

# **The NAFI Service**

**North Australian Fire Managers  
Forum** **June, 2015**

**Peter Jacklyn  
Darwin Centre for Bushfires Research  
Charles Darwin University**

# New Developments

## NAFI now on new website

**NAFI** North Australian Fire Information

Disclaimer Charles Darwin UNIVERSITY Department of the Environment Geoscience Australia Landgate

View Fire Maps Track Fires View Fire History Download Data Create Report More Tools Help Standard map MAP

Hide Menu

Areas ?

- Presets Areas
  - Cape York Pen'sla
  - North East Qld
  - The Gulf Qld
  - Central Qld
  - Central West Qld
  - West Qld
  - South Qld
  - NT North
  - NT Central
  - NT South
  - NW Australia
  - South Aust
- My Areas +

Go to Location ?

View your own maps ?

Log On / Email Alert ?

**Welcome to NAFI**

To view a fire map select your region in the left menu or click on the map below.

**What's new? »** **F.A.Qs »**

**Explore Fire Manager »**

**NAFI help videos »**

- Getting started
- How to track fires on NAFI

**Latest satellite pass showing cloud conditions**

Click on map to see fires in that region

Geoscience Australia

**Read this first**

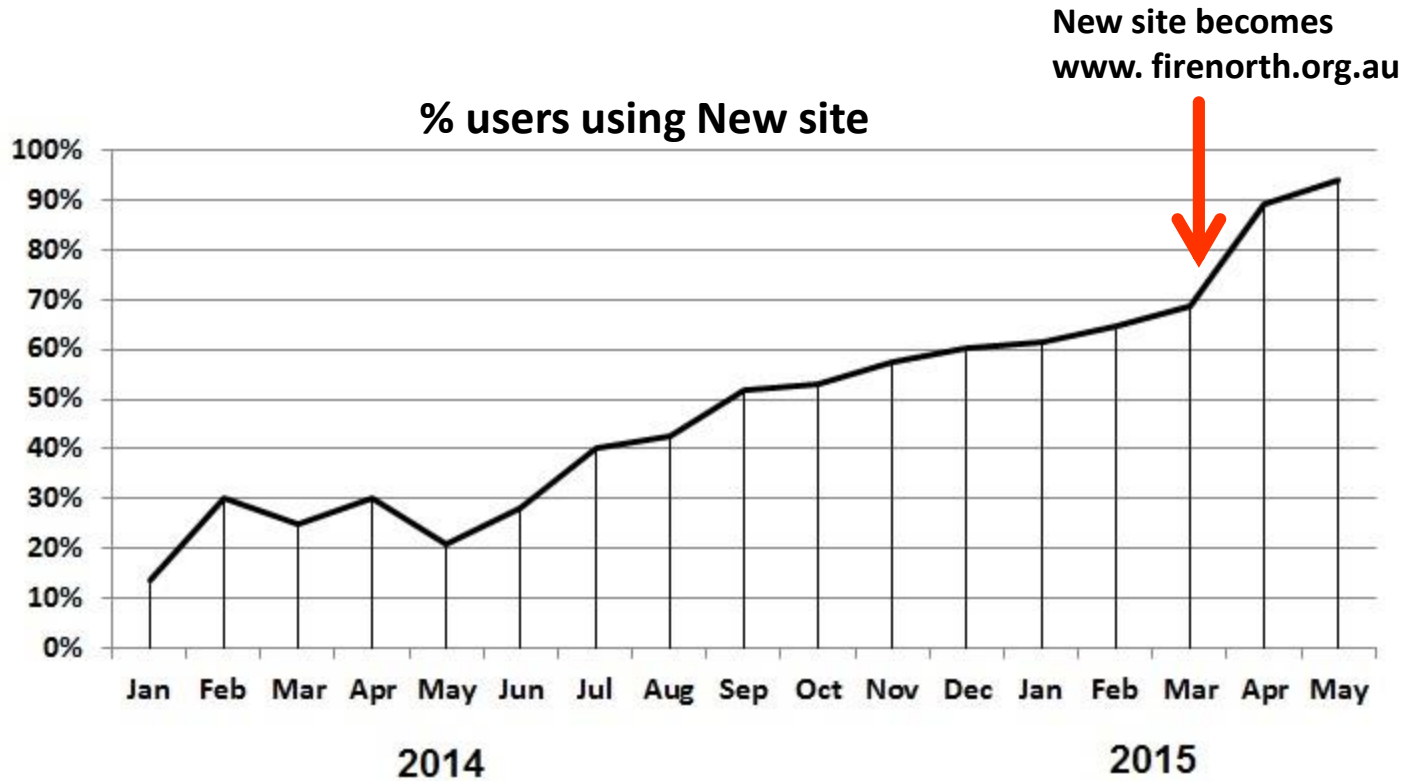
- Hotspot location on any map is only accurate to within 1.5 km
- The hotspot symbol on the maps does not indicate the size of the fire
- Some fires may be small, brief, or obscured by smoke or cloud and go undetected
- Satellites detect other heat sources such as smokestacks

**The Old NAFI Site »**

**Contact Us »**

# New Developments

Almost all users using the new site

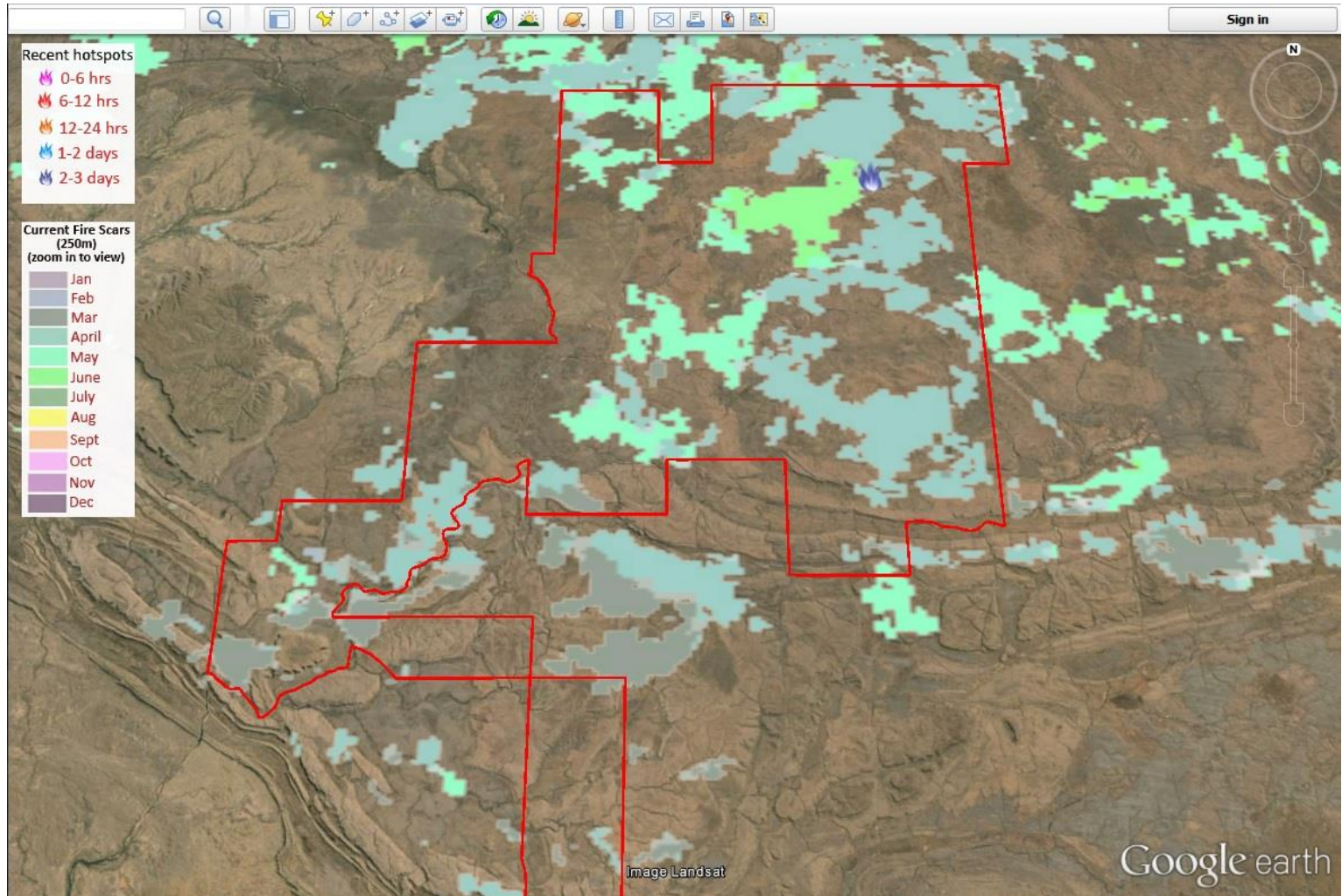


# New Developments

Better integration with *Google Earth* files for planning

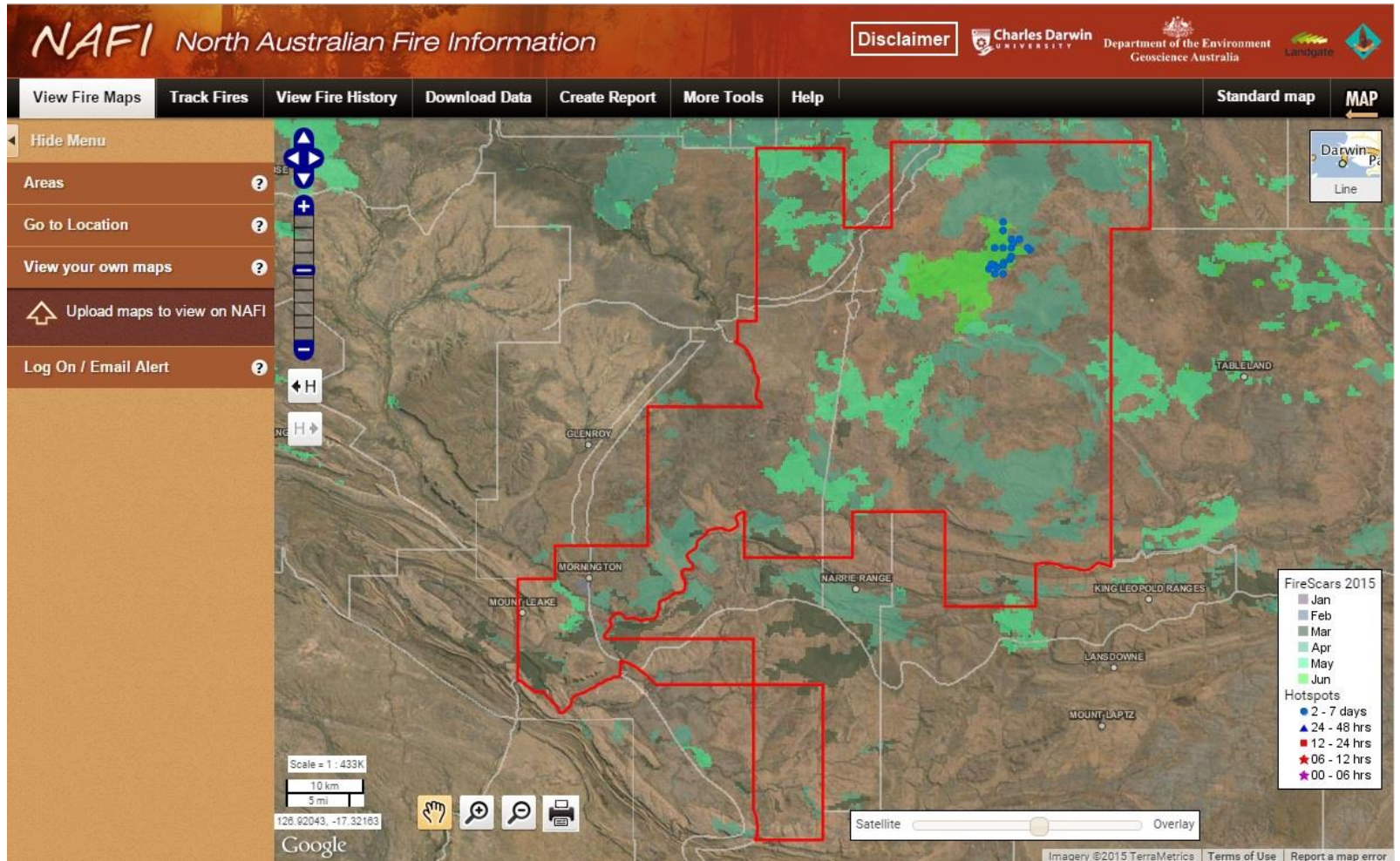
# New Developments

Better integration with *Google Earth* files for planning



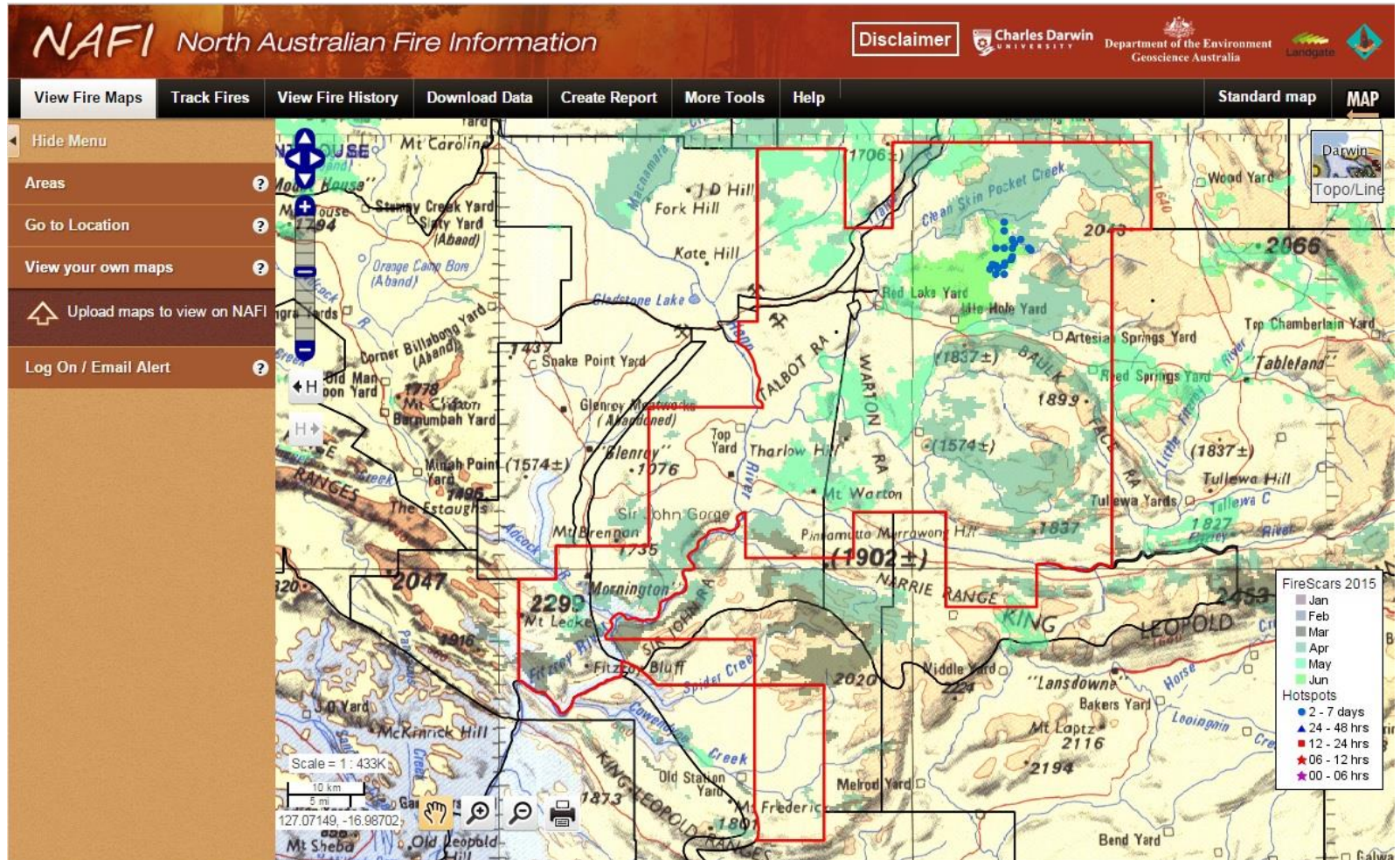
# New Developments

Better integration with *Google Earth* files for planning



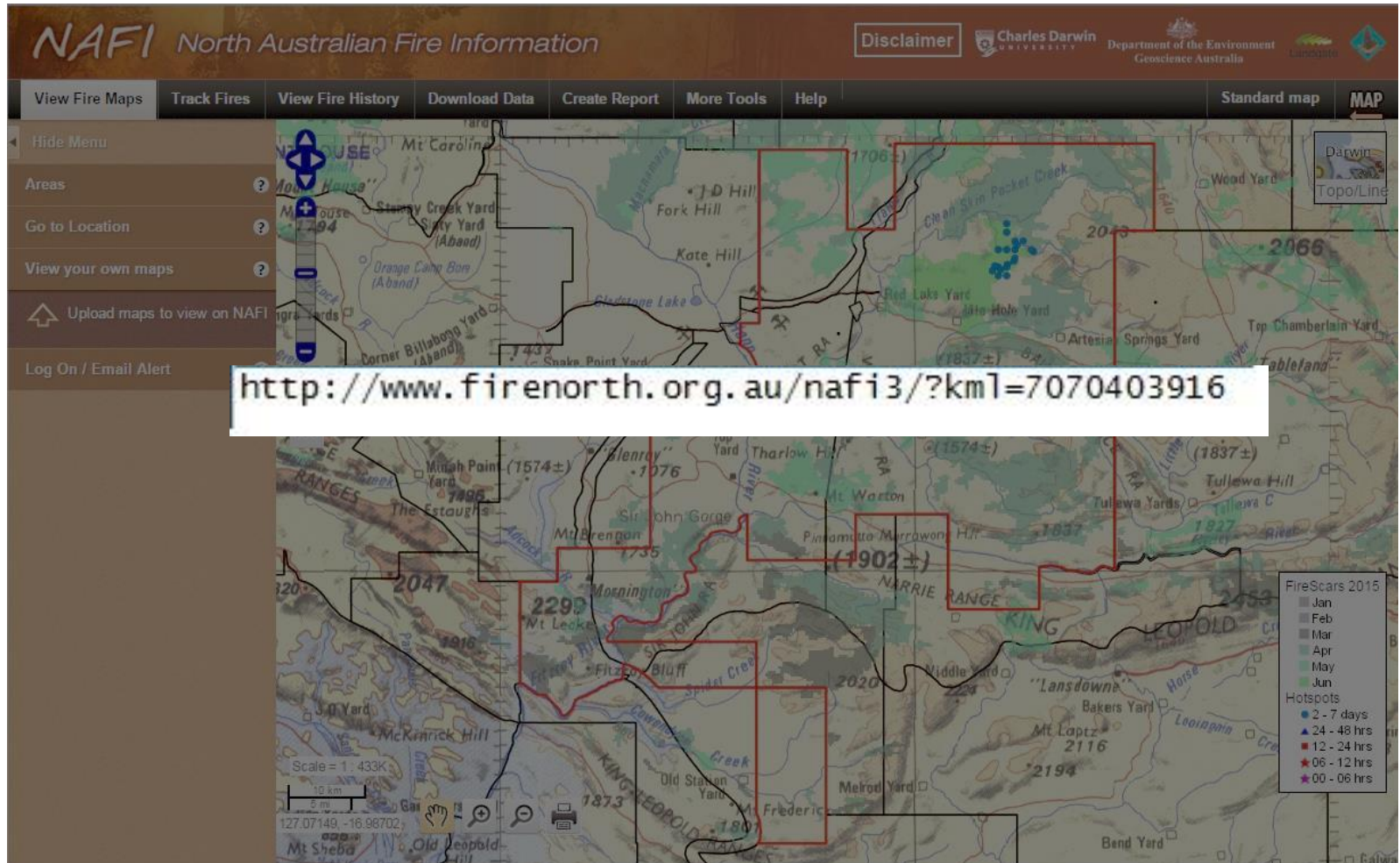
# New Developments

Better integration with *Google Earth* files for planning



# New Developments

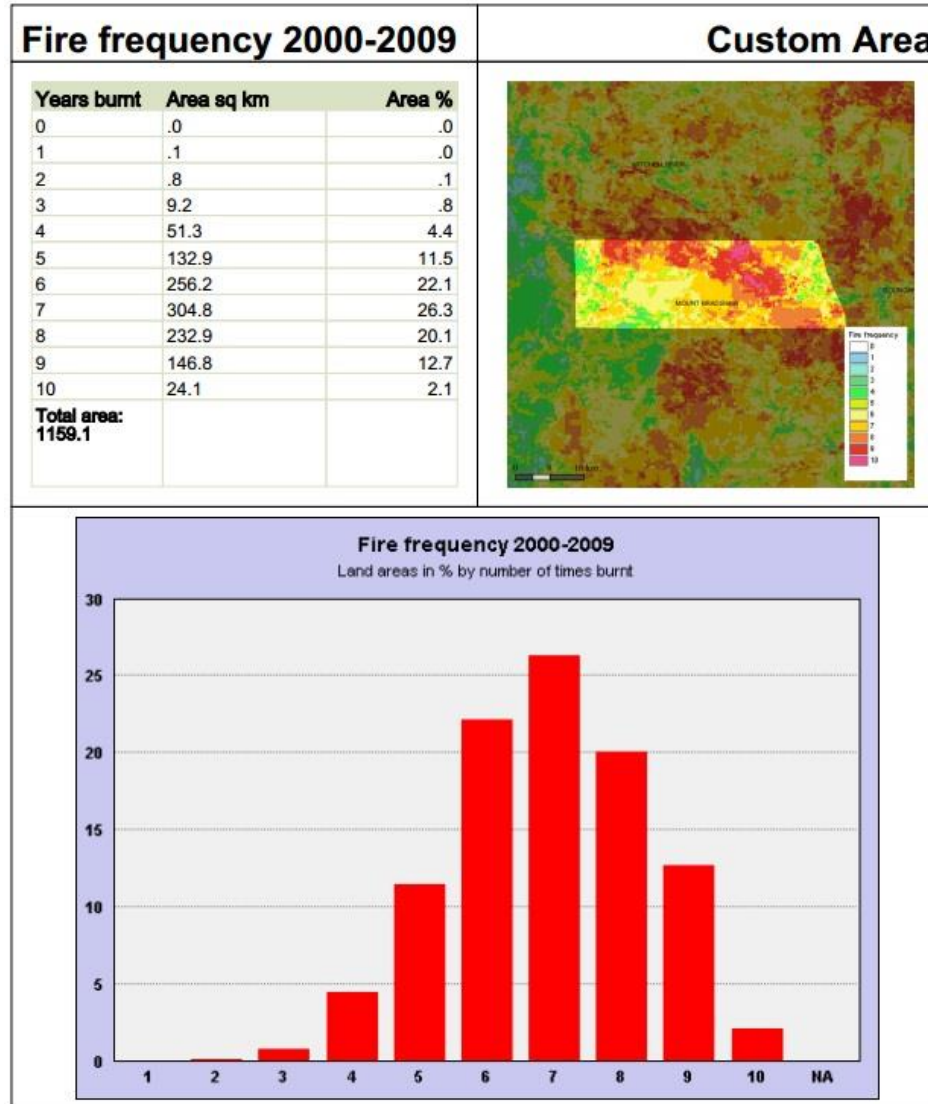
Better integration with *Google Earth* files for planning





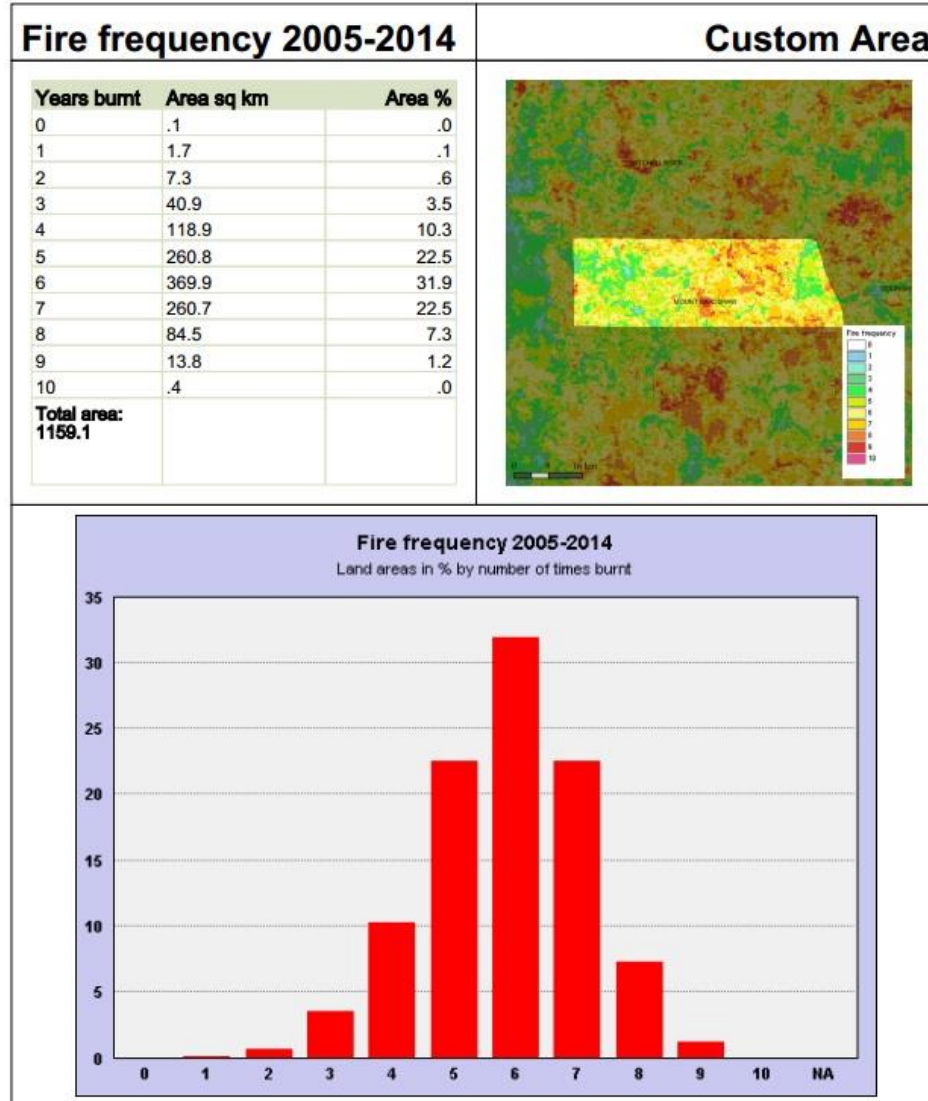
# New Developments

More reports available



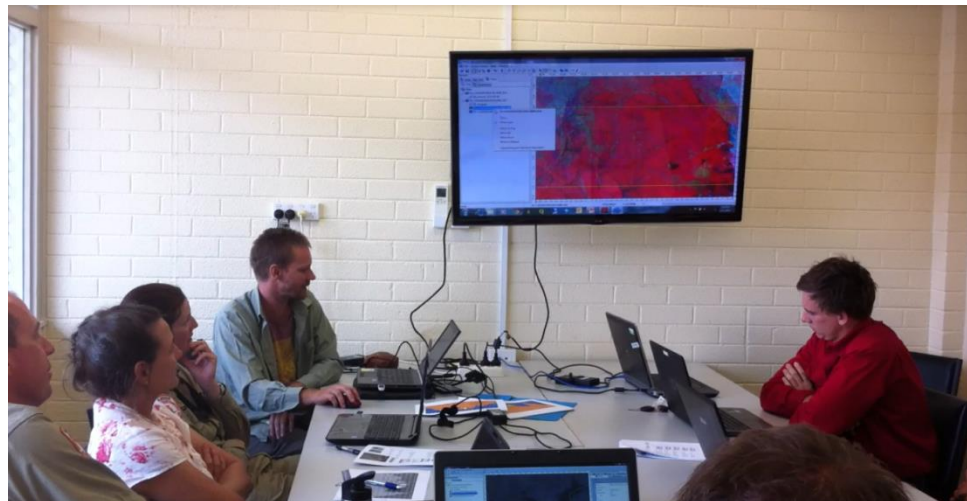
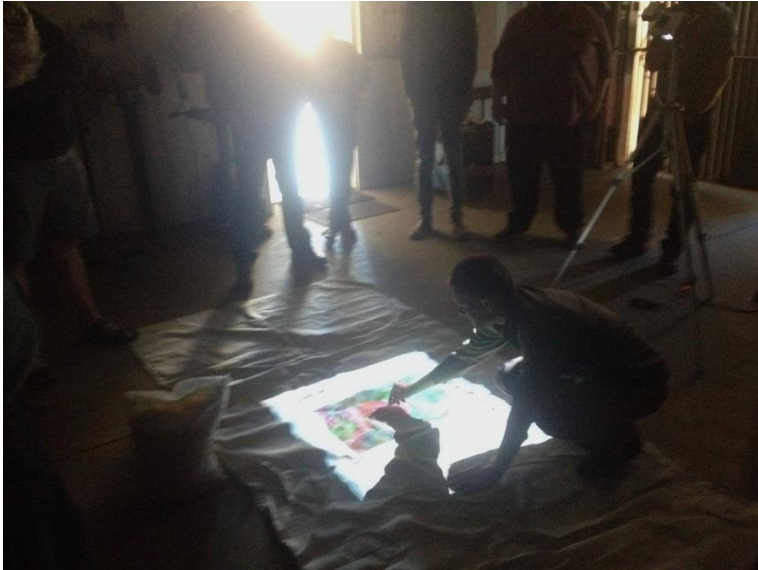
# New Developments

More reports available




# New Developments


## Building resilience



# New Developments

## Building resilience

Northern **Fire Manager** | [Find Resources](#) [Contribute resources](#)Log in Register



Northern Fire Manager is a place to find and share resources for land managers working in northern Australia.

### Contribute resources


Everyone is welcome to contribute to Northern Fire Manager. If you've got a link, a PDF, article text or just an idea you'd like to share with other fire managers please contribute it to the website.

#### Submit new resource

### Finding resources


Northern Fire Manager contains over 3,000 resources that span many topics and regions across the North of Australia. Resources range from project case studies and organisation profiles to individual fire responses for a range of plant species.

Explore all the content of the website using the [Find Resources page](#).



# New Developments

## Building resilience

**Northern Fire Manager** | [Find Resources](#) [Contribute resources](#) [Log in](#) [Register](#)

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[Home](#) » [landsat](#)

### Find resources

Full text search

**Filter by purpose:**  
[Operations \(5\)](#)  
[Planning \(5\)](#)  
[Impacts \(3\)](#)  
[Projects \(2\)](#)

**Filter by region:**  
[Northern Australia \(5\)](#)  
[South Australia \(3\)](#)  
[Northern Territory \(2\)](#)

- [Top End \(4\)](#)
- [Arid Lands \(1\)](#)
- [Gulf Savanna \(1\)](#)

[Queensland \(2\)](#)

- [Desert Channels \(1\)](#)

[Western Australia \(2\)](#)

- [Desert Rangelands \(1\)](#)
- [Kimberley \(1\)](#)

[Tropical savannas \(1\)](#)

**Filter by tags:**  
[Mapping & Monitoring \(10\)](#)

#### [The Landsat Program - Fire Management](#)

Submitted by Anonymous (not verified) on Wed, 02/05/2014 - 12:20  
Links to a NASA page containing global examples of Landsat's role in fire management.

“ ... Links to a NASA page containing global examples of Landsat's role in fire management. NASA Planning Queensland Northern ... Australia General References Mapping & Monitoring The **Landsat** Program - Fire Management ...

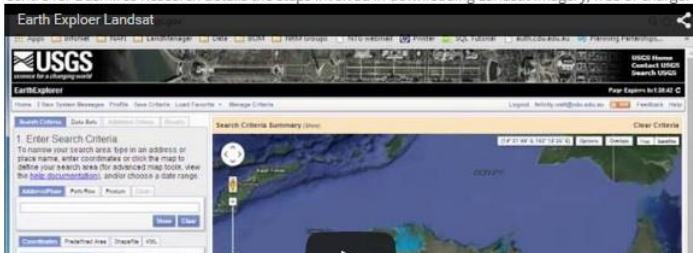
#### [DCBR video: Download free Landsat imagery from the GloVis website](#)

Submitted by Felicity on Mon, 01/12/2015 - 13:14  
This short video, developed by the Darwin Centre for Bushfires Research, outlines the steps involved in downloading free Landsat 8 data from the USGS GloVis website. This site allows the user to easily select and download individual scenes from anywhere on earth. Landsat data has a spatial resolution of 30m and can be useful to view in conjunction with fire lines to determine the effectiveness of controlled burning efforts

“ ... Research, outlines the steps involved in downloading free **Landsat** 8 data from the USGS GloVis website. This site allows the user ... and download individual scenes from anywhere on earth. **Landsat** data has a spatial resolution of 30m and can be useful to view in ...

#### [DCBR video: Downloading Landsat imagery using the Earth Explorer website](#)

Submitted by Felicity on Mon, 01/12/2015 - 13:53  
Earth Explorer uses a Google Earth map to navigate, define an area of interest and set search parameters. This short video developed by the Darwin Centre for Bushfires Research details the steps involved in downloading Landsat imagery, free of charge.



# New Developments

## Building resilience

[Fire Patterns / Regimes \(4\)](#)  
[Impacts native plants & animals \(4\)](#)  
[Landsat \(4\)](#)  
[Fire Management \(3\)](#)  
[General References \(3\)](#)  
[Impacts / Responses \(3\)](#)  
[Journal Article \(3\)](#)  
[fire history \(2\)](#)  
[Measurement / Monitoring / Reporting \(2\)](#)  
[Projects / Programs \(2\)](#)  
[SAGA GIS \(2\)](#)  
[Technical References \(2\)](#)  
[Attitudes / Knowledge / Communication \(1\)](#)  
[Australia \(1\)](#)  
[Biology / Ecology \(1\)](#)  
[Cape York Peninsula \(1\)](#)  
[controlled burning \(1\)](#)  
[Darwin Coastal \(1\)](#)  
[fire frequency \(1\)](#)  
[fire intensity \(1\)](#)  
[GIS \(1\)](#)  
[Grazing & Fire \(1\)](#)  
[imagery \(1\)](#)  
[Kakadu National Park \(1\)](#)  
[Kimberley \(1\)](#)  
[Litchfield National Park \(1\)](#)  
[NAFI \(1\)](#)  
[Nitmiluk \(Katherine Gorge\) National Park \(1\)](#)  
[Overviews \(1\)](#)  
[Photos \(1\)](#)  
[prescribed burning \(1\)](#)  
[Research \(1\)](#)  
[Simpson Strzelecki Dunefields \(1\)](#)  
[Tools & Resources \(1\)](#)  
[Tropical Savannas \(1\)](#)  
[Values & Classification \(1\)](#)  
[vegetation \(1\)](#)  
[Victoria River District \(1\)](#)



... Bushfires Research details the steps involved in downloading **Landsat** imagery, free of charge. Darwin Centre for Bushfires ... Australia Mapping & Monitoring satellite imagery **Landsat** DCBR video: Downloading **Landsat** imagery using the Earth Explorer ...

### [DCBR video: Displaying Landsat imagery in SAGA GIS](#)

Submitted by Felicity on Mon, 01/12/2015 - 15:14

This Darwin Centre for Bushfires Research video runs through the process of importing, projecting and displaying Landsat data using the free, portable software SAGA GIS. Visualising Landsat imagery in conjunction with GPS lines from controlled burning work can help provide a clearer picture of the success of this burning work and the need, if any, for follow-up work to create more effective breaks.

... through the process of importing, projecting and displaying **Landsat** data using the free, portable software SAGA GIS. Visualising **Landsat** imagery in conjunction with GPS lines from controlled burning work can ...

### [A comparison of NOAA-AVHRR fire data with three Landsat data sets in arid and semi-arid Australia](#)

Submitted by Anonymous (not verified) on Thu, 06/26/2014 - 11:00

This paper compares fire data sourced through NOAA-AVHRR and Landsat. It considers extent of area burnt, data coverage and mapping accuracy. (Turner et al., 2009)

... This paper compares fire data sourced through NOAA-AVHRR and **Landsat**. It considers extent of area burnt, data coverage and mapping accuracy. ... Australia A comparison of NOAA-AVHRR fire data with three **Landsat** data sets in arid and semi-arid Australia ...

### [Patterns of landscape fire and predicted vegetation response in the North Kimberley region of Western Australia](#)

Submitted by Anonymous (not verified) on Wed, 02/05/2014 - 12:20


The paper reports on the development of a decadal fire history, 1990-1999, in the North Kimberley region. The fire history confirms that substantial areas of the North Kimberley are burnt each year. The authors conclude that there is a need to undertake a thorough appraisal of the status of regional biota in this remote, ostensibly ecologically intact region. (Fisher et al., 2003)

... native plants & animals Journal Article Kimberley **Landsat** Technical References Patterns of landscape fire and predicted ...

[Frequency and season of fires varies with distance from settlement and grass composition in](#)

# New Developments


## Building resilience

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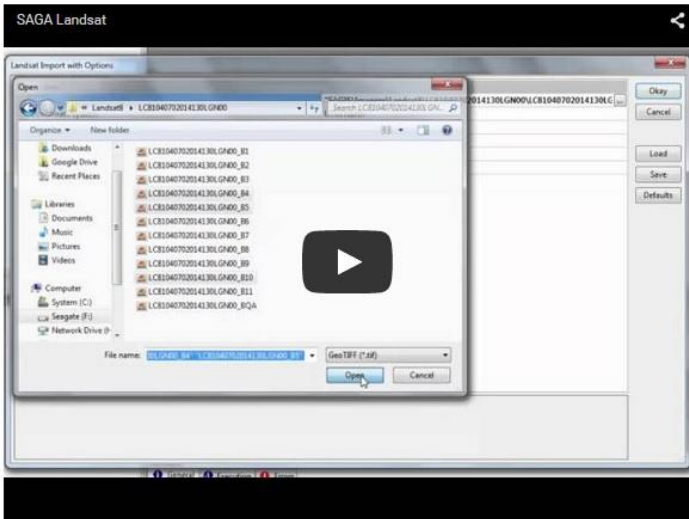
[Home](#)

### DCBR video: Displaying Landsat imagery in SAGA GIS



URL:  
<https://www.youtube.com/watch?v=oaM6ljbVpG8>

This Darwin Centre for Bushfires Research video runs through the process of importing, projecting and displaying Landsat data using the free, portable software SAGA GIS. Visualising Landsat imagery in conjunction with GPS lines from controlled burning work can help provide a clearer picture of the success of this burning work and the need, if any, for follow-up work to create more effective breaks.



PURPOSE  
[Operations](#)

REGION  
[Northern Australia](#)

TAGS  
[Mapping & Monitoring](#)  
[satellite imagery](#)  
[Landsat](#)  
[SAGA GIS](#)

LAST UPDATED DATE  
Thursday, April 2, 2015 - 14:51

CREATED DATE

# New Developments

## Building resilience


[Sign up to receive regular updates](#) [View this email in your browser](#)

### NAFI NEWS

Updates from the world of fire management in Northern Australia

Welcome to the NAFI newsletter

What's New?



The screenshot shows the NAFI website interface. At the top, there are links for 'Sign up to receive regular updates' and 'View this email in your browser'. Below this is a dark orange header with 'NAFI NEWS' and 'Updates from the world of fire management in Northern Australia'. The main content area is white and contains a 'Welcome to the NAFI newsletter' message and a 'What's New?' section. The 'What's New?' section features a screenshot of the NAFI website interface. The interface includes a navigation menu on the left with options like 'Home', 'About NAFI', 'What's New on NAFI', 'NAFI help videos', and 'Read this first'. The main content area of the website shows a map of Northern Australia with a 'Latest satellite pass showing cloud conditions' section. Below the map, there are sections for 'What's new on NAFI', 'NAFI help videos', and 'Read this first'. The 'Read this first' section contains a list of important information: 'Important: Locations are only visible to users authorised to access L3 data', 'The hot/cold symbol on the maps does not indicate the size of the fire', 'Some fires may be small, brief, or obscured by smoke or mist and go undetected', 'Subscribers contact other local sources such as windmills', 'If maps are slow, try our main website', and 'To provide feedback on using the website please contact us'.

NAFI has changed... The new NAFI website, released last year for testing, is now the primary [www.firenorth.org.au](http://www.firenorth.org.au) site. If you haven't checked it out before, functionality remains the same, with functions now grouped under common tasks listed along the top of the map. The new site should also be able to handle heavy usage more easily than the old site.

Some recent updates include:

- a larger range of KMLs for download including fire history patterns. Comparison of these 10 year periods can be useful for detecting changes in fire patterns
- the ability to upload your own features (boundaries / tracks / firelines etc) as kml or kmz files. These can then be shared with others via the unique weblink provided



# **Future Data and Tools**

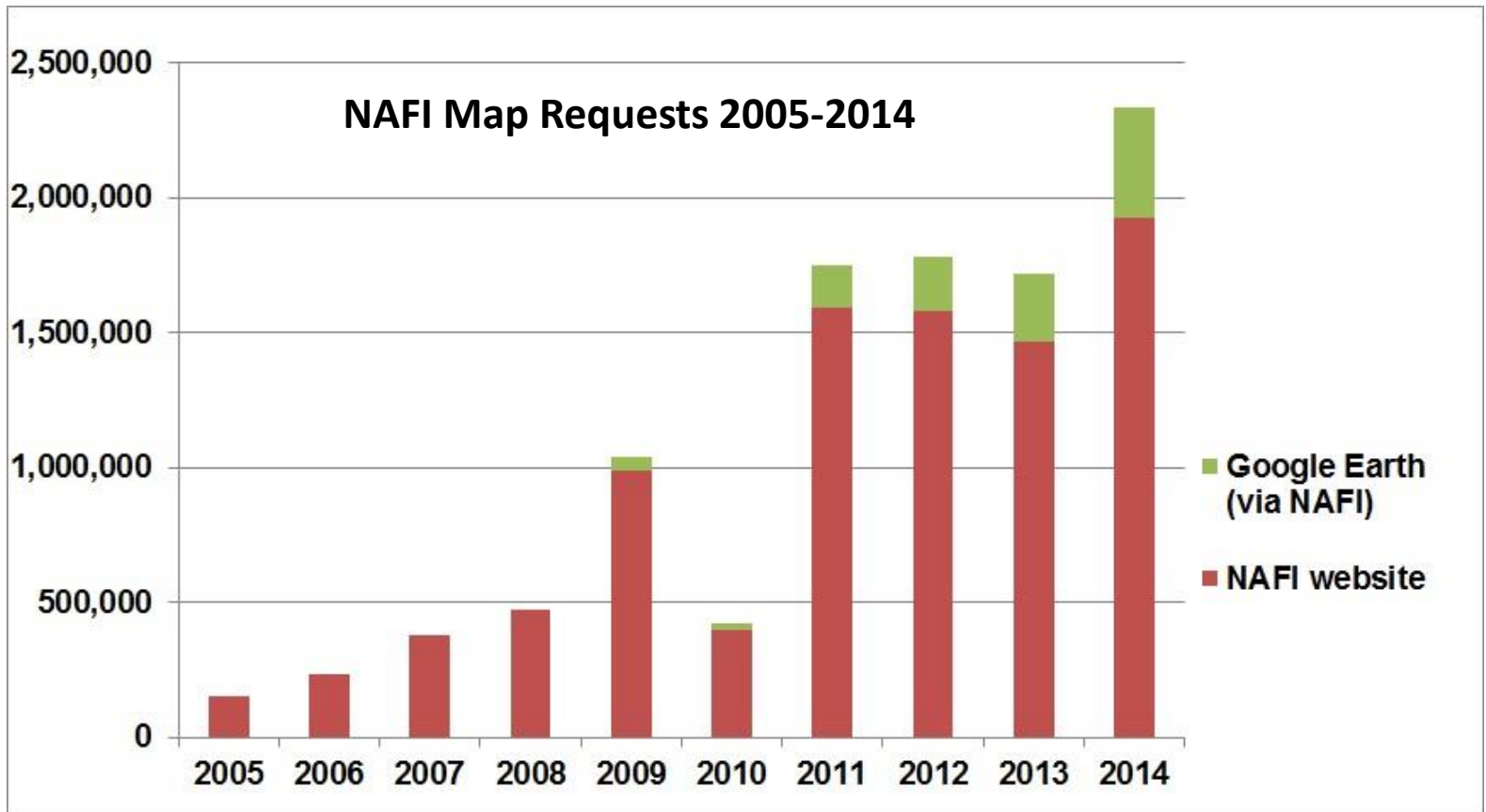
**New Maps – fire severity, fuels, patchiness**

**New tools based on user demand**

**Downloadable apps for mobile devices**

# Usage

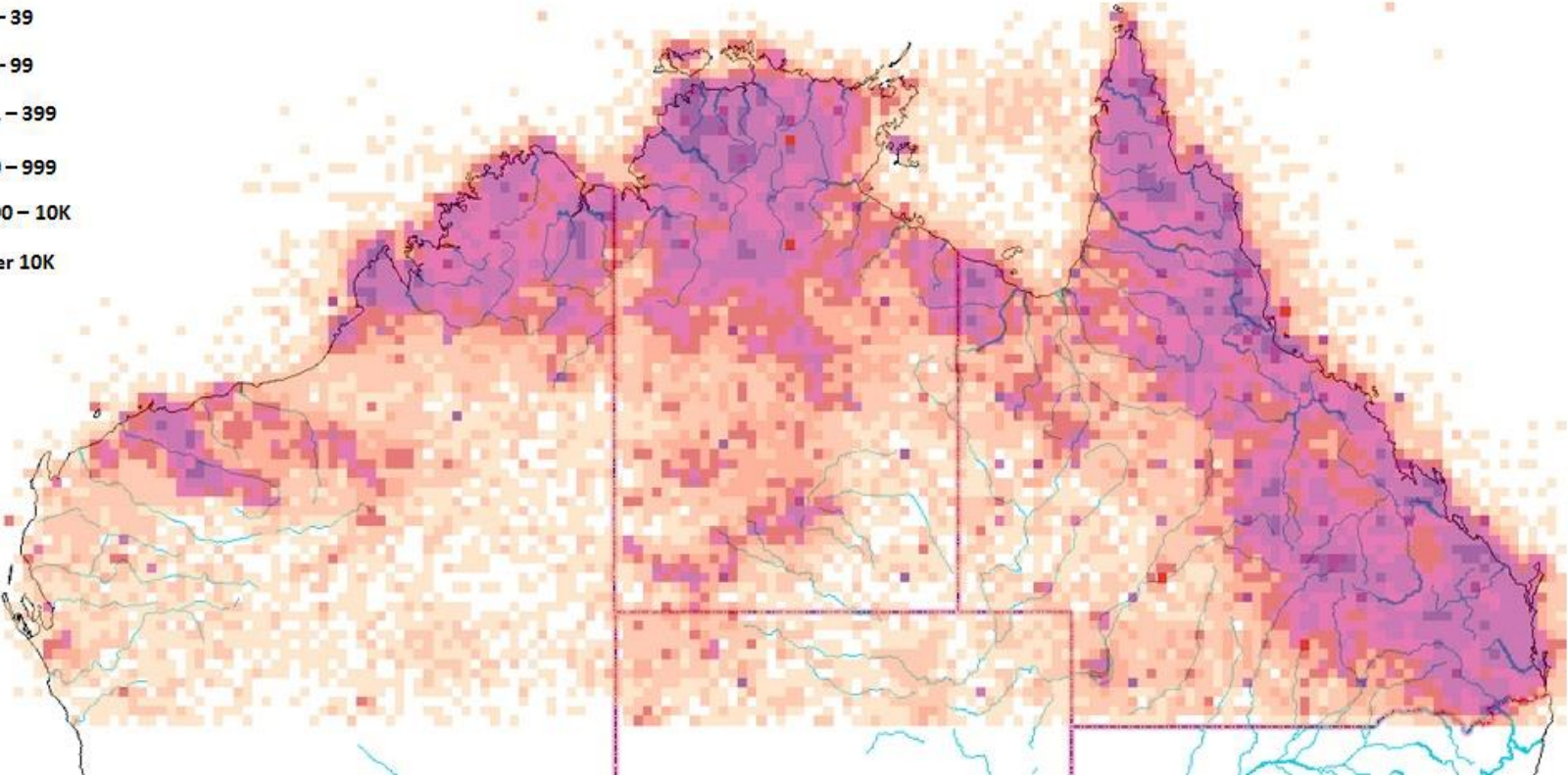
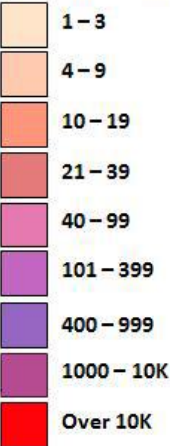
## Map requests rising



# Usage

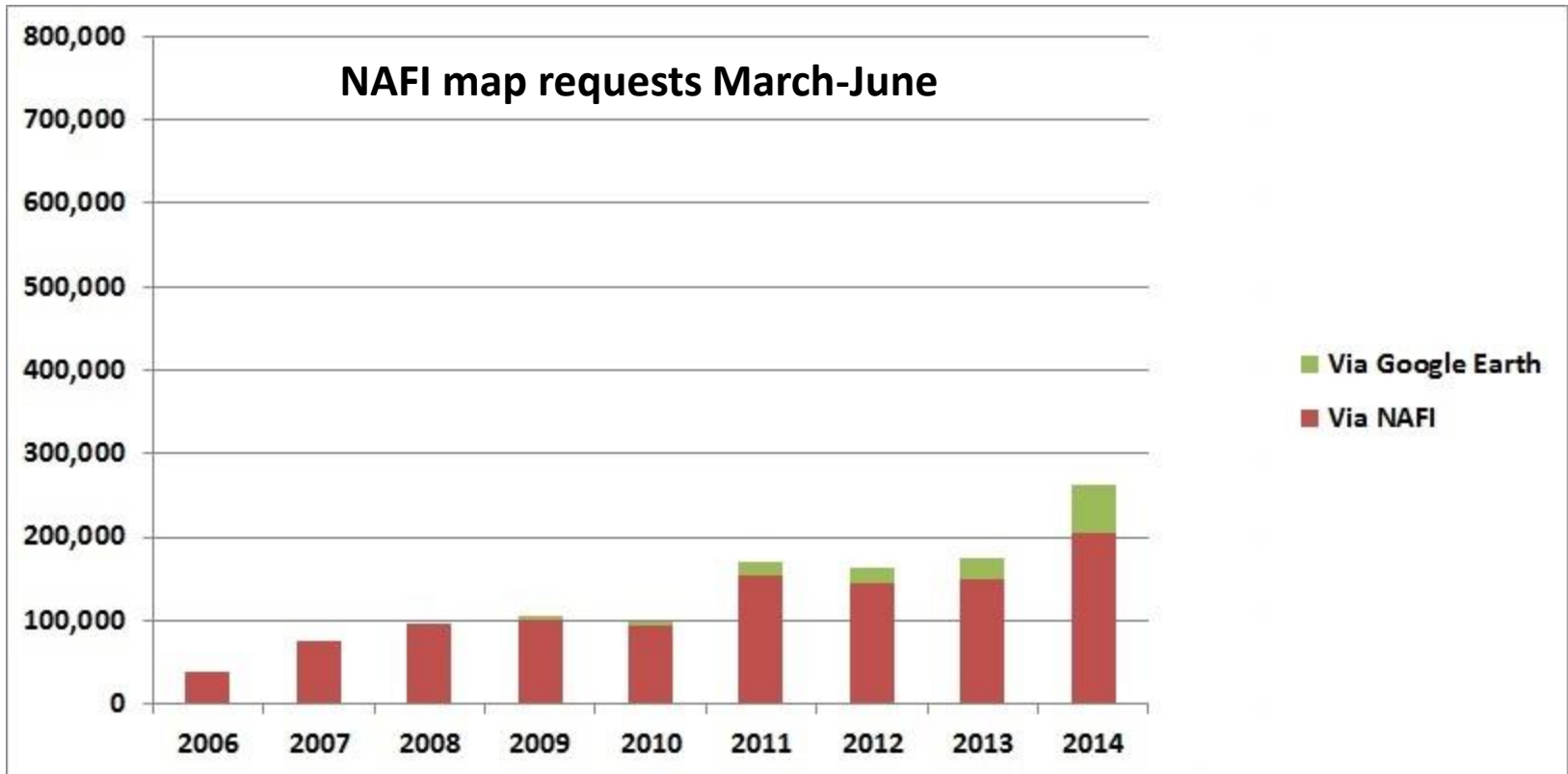
## NAFI Map Request Locations 2014

MAPS REQUESTED PER AREA



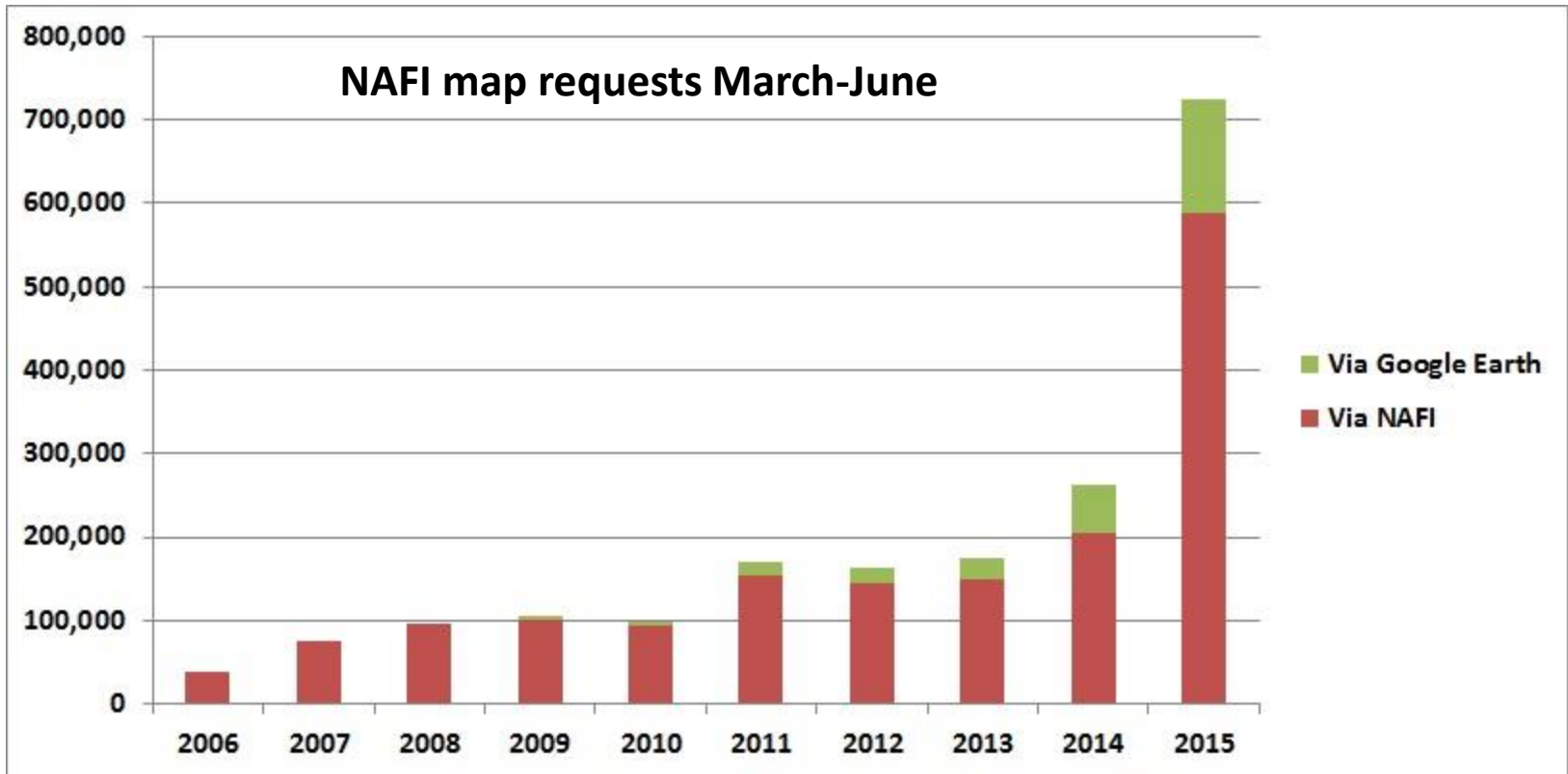
# Usage 2015

## Early Dry Season map requests



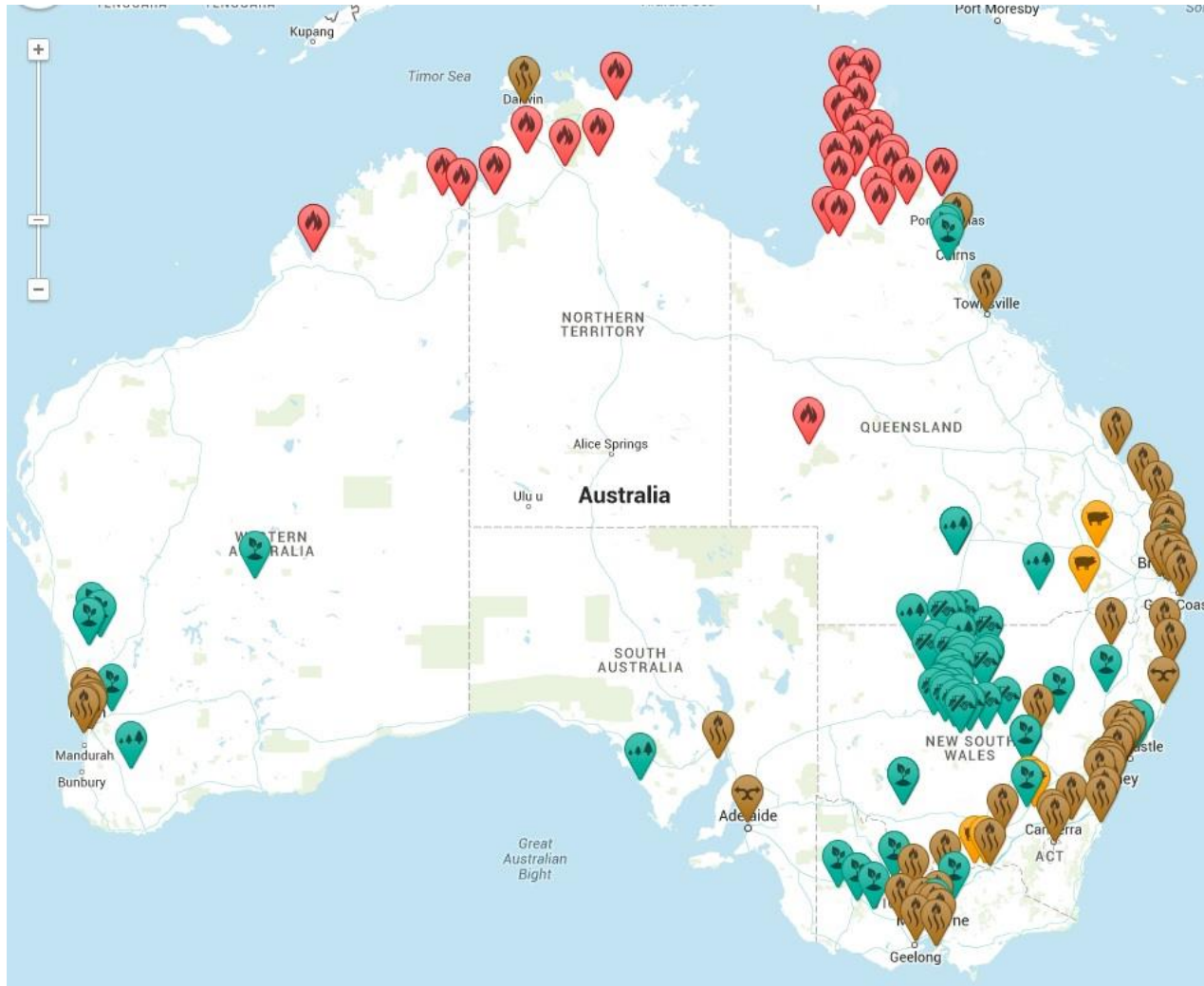
# Usage 2015

## Early Dry Season map requests



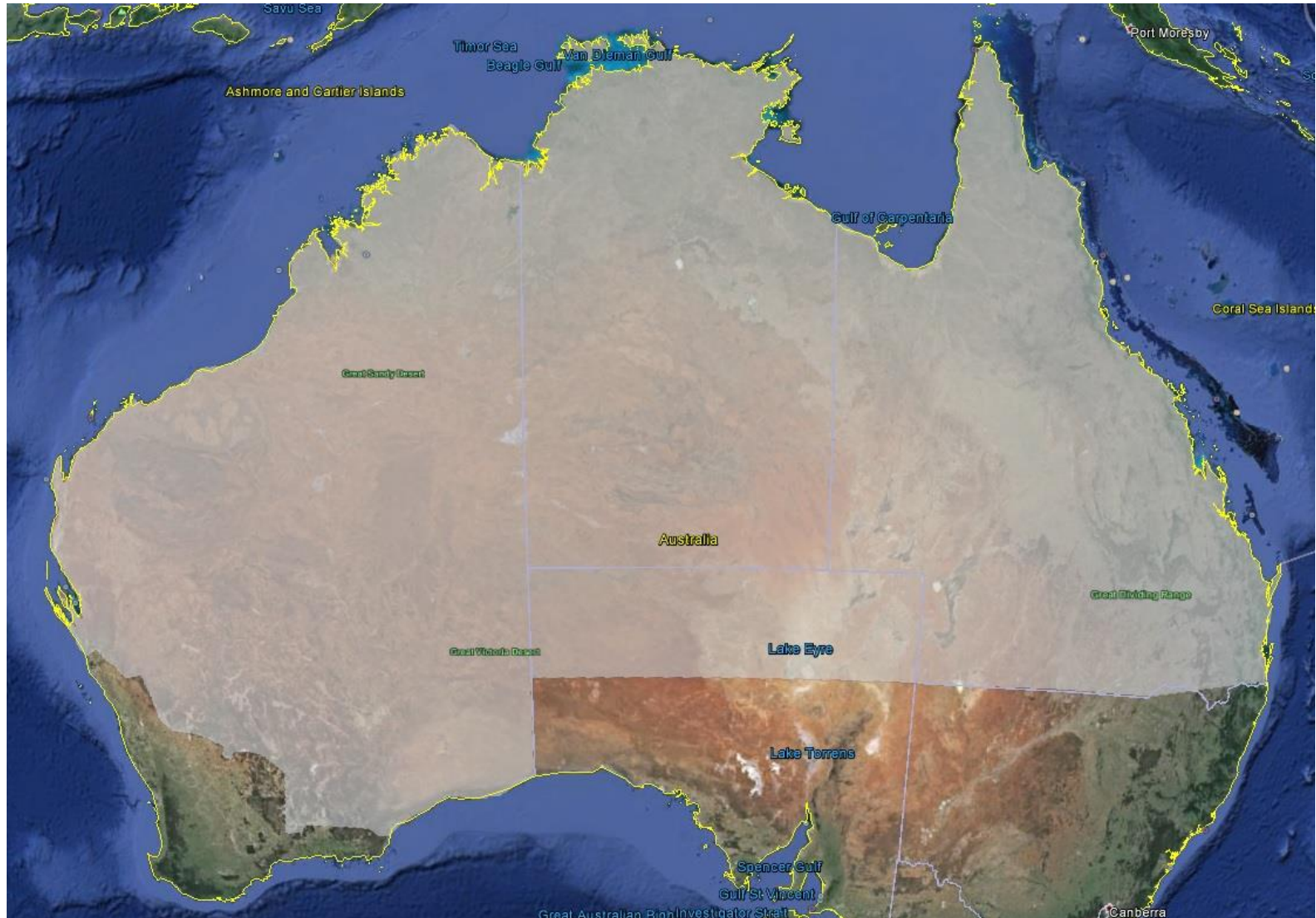
# Usage 2015

## Map requests rising



# Future Developments

## WA Rangelands fire scar mapping



# Future Developments

**WA Rangelands fire scar mapping**

**QFES project**

**Broader Regional NRM funding**