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Department of Biodiversity,
Conservation and Attractions

Forest Management Plan 2024-2033

FMP News, Djilba edition

September 2024



G'day Nicole

The Forest Management Plan 2024-2033 (FMP) commenced on 1 January 2024 and is being implemented in accordance with governance structures, systems and processes developed by the Department of Biodiversity, Conservation and Attractions (DBCA).

On 17 April 2024, the State Government announced a \$67.2 million investment over four years to implement the FMP, with \$12.5 and \$14.2 million allocated to 2024/25 and 2025/26 financial years respectively. To set out the initial FMP progress expectations and

Ben Sawyer, Forest Management
Plan Coordinator

priority management activities, DBCA will soon release an FMP Implementation Action Plan.

The initial implementation focus aligns with Government priorities and aims to respond to public expectations. These include cooperative management with Noongar Traditional Owners, a new forest health monitoring program supported by emerging technologies, fire research, and ecological thinning. Implementing the FMP will increase management of feral predators, weeds, plant diseases and other pressures as well as increased effort in compliance and enforcement actions to protect our native vegetation and wildlife.

The resources provided for FMP implementation are structured in a ramp up model where funding is planned to increase over the initial years of the FMP. This will mean that some FMP activities will be immediately integrated into the functions of DBCA and others, while not considered of lesser importance, may be either partially implemented or deferred as resources allow.

The FMP Implementation Action Plan will be available shortly from [DBCA's FMP webpage](#).

Regards,



Forest health monitoring

Author: Rory McAuley, DBCA Biodiversity and Conservation Science, Leader Science Coordination

A healthy forest sustains biodiversity and biophysical, ecological and evolutionary processes that support the composition, structure, and functions of forest ecosystems. Measuring representative components of forest health will inform on the status of forest health, and repeated measurements will allow determination of trends.

The Forest Health Monitoring Program (FHMP) provides a contemporary, integrated and cost-effective framework for monitoring forest health over the life of the Forest Management Plan 2024-2033 (FMP). To achieve the FMP's objectives, the FHMP will:

- determine the status of key biodiversity and environmental components of forest ecosystems;
- detect and quantify changes in those forest health components; and
- assist forest managers, the broader community, and policy makers to assess how forest health changes under the new adaptive forest management regime.

Priority monitoring indicators have been identified across key forest ecosystem components relating to biodiversity, forest structure and ecological processes. Indicators have been selected to be suitably informative of forest health responses to known and anticipated anthropogenic and environmental pressures, and to be representative of key components of forest biodiversity, function and structure.

FHMP data sources will include monitoring undertaken at a landscape scale, across a dispersed network of up to 100 representative fixed sites and through a wide variety of targeted monitoring activities.

Monitoring will include remote sensing, drone mounted LiDAR, environmental DNA, eco-acoustic, camera trapping approaches, as well as on-ground measurements observational monitoring.

Concurrent targeted scientific research will be undertaken in conjunction with the FHMP to address important knowledge gaps, particularly those relating to the ongoing impacts of climate change. This research is especially important given that current knowledge of forest ecosystems is based on information obtained under recent climatic and silvicultural management regimes. Research associated with ecological thinning will further contribute to understanding forest health and forest ecosystem responses to interacting pressures and predicted future states.

Changes in forest health and biodiversity measured by the FHMP, will provide valuable information to guide ongoing adaptive forest management decision making and will contribute to the evaluation of performance measures for the strategic goals “to conserve biodiversity and support ecosystem resilience” (page 56 of the FMP) and “to maintain or improve forest health and enhance climate resilience” (page 64 of the FMP).

A Forest Health Monitoring Program Implementation Plan is currently being prepared for public release.



Top left: a slingshot is used extract leaves from high in the tree canopy to examine tree stress levels. Top right: measuring diameter helps map tree population structure, and understand how trees are growing. Bottom left: leaf porometer measurements are taken to check stomatal conductance (how well the tiny openings called stomatal pores on a leaf's surface are working to let gases in and out), which is critical for the plant's ability to make food and stay hydrated. bottom right: a short pronged soil moisture meter checks surface soil moisture which can inform how soil moisture is influenced by canopy density.

The world beneath our feet

Author: Dr Anna Hopkins, Fungal Ecologist, Edith Cowan University

Soil fungi are a critical part of the forest but they are often forgotten and can be very difficult to see. For much of their life soil fungi live beneath the ground. They are only sometimes visible for a short period when they emerge from the ground as a mushroom, puffball, or other fruitbody.

The main growing and feeding mass of fungi are very thin thread-like structures called hyphae. A group of hyphae is called mycelium. Hyphae are about 15 times narrower than a human hair which means they are able to grow in the small gaps between soil particles, between tree root cells and even inside tiny insects!

The mushrooms and other fungal fruitbodies that we see in our forests in the cooler months are the reproductive structures of the fungi. They contain spores that spread and start new fungal colonies in other parts of the forest and further afield.

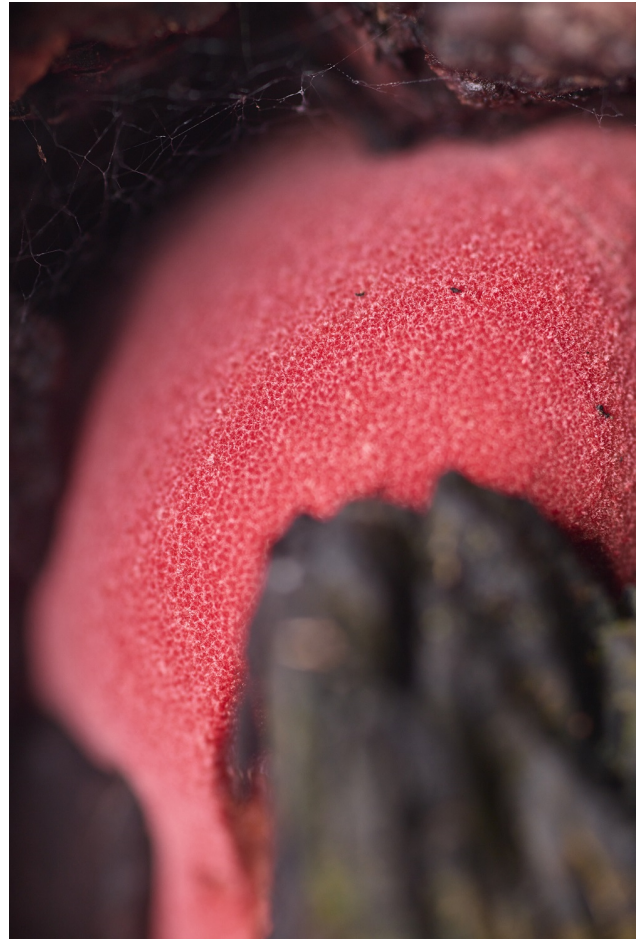
While we only rarely see soil fungi, forests cannot function without them. For example, many fungi are important decomposer species. Decomposers break down organic matter like leaves, twigs and even large branches and stumps on the forest floor. This recycling of organic matter is the main way that nutrients are returned to the soil so our plants can grow.

Other species of fungi work directly with plants to help them obtain nutrients and water from the soil. They form specialised connections with the plant roots called mycorrhiza. Almost 90% of land plants have these mycorrhizal connections on their roots, including the majority of our forest trees. In this partnership, the fungus grows throughout the soil and helps the plant scavenge nutrients and water from the soil, and in exchange the plant passes on food to the fungus in the form of carbohydrates.

Some fungi can also be pathogens which means that they are able to kill living plants and animals. Even these pathogenic fungi have an important role in our forests – by attacking weakened or stressed plants or animals, they help to return nutrients to forest soils and are an important part of nutrient cycling.

Soil fungi can also be a food source or habitat for animals that live within our forests. Small invertebrates such as springtails and mites may feed on fungal hyphae within the soil while other small invertebrates live within the fungal fruitbodies themselves. Many of our forest mammals, such as quenda, eat truffle-like fungal fruitbodies that they dig up from underground. Indeed, the consumption and subsequent deposition of the fungal spores in animal scats is the primary dispersal mechanism for many fungi.

There are many different types of fungi that live in forests hiding beneath our feet. Although we rarely see them, they are critical to the health, stability, and resilience of our forest ecosystems.



Fistulina spiculifera (beefsteak fungus) growing in jarrah wandoo forest in the south-west of Western Australia. Photographer: Frances Andrijich / Copyright: DBCA.

Karri Karrik Aboriginal Corporation welcomes the commencement of cooperative management

This story was originally published by the Karri Karrik Aboriginal Corporation in the August 2024 edition of their newsletter, and has been reprinted with permission.

The South West Conservation Estate covers approximately 3.8 million hectares and refers to all *Conservation and Land Management Act 1984* lands and waters within the Settlement area. This includes State forests, national parks, nature reserves and other areas set aside for conservation.

Through the Settlement, DBCA and Karri Karrik Aboriginal Corporation (KKAC) has entered into formal management agreements of the South West Conservation Estate. This agreement acknowledges the continuing cultural, spiritual and social connections of the Noongar people to the region, and their unique traditional knowledge and expertise.

It sets out how Noongar Traditional Custodians and DBCA will come together and provide advice about how the South West Conservation Estate is managed, including on how to best protect and conserve Noongar cultural heritage values.

The Cooperative Management Committees (CMC) will also work to identify and prioritise specific areas of the South West Conservation Estate to be jointly managed.

Joint Management Agreements will set up Joint Management Bodies, which will meet regularly to make decisions about how these specific parks and reserves are managed.

At least one Joint Management Agreement in each of the six Noongar Agreement areas will be in place by February 2026, with further Joint Management Agreements by February 2031.

The CMC comprises 12 members, six from KKAC and six from DBCA, with three alternate members for each organisation. The KKAC members are:

1. Wayne Webb
2. Sue Kelly
3. Eric Hayward (Alternate Member)
4. Chontarle Belottie
5. Stephen van Leeuwen
6. Shawn Councillor
7. Luke Yates (Alternate Member)
8. Ben Tannock
9. Abby Phillis (Alternate Member)

To start the first CMC meeting, KKAC Chair Professor Stephen van Leeuwen gave a concise but detailed overview of how we had arrived at this point and the tremendous amount of work that had been put in over many years to reach this important milestone.

The CMC discussed the Cooperative Management of the Conservation Estate and the practicalities of Joint Management and the legislation and policy settings, namely the Cooperative Management Agreement, that enables it. We also reviewed the CMC's Terms of Reference to ensure all participants were informed of the CMC's function and deliverables. In respect of Joint Management, there were discussions on how it works, and how KKAC will partner in decision making through the establishment of a Joint Management Body (JMB).

KKAC put forward that it was the view and wish of the Corporation that the Leeuwin – Naturaliste National Park should be the first jointly managed park in the conservation estate. Overall, it was a terrific opportunity to meet each other, with the highlight of the day being the signing of a record of this first meeting by all attendees.



Karri Karrak and DBCA Cooperative Management Committee Members in March 2024

Understanding the rules for firewood

Did you know firewood sellers need a permit, even when selling firewood sourced from private property?

To ensure the firewood you're buying has been legally sourced, you should ask to see the seller's licence or other authorisation. The seller should be able to provide details of where the firewood is from, verifying the firewood has been lawfully sourced.

To help protect our environment, please report suspicious firewood activity to the Wildcare Helpline on 9474 9055, or the local DBCA office. Information is treated confidentially, and you may remain anonymous.

Find out more about [firewood regulations](#) on DBCA's website, and a list of authorised firewood suppliers is available on the [Forest Products Commission website](#).



Artist Linda Loo created an original artwork for the FMP 2024–2033. Linda is a Noongar woman born in Corrigin and connected to the Balladong/Whadjuk clans, located in the south-west of WA.

Linda describes the season of djilba, from August to September, as a mixture of wet days with an increasing number of clear, cold nights and pleasant warm days. A transitional time of the year, yellow and cream flowers start to bloom. Djilba is the season of conception.

Cover image: Monkey Rock, Denmark WA (Photographer: Frances Andrijich / Copyright: DBCA)

DBCA acknowledges the Noongar people as the Traditional Owners within the Forest Management Plan area in the south-west of Western Australia and respects the continuing connection and importance of forests to their cultural, physical and spiritual health.



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