



Fire Management Strategy



Department of Biodiversity,
Conservation and Attractions



**PARKS AND
WILDLIFE**
SERVICE

Vision

To manage lands for which the Department of Biodiversity, Conservation and Attractions (the department) has legislated responsibility to protect people and communities from the impacts of bushfire, and to apply planned fire as a management tool to maintain and enhance the natural environment.

Values

The department values its staff, the community, visitors and other stakeholders and provides collaborative delivery of services via a workforce based on integrity, accountability and diversity.

Fire management activities will be evidence-based, collaborative, pursue technological and operational innovation and apply risk management principles with a focus on delivering community protection and biodiversity outcomes.

For more details on the department's fire related policies and practices, please visit: pws.dbca.wa.gov.au/management/fire.

Context and Challenges

Western Australia's climate and vegetation make it naturally prone to bushfires that occur regularly across much of the State. The department through its Parks and Wildlife Service is responsible for managing fire on approximately 26.9 million hectares of conservation lands including national parks, State forests and other reserves. The department also contributes to bushfire risk mitigation actions on 91.4 million hectares of unallocated Crown land and unmanaged reserves.

This strategy addresses the management of risk from bushfire on lands managed by the department on social, economic and environmental values, according to priorities identified by the State Government.

This strategy recognises the following emerging challenges:

- A changing climate leading to changing fire regimes across the State resulting in increased bushfire risk.
- Increasing complexity in risks to the conservation of natural values, including threatened species and ecological communities.
- Increasing residential and other developments close to bushland.
- Increasing numbers of people using forests, parks and reserves.
- Increasing community expectations of land managers to keep communities and infrastructure safe from bushfires.
- Increasing community expectations, and departmental responsibilities, for the protection of natural values.
- An expanding community with an increasing divergence of experiences and expectations about bushfires and fire management needs.
- Changes in the department's workforce demographics through natural attrition with a consequent reduction in operational fire management knowledge and experience.



1. Managing bushfire risk by managing fuels

Managing the fuel available to bushfires is critical to reducing bushfire risk. The department's approach to managing risk from bushfire is based on assessing those areas of greatest risk and directing activities and resources to those areas. Fuel management, especially prescribed burning, is the department's primary bushfire risk mitigation tool. The department manages fuel in other ways, implementing higher cost methods on smaller areas, including mechanical fuel structure modification and weed control, to achieve multiple land management outcomes, such as managing visitor risk and experience. The protection of life (people and communities) is the primary consideration when planning and implementing fuel management programs. Management of fire regimes and fire risk can also be critical in achieving land management objectives including maintaining and enhancing ecosystems to support the State's unique biodiversity.

The diverse nature of the State's climate and landscapes affects the distribution of bushfire risk by driving patterns in vegetation composition, function and structure and consequently the flammability, arrangement and accumulation rates of fuels. As a result, variation in fuel management programs is required across the State to provide for the changes in bushfire risk and the department's different land management objectives.

The department's fuel management approach in the south-west forests is based on peer-reviewed research, incorporating science into operational practice. Creating a mosaic of fuel ages and structures, through prescribed burning, is effective in significantly reducing the frequency and size of bushfires in the forests of south-west Western Australia. This approach is most effective when at least 45 per cent of the fuel across the forest landscape is maintained at less than six years since last burnt. This equates to achieving approximately 200,000 hectares of prescribed burning in the south-west forests on an annual basis. Maintaining a mosaic of fuel ages is also applied broadly across other areas of the State to provide a diverse range of fuel age and vegetation structures that assist in meeting bushfire risk mitigation, biodiversity conservation and other land management objectives. One example of this is the early dry season implementation of savannah burning in the Kimberley to reduce the scale of late dry season bushfires that significantly impact biodiversity values and cultural heritage sites, including rock art and burial sites. This type of activity may also facilitate carbon emission abatement projects.



Objective:

Prioritise fuel management activities in the areas where they achieve the most effective and efficient reduction in bushfire risk.

Actions:

- Implement a bushfire risk management framework where bushfire risk is assessed and managed across the State.
- Consider socioeconomic, cultural and environmental factors to appropriately manage the planning and implementation of fuel management programs, to ensure maximum effectiveness and efficiency.
- Support research to determine appropriate fuel management objectives for key fuel types outside of the south-west forests.
- Develop and implement regional fuel management plans for the department's nine regions.
- Maintain a prescribed burn planning system that facilitates analysis, prioritisation and scheduling of the prescribed burn program.
- Engage with and inform stakeholders, visitors and the broader community about the benefits of fuel management, particularly prescribed burning.
- Plan and implement fuel management programs on land for which the department has legislative management responsibility, in accordance with the outcomes identified by the bushfire risk management framework.
- In cooperation with key stakeholders, plan and implement fuel management programs on unallocated Crown land and unmanaged reserves outside the metropolitan area, regional centres and townsites in accordance with the outcomes identified by the bushfire risk management framework.

2. Responding to bushfires

The department is committed to responding to bushfires across the State where direct management intervention is required and where it has the capacity to do so, with a principal responsibility to respond to bushfires burning on or near lands for which it has legislated management responsibility. Early detection and response to bushfires is critical to limiting the size and intensity of bushfires and the department responds in a manner appropriate with the context of each situation. The department employs and develops fire management personnel and maintains infrastructure and equipment in strategic locations throughout the State to effectively respond to bushfires. Collaboration with other stakeholders helps strengthen the department's bushfire response capability.

Objective:

Reduce negative impacts on communities and the natural environment from bushfires on lands managed by the department.

Actions:

- Maintain a well-resourced and effective capability and readiness to suppress bushfires when they occur on lands for which the department has legislated management responsibility.
- Where appropriate and relevant, maintain early detection capabilities including fire towers, spotter aircraft and access to remote sensing technologies and community bushfire reporting.
- Maintain a suitable network of strategic access roads, access tracks, burn boundaries and water sources on lands for which the department has legislated management responsibility.
- Manage bushfire incidents using the Australasian Inter-service Incident Management System (AIIMS).
- Engage with and inform stakeholders, park visitors and the broader community about bushfire risks on or adjacent to department-managed lands.
- Provide resources to coordinate and manage bushfire response in collaboration with other organisations that have fire management responsibilities as required.
- Ensure the planned bushfire suppression operations consider the potential long-term impacts on environmental and cultural heritage values.
- Undertake appropriate recovery and rehabilitation actions following bushfires on land for which the department has legislated management responsibility.



3. Maintaining ecosystem health

Many of Western Australia's native ecosystems have evolved with fire. The resilience and function of these ecosystems is often supported by varying the scale, seasonality, frequency and intensity of fire occurrence, within acceptable ranges, to create an appropriate mosaic of vegetation stages, types and structures across the landscape. The implementation of management measures to meet this objective will continue to be supported by science, enabling evidence-based decision making and the implementation of integrated fire management programs.

Objective:

Use fire management to maintain and enhance the diversity and resilience of the State's ecosystems.

Actions:

- Support research that assists in the development and implementation of fire management practices that maintain and enhance the diversity and resilience of ecosystems based on appropriate knowledge and technologies.
- Review existing area management plans to ensure that the identified fire management strategies are contemporary.
- Incorporate cultural fire management, where practical, that is informed by traditional knowledge held by Aboriginal people to enhance ecosystem health and function.
- Implement savannah burning in the Kimberley to decrease late dry season bushfires that significantly impact on biodiversity values and cultural heritage sites including rock art and burial sites; enabled through carbon emission abatement projects where possible.
- Develop and implement adaptive fire management programs to protect specific fire-vulnerable species and ecological communities.
- Develop and apply techniques to monitor and report on the effectiveness and efficiency of fire management practices and programs in maintaining ecosystem and environmental values.
- Continue to expand knowledge of ecologically sensitive sites across the State.

4. Investing in fire management capability

Effective fire management relies on skilled and motivated people with access to the necessary systems and equipment. Information and knowledge about the environment and behaviour of fire are also critical to effective fire management.

Objective:

Use fire management resources to effectively and efficiently manage prescribed burning and bushfire suppression.

Actions:

- Develop and maintain fire management resource and risk models to identify the location and type of resources required to appropriately manage bushfire risk across the State.
- Maintain a fire management workforce succession and development plan, including expansion of the department's Fire Management Development Program, to ensure the availability of skilled and motivated personnel capable of planning and delivering a bushfire mitigation program, and working effectively in incident management.
- Continue to build an inclusive fire management culture that reflects the community's diversity.
- Support the department's *Women in Fire Management Action Plan* to improve gender diversity within the area of fire management.



- Maintain the department's high-quality fire appliances and equipment; and provide for interoperability with other fire agencies where possible.
- In partnership with other fire agencies, develop and maintain practices that ensure a single source of valid and reliable information for fire management activities and emergency management events in which the department is involved.



5. Working together

Bushfire has the potential to affect all Western Australians and is a responsibility shared by the government and community. The department values the relationships and partnerships across the State that assist with fire management, and recognises that maintaining effective collaborative relationships with all stakeholders is vital to delivering fire and land management outcomes. The department maintains its commitment to working with neighbours across the State to achieve common goals, consistent with its *Good Neighbour Guideline*.

Objective:

Foster positive relationships with the community and stakeholders to support collaborative delivery of fire and land management outcomes, ensuring resources are invested for the most efficient and effective public outcome.

Actions:

- Engage and work with the community and other stakeholders in fire planning and implementation processes, and where appropriate, bushfire incidents.
- Continue to share responsibility for integration of fire management, mitigation and bushfire response activities; and build collaborative relationships with the Department of Fire and Emergency Services and other emergency service organisations, local government, Forest Products Commission, plantation owners, volunteer bushfire brigades, traditional owners and private landholders.
- Maintain arrangements with contractors and suppliers to augment and support fire management resources.
- Build and maintain relationships with other national and international fire and land management organisations.
- Maintain departmental fire research programs and collaborate with other research providers regarding fire management knowledge.

6. Lessons management, improving knowledge and innovating

The department is committed to enhancing and innovating fire management practices using a systematic science-based approach to better understand and increase our knowledge of the behaviour and ecological effects of fire across a range of Western Australian ecosystems. The department is committed to the process of continuous learning to improve the safety, effectiveness and efficiency of our fire management business.

Objective:

Use evidence-based knowledge, lessons management, adaptive management tools and innovation to improve fire management.

Actions:

- Maintain a strong applied fire science capacity to guide evidence-based decision making and develop approaches to integrated fire management for conservation and land management outcomes.
- Develop, adopt and improve processes to capture and share information with the community and stakeholders.
- Identify and implement strategies to incorporate identified lessons into organisational practice and behaviour.

