Title	Fire Extent and Severity Mapping (FESM) 2023/24
Alternative title(s)	FESMv3

Abstract	

Fire severity is a metric of the loss of biomass caused by fire. In collaboration with the NSW Rural Fire Service, DCCEEW Remote Sensing & Regulatory Mapping team has developed a semi-automated approach to mapping fire extent and severity through a machine learning framework based on sentinel 2 satellite imagery. The statewide severity map has standardised classes to allow comparison of different fires across the landscape. The FESM severity classes include: unburnt, extent only (grass fires), low severity (burnt understory, unburnt canopy), moderate severity (partial canopy scorch), high severity (complete canopy scorch, partial canopy consumption), extreme (full canopy consumption).

This dataset represents the 2023/24 fire year including all wildfires >10ha with a fire start date between 1 July 2023 and 30 June 2024.

Resource locator

Show on SEED Web Map	Name: Show on SEED Web Map
	Protocol: WWW:DOWNLOAD-1.0-http--download
	Description:
	Display dataset on SEED's map
	Function: download
Data Quality Statement	Name: Data Quality Statement
	Protocol: WWW:DOWNLOAD-1.0-http--download
	Description:
	Data quality statement for Fire Extent and Severity Mapping (FESM) 2023-24
	Function: download
Published journal article	Name: Published journal article
	Protocol: WWW:DOWNLOAD-1.0-http--download
	Description:
	A remote sensing approach to mapping fire severity in south-eastern Australia using sentinel 2 and random forest.
	Function: download
Download Package	Name: Download Package
	Protocol: WWW:DOWNLOAD-1.0-http--download
	Description:
	FESM 2023-24 - Erdas Imaging .img format
	Function: download
Download Package	Name: Download Package
	Protocol: WWW:DOWNLOAD-1.0-http--download
	Description:
	FESM 2023-24 - ArcGIS GRID format
	Function: download
Download Package	Name: Download Package
	Protocol: WWW:DOWNLOAD-1.0-http--download
	Description:

FESM 2023-24 - Tiff format

Function: download

Unique resource identifier

Code	f8e725eb-132d-43bf-b6bc-31048540fb53

Presentation form	Map digital

Edition	FESMv3

Dataset language	English

Metadata standard

Name	ISO 19115
Edition	2016

Dataset URI	https://datasets.seed.nsw.gov.au/dataset/f8e725eb-132d-43bf-b6bc-31048540fb53

Purpose	Bushfire response planning and analysis by land and environmental managers

Status	Completed

Spatial representation type	grid

Spatial reference system

Code identifying the spatial reference system	4283

Spatial resolution	10 m

Topic category

Keyword set

keyword value	HAZARDS-Fire
	ECOLOGY-Ecosystem
	ECOLOGY-Habitat
	VEGETATION

Originating controlled vocabulary	
Title	ANZLIC Search Words
Reference date	2008-05-16

Geographic location

West bounding longitude	140.273438
East bounding longitude	155.083008
North bounding latitude	-36.354774
South bounding latitude	-27.999058
NSW Place Name	NSW

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	2023-01-07
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 | Layer was developed with a semi-automated approach to mapping fire extent and severity through a machine learning framework based on sentinel 2 satellite imagery. The severity maps have standardised classes to allow comparison of different fires across the landscape.

Originally the layer was produced as an Lamberts Conic Conformal projection IMG TIFF file (but converted to a 10m Esri GRID in in line with internal EES spatial convention for storage on P and SDE). |

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	data.broker@environment.nsw.gov.au
Web address	https://www.nsw.gov.au/departments-and-agencies/dcceew
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Responsible party role	pointOfContact

Metadata date	2024-09-03T06:31:08.140106

Metadata language