

Title	Historical Fire Extent and Severity Mapping (FESM)
Alternative title(s)	FESM - Northern Forests
Abstract	<p>Fire severity is a metric of the loss of biomass caused by fire. In collaboration with the NSW Rural Fire Service, DCCEE Remote Sensing &amp; Regulatory Mapping team has developed a semi-automated approach to mapping fire extent and severity through a machine learning framework based on satellite imagery.</p> <p>The method uses standardised classes to allow comparison of different fires across the landscape. The FESM severity classes include: unburnt, low severity (burnt understory, unburnt canopy), moderate severity (partial canopy scorch), high severity (complete canopy scorch, partial canopy consumption), extreme (full canopy consumption).</p> <p>Here we provide historical severity mapping for 8 priority regions on National Parks land tenure from 1989/90 to 2015/16, which is based on Landsat satellite imagery. This covers approximately 30% of the NPWS Managed Lands, across a wide range of vegetation types. From 2016/17 to the current fire year, these regions are covered in the statewide FESM data, which is based on Sentinel 2 satellite imagery. Ongoing FESM processing aims to achieve statewide coverage back to 1989/90, in staged released, as resources permit.</p>
Resource locator	
<a href="#">Data Quality Statement</a>	<p>Name: Data Quality Statement</p> <p>Protocol: WWW:DOWNLOAD-1.0-http--download</p> <p>Description:</p> <p>Data quality statement for Historical Fire Extent and Severity Mapping (FESM) - Blue Mountains Region</p> <p>Function: download</p>
<a href="#">FESM method publication</a>	<p>Name: FESM method publication</p> <p>Protocol: WWW:DOWNLOAD-1.0-http--download</p> <p>Description:</p> <p>Remote Sensing of Environment Journal Article titled 'A remote sensing approach to mapping fire severity in south-eastern Australia using sentinel 2 and random forest' published in April 2020.</p> <p>Function: download</p>
<a href="#">FESM method publication - comparison of satellites</a>	<p>Name: FESM method publication - comparison of satellites</p> <p>Protocol: WWW:DOWNLOAD-1.0-http--download</p> <p>Description:</p> <p>Remote Sensing Journal Article title 'Comparing Fire Extent and Severity Mapping between Sentinel 2 and Landsat 8 Satellite Sensors'</p> <p>Function: download</p>
<a href="#">Fire Extent and Severity Mapping (FESM)</a>	<p>Name: Fire Extent and Severity Mapping (FESM)</p> <p>Protocol: WWW:DOWNLOAD-1.0-http--download</p> <p>Description:</p> <p>Link to Fire Extent and Severity Mapping (FESM) dataset on SEED. Statewide coverage from 2016/17 onwards based on Sentinel 2 satellite imagery.</p> <p>Function: download</p>
<a href="#">Disclaimer</a>	<p>Name: Disclaimer</p> <p>Protocol: WWW:DOWNLOAD-1.0-http--download</p> <p>Function: download</p>

<b>Unique resource identifier</b>	
Code	b51f30d8-c840-4fc9-8eba-a9f2262d1f90
<b>Presentation form</b>	Image digital
<b>Edition</b>	FESMv3
<b>Dataset language</b>	English
<b>Metadata standard</b>	
Name	ISO 19115
Edition	2016
<b>Dataset URI</b>	<a href="https://datasets.seed.nsw.gov.au/dataset/b51f30d8-c840-4fc9-8eba-a9f2262d1f90">https://datasets.seed.nsw.gov.au/dataset/b51f30d8-c840-4fc9-8eba-a9f2262d1f90</a>
<b>Purpose</b>	fire management planning and reporting, landscape and fire ecology research
<b>Status</b>	Completed
<b>Spatial representation type</b>	grid
<b>Spatial reference system</b>	
Code identifying the spatial reference system	4283
<b>Spatial resolution</b>	30 m
<b>Topic category</b>	

<b>Keyword set</b>	
keyword value	HAZARDS-Fire ECOLOGY-Landscape ECOLOGY-Habitat VEGETATION
<b>Originating controlled vocabulary</b>	
Title	ANZLIC Search Words
Reference date	2008-05-16
<b>Geographic location</b>	
West bounding longitude	151.677246
East bounding longitude	152.644043
North bounding latitude	-31.267204
South bounding latitude	-30.541367
NSW Place Name	Macquarie Marshes Region
<b>Vertical extent information</b>	
Minimum value	-100
Maximum value	2228
<b>Coordinate reference system</b>	
Authority code	urn:ogc:def:cs:EPSG::
Code identifying the coordinate reference system	5711
<b>Temporal extent</b>	
Begin position	1989-01-07
End position	N/A
<b>Dataset reference date</b>	
<b>Resource maintenance</b>	
Maintenance and update frequency	Not planned
<b>Contact info</b>	
Contact position	Data Broker
Organisation name	NSW Department of Climate Change, Energy, the Environment and Water
Telephone number	131555
Email address	<a href="mailto:data.broker@environment.nsw.gov.au">data.broker@environment.nsw.gov.au</a>
Web address	<a href="https://www.nsw.gov.au/departments-and-agencies/dcceew">https://www.nsw.gov.au/departments-and-agencies/dcceew</a>
Responsible party role	pointOfContact

**Lineage**

Individual fire events are processed then mosaicked into a region wide layer for each fire year in the record.

**Limitations on public access****Responsible party**

Contact position	Data Broker
Organisation name	NSW Department of Climate Change, Energy, the Environment and Water
Telephone number	131555
Email address	<a href="mailto:data.broker@environment.nsw.gov.au">data.broker@environment.nsw.gov.au</a>
Web address	<a href="https://www.nsw.gov.au/departments-and-agencies/dcceew">https://www.nsw.gov.au/departments-and-agencies/dcceew</a>
Responsible party role	pointOfContact

**Metadata point of contact**

Contact position	Data Broker
Organisation name	NSW Department of Climate Change, Energy, the Environment and Water
Telephone number	131555
Email address	<a href="mailto:data.broker@environment.nsw.gov.au">data.broker@environment.nsw.gov.au</a>
Web address	<a href="https://www.nsw.gov.au/departments-and-agencies/dcceew">https://www.nsw.gov.au/departments-and-agencies/dcceew</a>
Responsible party role	pointOfContact

**Metadata date** 2025-02-20T00:21:12.677191

**Metadata language**