

**Concept Plan SP 2019-068**

**Understanding the implications of a drying  
climate on forest ecosystem function to inform  
and improve climate change adaptation  
(addressing KPI 12 and 13 of the 2014-23 FMP)**

**Ecosystem Science**

**Project Core Team**

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<b>Data Custodian</b>	Katinka Ruthrof
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**Project status as of Sept. 11, 2019, 11:53 a.m.**

New project, pending concept plan approval

**Document endorsements and approvals as of Sept. 11, 2019, 11:53 a.m.**

<b>Project Team</b>	granted
<b>Program Leader</b>	granted
<b>Directorate</b>	required

# Understanding the implications of a drying climate on forest ecosystem function to inform and improve climate change adaptation (addressing KPI 12 and 13 of the 2014-23 FMP)

## Biodiversity and Conservation Science Program

Ecosystem Science

## Departmental Service

Service 8: Implementation of the Forest Management Plan

## Aims

The aim of this project is to understand the implications of a drying climate on forest function, biodiversity and health to inform adaptation and mitigation.

## Expected outcome

The expected outcome is a clearer understanding of the responses of forest ecosystems to climate change in terms of structure, composition and functioning, and management intervention (such as prescribed burning). For example, this information will allow us to explore mitigation of large-scale forest collapses due to climate change, if possible, through management intervention in the future. Outputs will include: journal papers, conference presentations, summary bulletins for stakeholders and the wider community, and other outreach materials as required, or as opportunities arise.

## Strategic context

The project aligns with KPI's from the Mid-Term Review of the Forest Management Plan. Furthermore, it aligns with the Science Strategic Plan; Theme: *Impacts of climate change on biodiversity and ecosystem function*. The Strategic Goal (reiterated in the Ecosystem Science Program Plan 2018-21): *Impacts of climate change on biodiversity are better understood and adaptation strategies are incorporated into conservation management and planning*. The project will contribute to these by understanding the responses of the forest ecosystem to climate change, such as recent declines, to inform mitigation strategies.

## Expected collaborations

DBCA: Forest Management Branch, remote sensing staff, fire ecologists, foresters. Universities: Forest ecologists, climatologists (Murdoch University), fungal ecologist (Edith Cowan University).

## Proposed period of the project

Sept. 10, 2019 – Dec. 31, 2021

## Staff time allocation

Role	Year 1	Year 2	Year 3
Scientist	0.5	0.5	0.5
Technical	0.1	0.1	0.1
Volunteer			
Collaborator	0.01	0.01	0.01

## Indicative operating budget

Source	Year 1	Year 2	Year 3
Consolidated Funds (DBCA)	13	9.6	14
External Funding			