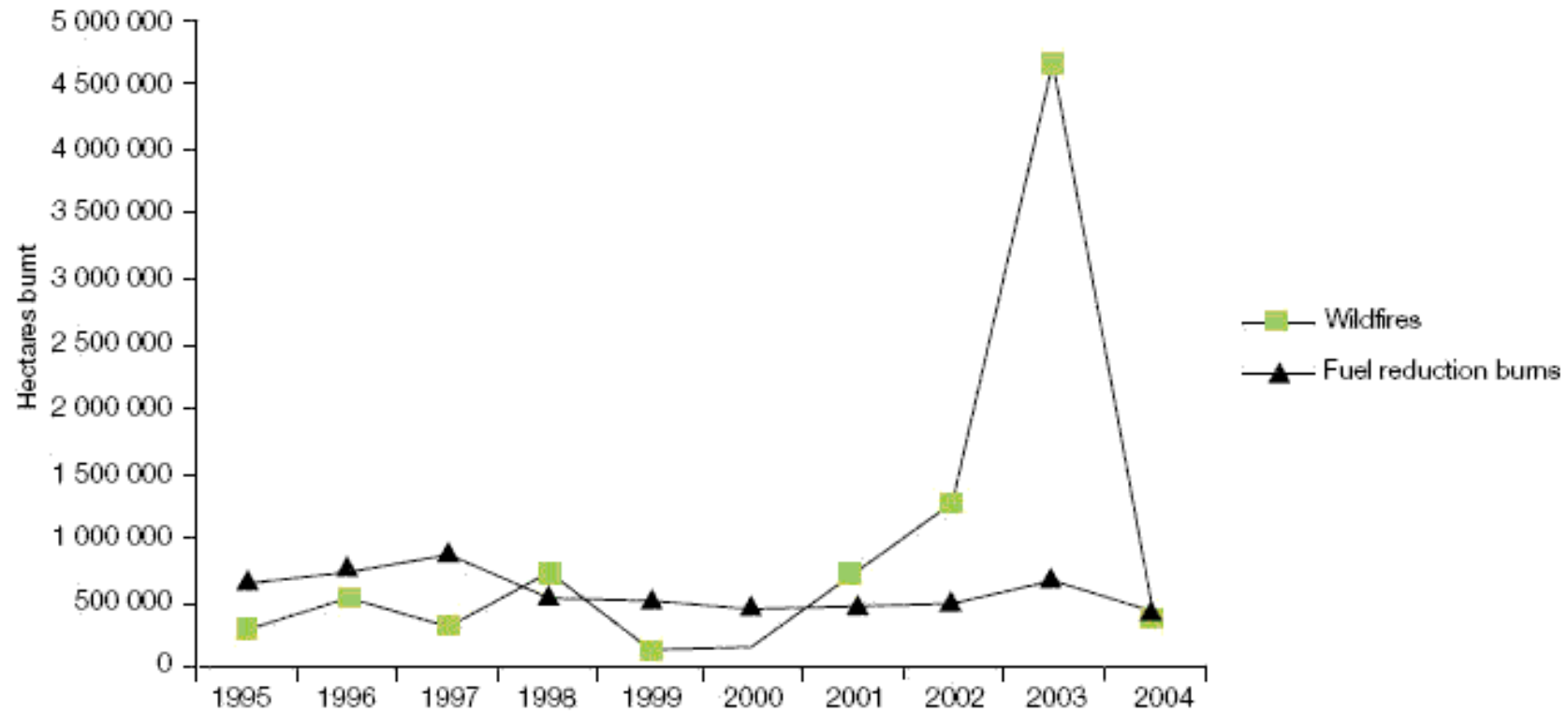


A dramatic photograph of a wildfire. Thick, dark smoke billows upwards from a base of intense orange and yellow flames. The smoke fills the upper two-thirds of the frame, with a bright light source visible through it in the top right corner. The flames are concentrated in the lower half, with some trees visible in silhouette against the fire.

Wildfire

Damien Zammit and Manuel Muehlbauer

Wildfires in Australia



Source: Australia State of the Environment 2006 Report

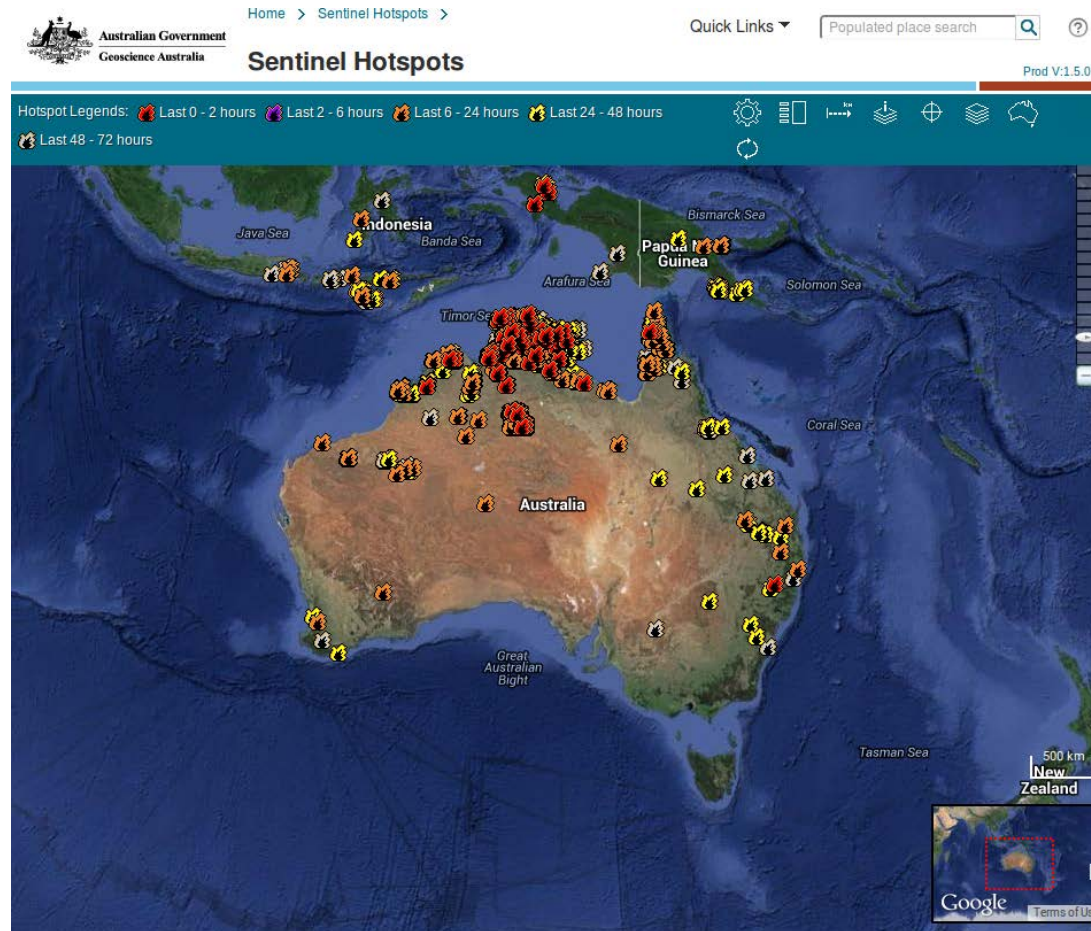
Factors for Fire Spread

- Fuel Load (Vegetation Data)
- Fuel Moisture (Precipitation)
- Wind Speed
- Wind Direction
- Ambient Temperature
- Relative Humidity
- Slope Angle (Topography)

The Data



Sentinel Hotspot Data

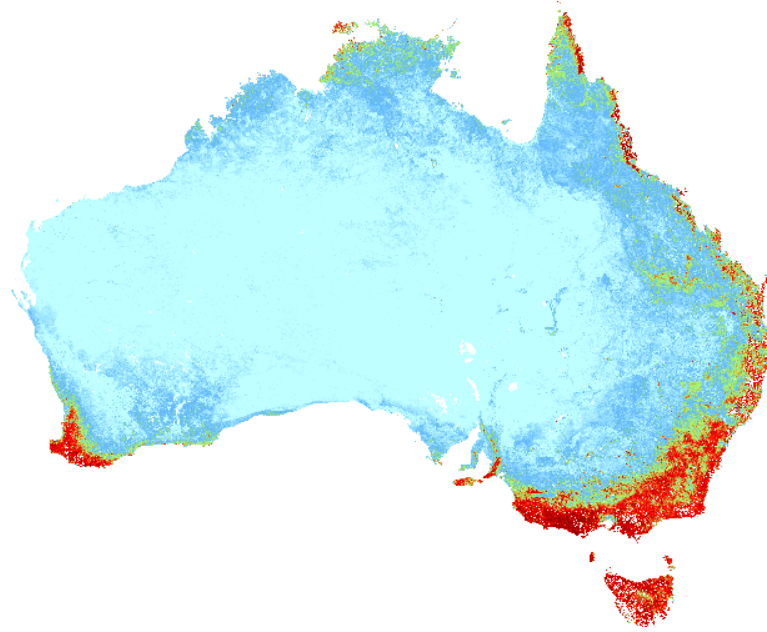


Source:
<http://sciencehackau.github.io/melbourne/2015/06/02/sentinel-hotspot.html>

Data Collection

- point data
- derived from satellite-born instruments
- detect light in the thermal wavelengths. Typically, the satellite data are processed with a specific algorithm that highlights areas with an unusually high temperature.

Auscover Photosynthetic Vegetation Data



Source: <http://data.auscover.org.au/geoserver/wms>

Data Collection

- Grid data
- derived from field-based, airborne and satellite-born instruments
- Fraction of Photosynthetically Active Radiation (FPAR)

Geospatial Data Web Services

- Web Map Service (WMS)
- Web Feature Service (WFS)



The Hack

- combines Sentinel Hotspot data with Vegetation data
- provides a live visualisation tool
- quickly identifies areas of critical potential for devastating bushfires

<http://wildfire.zammit.org/>

TAKE CARE! PREVENT

BUSH FIRES

ERECTED BY SHIRE OF WAROONA

