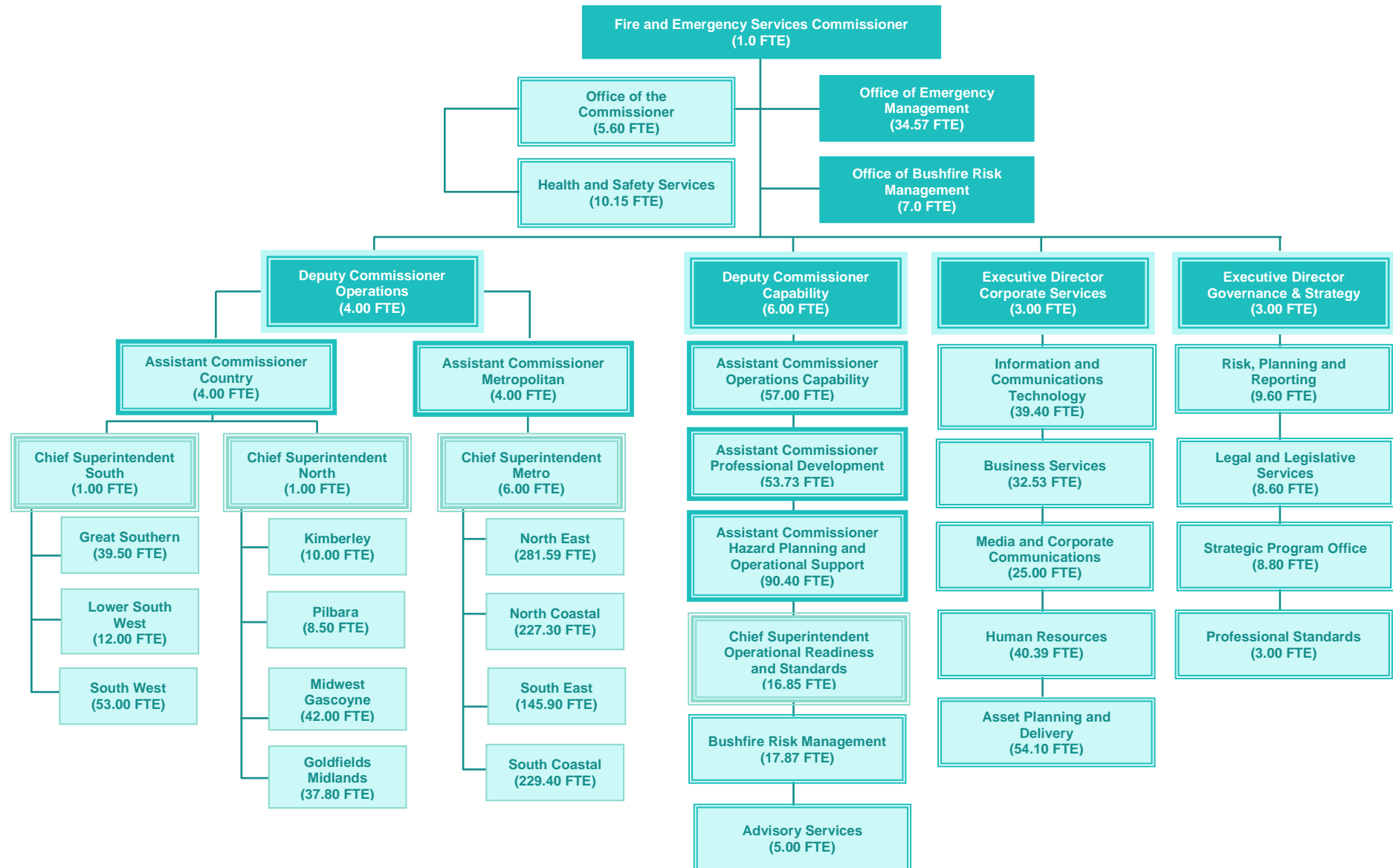
Western Australian Local Government Association

WALGA states that its survey respondents overwhelmingly supported greater transparency around the administration and distribution of the ESL, with many believing that all information should be made public.

WALGA did not take a position on which agency should be responsible for distributing ESL funds, noting that surveyed members tended to prefer DFES or the Department of Treasury. WALGA notes that the rationale given for DFES maintaining this function was its expertise in operational matters⁰ and ability to provide advice on equipment.

WALGA notes that there is a fundamental need for a transparent process for distributing ESL funds, and this should inform any decision as to the agency responsible for allocating and administering the ESL.

Appendix C DFES organisational structure



Appendix D Reasons states introduced property-based levies to fund emergency services

In the past two decades, a number of states have introduced property-based levies to fund emergency services (and in some cases broader emergency management activities), including South Australia, Western Australia, the ACT, Victoria and New South Wales.

Western Australia,⁵⁹⁵ Victoria⁵⁹⁶ and New South Wales⁵⁹⁷ each published documents that discussed the rationale for introducing property-based levies. However, the merits of a property-based levy were generally compared to the insurance-based levies that they were replacing. States did not generally compare property-based levies to alternative funding arrangements – in particular, funding emergency services from general government revenue – or identify ‘best practice’ funding arrangements. As such, the rationale given for introducing property-based levies to fund emergency services was:

- Insurance-based levies are inefficient and discourage people taking out insurance;
- Unfair as the ESL is only paid by people with insurance; and
- Out of step with practice in other States.⁵⁹⁸

FESA discussed the possibility of continuing to fund the Volunteer Fire and Rescue Service through general government revenue (rather than all emergency services), but this idea was dismissed.

“It could be contended that the current system of funding the VFRS through the Consolidated Fund is a fair and equitable application of the “community rating” principle. However, most other fire services do not benefit from such strong financial commitment by Government, and only those communities that have VFRS brigades actually reap such financial rewards.

In essence, there is no particular reason why this service should be fully funded by the State Government and others not.”⁵⁹⁹

The ERA understands, from discussions with DFES, that the then Western Australian Government did not consider it feasible to fund all emergency services from general government revenue: abolishing the insurance-based levy and funding emergency services

⁵⁹⁵ Fire and Emergency Services Authority, *A replacement funding system for emergency services*, Perth, Government of Western Australia, 2002.

⁵⁹⁶ Victorian Department of Treasury and Finance, *Victorian Fire Services Property Levy: options paper*, Melbourne, Government of Victoria, 2011.

⁵⁹⁷ New South Wales Treasury and the Ministry for Police and Emergency Services, *Funding our emergency services: discussion paper*, Sydney, Government of New South Wales, 2012.

⁵⁹⁸ New South Wales Treasury and the Ministry for Police and Emergency Services, *Funding our emergency services: discussion paper*, Sydney, Government of New South Wales, 2012, p.3.

⁵⁹⁹ Fire and Emergency Services Authority, *A replacement funding system for emergency services*, Perth, Government of Western Australia, 2002, p. 16.

from general government revenue would have required increases in other state taxes. The second reading speech for the legislation that introduced the ESL indicates only that:

“FESA has investigated the funding systems in place in other State and viewed very closely the introduction of a broad-based levy in South Australia, which has encountered a number of problems. We have learnt from these observations. The Government believes the model that has been developed for Western Australia is fair and equitable and will serve this State well into the twenty-first century.”⁶⁰⁰

The Victorian Department of Treasury and Finance indicated in its options paper that it had considered funding arrangements adopted in other Australian states and New Zealand (including funding from general government revenue as then used by the ACT) and other alternative funding arrangements. Other alternative funding arrangements considered included: enhancing the current insurance-based model; introducing compulsory insurance; and mandating recovering of fire service costs. The Department of Treasury and Finance did not explain why these alternatives were discarded, other than to note “upon analysis, these options were found to be impractical and unlikely to deliver significant improvements in efficiency and simplicity”.⁶⁰¹

The ACT funded emergency services from general revenue for five years before introducing a property-based levy.⁶⁰² The ERA was unable to find a discussion of why the ACT Government considered a property-based levy to be preferable to funding emergency services from general revenue. Discussion in Hansard only indicates that the ACT Government introduced a Fire and Emergency Services levy to meet a large increase in the costs of emergency services.⁶⁰³

The ERA considers that a property-based is a more appropriate means of funding emergency services than insurance-based levies. Key reasons as noted by the NSW Treasury include:

- property owners benefit from the provision of emergency services, whereas insurers are actually in the business of managing risks;
- a property based levy could be fairer and more transparent as all households and businesses in the State would contribute to the cost of emergency services; and
- a property based levy is a more efficient source of revenue, imposing a much lower economic cost than a tax on insurance.⁶⁰⁴

⁶⁰⁰ Kobelke, J.C., Second Reading Speech: Fire and Emergency Services Legislation (Emergency Services Levy) Amendment Bill, *Hansard*, Assembly, 25 September 2002.

⁶⁰¹ Victorian Department of Treasury and Finance, *Victorian Fire Services Property Levy: options paper*, Melbourne, Government of Victoria, 2011, p. 10.

⁶⁰² The ACT used to impose a levy on general insurance companies to contribute to the costs of emergency services. This levy raised a fixed amount of \$10 million a year. The levy was abolished from 1 July 2001. (Source: ACT Department of Treasury, *Annual Report 2000-01*, Canberra, Government of Australian Capital Territory, 2001, Vol. 1, p. 61.)

⁶⁰³ ACT Legislative Assembly, Legislative Assembly for the ACT: 2006 Week 6 (6 June), *Hansard*, Canberra, Government of Australian Capital Territory, p. 1794.

⁶⁰⁴ New South Wales Treasury and the Ministry for Police and Emergency Services, *Funding our emergency services: discussion paper*, 2012, Sydney, Government of New South Wales, p. 4.

The 2010 Henry taxation review recommended that taxes on insurance, including the fire services levy, be abolished.⁶⁰⁵ Levies on insurance may cause a number of problems.

“Taxing insurance may lead to non-insurance and under-insurance. Insurance helps people deal with the inevitable consequences of fires, floods and other emergencies. The tax system should not discourage people from protecting their assets by adding additional costs to the system.”⁶⁰⁶

Notably, rates of insurance increased in Western Australia and South Australia after insurance-based levies to fund emergency services were removed and replaced with property-based levies.⁶⁰⁷

⁶⁰⁵ Henry, K., *Australia's Future Tax System*, Chapter E: Enhancing Social and Market Outcomes, 2010 accessed from https://taxreview.treasury.gov.au/content/FinalReport.aspx?doc=html/publications/Papers/Final_Report_Part_2/chapter_e8-1.htm on 25 May 2017.

⁶⁰⁶ New South Wales Treasury and the Ministry for Police and Emergency Services, *Funding our emergency services: discussion paper*, Sydney, Government of New South Wales, 2012, p. 3.

⁶⁰⁷ New South Wales Treasury and the Ministry for Police and Emergency Services, *Funding our emergency services: discussion paper*, Sydney, Government of New South Wales, 2012, pp. 14-15.

Appendix E Principles on which the ESL was designed

The design of the ESL as a replacement funding system for emergency services was based on a number of key principles. These principles reflected a philosophy on the availability of emergency services and principles on how people should pay for these services. The original principles are described in this appendix. However, DFES advised the ERA that some of the original principles have been varied by policy decisions of government. These policy decisions have not been published, but are reflected in the local government grant administration manual.⁶⁰⁸

Supply of emergency services was based on two key principles: universality of fire and emergency service protection (which leads to a community rating principle), and an expectation of service principle.

The universality of service principle suggests that access to fire and emergency services are not discretionary in a developed society. Early response to disasters is necessary to minimise the potential risk to life and property – not just that at immediate threat, but any people or property in the vicinity. The ability of disasters to cross property boundaries means that the consequences of disasters are a community problem, not just an individual one. The nature of disaster means that ‘we are each protected only when we are all protected.’⁶⁰⁹

The expectation of service principle suggests that if citizens expect to benefit from fire and emergency services in any geographic location, then citizens need to pay for the cost. Most of the cost of emergency services is in having the standby capacity to respond when a disaster occurs. So citizens need to contribute to the base capacity, and not just the additional cost of responding (call out costs).⁶¹⁰

It was determined that requiring individuals to pay call out costs could result in considerable hardship and would not be consistent with the community rating principle. Also, requiring individual communities to fund their own services would favour areas with dense or large populations because of the high capital costs of maintaining response capacity.⁶¹¹

Reflecting these considerations, a key principle applied is that service delivery and expenditure needs should dictate the allocation of funds and not the local capacity to raise revenue. As such, there was no requirement to ensure the same amount is spent in a geographic location as is raised.⁶¹²

Following on from these core principles, there were a number of more specific principles. The ESL was designed, as far as possible, to reflect an individual property owner’s capacity

⁶⁰⁸ Personal communication between Department of Fire and Emergency Services and Economic Regulation Authority.

⁶⁰⁹ Fire and Emergency Services Authority, *A replacement funding system for emergency services*, 2002, Perth, Government of Western Australia, p. 17.

⁶¹⁰ Fire and Emergency Services Authority, *A replacement funding system for emergency services*, 2002, Perth, Government of Western Australia, pp. 17-18.

⁶¹¹ Fire and Emergency Services Authority, *A replacement funding system for emergency services*, 2002, Perth, Government of Western Australia, pp. 17-18.

⁶¹² Fire and Emergency Services Authority, *A replacement funding system for emergency services*, 2002, Perth, Government of Western Australia, p. 23.

to pay.⁶¹³ The capacity to pay principle, in part, informed the decision to use gross rental value as the base for raising the ESL. Gross rental value was considered to 'have a nexus with the value of property to the owner and was therefore related to the owner's financial capacity.'⁶¹⁴ Concessions were made available to pensioners and seniors to ensure fairness and consistency with other government fees and charges.⁶¹⁵

The ESL was designed to have few exemptions. All property were to be required to pay the ESL, including: vacant land owners; not for profit organisations and other organisations exempt from State Government taxes, fees and charges; public financial and non-financial corporations; local governments; and State Government agencies.⁶¹⁶

The ESL was not intended to raise any additional money compared to the previous funding arrangements, other than to improve services and to implement the new funding system in the most cost-effective manner.⁶¹⁷

All existing State Government contributions to emergency services were to be retained, but there would not be a nexus between the State Government contribution and any particular service.⁶¹⁸

⁶¹³ Fire and Emergency Services Authority, *A replacement funding system for emergency services*, 2002, Perth, Government of Western Australia, p. 2.

⁶¹⁴ Fire and Emergency Services Authority, *A replacement funding system for emergency services*, 2002, Perth, Government of Western Australia, p. 20.

⁶¹⁵ Fire and Emergency Services Authority, *A replacement funding system for emergency services*, 2002, Perth, Government of Western Australia, p. 32.

⁶¹⁶ Fire and Emergency Services Authority, *A replacement funding system for emergency services*, 2002, Perth, Government of Western Australia, p. 2.

⁶¹⁷ Fire and Emergency Services Authority, *A replacement funding system for emergency services*, 2002, Perth, Government of Western Australia, p. 2.

⁶¹⁸ Fire and Emergency Services Authority, *A replacement funding system for emergency services*, 2002, Perth, Government of Western Australia, p. 7.

Appendix F Overview of DFES cost centre structure

The purpose of Appendix G is to provide an overview of the way DFES aggregates and categorises its costs. It is structured as follows:

- An overview of DFES cost centre structure, including examples cost centres within each cost category. (DFES has a total of about 9,000 in its accounting system.)
- A full list of the cost centres DFES classifies as 'Prevention Services'.
- A list of cost centres not funded by the ESL, or only partly funded by the ESL.

DFES cost centre structure

The cost centre structure below was provided to the ERA by DFES.⁶¹⁹

Figure 31 DFES Cost Centre Structure

DFES costs	
	Direct costs
	Prevention Services (a full list of these cost centres is also provided below)
	Community Prevention
	e.g. At Risk Communities [program], Community Engagement, State Hazard Operations, Unallocated Crown Land Mitigation Works [for Department of Lands], Unexploded Ordnance Services.
	Emergency Management Services
	e.g. Emergency Services Policy & Planning, Office of Bushfire Risk Management, Natural Disaster Resilience Program, Community Engagement Services Managers [local government employed] [individual cost centres for each region].
	Emergency Services
	Fire and Rescue Services – Career
	e.g. CFRS Geraldton [and similar individual cost centres for each CFRS unit], Great Southern Regional Directorate [and similar cost centres for each region], Operational Information Systems.
	Fire and Rescue Service – Volunteer
	e.g. VFRS Yanchep [and similar individual cost centres for each VFRS unit], VFRS Association.

⁶¹⁹ Department of Fire and Emergency Services, *ERA Information Request 6 Allocation of cost centers to services.pdf*, provided to the Economic Regulation Authority, 8 February 2017.

Bush Fire Services
<i>e.g. CFRS Geraldton [and similar individual cost centres for each CFRS unit], Great Southern Regional Directorate [and similar cost centres for each region], Operational Information Systems.</i>
State Emergency Service
<i>e.g. State Emergency Service Division Administration, SESU Broome [and similar cost centres in other regional towns], SESU Canine Section, SES North Coastal Metro [and similar units in other regions], VSES Association.</i>
Volunteer Marine Rescue Services
<i>e.g. VMRS Denmark [and similar cost centres in other coastal towns], VMRS Administration, VMRS Association, Surf Life Saving WA.</i>
Natural Disaster Relief Arrangements
<i>e.g. [no currently open cost centres]</i>
Local Government Grants (BFS and SES)
<i>e.g. Town of Vincent [and similar cost centres for each local government], ESL Appliance Retrieval; ESL Vehicles.</i>
FESA Unit Volunteers (Note: FESA Units are now named 'VES Units')
<i>e.g. FESA Unit Halls Creek [and similar cost centres for other regional centres]; Emergency Services Volunteer Youth Program.</i>
WA Emergency Rescue Helicopter Service
<i>e.g. WA Emergency Rescue Helicopter Services Administration, Emergency Rescue Helicopter Service – Jandakot, Emergency Rescue Helicopter Service – Bunbury.</i>
FESA Aerial Services
<i>e.g. Fire Services Air Operations Administration, State Operations Air Desk, AFS Fixed Wing – Perth [and similar cost centres for other local centres].</i>
Overhead costs

Corporate Services

CEO Corporate
<i>e.g. CEO Executive Directorate, Public Affairs, Safety Management, Digital and Social Media Communications, SEMC Committee, Capability & Planning Branch, WANDRRA.</i>
Business Services Corporate
<i>e.g. Telecommunication Services, Financial Services, Information Resources, Asset Planning & Delivery, ESL Revenue, Land & Buildings, Plant & Equipment.</i>
Human Services Corporate
<i>e.g. Health & Safety Services, HR Systems, Recruitment & Payroll Services, Essential Training, Policy & Legal Services, Trainee Firefighter School.</i>

Detail of 'Prevention Services' cost centres

Table 29 provides a full list of DFES' open 'Prevention Services' cost centres as at 8 February 2017.⁶²⁰

Table 29 List of DFES Prevention Services Cost Centres

Number	Cost Centre Name	Funded by ESL?
	Community prevention	
500	Executive Director Governance & Strategy	Y
501	Built Environment	Y
503	Fire Investigation & Analysis	Y
504	Community Engagement	Y
507	Bushfire and Environmental Protection	Y
509	Water Policy and Strategy	Y
508	Aboriginal Advancement Unit	Y
506	Education & Heritage Centre	Y
422	Media and Communications	Y
513	Community Engagement Directorate	Y
6305	Pilbara Region Pre Easter Championship Training	Y
6306	Swan & Avon River Catchment Flood Warning	Y
6307	Pilbara-Kimberley Summer-Winter Program	Y
6308	Blue Hydrant Marker Program	Y
3001	Unallocated Crown Land - Urban	Y
3128	Unallocated Crown Land Mitigations Works (DoL)	N
3025	Bushfire Risk Management Services [DOE]	Y
3047	At Risk Communities	Y
3046	State Hazard Operations	Y
3043	Critical Infrastructure	Y
3042	Urban Capability	Y
3040	Assistant Commissioner Operations Capability	Y
3041	Assistant Commissioner Hazard Planning & Operations Support	Y
3045	EM & Hazard Planning	Y
3103	Bushfire Risk Management - Metro (Other)	Y
3104	Advisory Services	Y
428	Unexploded Ordnance Services	N
	Emergency management services	
514	EM Training & Development	Y
803	SEMC Community Emergency Management	Y
3017	NDRP - Community Focused Local EM Arrangements	Y
3018	NDRP - Modify & Develop Safer Community for RIC	Y
6321	Natural Disaster Resilience Programme	Y
3032	CESM LG Employed - Great Southern	Y

⁶²⁰ Department of Fire and Emergency Services, *ERA Information Request 6 Allocation of cost centres to services.pdf*, provided to the Economic Regulation Authority, 8 February 2017.

3031	CESM LG Employed - Midwest Gascoyne	Y
3030	CESM LG Employed - South West	Y
3029	CESM LG Employed - Lower South West	Y
3028	CESM LG Employed -South Coastal Metro	Y
3027	CESM LG Employed - North East Metro	Y
3026	CESM LG Employed - Goldfields Midlands	Y
3039	Operational Readiness & Exercise Development	Y

Cost centres not entirely funded by the ESL

Table 30 provides a list of cost centres not funded by the ESL, or only partly funded by the ESL as at 23 February 2017.⁶²¹

Table 30 Cost centres not entirely funded by the ESL

Number	Cost Centre Name	Funding Source
5738	Surf Life Saving WA	General government revenue
428	Unexploded Ordnance Services	General government revenue
5960	Emergency Rescue Helicopter - Metropolitan	General government revenue
3088	Bushfire Risk Management Planning Process	General government revenue
450	Project 1955 - Volunteer Fuel Card	General government revenue
450	Project 1779 – Volunteer Fuel Card	Royalties for Regions
3079	Comprehensive Fire Crew Protection - Capital	Royalties for Regions
3080	Comprehensive Fire Crew Protection - Recurrent	Royalties for Regions
3082	Emergency Rescue Helicopter – South West	Royalties for Regions
3112	Automatic Vehicle Location (AVL) - Recurrent	Royalties for Regions
3113	Automatic Vehicle Location (AVL) - Capital	Royalties for Regions
4270	VESC Christmas Island	Australian Government
3024	Deputy Commissioner Operations Support & Capability	Special Acts Appropriation
3009	Commissioner	Special Acts Appropriation
3010	Deputy Commissioner Operations	Special Acts Appropriation
611	CESM Wanneroo	Part local government, part ESL
616	CESM Cockburn	Part local government, part ESL
626	CESM Swan	Part local government, part ESL
628	CESM Mundaring	Part local government, part ESL
629	CESM Kalamunda	Part local government, part ESL
652	CESM Geraldton-Greenough	Part local government, part ESL
661	CESM Busselton	Part local government, part ESL
3128	Unallocated Crown Land Mitigation Works	Part Royalties for Regions, part Department of Lands
3025	Bushfire Risk Management Services – DOE mitigation	Department of Education
492	Direct Brigade Alarms Support	Fees and charges
530	Commercial Training Unit	Not currently operational

⁶²¹ Communication with Department of Fire and Emergency Services, 23 February 2017.

Appendix G DFES prevention and preparedness activities

The following information was provided by DFES, and is inserted below as provided to the ERA. It is summary of prevention and preparedness programs undertaken by DFES, as at 8 March 2017.

Advisory Services

- **Bushfire risk management of identified schools**
 - Operate under an MOU with the Department of Education to provide expert assessment and advice for bushfire risk management of identified schools
 - Develop and implement bushfire risk management plans for public schools in high risk bushfire areas on the Bushfire Zone Register
 - Assess and evaluate bushfire risk for each site, and prepare reports that identify and prioritise treatment schedules to minimise risk from bushfire for schools
- **Unexploded Ordnance (UXO) contamination for particular areas of land in WA**
 - Provide risk management advice on UXO matters, including historical and technical information, regarding the potential for particular areas of land in WA to be affected by UXO contamination
 - Liaise, assess, evaluate and report on UXO activities and matters regarding land use planning and compliance issues
 - Conduct independent quality assurance and control procedures on areas searched by UXO contractors across the State
- **Bushfire risk management for land use planning referrals**
 - Provide bushfire related advice to help guide decision making on planning proposals and development applications to avoid inappropriate development in bushfire prone areas
 - Assist the decision maker in understanding the bushfire risk in a location and to avoid any increase in the threat of bushfire to people, property and infrastructure
 - Assist in the assessment of proposed bushfire risk management measures required for strategic planning proposals, subdivision or development applications in bushfire prone areas to ensure the bushfire risk is acceptable.

Bushfire Risk Management Branch

- **Bushfire Risk Management Planning**
 - Support the development of Bushfire Risk Management Plans in 16 priority high bushfire risk local governments across one metropolitan and five country regions.
 - No funding has been secured for mitigation activities in these areas i.e. the land owner is responsible for any mitigation activities.
 - Funding for the project ceases 30 June 2017.

- **Mitigation for State-wide Unallocated Crown Land and Unmanaged Reserves**

- On behalf of the Department of Lands, DFES is contracting mitigation within eligible town sites to the value of \$1.3M in 2016-17.

Built Environment Branch

- **Water Policy and Strategy**

- Liaise with external stakeholders about technological improvements in the area of water supply and/or usage
- Review water management strategies to ensure they meet best practice in an emergency management context
- Contribute to research to maximise specific outcomes.

- **Fire Investigation and Analysis Unit**

- Identify and analyses fire trends.
- Conduct investigations of incidents with a view to carrying out a detailed analysis so that it can document lessons learnt for life safety and property loss purposes.
- Identify faulty products and poor work practices which cause fires.
- Use the knowledge gained from fire investigations to development more effective and focused fire and arson prevention strategies.

- **Built Environment**

- Ensure fire safety requirements of commercial and industrial building plans are fulfilled before a building permit is issued.
- Inspect completed buildings to check required fire safety equipment has been installed according to the plans.
- Test of certain fire safety equipment used by the fire service

Hazard Planning

- **Westplans and Hazard Planning**

- Manage Westplans for Cyclone, Earthquake, Fire, Storm and Tsunami which all identify and recommend risk treatment strategies.
- Review Western Australia's Flood Risk Status report to identify risk treatment strategies.
- Lead the *Earthquake Impact and Risk Assessment for Perth* project to identify risk treatment strategies to reduce the impact of earthquakes on people, residential and business buildings, transport network, electricity network and water supply network.

- **Groups/ Committees**

- Participate on the Australian Tsunami Advisory Group which considers plans and mitigation activities to reduce the impact of tsunami.
- Participate on the WA Flood Warning Consultative Committee which discusses and promotes opportunities for mitigation measures.
- Participate on the Bushfires and Natural Hazards Cooperative Research Centre – Coastal Management Cluster which researches ways to develop better predictions for extreme water levels and resilience to coastal disaster events (storm surge).

- Participate on the National Flood Warning Infrastructure Working Group which aims to improve flood warning infrastructure through the development of national technical standards and Strategic Flood Warning Infrastructure Plans, to guide national flood infrastructure investment priorities.

National Bushfire Mitigation Program (NBMP)

NBMP is a partnership between WA and Commonwealth Governments' aimed at enhancing bushfire risk mitigation throughout the state. DFES is responsible for distributing funds in WA via an open competitive grants process.

The NBMP Program aims to enhance bushfire risk mitigation throughout the state by providing funding for bushfire works, measures and related activities, focusing on the priority outcomes of both the Commonwealth and WA.

Commonwealth priorities:

1. Reduce fuel loads by creating effective land management strategies;
2. Construction or maintenance of fire trails and associated measures;
3. Implementation of cost-effective activities that reduce the impact of severe bushfires and promote community resilience; and
4. Generation of scientific information (including hazard mapping) to develop best-practice strategies.

WA priorities:

1. Completion of, or progress towards completion of, a Bushfire Risk Mitigation Plan (BRMP);
2. Implementation of cost-effective hazard reduction activities; and
3. Clear link to bushfire mitigation outcomes.

NBMP grant funding provides up to 50% of funds for various mitigation activities across the state for both Local Government and State Government Departments.

In 2015-16, 22 grants were awarded to 11 Local Governments and 11 State Government Departments. The NBMP funding contribution was \$552,982, with the total value of mitigation projects \$1,300,716.

In 2016/17, 17 grants were awarded to 5 Local Government and 12 State Government Departments. The NBMP funding contribution was \$367,683, with the total value of mitigation projects \$980, 556.

Eight projects have been completed with the remainder underway.

Marine Services

Marine Services provides funding from the ESL to Volunteer Marine Rescue (VMR) groups to operate their day to day running costs. WA Police are the hazard management agency for VMR.

Community Engagement

Prevention Program	Description	Location of delivery
Bushfire Program	The bushfire program provides a strategic approach to community engagement activities that work to reduce the level of bushfire risk to the community across the South West Land Division. Specifically, the program works to facilitate a coordinated approach to community engagement across a range of stakeholders, as well as the development of skills and knowledge that support communities to understand their bushfire risk and act to reduce that risk. Treatment options identified and applied to communities based on a risk assessment and the population demographics. The development and distribution of resources and information are also key elements of the program.	State
Bushfire Ready	Bushfire Ready is a community driven program aimed at encouraging local residents to work together in preparing and protecting their families and properties against bushfires. Bushfire Ready aims to build community resilience by providing an opportunity for neighbours to network, share ideas and information and develop and implement strategies to reduce their bushfire risk.	Program available state-wide but targeted in local communities.
Areas of Community Engagement Focus (ACEF)	The objective of an ACEF is to reduce the impact that bushfires can have on the community, by improving individual and community resilience. An ACEF achieves this through the identification of localised high bushfire risk areas and targeted treatment options to meet the needs of that community based on demographic, community vulnerabilities and operational requirements.	Targeted
Flood	Flood initiatives focus on the development and distribution of flood preparedness safety messages.	State
Cyclone	Cyclone initiatives aim to increase individual and community preparedness for cyclone and flood. The program focuses on the development and distribution of resources appropriate for community members and industry in the North West such as tourism providers. Resources developed are provided in multiple languages for accessibility to tourists.	Targeted - North West
Dry Season	Dry Season initiatives focus on the development and distribution of information and resources relevant the North West dry season including factsheets and monthly themes on key prevention, preparedness and traveling safety messages.	Targeted - North West
Smoke Alarm	Smoke alarm campaign initiatives include the undertaking of research to inform key smoke alarm messages around replacement and maintenance of smoke alarms. Research and incident occurrence data then inform a targeted approach for engaging communities in prevention activities.	State
WinterSAFE	The WinterSAFE program provides key home fire safety and storm prevention messages and initiatives (including smoke alarms) between the months of April - September. The WinterSAFE program uses incident occurrence data and community profiles to identify locations and vulnerable community groups (ACEF) to provide a targeted approach to prevention and preparedness activities.	Targeted

School Aged Education - Bushfire Patrol	Bushfire Patrol is a bushfire education program for schools within the southwest land division of Western Australia. It can easily be accessed by teachers and students through the DFES website. The Australian Curriculum linked program includes classroom lesson plans and fun mission-based online games for students from Years 2-6 in primary school. Take home activities are incorporated into the program to help develop individual and family resilience to bushfire hazards. Its key outcome is to raise students and their family's awareness, perception of risk and shared responsibility around bushfire in the community.	Targeted - South West Land Division
School Aged Education - Emergency Helpers	This program focuses on DFES Emergency Helpers (safe people) and what students can do to keep themselves safe when it comes to emergencies, including the importance of the 000 number. Students are introduced to the uniforms and safety equipment used by DFES career and volunteer emergency service workers and volunteers.	Program available from Perth only
School Aged Education - Home Fire Safety	Students learn about hazards in the home, crawling low under smoke and the importance of a home fire escape plan and safe meeting point. The Year 3 School Visit program is an incursion program in all primary schools in WA for Year 3 students. In the Perth Metropolitan area and in larger regional areas, this program is delivered by career firefighters. In regional areas, it is delivered by volunteer firefighters, if they have the capacity to do so. The visit is one hour (or less) and includes a talk to students about the role of the firefighter, preventing a home fire, safe and unsafe fires, smoke alarms, the importance of a home fire escape plan, crawling low under smoke and calling triple zero.	State
At Risk	The At Risk Communities Program focuses on those at-risk and vulnerable members of the community who may be at greater risk of injury or death due to their inability to receive, understand or act on information during an emergency. The program currently targets Aged in Place, Disability and Family Day Care. DFES' At-Risk People Strategy recognised Service Providers as being the critical link to these members of the community that are often in isolation and considered to be at risk. The program offers a training package (either online or in the workplace) to educate and enable service providers (carers) to support their clients to better prepare for and respond to bushfire emergencies, as well as encourage staff to focus on their own self-care and procedures when working in high bushfire risk areas.	Targeted - high bushfire risk areas
Juvenile and Family Fire Awareness (JAFFA)	The JAFFA Program is a free, confidential early intervention program for young people aged 6 to 16 years who are experimenting with fire. The education session assists young people to understand fire behaviour, fire safety and the legal implications of arson. JAFFA is delivered by specially trained firefighters in the young person's home. The firefighter conducts an interview with the young person and their parents to understand the young person's firelighting behaviour. The education session may include watching short films, viewing photographs that illustrate the consequences of inappropriate fire use, discussing fire safe behaviour and conducting a fire safety audit in the home.	State

Education & Heritage Centre All Hazards Gallery	<p>The DFES Education & Heritage Centre is free for all to visit. The All Hazards Gallery at the Centre provides an interactive facility with information and education on all hazards that are managed by DFES across the state. There are specific focus areas across the gallery on:</p> <ul style="list-style-type: none"> • Bushfire • Home Fire Safety • Flood • Storm • Cyclone • Tsunami • Earthquake <p>The Centre is designed to accommodate all age groups and provides free information for visitors to take away on all the different hazards. The Information Space has public access computers to view the DFES Website and Bushfire Prone Areas Map (Emergency WA to come), an interactive screen to view hazards across the state and hard copy printed information.</p>	Metropolitan area but information provided for the whole state
Education & Heritage Centre Heritage Day	<p>The DFES Education & Heritage Centre is free for all to visit. The annual Heritage Day is run one Sunday each October to showcase heritage buildings throughout Perth. DFES use this event to promote all hazards that are managed by DFES to approximately 2000 visitors each year. The Centre resources and activities are boosted by representatives of every DFES service including representative appliances to assist in education of the visitors.</p>	Metropolitan area but information provided for the whole state

Appendix H Risk and the economic costs of natural disasters

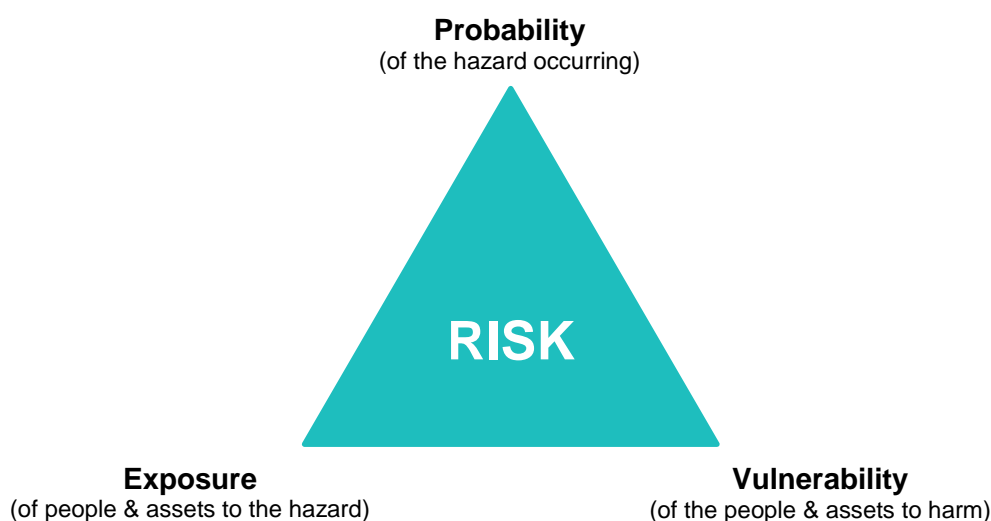
The purpose of Appendix H is to explain the definition of risk, the types of costs arising from natural disasters, and the trade-offs that must be made in managing natural disaster risks. This section is partially adapted from the Productivity Commission's inquiry into *Natural Disaster Funding Arrangements*.

Assessing risk

The level of risk arising from a natural hazard depends on three elements: probability; exposure; and vulnerability.⁶²² These are shown in Individuals, businesses, and governments will incur costs if they choose to undertake risk management. Costs can be financial (for example, the cost of an insurance premium or the cost of an appropriate mitigation project). However, costs may also involve time and effort (for example, the time taken cleaning gutters and trimming branches, or the time involved in researching and understanding risks to make an emergency evacuation plan).

Effective risk management may involve targeting one or more of these three elements. By investing in the right risk management activities, probability, exposure, and vulnerability can all be reduced. Figure 32 shows the construction of risk.

Figure 32 Risk as a product of probability, exposure, and vulnerability



Source: Productivity Commission, *Natural Disaster Funding Productivity Commission Inquiry Report*, Melbourne, Government of Australia, 2014, Vol. 2, p. 342.

Probability, exposure, and vulnerability are defined as follows:

- **Probability** – this refers to the type of natural hazard (for example, bushfire, flood, tsunami), and the probability of the natural hazard event occurring, including its severity, extent, and frequency.

⁶²² Productivity Commission, *Natural Disaster Funding Arrangements*, Inquiry Report No. 74, Melbourne, Government of Australia, 2014, Vol. 2, p. 342.

- *Exposure* – this refers to the number of people and value of assets exposed to the natural hazard, and the activities they support.
- *Vulnerability* – this refers to the susceptibility of the exposed people, assets and activities to the effects of the hazard.⁶²³

Risk management is used to influence one or more of these three elements, thereby decreasing the overall level of risk. Risk management involves determining who is responsible for managing risks to which assets, understanding the risks faced and the potential consequences, and deciding how best to treat risks.⁶²⁴

When risk is assessed and understood, it is then possible to measure the costs of natural disasters, and the costs and benefits of taking prevention and preparedness actions.

The economic costs of natural disasters

The economic costs of a natural disaster include tangible costs and intangible costs.⁶²⁵ Tangible costs can be further categorised as direct market costs and indirect market costs (refer to Figure 33).

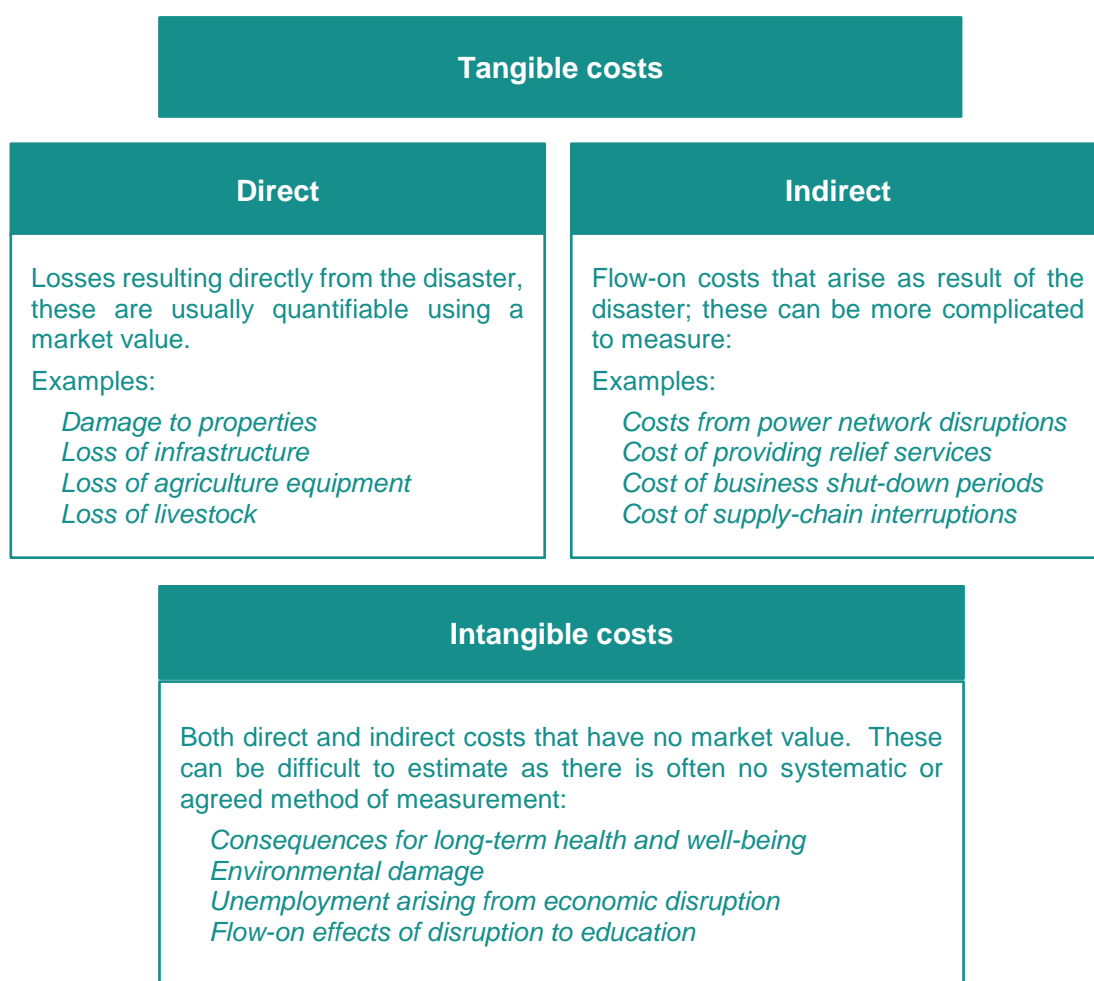
- *Direct market costs* – these are the costs of the immediate impact of a natural disaster on tangible assets. Direct market costs include damage to private property (for example, such as homes and business assets) and public property (for example, such as roads and schools).
- *Indirect market costs* – these are costs that arise as a flow-on consequence of the natural disaster. Indirect market costs include loss of production, disruption to public services, and the costs of responding and recovering from the natural disaster.
- *Intangible costs* – these are costs that arise from damage to assets that cannot be bought and sold. Intangible costs include the costs of stress, injury and loss of life, and the costs of damage to the environment and cultural heritage.⁶²⁶

⁶²³ Productivity Commission, *Natural Disaster Funding Arrangements*, Inquiry Report No. 74, Melbourne, Government of Australia, 2014, Vol. 2, p. 342.

⁶²⁴ Productivity Commission, *Natural Disaster Funding Arrangements*, Inquiry Report No. 74, Melbourne, Government of Australia, 2014, Vol. 2, p. 341.

⁶²⁵ Productivity Commission, *Natural Disaster Funding Arrangements*, Inquiry Report No. 74, Melbourne, Government of Australia, 2014, Vol. 2, p. 275.

⁶²⁶ Productivity Commission, *Natural Disaster Funding Arrangements*, Inquiry Report No. 74, Melbourne, Government of Australia, 2014, Vol. 2, pp. 275 – 276.

Figure 33 Tangible and intangible costs

Source: Adapted from Deloitte Access Economics, Productivity Commission, and Bureau of Transport Economics.

Costs and benefits of risk management activities

As explained in Chapter 5, potential costs from a natural disaster are not fixed. Individuals, businesses and governments can undertake emergency management activities before, during, and after natural disasters to reduce risks, and hence potential costs.⁶²⁷ To reduce disaster risks, one or more of three elements must be reduced: probability of the hazard; exposure to the hazard; or community vulnerability in the face of the hazard.⁶²⁸

Managing risks also has an 'opportunity cost' (that is, if money, time, and effort are used for one purpose, then they are no longer available to be used for another purpose.). As a consequence, individuals, businesses, and governments must make 'trade-offs' between different options when investing in risk management. These trade-offs include:

- *Whether to invest in risk management or pursue other objectives.* For individuals, investment in risk management may come at the expense of time (for example, work

⁶²⁷ Productivity Commission, *Natural Disaster Funding Arrangements*, Inquiry Report No. 74, Melbourne, Government of Australia, 2014, Vol. 2, p. 339.

⁶²⁸ Productivity Commission, *Natural Disaster Funding Arrangements*, Inquiry Report No. 74, Melbourne, Government of Australia, 2014, Vol. 2, p. 342.

or recreation time) or money (for example, the cost of installing a water tank). For governments, investment in risk management may come at the expense of providing other public services (such as health or education), or require a government to raise taxes or increase a budget deficit.

- *Which areas of risk management are to be prioritised* – As discussed in more detail in Chapter 3, there are four phases of emergency management. These are prevention, preparedness, response, and recovery. Assuming a constant level of funding, investing in activities in one phase may limit the ability to invest in other phases.
- *Which specific projects are to be implemented* – There will be a range of activities that can be undertaken to reduce the risks posed by a natural hazard. Investing in one project may come at the expense of being able to undertake an alternative project. This will mean that it is necessary to prioritise projects.

The benefits of any investment in risk management need to be weighed against the costs of that investment.⁶²⁹ Risk management activities should only be undertaken if the expected benefits of the investment are greater than the costs, as determined through robust analysis.

Quantitative methods for prioritising risk management activities

There are a range of technical methods to help prioritise risk management activities. These include cost-effectiveness and least-cost analysis, multi-criteria analysis, computable general equilibrium modelling, and cost-benefit analysis. The Productivity Commission has examined each of these methods, and considers that, while cost-benefit analysis has its limitations, ‘where [cost-benefit analysis] can be used to estimate both tangible and intangible costs and benefits in monetary terms, it is likely to lead to better informed decision methods than other evaluation methods, particularly for the relative assessment of individual projects’.⁶³⁰ The Productivity Commission examines and describes each of these methods in its 2014 inquiry into natural disaster funding arrangements, and notes that some of the other methods discussed above – while lacking on their own – serve as useful complements to cost-benefit analysis when prioritising risk management activities.⁶³¹

Academics have also highlighted the usefulness of cost-benefit analysis for assessing the value of natural hazard risk management costs and benefits. For example, the paper *Estimating the value of foresight: aggregate analysis of natural hazard mitigation benefits and costs* states that:

“Benefit-cost analysis (BCA) offers a rigorous, widely applied tool for assessing public policy and public investment proposals. Basically, benefit cost analysis is concerned with efficiency. Public investments are considered to be efficient if their benefits exceed their costs. Given that these investments are intended to last and need to be maintained for many years, they are efficient if the present discounted value of the estimated future stream of positive impacts (benefits from the investment) is greater than the present discounted value of the estimated future stream of negative impacts

⁶²⁹ Productivity Commission, *Natural Disaster Funding Arrangements*, Inquiry Report No. 74, Melbourne, Government of Australia, 2014, Vol. 2, p. 344.

⁶³⁰ Productivity Commission, *Natural Disaster Funding Arrangements*, Inquiry Report No. 74, Melbourne, Government of Australia, 2014, Vol. 2, p. 386.

⁶³¹ Productivity Commission, *Natural Disaster Funding Arrangements*, Inquiry Report No. 74, Melbourne, Government of Australia, 2014, Vol. 2, pp. 386-387.

(costs of the investment). Thus, a project is deemed efficient if its benefit/cost ratio is greater than one.

These are indeed valid criticisms of using traditional benefit-cost analysis as the sole evaluative tool for a prospective project. However, in a random sample of a large number of projects, and using a consistent valuation methodology, individual under-estimates and over-estimates tend to be off-setting, yielding useful information on the average efficiency of the planning activity. In addition, when the benefit-cost analysis is augmented by community-based studies, interpretations and implications of the economic numbers are enhanced by setting them within the more comprehensive context where planners actually operate.)”⁶³²

Notably, this paper also emphasises the importance of using community information and practical context to achieve better results from cost-benefit analysis.

Similarly, the paper *‘Benefit–Cost Analysis’ Of Disaster Mitigation: Application As a Policy and Decision-Making Tool* highlights the usefulness of cost-benefit analysis for risk management policy, stating that:

“Many proponents of disaster mitigation claim that it offers potential benefits in terms of saved lives and property far exceeding its costs. To provide evidence for this, and to justify the use of public funds, agencies involved in mitigation can use benefit–cost analysis (BCA). Such analysis, if well done, offers a testable, defensible means of evaluating and comparing projects, helps decision-makers choose between mitigation projects, and provides a means to assess the way we spend public funds.”⁶³³

Cost-benefit analysis brings transparency and accountability to the decision making process.⁶³⁴ However, it is important to note that there are limitations in all quantitative approaches to assessing the merits of various risk management activities. The Productivity Commission has described some of the limitations of cost-benefit analysis. For example, there are difficulties in estimating non-market value; no clear indication of who benefits and who pays (distributional impacts); lack of method for incorporating uncertainty and irreversibility⁶³⁵; subjectivity in choosing the appropriate discount rate⁶³⁶; and limitations in comparing across hazards as each disaster has different disaster consequences and uncertainty due to climate change⁶³⁷.

Measuring psychological and social costs and benefits can be particularly difficult. For example, Ganderton explains that relocating residences from the 100-year flood plain may have clear benefits in terms of reducing loss of life and property damage. However, measuring the social costs is much more difficult – for instance, people may have a cultural or historical connection to their land, and different individuals will have different experiences

⁶³² Godschalk, D.R., Rose, A., Mittler, E., Porter, K. and West, C.T., *Estimating the value of foresight: aggregate analysis of natural hazard mitigation benefits and costs*, Journal of Environmental Planning and Management, 2009, Vol. 52(6), pp.739-756.

⁶³³ Ganderton, P.T., *Benefit–cost analysis’ of disaster mitigation: application as a policy and decision-making tool*, Mitigation and Adaptation Strategies for Global Change, 2005, Vol. 10(3), pp.445-465.

⁶³⁴ Productivity Commission, *Natural Disaster Funding Arrangements*, Inquiry Report No. 74, Melbourne, Government of Australia, 2014, Vol. 2, p. 355.

⁶³⁵ Shreve, C. M., 2014, *Does mitigation save? Reviewing cost-benefit analyses of disaster risk reduction*, International Journal of Disaster Risk Reduction, Vol.10, December 2014, pp. 213-235.

⁶³⁶ Productivity Commission, *Natural Disaster Funding Arrangements*, Inquiry Report No. 74, Melbourne, Government of Australia, 2014, Vol. 2, p. 386.

⁶³⁷ Productivity Commission, *Natural Disaster Funding Arrangements*, Inquiry Report No. 74, Melbourne, Government of Australia, 2014, Vol. 2, p. 383.

of the relocation – some positive, some negative.⁶³⁸ Measuring environmental costs and benefits is similarly difficult. The direct costs of prevention or remediation may be straightforward to measure, but the value people place on their environment – both nearby and State-wide – may vary widely. While new approaches continue to emerge for estimating social value and environmental value, these kinds of costs and benefits remain challenging to measure consistently.

⁶³⁸ Ganderton, P.T., *Benefit-cost analysis' of disaster mitigation: application as a policy and decision-making tool*, Mitigation and Adaptation Strategies for Global Change, 2005, Vol. 10 (3), pp.445-465.

Appendix I Emergency services in other jurisdictions

Emergency services arrangements vary significantly across Australia's states and territories, both in terms how service provision is structured, and in terms of funding and governance arrangements. This appendix provides an overview of the arrangements that apply in each jurisdiction.

Service providers

Table 31 details the responsible agencies and lines of reporting for providers of fire and emergency services in each State and Territory.

Some jurisdictions (for example, Western Australia and Queensland) have an overarching department that is responsible urban and rural fire response, rescue, and emergency services. Others (for example, New South Wales and Victoria) have three independent authorities providing metropolitan fire services, rural fire services, and emergency services respectively.

All Australian jurisdictions have separate provider(s) of general fire and emergency services, and fire mitigation and response services in managed parks and reserves.

Table 31 Fire and emergency services agencies in other States and Territories

State	Organisation(s)
NSW	Fire and Rescue NSW Provides urban fire and rescue services and hazardous material incident response across the state. ⁶³⁹
	NSW Rural Fire Service A volunteer-based organisation that provides firefighting, fire mitigation, community education, search and rescue, and emergency services in rural areas. ⁶⁴⁰
	NSW State Emergency Services A volunteer-based organisation that provides flood and storm emergency services, and search and rescue services. ⁶⁴¹
	NSW National Parks and Wildlife Service (in the Office of Environment and Heritage) Undertakes fuel management and firefighting in national parks. ⁶⁴²

⁶³⁹ Australasian Fire and Emergency Services Authorities Council, *Understanding Our Business Survey 2015/16*, Australasian Fire and Emergency Services Authorities Council, Melbourne, 2016, p.4.

⁶⁴⁰ NSW Rural Fire Service, *Fast facts: About the NSW Rural Fire Service*, Government of New South Wales, <http://www.rfs.nsw.gov.au/about-us/fast-facts>, (accessed 31 January 2017).

⁶⁴¹ NSW State Emergency Service, *About Us*, Government of New South Wales, <http://www.ses.nsw.gov.au/about/>, (accessed 31 January 2017).

⁶⁴² Office of Environment and Heritage, *Managing fire in NSW national parks*, Government of New South Wales, <http://www.environment.nsw.gov.au/fire/mngfireinnswnatpks.htm>, (accessed 31 January 2017).

	<p>Forestry Corporation of NSW</p> <p>Undertakes fuel management and firefighting in state forests and plantations.⁶⁴³</p>
Vic	<p>Metropolitan Fire Brigade</p> <p>Undertakes firefighting, urban search and rescue services, community education and marine response services within the Metropolitan Fire District.⁶⁴⁴</p> <p>Country Fire Authority</p> <p>Undertakes firefighting, community education, search and rescue, and marine response services outside of the Metropolitan Fire District.⁶⁴⁵</p> <p>Victorian State Emergency Service</p> <p>A volunteer-based organisation that provides disaster response, community education, and urban search and rescue services.⁶⁴⁶</p> <p>Forest Fire Management Victoria (a coalition of the Department of Environment, Land, Water and Planning, Parks Victoria, VicForests and Melbourne Water)</p> <p>Undertakes fuel reduction on public land.⁶⁴⁷</p>
Qld	<p>Queensland Fire and Emergency Services (QFES).</p> <p>The main provider of fire, search and rescue, and emergency services in the state.⁶⁴⁸ The Department administers:</p> <ul style="list-style-type: none"> • <i>Queensland Rural Fire Service</i> – a volunteer-based organisation that provides fuel reduction, firefighting, community education, and fire preparedness services in rural and semi-rural areas.⁶⁴⁹ • <i>Queensland State Emergency Services</i> – a volunteer-based organisation that is the primary responder for storm and flood emergencies, and provides incident management, community education, and search and rescue services.⁶⁵⁰

⁶⁴³ Forestry Corporation, *Fire Management*, Government of New South Wales, <http://www.forestrycorporation.com.au/management/fire-management>, (accessed 31 January 2017).

⁶⁴⁴ Metropolitan Fire Brigade, *Operations*, Government of Victoria, <http://www.mfb.vic.gov.au/About-Us/Operations.html>, (accessed 31 January 2017).

⁶⁴⁵ Country Fire Authority, *What we do*, Government of Victoria, <http://www.cfa.vic.gov.au/about/what-we-do/>, (accessed 31 January 2017).

⁶⁴⁶ Victoria State Emergency Services, *What We Do*, Government of Victoria, <https://www.ses.vic.gov.au/about/what-we-do>, (accessed 31 January 2017).

⁶⁴⁷ Department of Environment, Land, Water and Planning, *Forest Fire Management Victoria*, Government of Victoria, <http://delwp.vic.gov.au/ffm/vic>, (accessed 31 January 2017).

⁶⁴⁸ Queensland Fire and Emergency Services, *QFES Internet*, Government of Queensland, <https://www.qfes.qld.gov.au/Pages/default.aspx>, (accessed 31 January 2017).

⁶⁴⁹ Queensland Rural Fire Service, *About*, Government of Queensland, <https://www.ruralfire.qld.gov.au/About/Pages/default.aspx>, (accessed 31 January 2017).

⁶⁵⁰ Queensland State Emergency Service, *What SES Do*, Government of Queensland, <http://www.ses.qld.gov.au/about/Pages/What-We-Do.aspx>, (accessed 31 January 2017).

	<p>Queensland Parks and Wildlife Service (in the Department of National Parks, Sport and Racing)</p> <p>Provides fuel reduction, fire preparedness, and firefighting services on land it manages.⁶⁵¹</p>
SA	<p>South Australian Metropolitan Fire Service</p> <p>Provides urban firefighting, community education, and emergency services in Adelaide and regional centres.⁶⁵²</p> <p>South Australian Country Fire Service</p> <p>A volunteer-based organisation that provides fire and rescue services to outer metropolitan, regional and rural areas.⁶⁵³</p> <p>South Australian State Emergency Service</p> <p>A volunteer-based organisation that provides emergency services, and search and rescue services, as well as supporting the Country Fire Service during major bushfires.⁶⁵⁴</p>
	<p>Department of Environment, Water and Natural Resources</p> <p>Undertakes fuel management, firefighting, and fire preparedness activities on public lands.⁶⁵⁵</p>
	<p>ForestrySA</p> <p>Undertakes fuel management and firefighting on plantation lands under its management.⁶⁵⁶</p>
Tas	<p>State Fire Commission, which operates the Tasmania Fire Service.</p> <p>Staffed by a career firefighters and volunteers and provides firefighting, community education, and search and rescue services across the state.⁶⁵⁷</p>
	<p>Department of Police, Fire and Emergency Management, which administers Tasmania State Emergency Services.</p> <p>A volunteer-based organisations that provides emergency response, and search and rescue services to the community. It also provides whole-of-government advice and executive support to its State Emergency Management Committee and Regional Emergency Management Planning Groups.⁶⁵⁸</p>

⁶⁵¹ Department of National Parks, Sport and Racing, *Fire management*, Government of Queensland, https://www.npsr.qld.gov.au/managing/fire_management.html, (accessed 31 January 2017).

⁶⁵² South Australian Metropolitan Fire Service, *About Us*, Government of South Australia, http://www.mfs.sa.gov.au/site/about_us.jsp, (accessed 31 January 2017).

⁶⁵³ South Australian Country Fire Service, *About*, Government of South Australia, <http://www.cfs.sa.gov.au/site/about.jsp>, (accessed 31 January 2017).

⁶⁵⁴ South Australian State Emergency Service, *About the SES*, Government of South Australia, http://www.ses.sa.gov.au/site/about_us/about_the_ses.jsp, (accessed 31 January 2017).

⁶⁵⁵ Department of Environment, Water and Natural Resources, *Fire management*, Government of South Australia, <https://www.environment.sa.gov.au/managing-natural-resources/fire-management>, (accessed 31 January 2017).

⁶⁵⁶ ForestrySA, *Fire prevention and management*, Government of South Australia, <https://www.forestry.sa.gov.au/Fire>, (accessed 31 January 2017).

⁶⁵⁷ Tasmania Fire Service, *About TFS*, Government of Tasmania, <http://www.fire.tas.gov.au/Show?pageId=colAbout>, (accessed 31 January 2017).

⁶⁵⁸ Tasmania State Emergency Service, *About*, Government of Tasmania, <http://www.ses.tas.gov.au/h/es/about-ses>, (accessed 31 January 2017).

	<p>Parks and Wildlife Service Tasmania (in the Department of Primary Industries, Parks, Water and Environment)</p> <p>Provides fuel management and firefighting services in national parks, regional reserves and conservation areas.⁶⁵⁹</p>
	<p>Forestry Tasmania</p> <p>Provides fuel management and firefighting services in the forests it manages.⁶⁶⁰</p>
ACT	<p>ACT Emergency Services Agency (in the Justice and Community Safety Directorate),⁶⁶¹ comprising:</p> <ul style="list-style-type: none"> • <i>ACT Fire and Rescue</i> – Provides firefighting, search and rescue, and community safety services in Canberra.⁶⁶² • <i>ACT Rural Fire Service</i> – Staffed by career firefighters and volunteers, and provides fuel management and firefighting services in non-suburban areas.⁶⁶³ • <i>ACT State Emergency Service</i> – A volunteer-based organisation that provides emergency response services, and search and rescue services.⁶⁶⁴
	<p>ACT Parks and Conservation Service (in the Environment, Planning and Sustainable Development Directorate)</p> <p>Manages fuel reduction and firefighting on land is manages.⁶⁶⁵</p>
NT	<p>Northern Territory Police Fire and Emergency Services Agency, which operates the:</p> <ul style="list-style-type: none"> • <i>NT Fire and Rescue Service</i> – Staffed by career and casual firefighters and volunteers, and provides firefighting, incident management and community education services in Darwin and regional centres.⁶⁶⁶ • <i>NT Emergency Service</i> – Comprises permanent staff and volunteers, and is responsible for emergency management planning and response.⁶⁶⁷

⁶⁵⁹ Parks and Wildlife Service Tasmania, *Bushfire Management & Planned Burns*, Government of Tasmania, <http://www.parks.tas.gov.au/index.aspx?base=890>, (accessed 31 January 2017).

⁶⁶⁰ Forestry Tasmania, *Fire management*, Government of Tasmania, <http://www.forestrytas.com.au/operations/fire-management>, (accessed 31 January 2017).

⁶⁶¹ ACT Emergency Services Agency, *About us*, Government of Australian Capital Territory, <http://esa.act.gov.au/about-us/>, (accessed 31 January 2017).

⁶⁶² ACT Fire and Rescue, *About*, Government of Australian Capital Territory, <http://esa.act.gov.au/actfr/about/>, (accessed 31 January 2017).

⁶⁶³ ACT Rural Fire Service, *ACT Rural Fire Service*, Government of Australian Capital Territory, <http://esa.act.gov.au/actrfs/>, (accessed 31 January 2017).

⁶⁶⁴ ACT State Emergency Service, *About us*, Government of Australian Capital Territory, <http://esa.act.gov.au/actses/about-us/>, (accessed 31 January 2017).

⁶⁶⁵ Environment, Planning and Sustainable Development Directorate, *PCS Fire Management Unit*, Government of Australian Capital Territory, http://www.environment.act.gov.au/ACT-parks-conservation/bushfire_management/about-the-pcs-fire-management-unit, (accessed 31 January 2017).

⁶⁶⁶ Northern Territory Fire and Rescue Service, *Our people*, Government of Northern Territory, <http://www.pfes.nt.gov.au/Fire-and-Rescue/Our-people.aspx>, (accessed 31 January 2017).

⁶⁶⁷ Northern Territory Emergency Service, *About NTES*, Government of Northern Territory, <http://www.pfes.nt.gov.au/Emergency-Service/About-NTES.aspx>, (accessed 31 January 2017).

Bushfires NT (in the Department of Environment and Natural Resources)
A volunteer-based organisation responsible for fuel management and firefighting in rural areas.⁶⁶⁸

Funding arrangements

Fire and emergency services agencies in Australian jurisdictions are generally funded – at least to some extent – by a levy. However, as shown in Table 32, there is some variation in both the application of the levy, and the use of funds raised.

Table 32 Funding arrangements for fire and emergency services in other States and Territories

State	Funding arrangements
NSW	<p>Fire and Rescue New South Wales is currently funded jointly by contributions from the Treasurer, local councils, and insurance companies (via a levy). The New South Wales Rural Fire Service has a similar funding arrangement.</p> <p>However, from 1 July 2017, the levy on insurance policies will be replaced with an Emergency Services Property Levy, to be paid alongside council rates.⁶⁶⁹</p>
Vic	<p>The Fire Services Property Levy covers 87.5 per cent of the cost of Metropolitan Fire Brigade and 77.5 per cent of the cost the Country Fire Authority.</p> <p>The levy is calculated based on the capital improved value of each property, and varies for residential, industrial, commercial, vacant, public benefit, and farm properties.</p> <p>Separate levies are charged in Metropolitan Fire Brigade and Country Fire Authority areas. This reflects the different costs of funding each service. The remainder of the funding for these services is provided directly by the Victorian Government.^{670 671}</p>

⁶⁶⁸ Department of Environment and Natural Resources, *Bushfires NT*, Government of Northern Territory, <https://denr.nt.gov.au/about/bushfires-nt>, (accessed 31 January 2017).

⁶⁶⁹ New South Wales Government, *Emergency Services Property Levy*, Government of New South Wales, <http://emergencyservicespropertylevy.nsw.gov.au/>, (accessed 31 January 2017).

⁶⁷⁰ Victorian Government, *Fire Services Property Levy: Frequently Asked Questions*, Government of Victoria, <http://www.firelevy.vic.gov.au/faq.html>, (accessed 31 January 2017).

⁶⁷¹ Victoria State Emergency Service, *News: On funding*, Government of Victoria, <https://www.ses.vic.gov.au/-/on-funding>, (accessed 31 January 2017).

Qld	<p>The Emergency Management Levy is the Fire and Emergency Service's primary source of funding. It is a levy on property, and is based on the levy class (determined by the service available in the area), and the use of the property. Local governments collect the levy and remit it to the Fire and Emergency Service.</p> <p>Queensland legislation also allows local governments to levy rates or charges and contribute the amounts raised to rural fire brigades.</p> <p>The Fire and Emergency Service also receives a State-funded contribution, which is equivalent to approximately 14 per cent of Emergency Management Levy income received.⁶⁷²</p>
SA	<p>The Emergency Services Levy is charged on land, and on vehicles and vessels. This funding is placed in a dedicated fund (the Community Emergency Services Fund), which is administered by the Minister for Emergency Services.</p> <p>The levy on land is calculated based on land use, the region of the state in which the property is located, and on the capital value of the property at the beginning of the financial year.</p> <p>The Community Emergency Services Fund is used to pay for the operations of the Metropolitan Fire Service, Country Fire Service, South Australian State Emergency Service, and SAFECOM.</p> <p>The fund is also used to pay for the emergency services activities of other agencies (for instance South Australia Police, and the Department for Environment, Water and Natural Resources), and the activities of non-government organisations such as Volunteer Marine Rescue.</p> <p>Approximately 95 per cent of the costs of the Metropolitan Fire Services and Country Fire Service, and 98 per cent of the costs of the South Australian State Emergency Service are covered by the Emergency Services Levy, with the remainder provided by the local, state, and federal governments.⁶⁷³</p>

⁶⁷² Australasian Fire and Emergency Services Authorities Council, *Understanding Our Business Survey 2015/16*, Australasian Fire and Emergency Services Authorities Council, Melbourne, 2016, p.7.

⁶⁷³ South Australian Fire and Emergency Services Commission, *How is the sector funded?*, Government of South Australia, http://www.safecom.sa.gov.au/site/about_us/how_sector_is_funded.jsp, (accessed 1 February 2017).

Tas	<p>The Tasmania Fire Service is funded by a combination of a levy on motor vehicles (approximately 10 per cent), contributions paid by insurance companies (approximately 25 per cent), and contributions paid by local councils (approximately 50 per cent). Most of the remainder of the Tasmania Fire Service's funding is provided by the Tasmania Government.</p> <p>The Tasmanian Fire Service contributes towards the funding to the Tasmania State Emergency Service by making a payment to the Department of Police, Fire and Emergency Management.</p> <p>The contribution made by a local council is calculated based on: the value of land in each service category within the local government area; the total value of land in each service category in the State; and the estimated operating and capital costs of brigades within each category of land in the state.^{674 675}</p>
ACT	<p>The Fire and Emergency Services Levy partly covers the costs of providing fire and emergency services in the ACT. Residential and rural property owners pay a fixed charge, while commercial property owners pay an amount equal to the average unimproved value of the land multiplied by a marginal rate.</p> <p>Property owners pay the Fire and Emergency Services Levy, along with rates, to the New South Wales Revenue Office.⁶⁷⁶</p>
NT	<p>The Northern Territory Government funds its fire and emergency services from general revenue.⁶⁷⁷</p>

Governance arrangements

Governance and independent oversight arrangements vary substantially across other Australian jurisdictions, as shown in Table 33.

Table 33 Governance and reporting arrangements for fire and emergency services agencies in other States and Territories

State	Organisation(s)
NSW	Fire and Rescue NSW, the NSW Rural Fire Service, and NSW State Emergency Services are government departments, and report directly to the Minister for Emergency Services. ⁶⁷⁸

⁶⁷⁴ Australasian Fire and Emergency Services Authorities Council, *Understanding Our Business Survey 2015/16*, Australasian Fire and Emergency Services Authorities Council, Melbourne, 2016, p.7.

⁶⁷⁵ Department of Police, Fire and Emergency Management, *Annual Report 2015-16*, Hobart, Government of Tasmania, 2016, p.81.

⁶⁷⁶ ACT Revenue Office, *Fire and emergency services levy*, Government of Australian Capital Territory, <http://www.revenue.act.gov.au/duties-and-taxes/other-levies-and-taxes/fire-and-emergency-services-levy>, (accessed 1 February 2017).

⁶⁷⁷ New South Wales Treasury and the Ministry for Police and Emergency Services, *Funding our Emergency Services: Discussion Paper July 2012*, Sydney, Government of New South Wales, 2012.

⁶⁷⁸ Australasian Fire and Emergency Services Authorities Council, *Understanding Our Business Survey 2015/16*, Australasian Fire and Emergency Services Authorities Council, Melbourne, 2016, p.10.

Vic	<p>The Metropolitan Fire and Emergency Services Board, the Country Fire Authority, and the Victorian State Emergency Service are statutory authorities, reporting to the Minister for Emergency Services.⁶⁷⁹</p> <p>Victoria also has two offices that provide strategic direction and oversight for emergency management. These are:</p> <ul style="list-style-type: none"> • Emergency Management Victoria, which is headed by the Emergency Management Commissioner, and is responsible for coordinating a whole of government strategy for emergency management in Victoria;⁶⁸⁰ and • the Inspector-General for Emergency Management, who is responsible for monitoring, evaluating, and reporting on the capacity and performance of the state's emergency services sector.⁶⁸¹
Qld	<p>Queensland Fire and Emergency Services is a government department, and reports to the Minister for Police, Fire and Emergency Services.</p> <p>Queensland's Inspector-General Emergency Management also reports to the Minister for Police, Fire and Emergency Services, and is responsible for developing a whole-of-government approach to public safety. The Office of the Inspector-General Emergency Management performs reviews and assessments of Queensland's disaster and emergency management arrangements.⁶⁸²</p>
SA	<p>The Metropolitan Fire Service, Country Fire Service, State Emergency Service, are statutory authorities, and are managed by the board of the South Australian Fire and Emergency Services Commission (SAFECOM).⁶⁸³</p> <p>SAFECOM reports to the Minister for Emergency Services, and has a lead role in emergency management planning in South Australia.⁶⁸⁴</p>
Tas	<p>The Tasmania Fire Service is the operational division of Tasmania's State Fire Commission, which oversees fire policy and operational standards, and reports to the Minister for Police, Fire and Emergency Services.⁶⁸⁵</p>

⁶⁷⁹ Australasian Fire and Emergency Services Authorities Council, *Understanding Our Business Survey 2015/16*, Australasian Fire and Emergency Services Authorities Council, Melbourne, 2016, p.10.

⁶⁸⁰ Emergency Management Victoria, *About us*, Government of Victoria, <https://www.emv.vic.gov.au/about-us>, (accessed 31 January 2017).

⁶⁸¹ Inspector-General for Emergency Management, *About the Inspector-General for Emergency Management*, Government of Victoria, <http://www.igem.vic.gov.au/home/about+us/about+the+inspector+general+for+emergency+management/>, (accessed 31 January 2017).

⁶⁸² Australasian Fire and Emergency Services Authorities Council, *Understanding Our Business Survey 2015/16*, Australasian Fire and Emergency Services Authorities Council, Melbourne, 2016, p.7.

⁶⁸³ South Australian Fire and Emergency Services Commission, *SAFECOM Board*, Government of South Australia, http://www.safecom.sa.gov.au/site/about_us/safecom_board.jsp, (accessed 31 January 2017).

⁶⁸⁴ South Australian Fire and Emergency Services Commission, *About Us*, Government of South Australia, http://www.safecom.sa.gov.au/site/about_us.jsp, (accessed 31 January 2017).

⁶⁸⁵ Tasmania Fire Service, *State Fire Commission*, Government of Tasmania, <http://www.fire.tas.gov.au/Show?pagelD=colStateFireCommission>, (accessed 31 January 2017).

	The Tasmania State Emergency Service is a division of the Department of Police, Fire and Emergency Management, and reports to the Minister through the Tasmania Fire Service. ⁶⁸⁶
ACT	The Emergency Services Agency is part of the Justice and Community Safety Directorate, which reports to the ACT Attorney-General, the Minister for Police and Emergency Services, and the Minister for Justice. ⁶⁸⁷
NT	The Northern Territory Police Fire and Emergency Services Agency reports directly to the Minister for Police, Fire and Emergency Services. ⁶⁸⁸

⁶⁸⁶ Department of Police, Fire and Emergency Management, *Annual Report 2015-16*, Government of Tasmania, Hobart, 2016, p.81.

⁶⁸⁷ Justice and Community Safety Directorate, *Our Structure*, Government of Australian Capital Territory. <http://justice.act.gov.au/page/view/195/title/our-structure>, (accessed 1 February 2017).

⁶⁸⁸ Northern Territory Police, Fire and Emergency Services, *2015-16 Annual Report*, Government of Northern Territory, Darwin, 2016, p.10.

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Appendix K Glossary and abbreviations

Glossary

AS/NZS ISO 31000:2009	The Australian and New Zealand Standard for risk management principles and guidelines based on the International Organisation for Standardisation.
Brigade	Used to refer generically to: <ul style="list-style-type: none"> - Bush fire brigades - Volunteer Fire and Rescue Service - Volunteer Fire and Emergency Services Also referred as 'volunteer brigade'.
Chief Bush Fire Control Officer	Person(s) appointed by the Fire and Emergency Services Commissioner or by local governments under the <i>Bush Fires Act 1954</i> . Such person(s) have authority to carry out duties imposed upon them by any of the provisions in Part III of the Act (<i>Bush Fires Act 1954</i> , section 38 (4)).
Disaster	See 'emergency'.
Emergency	The occurrence or imminent occurrence of a hazard of such a magnitude that it requires a significant and coordinated response.
Emergency management	The managerial function charged with creating the framework within which communities reduce vulnerability to hazards and cope with disasters; the management of adverse effects of an emergency across prevention, preparedness, response and recovery.
Emergency services	Where an organisation provides protection to preserve life and property from harm resulting from an emergency.
Emergency services Acts	Acts referred to under section 11 of the <i>Fire and Emergency Services Act 1998</i> which includes the <i>Fire and Emergency Services Act 1998</i> , <i>Bush Fires Act 1954</i> and <i>Fire Brigades Act 1942</i> .
Fire management	Managing fire related risk through prevention, preparedness, response and recovery.
Freehold land	Land which provides people with the most complete form of ownership of that land, in perpetuity.
Hazard management	Where hazard related risks are owned as a shared responsibility, consequences to the society and environment are known and treated in advance to reduce or eliminate its impact.
Merit goods	Goods that governments consider an individual or society should have, regardless of capacity or willingness to pay, and the benefits from consuming these goods or services are shared beyond the direct consumer.
Pastoral land	Crown that is leased for pastoral purposes as per section 93 of the <i>Land Administration Act 1997</i> .
Metropolitan region	Refers to the Perth and Peel regions.

Private goods	Goods that must be purchased to be enjoyed, and which one person's use prevents use by another.
Preparedness	Activities that involve ensuring that authorities and the community are ready to act in the event of a disaster.
Prevention	Activities aimed at reducing the probability of a disaster occurring, or reducing the effects of an emergency by limiting the exposure and vulnerability of people and assets to a disaster.
Public goods	Goods provided that society benefits from, whether they choose to or not, and one person's benefit does not reduce the benefit of another
Recovery	Activities that involve restoring a community to normal function after a disaster.
Response	Response involves activities that are taken immediately before, during, or after a disaster to reduce the impact on the community.
Rural fire management	Rural fire management is planning and undertaking activities to prevent, prepare for and respond to fire incidents in rural areas. It may also include incident recovery.

Abbreviations

AVBFB	Association of Volunteer Bushfire Brigades
AWARE	All West Australians Reducing Emergencies
BRMP	Bushfire Risk Management Plans
BFB	Bush fire brigades
CFRS	Career Fire and Rescue Services
DFES	Department for Fire and Emergency Services
DOL	Department of Lands
DPAW	Department of Parks and Wildlife
ESL	Emergency Services Levy
ERA	Economic Regulation Authority
FESA	Fire and Emergency Services Authority
GRV	Gross Rental Value
HMA	Hazard Management Agency
LGGS Manual	Local Governments Grant Scheme Manual
the Minister	Minister for Emergency Services
NBMP	National Bushfire Mitigation Program

NDRP	National Disaster Resilience Program
OBRM	Office of Bushfire Risk Management
OEM	Office of Emergency Management
VFES	Volunteer Fire and Emergency Services
VFRS	Volunteer Fire and Rescue Services
VMRS	Volunteer Marine Rescue Services
SBCC	State Bushfire Coordinating Committee
SEMC	State Emergency Management Committee
SES	State Emergency Service
SES VAC	State Emergency Service Volunteer Advisory Committee
the Standing Committee	Community Development and Justice Standing Committee
WALGA	Western Australian Local Governments Association
WANDARRA	Western Australian Natural Disaster Relief and Recovery Arrangements