





# Developing Digital Earth Australia

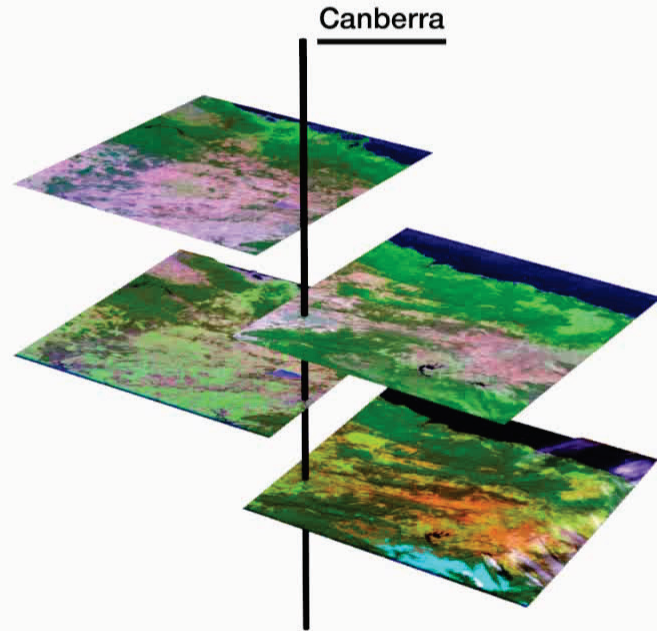
Orthorectification



Calibration



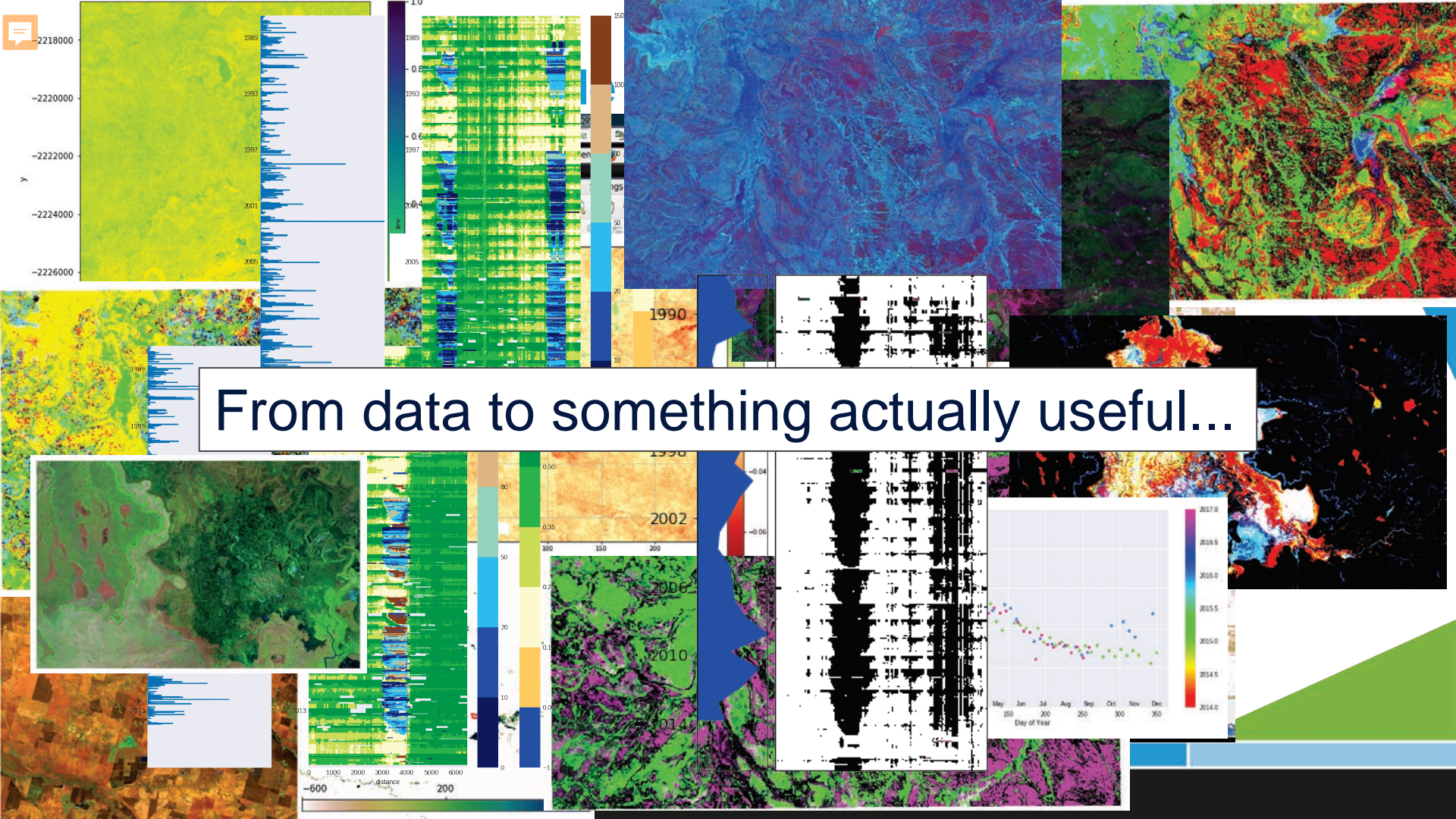
Time series





1987





From data to something actually useful...



**Terria-Cube Prototype**  
Version: 2019-07-26

DATA SET [1]

Search for locations

+ Add data ↻

DATA SETS [ 1 ] Remove All

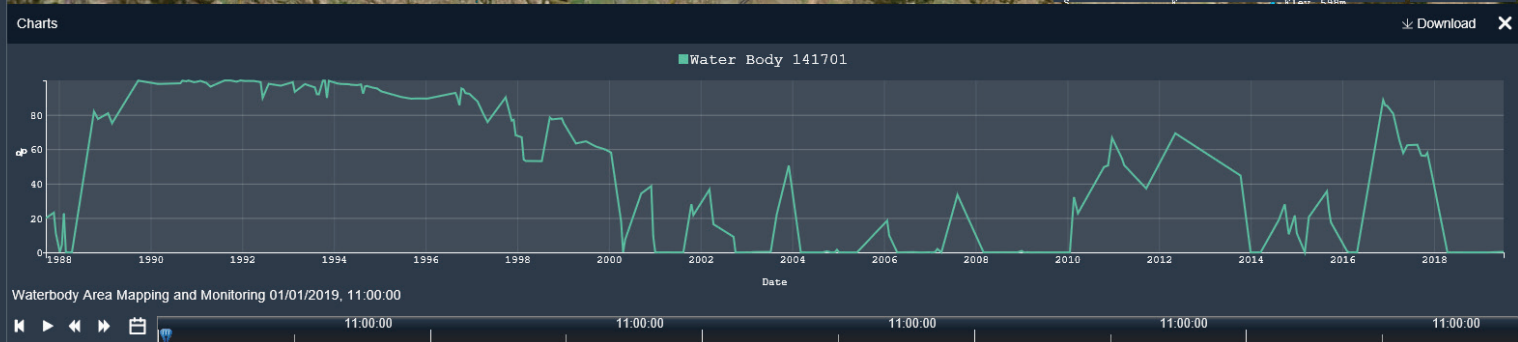
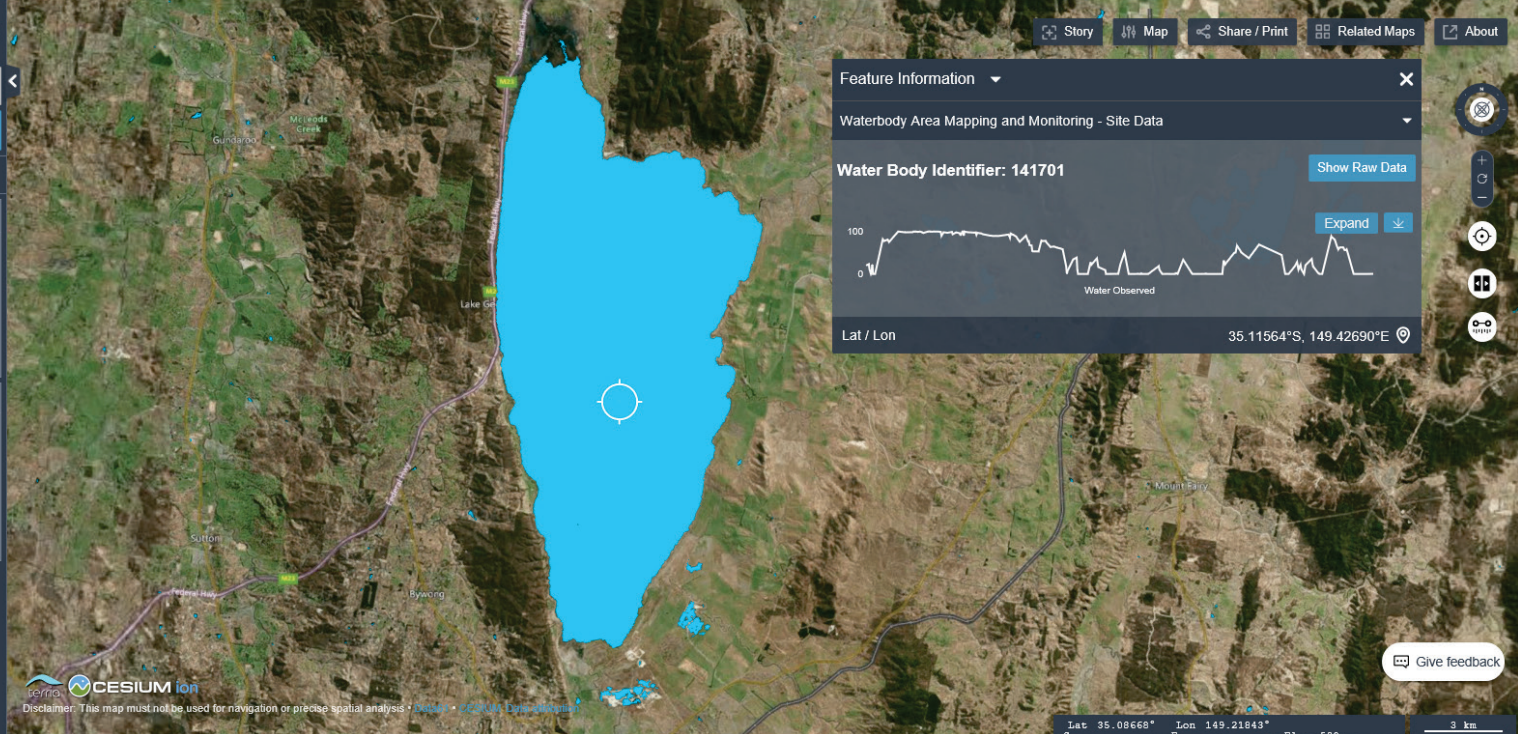
Waterbody Area Mapping and Monitoring

Zoom To Extent About This Data Split Export Remove

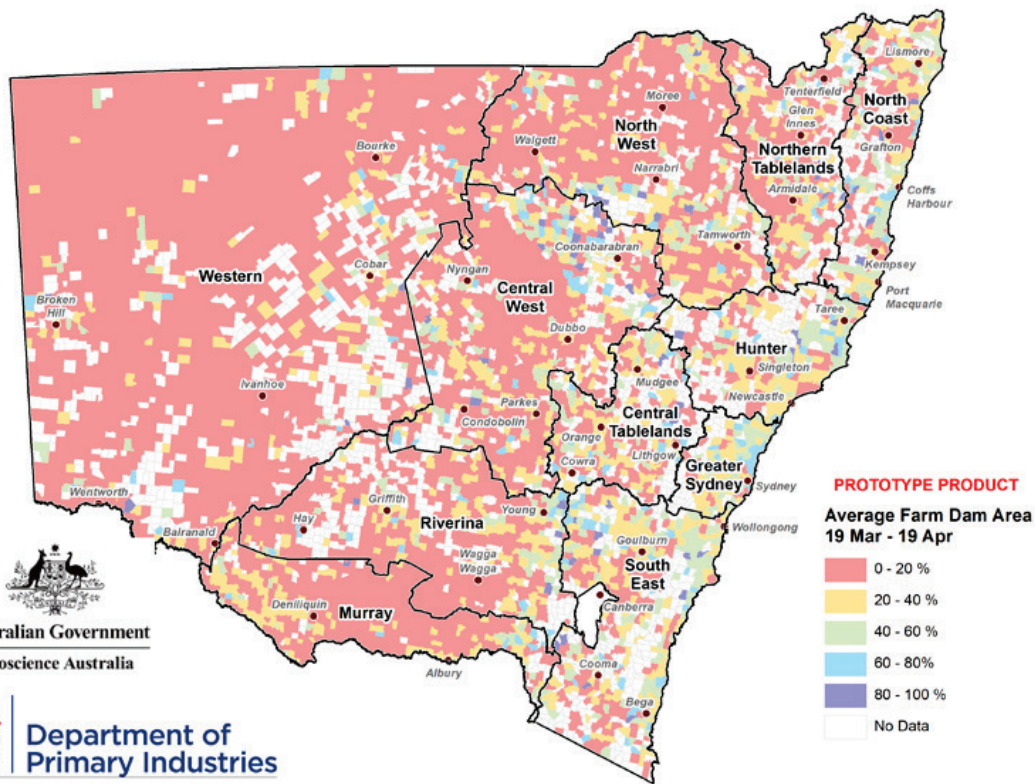
Opacity: 100 %

Time: 01/01/2019, 11:00:00





# Request for help to operational product



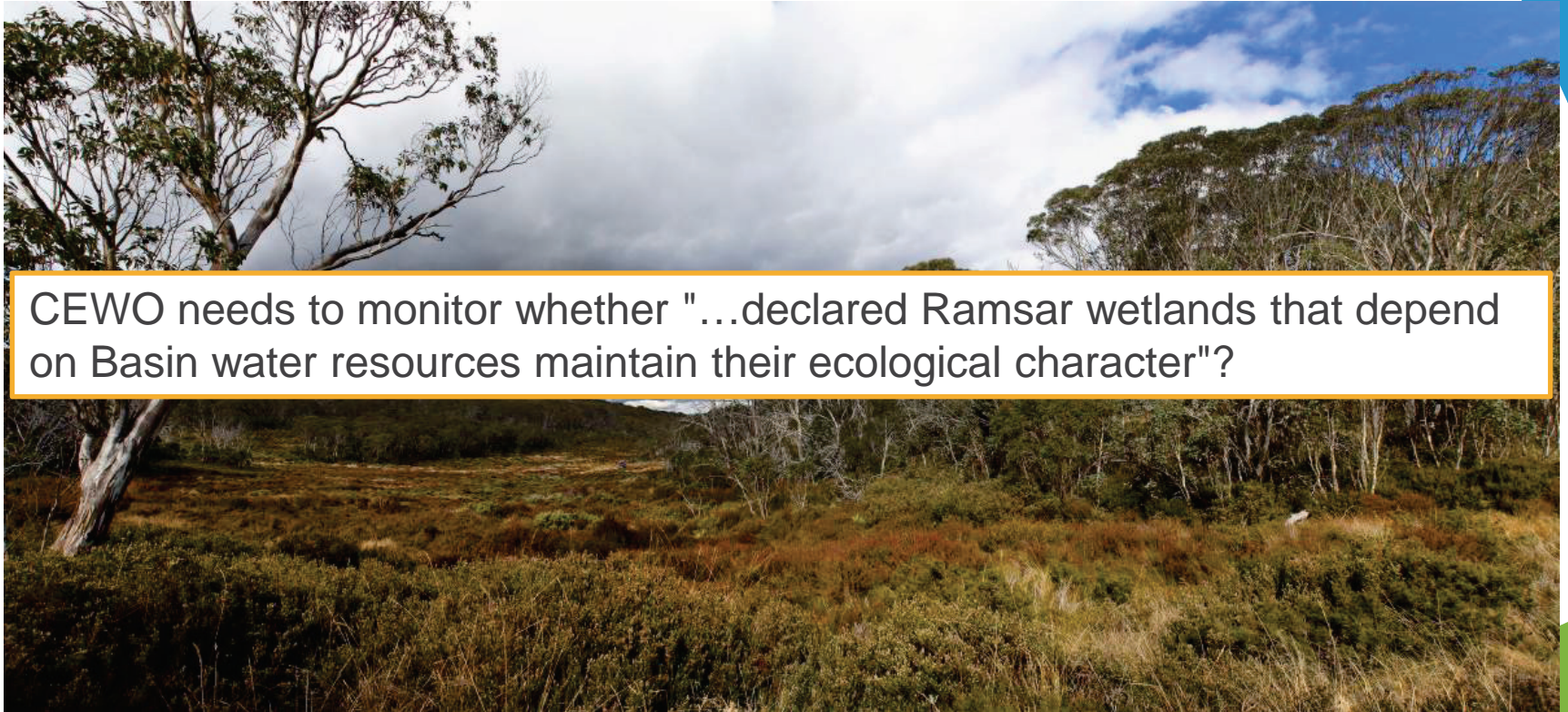
Australian Government  
Geoscience Australia



Department of  
Primary Industries



# What about if there is more than just water?



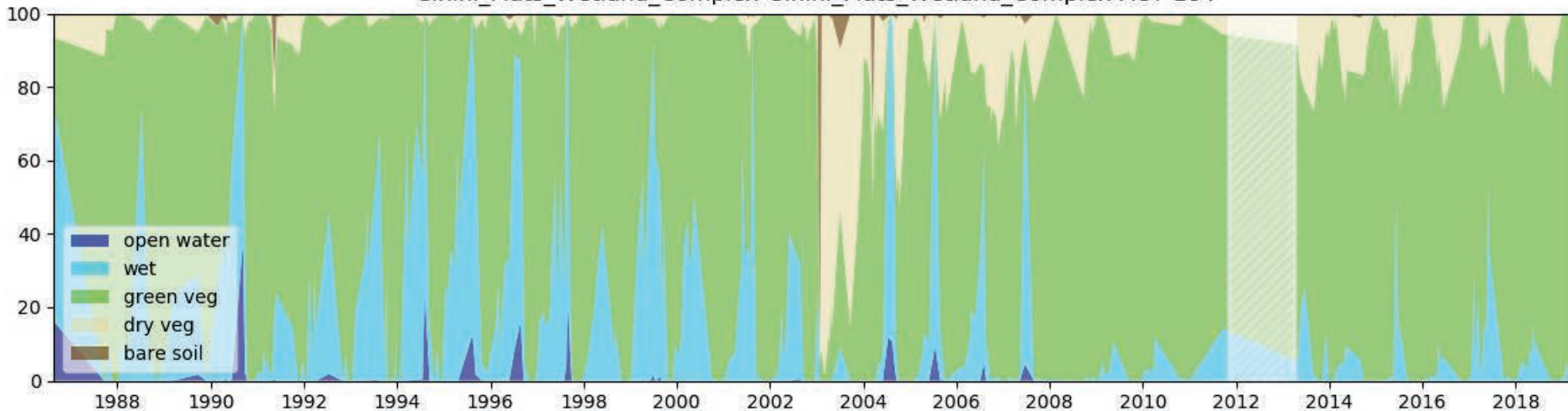
CEWO needs to monitor whether "...declared Ramsar wetlands that depend on Basin water resources maintain their ecological character"?



# Ginini Flats Wetland Complex, ACT



Percentage of area WOfS, Wetness, Fractional Cover for  
Ginini\_Flats\_Wetland\_Complex-Ginini\_Flats\_Wetland\_Complex-ACT-184



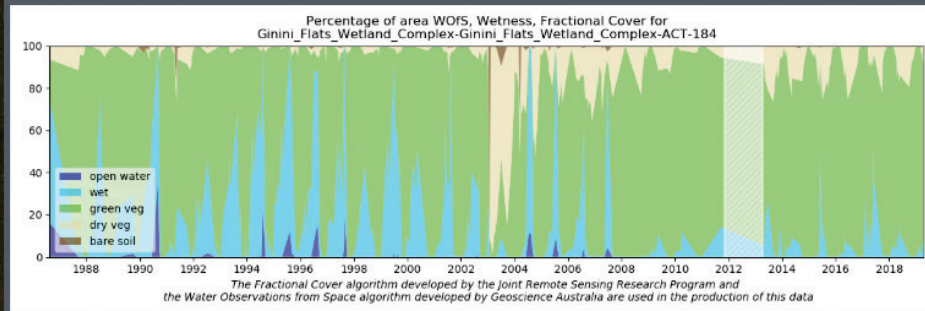
*The Fractional Cover algorithm developed by the Joint Remote Sensing Research Program and the Water Observations from Space algorithm developed by Geoscience Australia are used in the production of this data*



## Feature Information

DEA Wetlands Insight Tool v1.0 - Site Data

Ginini\_Flats\_Wetland\_Complex in ACT, feature 184 in the Ramsar wetlands catalogue.

[Show Raw Data](#)

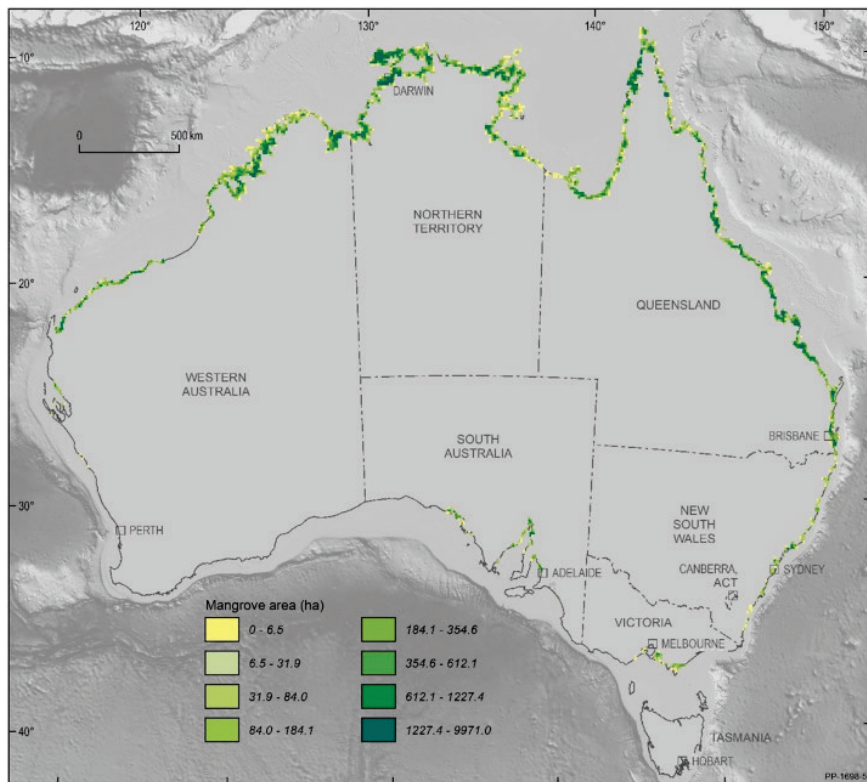
Change in water, wet vegetation, green vegetation, dry vegetation, and bare soil for Ginini\_Flats\_Wetland\_Complex. Ramsar listed 1996/03/11

Download: [chart image](#) | [timeseries CSV](#)

Lat / Lon

35.52517°S, 148.78461°E

# Extent of Mangroves



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**What is TERN?**

**Data Discovery Portal**

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### New maps reveal mangrove change since 80s

A new study of Australia's mangrove ecosystems over the past 30 years has found that they expanded between 1992 and 2010 but have been contracting since then. Read the key findings and openly access the first ever national map of annual mangrove extent via TERN from 1987 to 2016.

A lot has changed since the 1980s—think the internet, phones, smoking etc.—but what about Australia's mangrove ecosystems and their ability to support faunal biodiversity, filter pollutants, protect marine ecosystems, reduce coastal erosion and storm damage, and store carbon? Thanks to a new collaborative study utilising decades of satellite data, the maps and data are now openly available to assist in answering these important questions.

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Search for locations

Add data

DATA SETS [ 2 ] Remove All

Mangrove Canopy Cover 25m (copy) (copy)

Zoom To Extent About This Data Split Remove

Opacity: 100 %

Left Both Right

Time: 01/01/2010, 11:00:00

- Woodland - (20% - 50% cover)
- Open Forest - (50% - 80% cover)
- Closed Forest - (>80% cover)

Mangrove Canopy Cover 25m (copy)

Zoom To Extent About This Data Split Remove

Opacity: 100 %

Left Both Right

Time: 01/01/2012, 11:00:00

- Woodland - (20% - 50% cover)
- Open Forest - (50% - 80% cover)
- Closed Forest - (>80% cover)



Map navigation controls: a vertical toolbar with a home button (house icon), a zoom in button (plus sign), a zoom out button (minus sign), a full screen button (four squares), and a search button (magnifying glass).

Lat 18.38711°S Lon 146.42509°E Elev

© 2019 HERE



■ green

■ dry

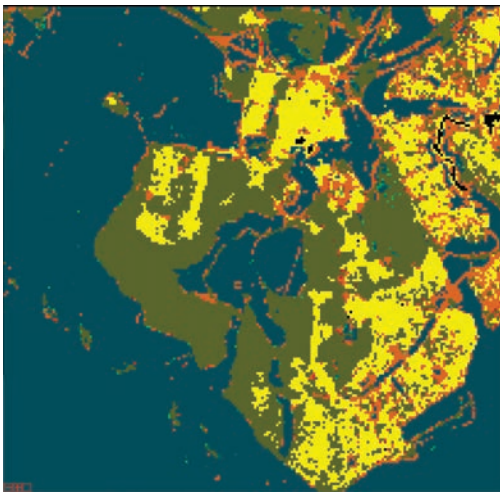
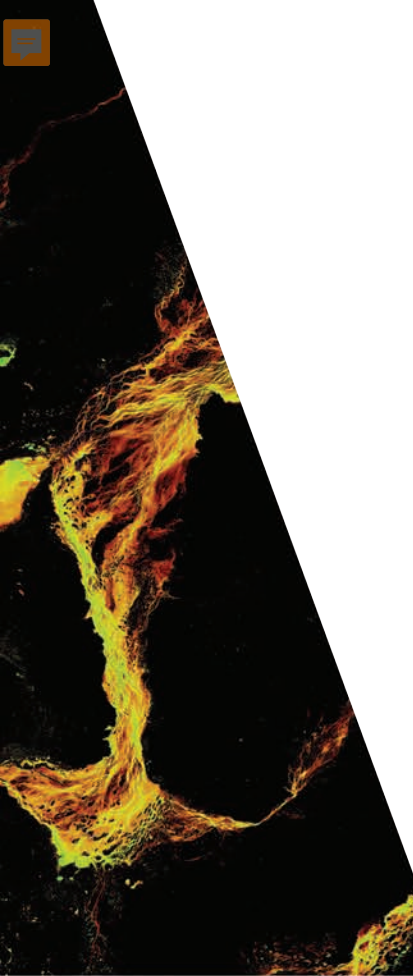
■ soil

1988

2000

2006

2014





## Where next for DEA?

National datasets to inform government decisions

Open access and exploitation of public good satellite data

Helping to enable government and business to use public good data and national datasets

### Work in progress:

Land Cover

Surface water

Soils

Interoperability of climate, land and sub-surface data





Australian Government  
Geoscience Australia



Digital Earth  
AUSTRALIA

Thanks 😊

Norman Mueller

**Further Information**

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