

Title	NSW post-fire debris flow susceptibility map
Abstract	Debris flows are extremely damaging and dangerous post-fire hazards that can cause significant short- and long-term impacts to rivers and aquatic ecosystems, water quality, and infrastructure. However, they are relatively poorly documented in NSW. High-resolution aerial imagery highlights significant debris flow activity in parts of NSW severely impacted by the 2019/20 Black Summer bushfires, specifically the Tuross, Tumut and Lake Burragorang catchments which were mapped in detail. This inventory of debris flow occurrences was used to train and validate a predictive logistic regression model using key predictor variables slope, fire severity, aridity, geology and soil erodibility. The model outputs can inform assessments of future potential hazards to threatened aquatic species, remote infrastructure such as roads and properties, and drinking water reservoirs and associated infrastructure. For more information, please read the accompanying report, 'Post-fire debris flows in NSW: Susceptibility modelling and implications for management', or check out this link: https://www.environment.nsw.gov.au/topics/water/estuaries/estuaries-research/bushfire-affected-waterways
Resource locator	
Data Quality Statement	Name: Data Quality Statement Protocol: WWW:DOWNLOAD-1.0-http--download Description: Data quality statement for NSW Post-fire Debris flow susceptibility map Function: download
NSW Debris flow probability-Logistic regression model output (classified)	Name: NSW Debris flow probability-Logistic regression model output (classified) Protocol: WWW:DOWNLOAD-1.0-http--download Description: The logistic regression model's final output values underwent classification into three distinct classes. The classification cut-off ranges were defined as follows: Values ranging from Zero to 48% were classified as 1 (Zero/Low probability), 48% to 72% were assigned as 2 (Moderate probability), and 72% to 100% were identified as 3 (High probability). To gain a clearer understanding of how the cut-offs were defined, refer to the accompanying report, 'Post-fire debris flows in NSW: Susceptibility modelling and implications for management'. The report will be available soon. Function: download
ArcGIS REST Service: NSW Debris flow probability	Name: ArcGIS REST Service: NSW Debris flow probability Protocol: WWW:DOWNLOAD-1.0-http--download Description: An ArcGIS Server web service represents a GIS resource such as a map, locator, or image that is located on an ArcGIS Server site and is made available to client applications. Depending on the layers enabled, this web service allows a user to query its features and/or visualise the dataset. This service is aimed at advanced geographical information users, and will require access to geographical information system (GIS) software such as ArcGIS/ArcMap. Function: download
Post-fire debris flows in NSW South Wales - Susceptibility modelling and implications for management	Name: Post-fire debris flows in NSW South Wales - Susceptibility modelling and implications for management Protocol: WWW:DOWNLOAD-1.0-http--download Description: The purpose of the report is to outline the methods used in developing and validating the model, while also discussing the implications of the susceptibility map for land and water management. Function: download
WMS Service	Name: WMS Service

Description:

WMS Service

Function: download

Unique resource identifier

Code	21c9fb08-e8db-4f51-98e8-054860b298f0
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Presentation form	Map digital
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Edition	1
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Dataset language	English
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Metadata standard

Name	ISO 19115
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Edition	2016
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Dataset URI	https://www.planningportal.nsw.gov.au/opendata/dataset/21c9fb08-e8db-4f51-98e8-054860b298f0
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Purpose	Post-fire management planning
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Status	Completed
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Spatial representation type	grid
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Spatial reference system

Code identifying the spatial reference system	4283
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Spatial resolution	5 m
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Additional information source	Debris flow mapping within study areas (Tuross, Tumut, and Burragorang) for training models relied on satellite imageries dated subsequent to the 2019-2020 NSW bushfire. High-resolution (~7 cm) NearMap acquisitions of aerial imagery across a broad swathe of lower Tuross catchment (12/03/2020 and 23/01/2021) and Lake Burragorang region (17/01/2021) allowed mapping of discrete post-fire debris flows. This inventory of known debris flow occurrences, supplemented by debris flow mapping undertaken by the Natural Resources Commission (NRC) - NSW Government (2023) in upper Tuross catchment (17/01/2022 - 14/02/2022) and in the Tumut catchment (03/01/2021 - 09/10/2021).
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Topic category	environment
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Keyword set	
keyword value	HAZARDS-Fire SOIL-Erosion WATER-Quality
Originating controlled vocabulary	
Title	ANZLIC Search Words
Reference date	2008-05-16
Geographic location	
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	2021-01-03
End position	N/A
Dataset reference date	
Resource maintenance	
Maintenance and update frequency	As needed
Contact info	
Contact position	Data Broker
Organisation name	NSW Department of Climate Change, Energy, the Environment and Water
Full postal address	NSW Australia data.broker@environment.nsw.gov.au
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	The debris flow susceptibility map comprises a classified raster dataset generated through logistic regression modelling approach. For more information, please read the accompanying report, 'Post-fire debris flows in NSW: Susceptibility modelling and implications for management'.

Constraint set	
Use constraints	This data is provided under a Creative Commons Attribution 4.0 licence http://creativecommons.org/licenses/by/4.0 . Attribute 'NSW Department of Climate Change, Energy, the Environment and Water' in publications using this data.
Limitations on public access	
Responsible party	
Contact position	Data Broker
Organisation name	NSW Department of Climate Change, Energy, the Environment and Water
Full postal address	NSW Australia data.broker@environment.nsw.gov.au
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	2024-06-27T04:19:25.654881
Metadata language	