afac

— Centre of Excellence —
PRESCRIBED BURNING

emps
Emergency Management Professionalisation Scheme

Australian Institute for
Disaster Resilience

National Fire Danger Rating System

Deb Sparkes

AFAC/AIDR

Belinda Kenny

NSW RFS

RURAL AND LAND MANAGEMENT GROUP

DOCTRINE

Hazardous Trees

Climate Change

- Discussion Paper
- Temporary Group reporting to AFAC Council
- Encompassing Community Safety and Operation

Bushfire Operations and Windfarms

- Review of Current doctrine
- Input from National Wind Farms Commissions

NATIONAL RESOURCE SHARING CENTRE

Deployment register

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Strategy Review
- 3-5 years
- Expanding scope to multi hazard

Investment Strategy
- Systems
- Research
- Capability

Research Strategy
- Maximum benefit from current research
- Future research requirements

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EMERGENCY MANAGEMENT PROFESSIONALISATION SCHEME

www.emps.org.au

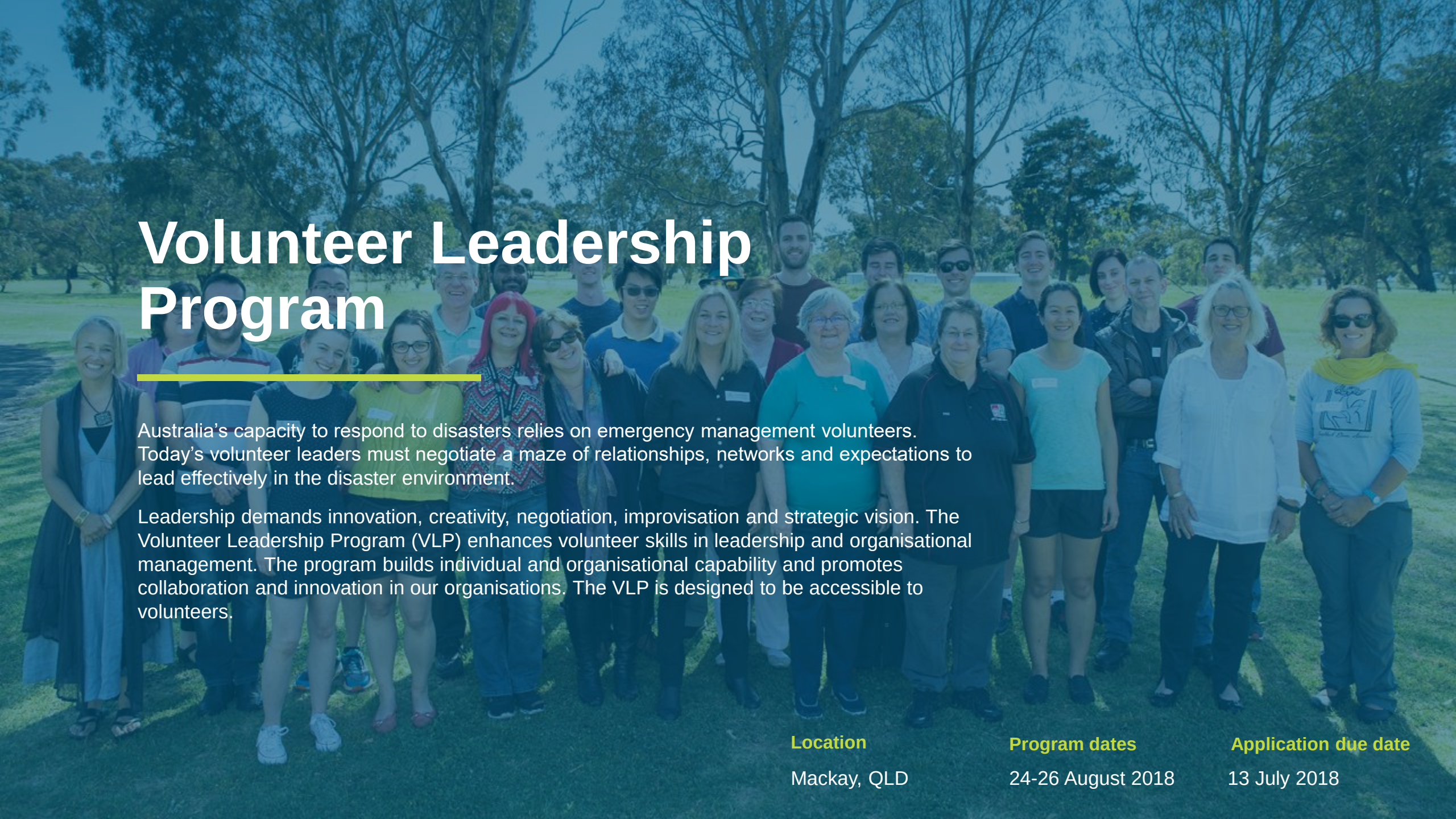
CERTIFIED ROLES CURRENTLY AVAILABLE

Certified Incident Controller
Certified Public Information Officer

REGISTERED ROLES CURRENTLY AVAILABLE

Registered Level 2 Incident Controller
Registered Planning Officer
Registered Intelligence Officer
Registered Public Information Officer
Registered Logistics Officer
Registered Finance Officer
Registered Arduous Bushfire Firefighter

emps
Emergency Management Professionalisation Scheme



Volunteer Leadership Program

Australia's capacity to respond to disasters relies on emergency management volunteers. Today's volunteer leaders must negotiate a maze of relationships, networks and expectations to lead effectively in the disaster environment.

Leadership demands innovation, creativity, negotiation, improvisation and strategic vision. The Volunteer Leadership Program (VLP) enhances volunteer skills in leadership and organisational management. The program builds individual and organisational capability and promotes collaboration and innovation in our organisations. The VLP is designed to be accessible to volunteers.

Location	Program dates	Application due date
Mackay, QLD	24-26 August 2018	13 July 2018

Australian Institute for Disaster Resilience

Australian Disaster Resilience Handbook Collection

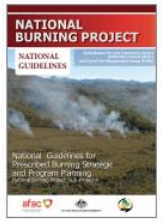
knowledge.aidr.org.au/collections/handbook-collection

Australian Institute for Disaster Resilience

Emergency management volunteer scholarships

aidr.org.au/programs/scholarships-for-volunteers/

BEST PRACTICE GUIDELINES



Strategic

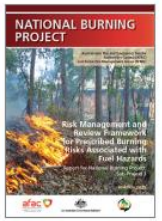
Operations

The frameworks and principles identified in these documents will be valuable to practitioners, planners and land managers with an interest in planning or undertaking prescribed burning in the best possible way.

RISK FRAMEWORKS

Operations and safety

Smoke and GHG

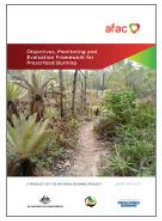


Fuel hazard

Ecological

These reports build and present frameworks that can be adopted by practitioners and agencies to facilitate improved approaches and greater appreciation of risks associated with undertaking prescribed burning.

MEASURING PERFORMANCE



Objectives & monitoring

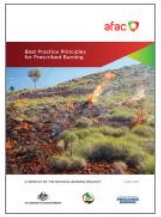
Performance measures

A framework and set of performance measures for evaluating prescribed burning against desired objectives.

BEST PRACTICE SYNOPSES

Process map

Step-by-step best practice guide for prescribed burning, from strategic planning through to burning implementation.



Best practice principles

Best practice principles for prescribed burning summarised into a ready-to-use synopsis for the benefit of prescribed burning professionals.

RISK MANAGEMENT SYNOPSIS

The risk management framework for prescribed burning summarised into a ready-to-use synopsis for the benefit of prescribed burning professionals.

PROGRAM LOGIC

Diagrammatic summary of the rationale behind prescribed burning.

OVERVIEW

This report is a very useful introduction and overview of prescribed burning in Australasia and the evidence base that underpins the use of planned fire.

BEST PRACTICE REVIEW

This report provides a detailed account of the prescribed burning practices that are considered to be examples of best practice.

SCIENCE REVIEW

Reviewing science, practical and Traditional Owner knowledge around the use of prescribed burning as a land management tool.

CAPABILITY REVIEWS

Training

Resources

A review of prescribed burn training and resource capability to aid in improving training and resource sharing outcomes.

NATIONAL POSITION

The National Position articulates a nationally agreed position on prescribed burning and establishes principles for the development and implementation of prescribed burning policies and programs.

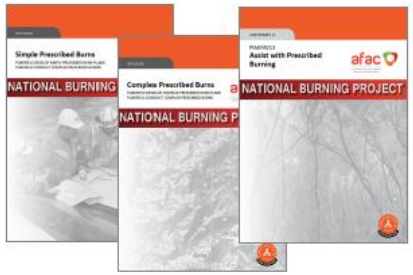
AN APPROACH TO OBJECTIVES SETTING

A tool for clearer identification of costs and benefits when analysing competing objectives in planning for prescribed burning.

TRAINING MANUALS

These learner resources provide instruction and theory that can be used by students or by instructors for lesson planning.

- Assist with prescribed burning
- Simple prescribed burns
- Complex prescribed burns



TOOLBOX

The National Tool Box is a repository of existing decision support tools that can aid in prescribed burning.

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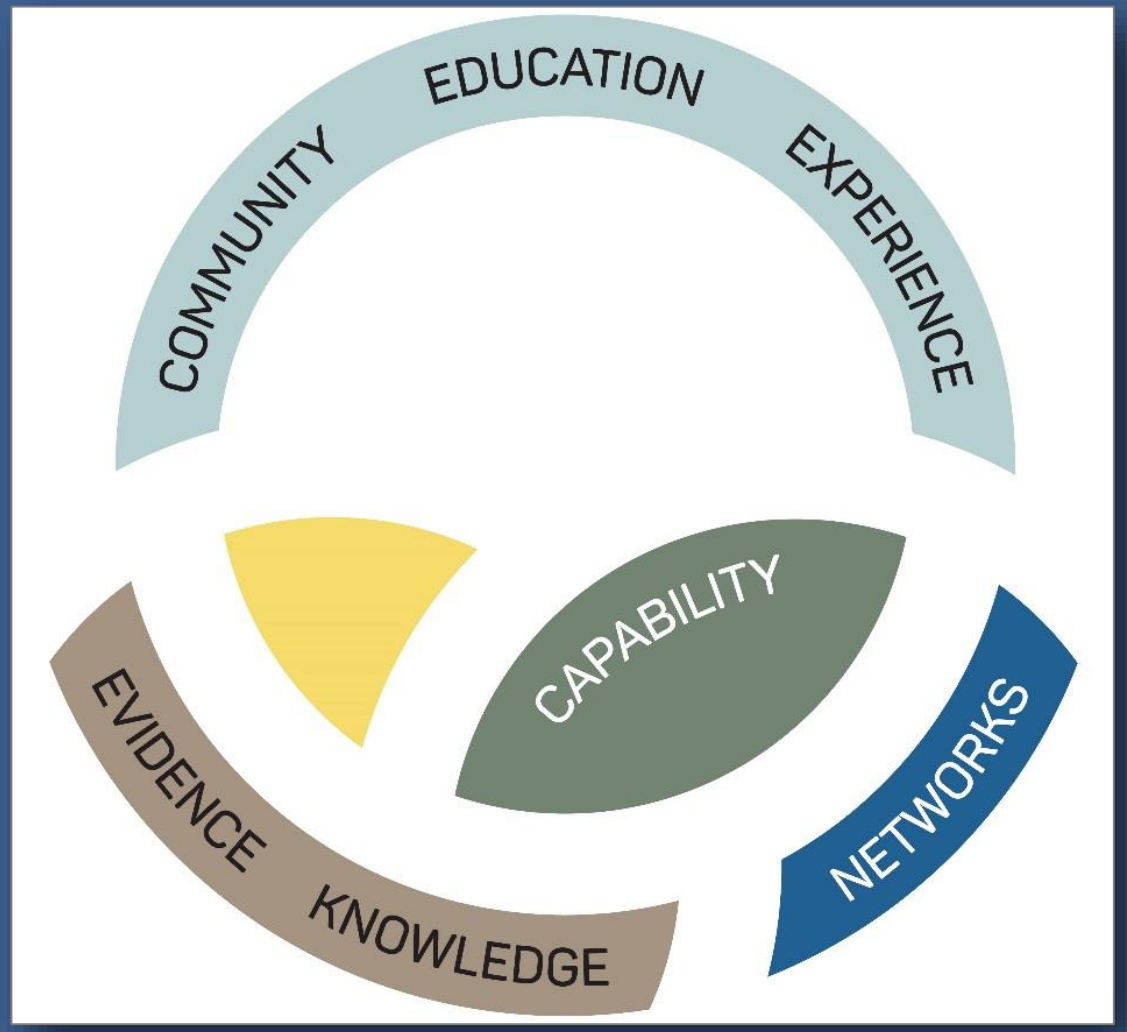

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The Prescribed Burning Centre of Excellence will lead and support the development of innovative, evidence based principles, policies, programs and practice for prescribed fire.

PRACTITIONER NETWORK WEBINARS

CLINICS

KNOWLEDGE HUB

Collections | Disasters | News | Glossary | About | Help | Contact us

Keywords | All Collections

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Centre of Excellence for Prescribed Burning

Prescribed burning brings together many elements from risk management to community engagement. This collection of resources assists prescribed burning practitioners to access current best practice and research to inform planning and implementation.

Get connected and learn more

National prescribed burning guidelines and frameworks

An extensive range of frameworks, guidelines and principles, along with supporting reports, for prescribed burn planning, produced by the National Burning Project

Traditional Owners and cultural burning

Resources regarding involvement of Traditional Owners and cultural burning in prescribed burning programs

Prescribed burning tools

Useful tools for agencies undertaking strategic and operational prescribed burning planning

Events: 2018 webinar series

The Centre hosts monthly webinars to exploring current research, lessons learnt, tools and products of the National Burning Project

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Quality Assurance in prescribed burn programs

13 views • 4 weeks ago

Prescribed Burning Decision Support Tool (Amended)

6 views • 4 weeks ago

Centre of Excellence National Guidelines January 2018

124 views • 2 months ago

PRACTITIONER NETWORK WEBINARS

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https://knowledge.aidr.org.au/prescribed-burning

WEBINARS

YouTube – Centre of Excellence for Prescribed Burning

@prescribedburning

https://www.facebook.com/groups/549994425355507/

NFDRS KEY COMPONENTS

FACTORS

- Fire Weather
- Fire Behaviour
- Fuel Modelling
- Ignition Likelihood
- Fire Suppression
- Fire Impact

COMPUTATION

Spatially and temporally based systems that scientifically support formula and processes required to calculate indicators

INDICES

- Fire Behaviour Index
- Fire Suppression Index
- Ignition Likelihood Index
- Fire Impact Index

DECISION-MAKING

- Community warnings (determined ratings)
- Total Fire Ban and other restrictions
- Targeted community warnings
- Community, Government and ESO readiness

Improved through research prototype
Work to continue 2018-2022

New 2018-2022 works

Adapted from Program Management Plan 2015

National Fire Danger Rating System

FUTURE WORKS

2018/2019	2019/2020	2020/21	2021/22
FUNDED	**FUNDING REQUIRED – ESTIMATE $11.6m**		
Calibration of Research Prototype Publication of evaluation	System Build	Transition to Operational Fire Behaviour Index	
Scope Indices Projects	Create National datasets	Build and run prototype	Calibration and evaluation
Social Research Project			

INDIVIDUAL JURISDICTIONS

Change Management:
Legislation, Training, Engagement, Signage

- Warnings Framework
- Other Indices
- Fire Behaviour Index

NFDRS Research Prototype Interactive website

Research Prototype

MENU DETAILS INFO

Select forecast layer

Fire danger rating

0.5 6.5

Value at mouse pointer:

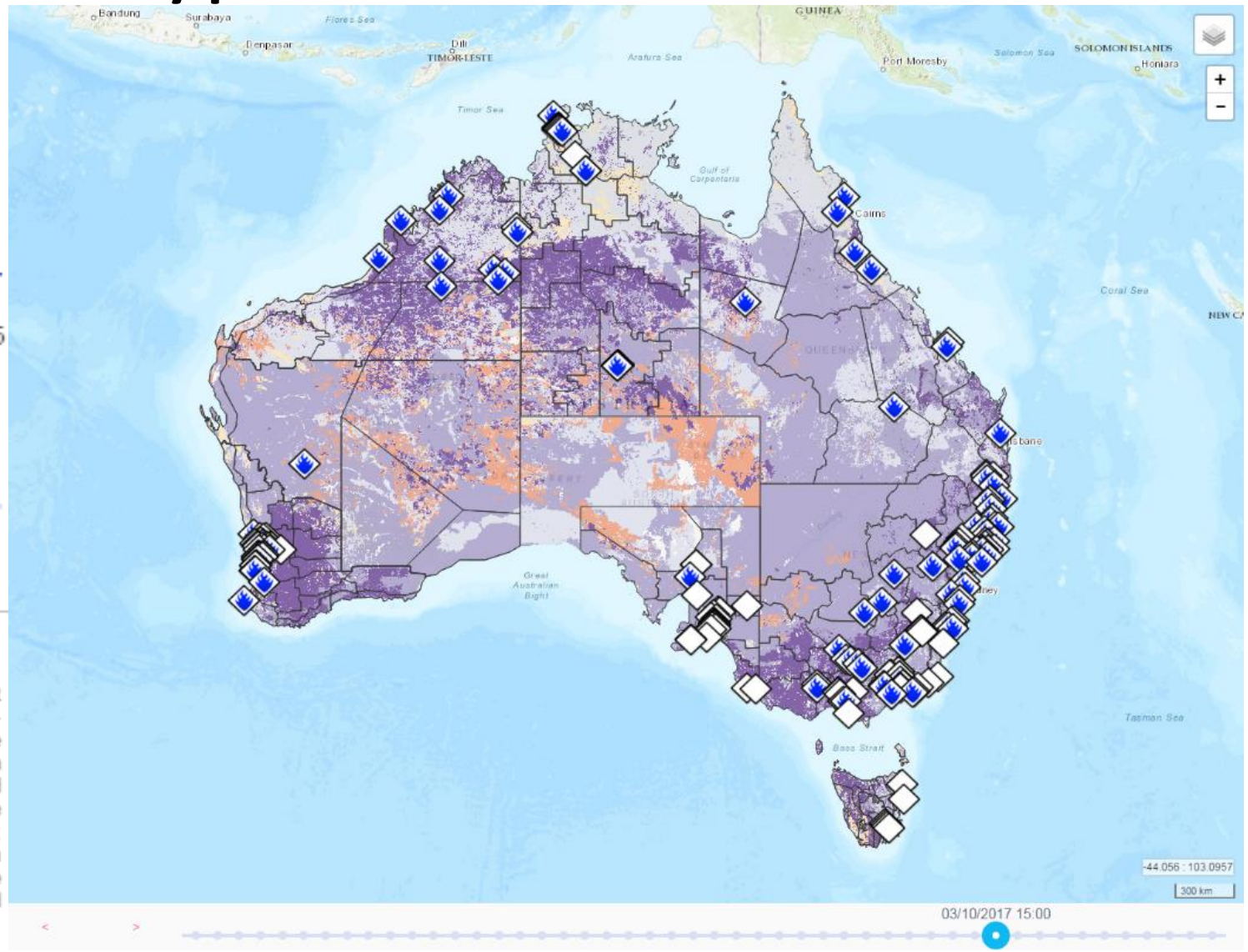
Displayed date:03/10/2017 15:00

Opacity 70

Show AWS locations

Disclaimer

This prototype service and underlying data set in provided "as is" and is not warranted or verified with respect to its accuracy, timeliness, completeness, non-infringement, merchantability and fitness for any particular purpose. This prototype service and the outputs incorporate information sourced from third party data providers who have exclusive proprietary rights in their respective information and data. Each user of the prototype service assumes the entire risk of any use of the data. "Data" means any data which is accessed through the use of the Service; and The "Service" is a reference to any of the product components derived from the prototype data set The prototype data set is confidential and proprietary to the Bureau of Meteorology and the NSW Rural Fire Service and may not be distributed to third parties.



National Fire Danger Rating System

Research Prototype Ratings website

New South Wales

Northern Territory

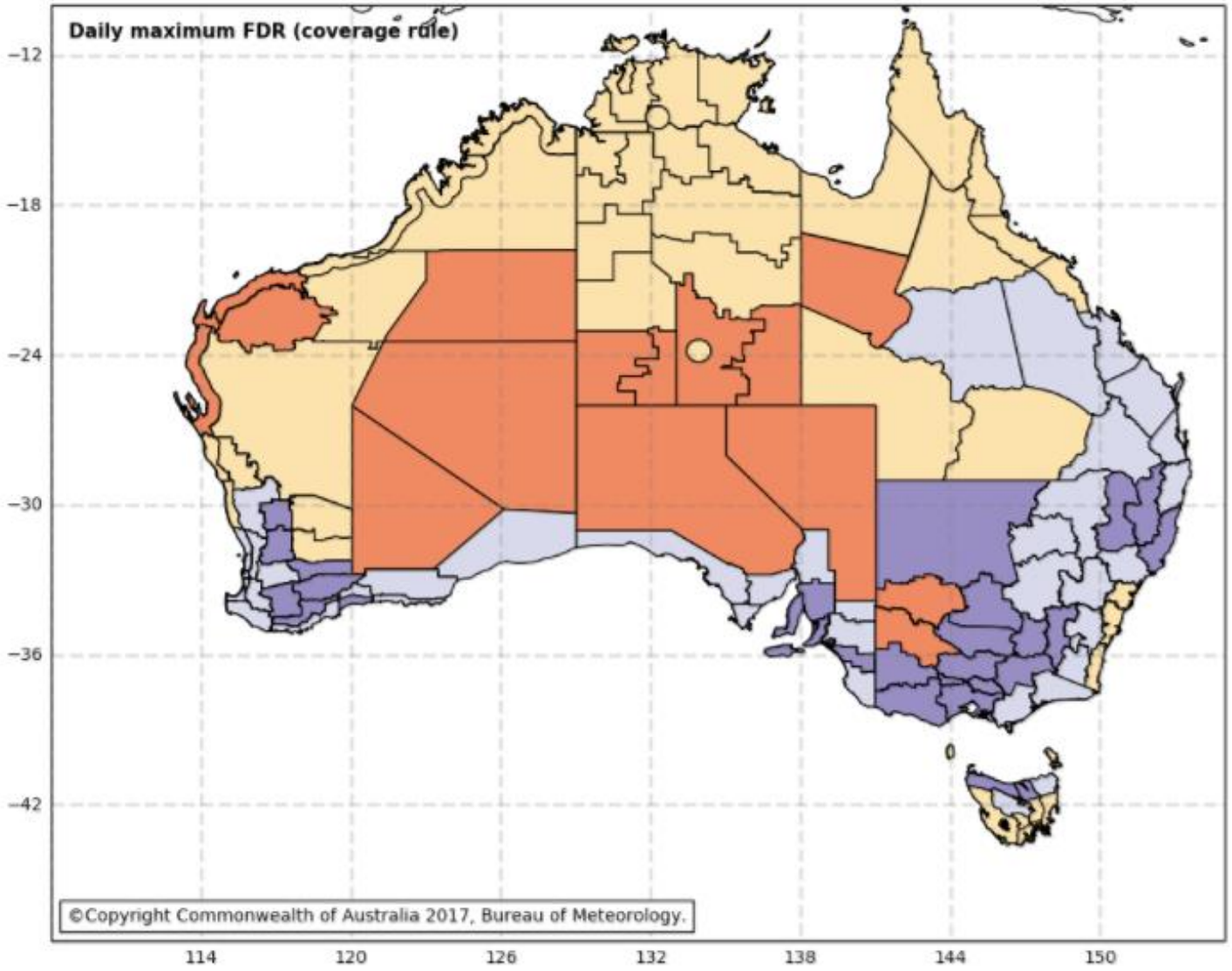
Queensland

South Australia

Tasmania

Victoria

Western Australia

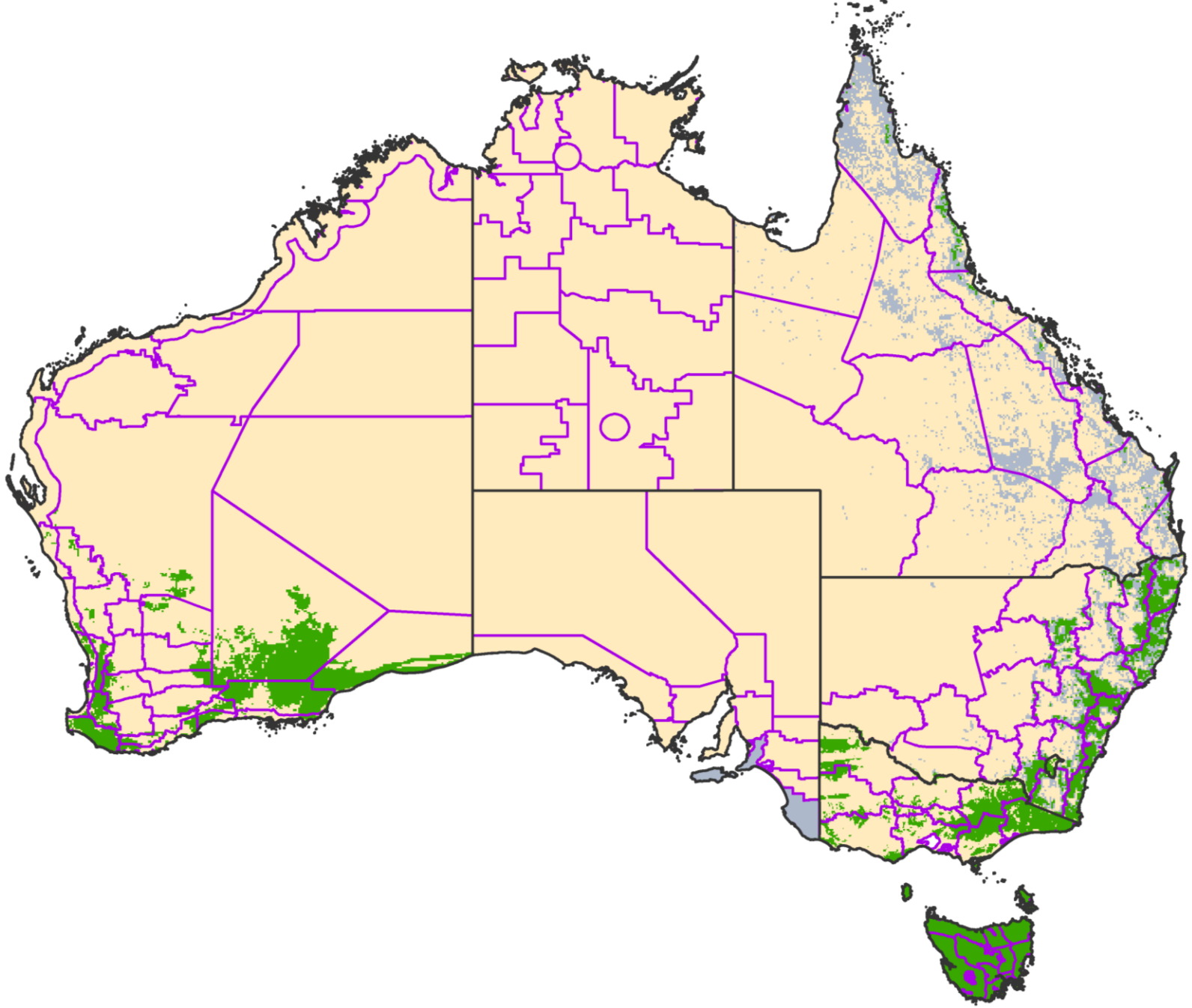


GFE Fuel Type

Grass

Combined

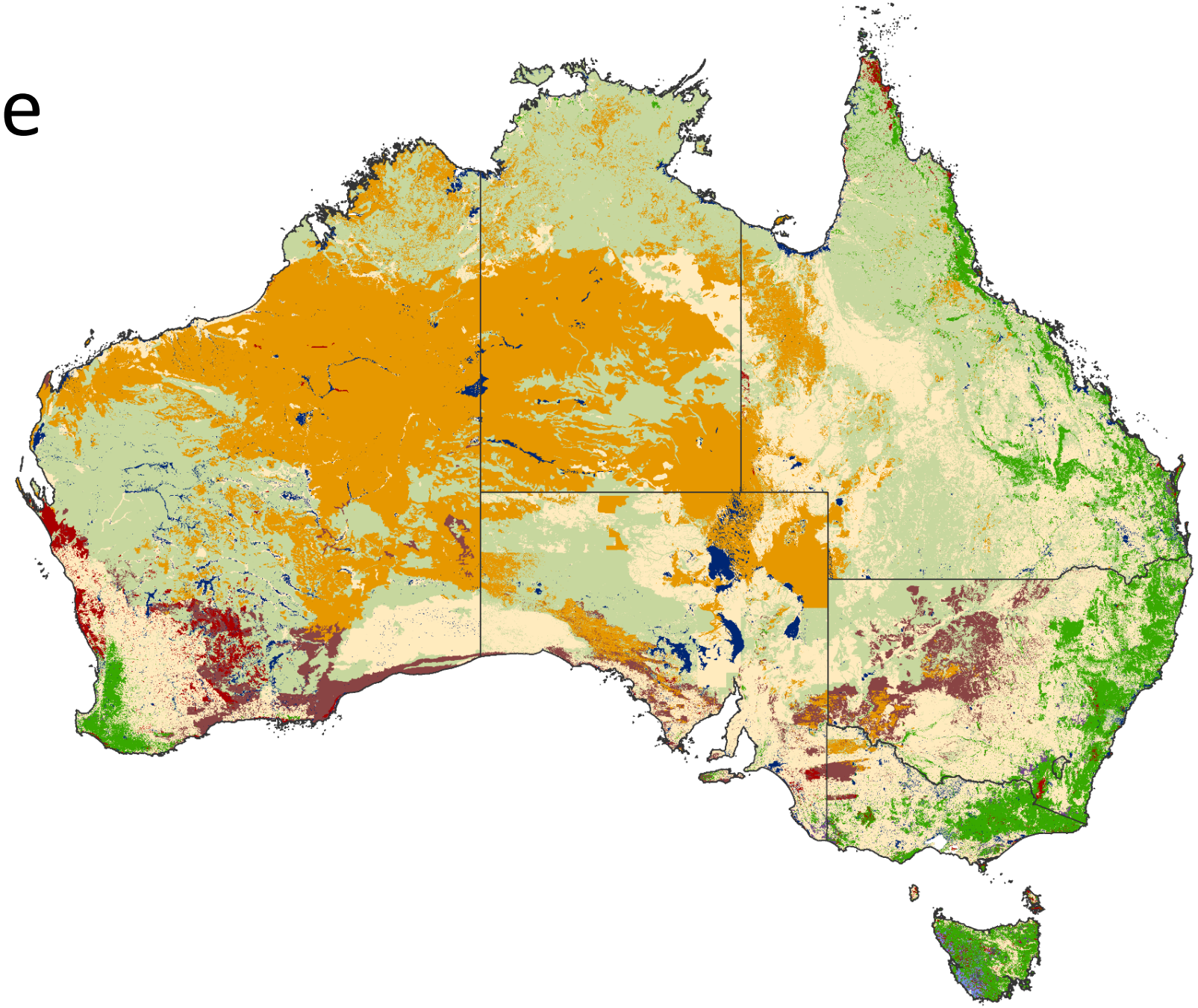
Forest



National Fire Danger Rating System

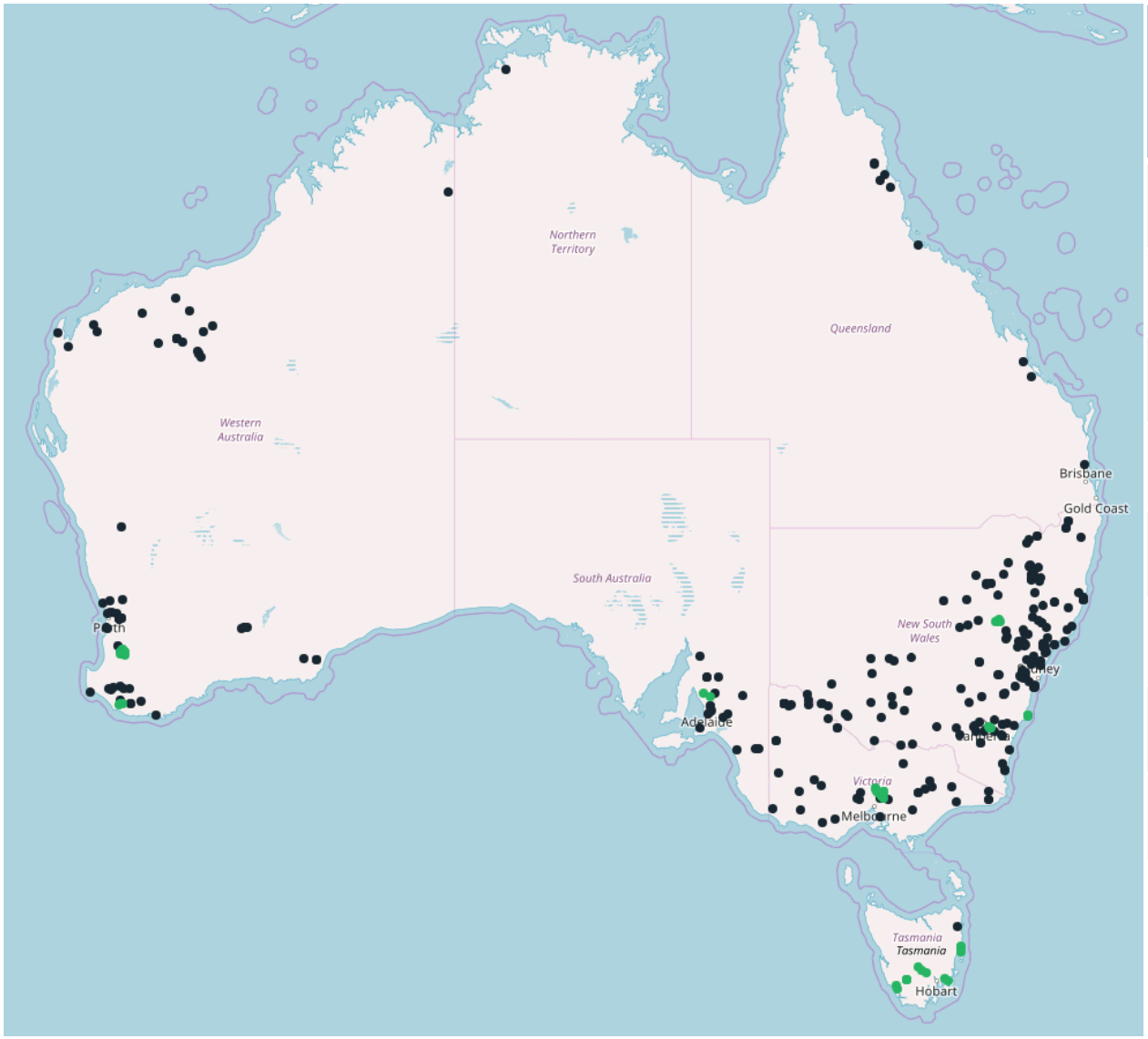
NFDRS Fuel Type

- Forest
- Woodland
- Grass
- Spinifex
- Mallee heath
- Shrubland
- Buttongrass
- Pine
- Non-combustible



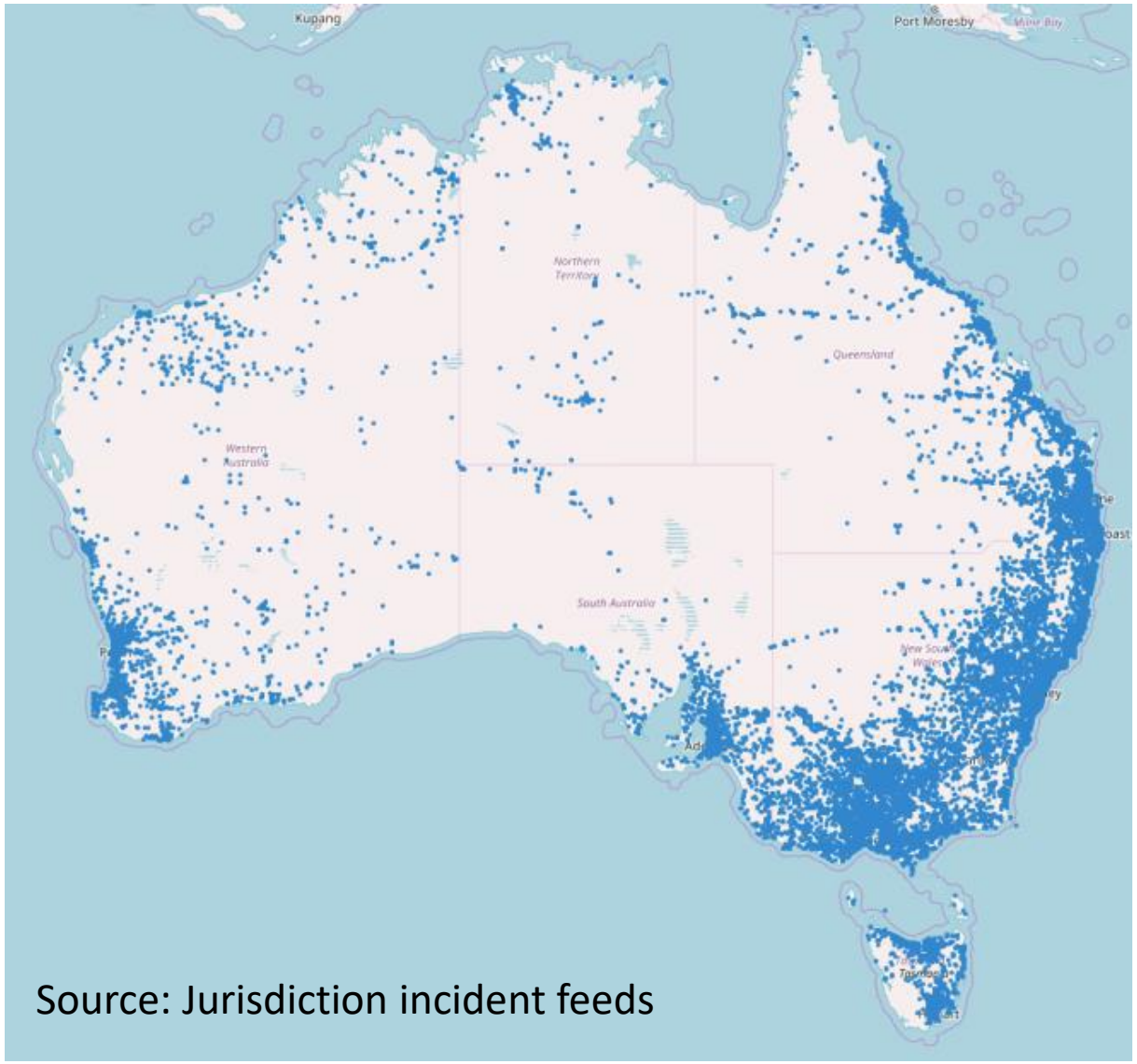
National Fire Danger Rating System

Live trial evaluations (October 2018 – March 2019)



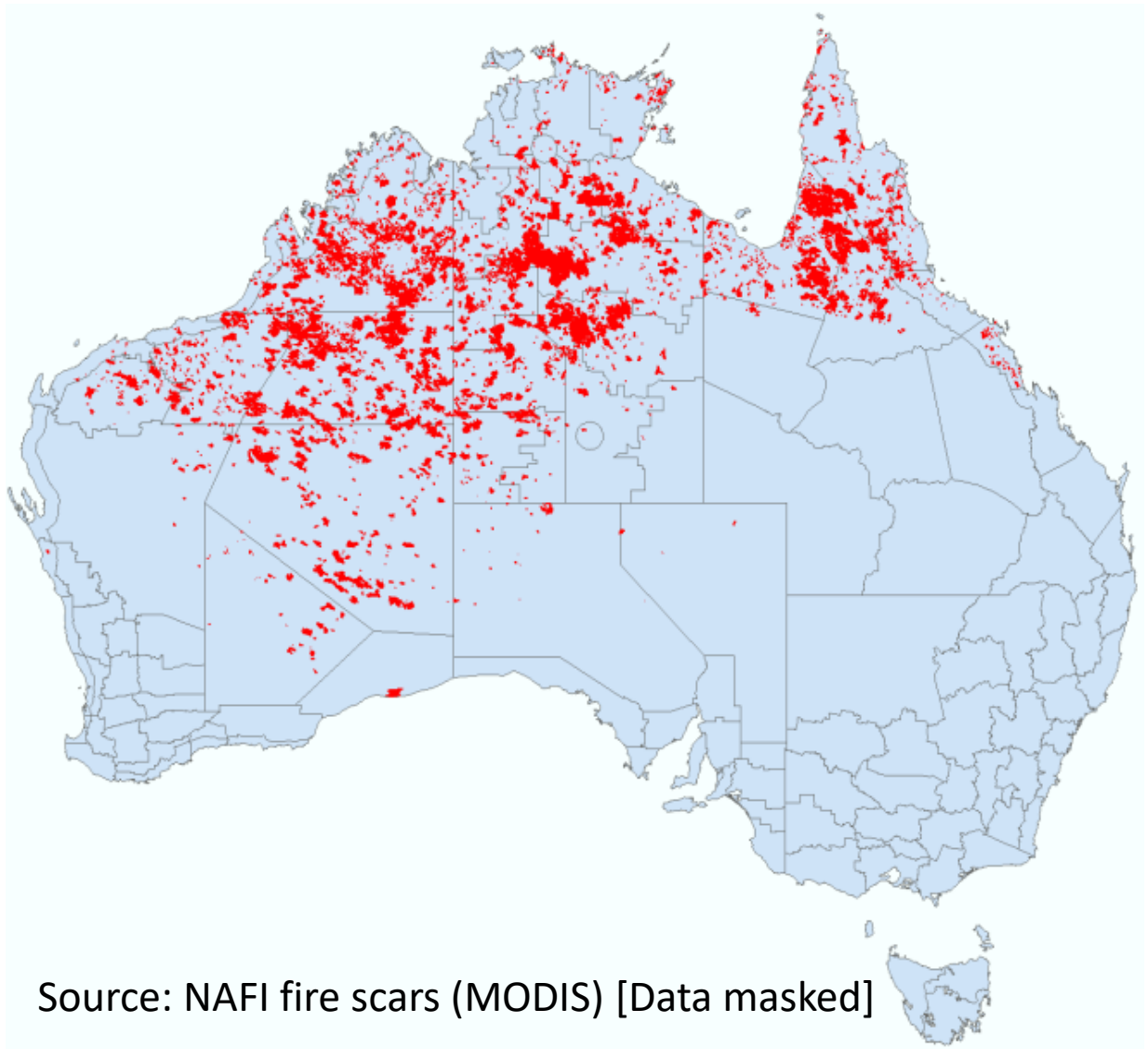
Fuel Type	Live trial	Case studies	Total
Forest	141	47	188
Grassland	63	14	77
Woodland	18	0	18
Mallee-heath	15	0	15
Shrubland	14	4	14
Spinifex	9	0	9
Buttongrass	0	6	6
Pine	5	0	5

Reported incidents



Source: Jurisdiction incident feeds

Burned area



Source: NAFI fire scars (MODIS) [Data masked]

National Fire Danger Rating System