Title Fire Extent and Severity Mapping (FESM) 2022/23 Alternative FESMv3 title(s) **Abstract** 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 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 2022/23 fire year including all wildfires >10ha with a fire start date between 1 July 2022 and 30 June 2023. Resource locator Show on SEED Name: Show on SEED Web Map Web Map Protocol: WWW:DOWNLOAD-1.0-http--download Description: Display dataset on SEED's map Function: download **Data Quality** Name: Data Quality Statement **Statement** Protocol: WWW:DOWNLOAD-1.0-http--download Description: Data quality statement for Fire Extent and Severity Mapping (FESM) 2021/22 Function: download Published journal Name: Published journal article 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 Name: Download Package **Download** Package Protocol: WWW:DOWNLOAD-1.0-http--download Description: **FESM GRID** Function: download **Download** Name: Download Package Package Protocol: WWW:DOWNLOAD-1.0-http--download Description: FESM 2022/23 Function: download Name: NSW Fire Extent and Severity Mapping (FESMv3) Factsheet **NSW Fire Extent** and Severity Protocol: WWW:DOWNLOAD-1.0-http--download **Mapping** (FESMv3) Description: **Factsheet** 

	Metadata and method factsheet	
	Function: download	
Unique resource identifier		
Code	5c256ed5-5268-4b20-9564-5c9f297f01e2	
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/5c256ed5-5268-4b20-9564-5c9f297f01e2	
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	2021-01-07		
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		
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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 <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

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Responsible party role pointOfContact

Metadata date 2024-02-26T13:13:38.158795

#### Metadata language