

Title NSW Aridity Index - High resolution (30 meter)

Abstract

The aridity index, also known as the Budyko radiative index of dryness, is a dimensionless parameter that represents the long-term balance between net radiation and precipitation. The method used to generate the high-resolution aridity index layer across New South Wales was developed by Nyman et al., 2014. To create the high-resolution (30 m) aridity index layer for New South Wales, the following parameters were used: 1 arc second monthly net radiation and shortwave radiation ratio, 30 years of historical data encompassing precipitation and surface temperature from the period 1992 to 2021, 30-meter Shuttle Radar Topography Mission digital elevation model, and 30-meter Leaf Area Index layer which provides insights into the density and distribution of vegetation across the region. The aridity index layer is a high-resolution dataset that allows identification of finer-scale variations in local moisture balance related to aspect unlike existing aridity index layers. This dataset serves as a valuable tool for understanding and managing water resources, assessing environmental conditions, and informing decision-making in a wide range of applications related to water management, land use, and climate change adaptation.

The Aridity Index factsheet provides more information about the method and some potential application of the layer.

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 map viewer

Function: download

[Data Quality Statement](#)

Name: Data Quality Statement

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

Description:

Data quality statement for NSW Aridity Index - High resolution (30 meter)

Function: download

[Download Package](#)

Name: Download Package

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

Description:

Data (GeoTIFF)

Function: download

[ArcGIS REST Services Directory - NSW Aridity Index - High resolution \(30 meter\)](#)

Name: ArcGIS REST Services Directory - NSW Aridity Index - High resolution (30 meter)

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

[NSW Aridity Index factsheet](#)

Name: NSW Aridity Index factsheet

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

Description:

The high-resolution aridity index dataset has a range of potential applications due to

its high spatial resolution, including in environmental management decision-making.
Function: download

Unique resource identifier

Code 1ee4c0a1-d576-44ae-8b6f-b5215e6325ba

Presentation form Map digital

Edition 1

Dataset language English

Metadata standard

Name ISO 19115

Edition 2016

Dataset URI <https://www.planningportal.nsw.gov.au/opendata/dataset/1ee4c0a1-d576-44ae-8b6f-b5215e6325ba>

Purpose Fire management planning

Status Completed

Spatial representation type grid

Spatial reference system

Code identifying the spatial reference system 4283

Spatial resolution 30 m

Topic category climatologyMeteorologyAtmosphere
environment

Keyword set	
keyword value	HAZARDS-Fire
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	1992-01-01
End position	N/A
Dataset reference date	
Resource maintenance	
Maintenance and update frequency	Unknown
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 Aridity Index factsheet provides more information about the method and some potential application of the layer.

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
Responsible party role	pointOfContact

Metadata point of contact

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

Metadata date 2024-06-18T23:27:22.404661

Metadata language