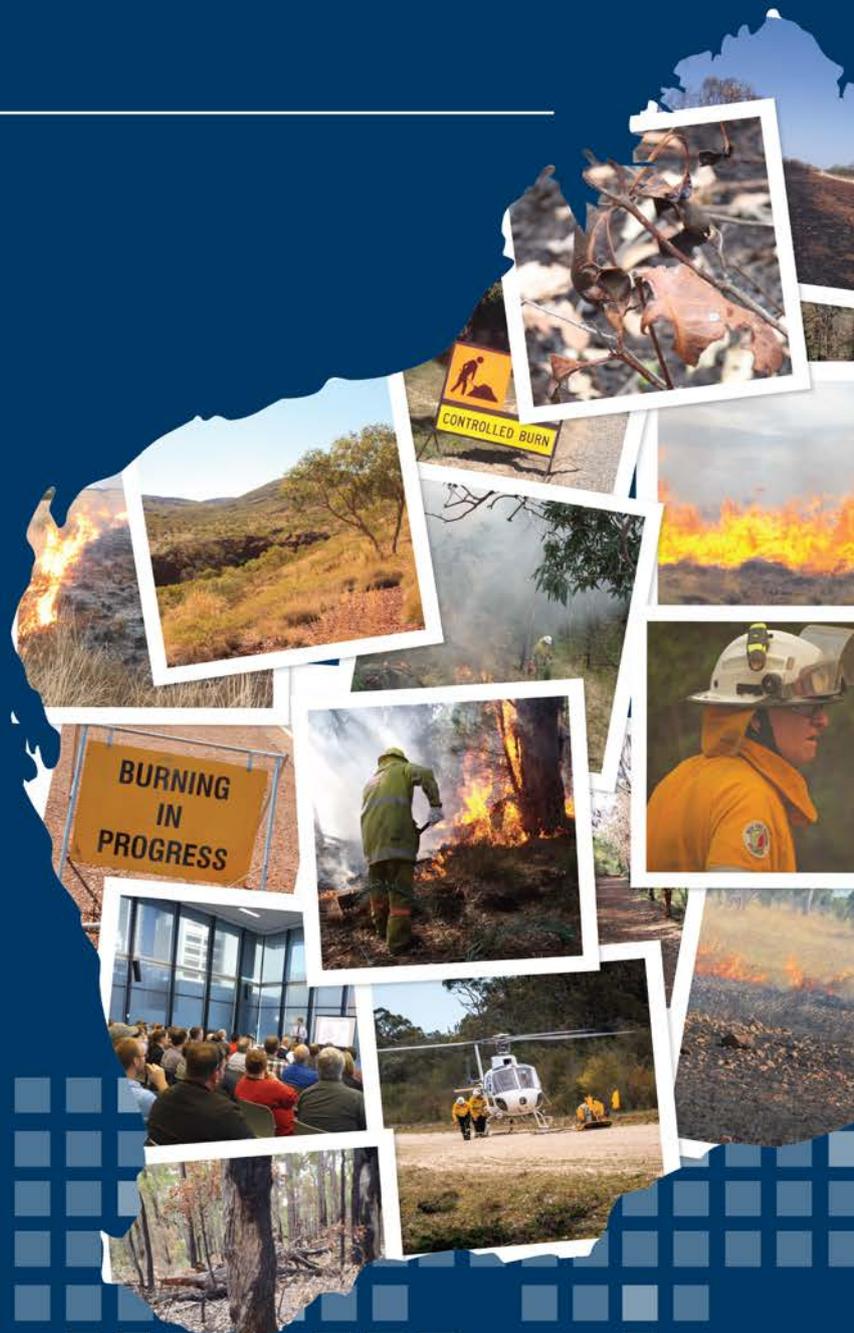




Summary of 2016-17 Fuel Reduction Activities in Western Australia



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Murray Carter
Director OBRM

Message from the Director

I am pleased to present this summary of fuel management activities undertaken in 2016-17 in Western Australia as reported to the Office of Bushfire Risk Management. Each year, the Office collects information from local governments and a selection of state and federal agencies on their planned burning, mechanical and chemical fuel reduction activities. The Office collects this information as part of its Charter responsibilities to *review and report on the state of bushfire risk in Western Australia*.

As we know from the research, and from the findings of recent bushfire inquiries in our state and others, fires are easier to control in areas where there is less material available to burn. Managing the quantity and distribution of available fuel, through activities like planned burning or parkland clearing, can significantly reduce the potential for a bushfire to cause damage. These mitigation activities are becoming more essential than ever, with Bureau of Meteorology data demonstrating that parts of Western Australia are drying, meaning that bushfire events may become larger and more frequent.

The report data indicates that important steps are being taken at local, regional and state levels to reduce the impact of bushfires on communities and the things they value. As our climate continues to change, opportunities for undertaking planned burning are narrowing and becoming more unpredictable. Mechanical and chemical fuel reduction can also be costly and dependent on equipment availability. Considering these complexities and challenges, I take this opportunity to sincerely congratulate the reporting agencies on their mitigation achievements for 2016-17.

At the local government level, I am particularly encouraged by the strategic fuel reduction works reported in the Perth rural urban interface. I also note the considerable increase in planned burning reported by the Parks and Wildlife Service in the south west, reflecting their additional resourcing and efforts in this region. I am also pleased to see the growing impact of the Bushfire Risk Management Planning Program, implemented in late 2015, on the improved availability of data on bushfire risk management activities for participating agencies.

The reporting appears to echo a key insight of the [State Emergency Management Committee Emergency Preparedness Report 2017](#), that local governments are becoming more aware of bushfire risk but have varying capabilities and often limited resources to manage competing demands. At the state level, the recently announced Mitigation Activity Fund should assist in simplifying funding arrangements and providing a model for continuity of support for fuel reduction activities going forward. The development of a state bushfire management policy, planned for 2018, will also assist in clarifying roles and responsibilities for mitigation activities.

On a personal note, I was pleased that many representatives from local government and state agencies were able to attend the inaugural *Western Australian Prescribed Burning Forum 2017, The Burning Question: Now & Beyond*, hosted by our Office in August 2017. This was a flagship event, bringing together leading planned burning practitioners from across the state. It highlighted the increasing number of agencies and organisations undertaking planned burning activities in WA and the need to understand each other's practices and work together to maximise outcomes for communities.

I again thank those who contributed to the development of the 2016-17 report, and encourage all government agencies to share information on their mitigation activities to help us continue to build a complete picture of the state of bushfire risk in Western Australia.

Murray Carter
Director, Office of Bushfire Risk Management

Quick Stats

- 60 local governments and 16 state and federal agencies reported fuel reduction activities in 2016/17, totalling:
- 5,950,887 hectares of planned burning, and
- 80,265 hectares and 9,845 kilometres of other fuel reduction activities¹.

¹ Note 'other fuel reduction' activity total includes 13,355 hectares and 4,950 kilometres of works along state-owned rail assets by Arc Infrastructure.

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Introduction

The Office of Bushfire Risk Management is an independent office within the Department of Fire and Emergency Services (DFES). The Office aims to promote the efficient and effective management of bushfire risk in Western Australia. To support this objective, the Office annually requests information from government agencies on their fuel management activities. The following is a summary of reporting received for the 2016-17 period. While it provides a useful insight into fuel reduction activities across Western Australia, users should note that this information is self-reported by agencies and cannot be comprehensively verified.

Report Contribution Rate

In July 2017, the Office wrote to local governments and selected state and federal agencies seeking data on their fuel reduction activities, including:

- Area treated through planned burning,
- Area treated through other planned fuel reduction activities, and
- Any escapes from planned burning activities.

Direct responses were received from 80 local governments and 16 state and federal agencies. Participating government agencies are listed in **Table 1**. Supplementary data was drawn from the DFES Incident Management System, which is used to capture details of reported fire events, and the Bushfire Risk Management System, which is used by participating agencies to identify assets at risk and details of planned treatments.

Planned Burning

Whole of State

The two state agencies with legislated fire management roles, the Parks and Wildlife Service and DFES (employed staff and DFES volunteers), reported the largest amount of planned burning in Western Australia during 2016-17:

- The Parks and Wildlife Service reported 258 planned burns, totalling 3,235,754 hectares,
- DFES reported 351 planned burns, totalling 2,512,221 hectares.

The large-scale activities of the Parks and Wildlife Service and DFES in the Kimberley Region account for over 88 per cent of the total area treated through planned burning in Western Australia.

Significant planned burn activities were also reported by the Department of Defence, with 17 planned burns for the 2016-17 period, totalling 188,960 hectares. An additional seven state agencies further reported planned burning activities, totalling 1,048 hectares.

In addition, 32 local governments reported planned burning activities for 2016-17, reporting 271 planned burns totalling 12,904 hectares across the state.

A combined total of 5,950,887 hectares of planned burning reported by government agencies in Western Australia for 2016-17.

Other Fuel Reduction Activities

The data indicates that mechanical and chemical techniques account for a significant component of the state's fuel reduction activity. These techniques are being used along linear assets such as road and rail lines, in strategic sites close to population centres, and/or where vegetation types may not support the use of planned burning. In 2016-17, 52 local governments reported a combined total of 6,392 hectares and 1,981 kilometres of mechanical or chemical treatments. State and federal agencies reported over 4,500 mechanical or chemical fuel reduction treatments during 2016-17, totalling 73,873 hectares and 7,864 kilometres. Main Roads was the largest contributor to the state agency total, reporting 38,000 hectares, followed by the Department of Planning, Lands and Heritage, which reported 12,000 hectares.

A combined total of 80,265 hectares and 9,845 kilometres of other fuel reduction activities reported by government agencies for 2016-17².

Activities in the South West Zone

The south west zone³ remains an important focus of fuel management activities in Western Australia, reflecting its combination of forest fuel types and high population densities. While accounting for a relatively small proportion of the state totals, fuel reduction activities in this zone are significant in their complexity and in their contribution to the protection of communities. The Parks and Wildlife Service reported the largest area treated through planned burning in this zone, reporting 220,785 hectares for 2016-17. This is a significant increase on 2015-16, for which they reported 140,218 hectares. In addition, 24 local governments reported a combined total of 1,138 hectares of planned burning in this zone, along with DFES with 144 hectares.

Other fuel reduction activities, including mulching and parkland clearing, are important bushfire mitigation options in the south west zone, reflected in local governments reporting a combined total of over 4,000 hectares and 1,400 kilometres of mechanical and chemical treatments for 2016-17.

² As per footnote 1, includes mitigation works reported by Arc Infrastructure.

³ Refer Table 1 for SW Zone local governments that contributed to the report.

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Activities in the Perth Rural Urban Interface

The Perth metropolitan area has grown rapidly over recent decades, leading to intensification of urban development in high bushfire risk areas along the scarp and its foothills, and in coastal heathland areas to the north and south of the city. While the introduction of the bushfire planning and building reforms in 2015 were an important step in mitigating the bushfire risk to future development, fuel management is critical to limiting existing bushfire risk to life and property in these areas. Fuel reduction activities in interface areas can be complex, resource intensive and require extensive planning to design and execute. For the 2016-17 period, local governments in the Perth rural urban interface reported the largest number of individual planned burns of any region across the state, with the local governments of Cockburn, Gosnells, Kalamunda, Kwinana, Mundaring, Swan and Wanneroo reporting a combined 96 planned burns totalling 300 hectares.

Other Key Findings

- Agencies were asked to provide information on fuel reduction activities that were funded through key state government programs. While we are unable to draw detailed conclusions, responses highlighted the need to consolidate and simplify funding sources for mitigation activities, and to refine reporting requirements for recipients (while noting the recently announced Mitigation Activity Fund should assist in future years).
- Current reporting arrangements are not adequately capturing fuel reduction activities on private land, particularly where these activities do not require a permit. The combined figure that could be estimated from the data, 21,841 hectares, is likely to be a gross under-representation of the actual area treated. The Office is considering ways to strengthen future reporting on these activities.
- Detailed activity information is beginning to become available for government agencies using the Bushfire Risk Management System as part of the Bushfire Risk Management Planning Program.
- Data reported by the government agencies, coupled with supplementary data sourced from the DFES Incident Management System, indicates that the vast majority of escapes from planned burns are very minor. The Office of Bushfire Risk Management will consider the escape data as part of its assurance activities, under which agencies and organisations are supported to align their planned burning practices to the international risk management standard, ISO 31000.

Next Steps

Data on 2017-18 fuel reduction activities will be requested from government agencies in Q3 2018. For further information on reporting requirements, please contact our Office by email at obrm@dfes.wa.gov.au.

Table 1 – Reporting Agencies 2016-17

Local Governments	
ALBANY*	KATANNING
ASHBURTON	KENT
AUGUSTA-MARGARET RIVER*	KONDININ
BASSEDEAN	KOORDA
BAYSWATER	KWINANA*
BELMONT	LAKE GRACE
BODDINGTON*	LEONORA
BOYUP BROOK*	MANDURAH*
BRIDGETOWN-GREENBUSHES*	MANJIMUP*
BROOKTON	MEEKATHARRA
BROOME	MELVILLE
BROOMEHILL-TAMBELLUP	MERREDIN
BUNBURY*	MINGENEW
CAMBRIDGE	MOORA
CHAPMAN VALLEY	MORAWA
CLAREMONT	MUNDARING*
COCKBURN*	MURCHISON
COLLIE*	NANNUP*
COOLGARDIE	NORTHAM*
CORRIGIN	PERENJORI
CUBALLING	PERTH
CUE	PORT HEDLAND
DARDANUP*	ROCKINGHAM*
DENMARK*	SANDSTONE
DUNDAS	SOUTH PERTH
EAST FREMANTLE	STIRLING
EAST PILBARA	SUBIACO
ESPERANCE	SWAN*
EXMOUTH	THREE SPRINGS
FREMANTLE	TOODYAY*
GINGIN*	VICTORIA PARK
GNOWANGERUP	VICTORIA PLAINS
GOSNELLS*	WAGIN
GREATER GERALDTON	WANNEROO*
IRWIN	WICKEPIN
JERRAMUNGUP	WILUNA
JOONDALUP*	WOODANILLING
KALAMUNDA*	WYALKATCHEM
KALGOORLIE BOULDER	YALGOO
KARRATHA	YILGARN
State and Federal Agencies	
ARC INFRASTRUCTURE [^]	PEEL HEALTH CAMPUS
BIODIVERSITY, CONSERVATION AND ATTRACTIONS	PLANNING, LANDS AND HERITAGE
COMMUNITIES	MAIN ROADS WA
DEFENCE	ROCKINGHAM GENERAL HOSPITAL
FIRE AND EMERGENCY SERVICES	WA COUNTRY HEALTH
FOREST PRODUCTS COMMISSION	WATER CORPORATION
HORIZON POWER	WATER AND ENV. REGULATION
PARKS AND WILDLIFE SERVICE	WESTERN POWER
* Denotes south west zone local governments.	
[^] Users to note inclusion of Arc infrastructure data in agency totals.	

