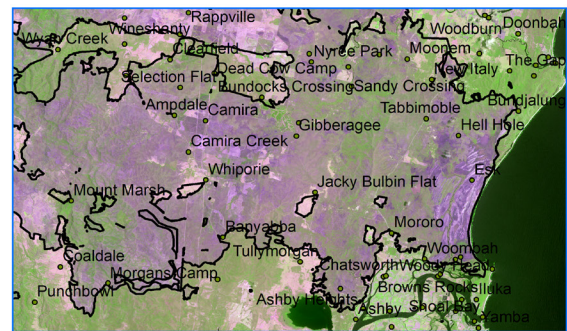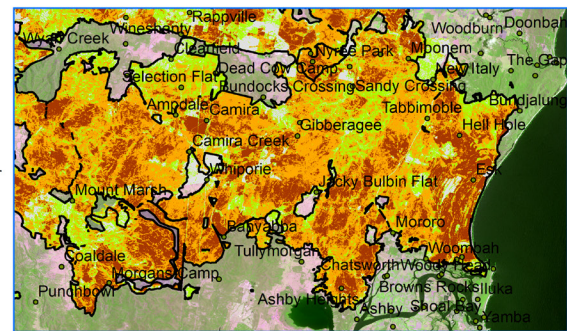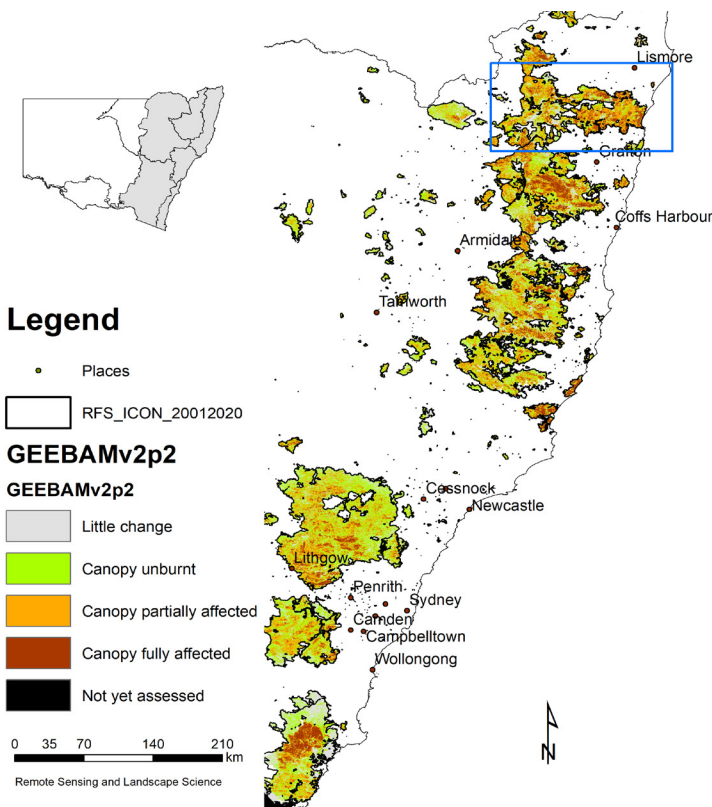# The Google Earth Engine Burnt Area Map

A rapid mapping approach to find out where wildfires in New South Wales have affected vegetation

Legend

•	Places
☐	RFS_ICON_20012020

GEEBAMv2p2

GEEBAMv2p2

⬜	Little change
🟩	Canopy unburnt
🟧	Canopy partially affected
🟫	Canopy fully affected
⬛	Not yet assessed

0 35 70 140 210 km

Remote Sensing and Landscape Science

Inset: Google Earth Engine Burnt Area Mapping v2p2 (top) and Sentinel 2 imagery from January 2020 (bottom).

Science Division (Environment Energy and Science Group), in collaboration with the University of NSW has developed a rapid mapping approach to assess the impact of the 2019-20 NSW bushfires on vegetation.

What is the Burnt Area Map?

The Google Earth Engine Burnt Area Map (Burnt Area Map) detects how badly the tree canopy has burnt by measuring the change in the colour of vegetation before and after a fire.

The Burnt Area Map is the quickest way to make information available on what the impacts are likely to be on biodiversity in New South Wales. The maps can identify areas with usable refuges for wildlife habitat inside the fire ground, and areas where we can release injured wildlife.

How can the Burnt Area Map be used?

The Burnt Area Map is being used to support conservation actions and environmental management decisions.

It can be used to:

- identify areas of potential wildlife refuge areas, including canopy for koalas

- strategically place supplementary feeding and watering resources where they are most needed

- assess the impact on threatened fauna and flora, including species from the *Saving our Species* program

- assess the impact on public assets and infrastructure while the fire ground is still closed

- understand the overall impacts on the forestry resource.
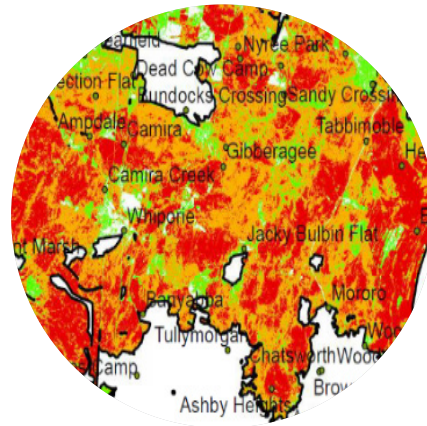
What area does the Burnt Area Map cover?

The Burnt Area Map covers all of NSW but as the fires are still progressing, the effect of the fires in the south of the State are not yet fully reflected. The Burnt Area Map is restricted to the area within the Rural Fire Service fire ground extent map.

Future updates will give more details about the impact of fires across all of NSW. The raw data is available on request.

What do the four canopy classes mean?

The Burnt Area Map uses four classes to depict how much the canopy is affected:

Burnt area class	Description
No data	No data provided
Little change	Little change observed between pre and post fire
Canopy unburnt	A green canopy within the fire ground that may act as a refugia for native fauna may be affected by fire
Canopy partially affected	A mix of burnt and unburnt canopy vegetation
Canopy fully affected	The canopy and understorey are most likely burnt

Accessing the Burnt Area Map

To access the Burnt Area Map data package, visit the SEED Environmental Data Portal at www.seed.nsw.gov.au and search for 'GEEBAM'.

What time period does the Burnt Area Map compare?

The Burnt Area Map covers all NSW but as the fires are still progressing, the effect of the fires in the south of the State are not yet fully reflected.

We are reguarly updating the Burnt Area Map as fires progress.