

Title	Historical Fire Extent and Severity Mapping (FESM) - Northern Forests Region
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, DPE Remote Sensing & 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 the Northern Forests region from 1989/90 to 2015/16, which is based on Landsat satellite imagery. From 2016/17 to the current fire year, this region is covered in the statewide FESM data, which is based on Sentinel 2 satellite imagery.</p>
Resource locator	
Data Quality Statement	<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>
Northern Forests Area of Interest shapefile	<p>Name: Northern Forests Area of Interest shapefile</p> <p>Protocol: WWW:DOWNLOAD-1.0-http--download</p> <p>Description:</p> <p>Shapefile for the Northern Forests area of interest</p> <p>Function: download</p>
Historical FESM - Northern Forests - Wildfire - 1989-90 to 2015-16	<p>Name: Historical FESM - Northern Forests - Wildfire - 1989-90 to 2015-16</p> <p>Protocol: WWW:DOWNLOAD-1.0-http--download</p> <p>Description:</p> <p>Historical FESM mapping for the Northern Forests region of wildfires from 1989-90 to 2015-16. See the FESM statewide dataset for coverage of this region from 2016-17 onwards.</p> <p>Function: download</p>
Historical FESM - Northern Forests - Hazard Reductions - 1989-90 to 2015-16	<p>Name: Historical FESM - Northern Forests - Hazard Reductions - 1989-90 to 2015-16</p> <p>Protocol: WWW:DOWNLOAD-1.0-http--download</p> <p>Description:</p> <p>Historical FESM mapping for the Northern Forests region of hazard reduction burns from 1989-90 to 2015-16.</p> <p>Function: download</p>
FESM method publication	<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>

Function: download

[FESM method publication - comparison of satellites](#)

Name: FESM method publication - comparison of satellites

Protocol: WWW:DOWNLOAD-1.0-http--download

Description:

Remote Sensing Journal Article title 'Comparing Fire Extent and Severity Mapping between Sentinel 2 and Landsat 8 Satellite Sensors'

Function: download

Unique resource identifier

Code a02f91b4-9e1d-46f6-acd9-5fb34d48956b

Presentation form Image digital

Edition FESMv3

Dataset language English

Metadata standard

Name ISO 19115

Edition 2016

Dataset URI <https://datasets.seed.nsw.gov.au/dataset/a02f91b4-9e1d-46f6-acd9-5fb34d48956b>

Purpose fire management planning and reporting, landscape and fire ecology research

Status Completed

Spatial representation type grid

Spatial reference system

Code identifying the spatial reference system 4283

Spatial resolution 30 m

Topic category

Keyword set	
keyword value	HAZARDS-Fire ECOLOGY-Landscape ECOLOGY-Habitat VEGETATION
Originating controlled vocabulary	
Title	ANZLIC Search Words
Reference date	2008-05-16
Geographic location	
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
Vertical extent information	
Minimum value	-100
Maximum value	2228
Coordinate reference system	
Authority code	urn:ogc:def:cs:EPSG::
Code identifying the coordinate reference system	5711
Temporal extent	
Begin position	1989-01-07
End position	N/A
Dataset reference date	
Resource maintenance	
Maintenance and update frequency	Not planned
Contact info	
Contact position	Data Broker
Organisation name	NSW Department of Climate Change, Energy, the Environment and Water
Telephone number	131555
Email address	data.broker@environment.nsw.gov.au
Web address	https://www.nsw.gov.au/departments-and-agencies/dcceew
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**

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Metadata date 2024-02-26T13:37:20.677478

Metadata language