

Title	NARClIM climate projections
Alternative title(s)	Regional climate projections
Abstract	<p>What is NARClIM?</p> <p>The New South Wales and Australian Regional Climate Modelling (NARClIM) project develops high-resolution regional climate projections that cover NSW and South-eastern Australia at a higher resolution and the Australasian continent and beyond at another resolution (named the NARClIM and CORDEX domains, respectively). Computer modelled climate projections are the best information we have available on our future climate. NARClIM has been designed to help government, industry and community in NSW and Australia plan for our future with robust regional and local scale data. The NARClIM project uses currently available global climate models (GCM) and greenhouse gas (GHG) emissions scenarios from the latest Coupled Model Intercomparison Project (CMIP) used in the IPCC reports and applies regional dynamical downscaling using the latest Weather Research and Forecasting model (WRF). NARClIM generates critical climate indices for a broad range of applications and climate change adaptation and risk analysis.</p> <p>NARClIM releases</p> <p>NARClIM1.0 was released in 2014. It contains simulations from four CMIP3 GCMs and three regional climate models (RCM) using WRF3.3 for one future GHG scenario (SRES A2). Time periods included are 1990 to 2009, 2020 to 2039 and 2060 to 2079, with a grid resolution of 10km for South-eastern Australia (NARClIM domain) nested within a 50km grid for Australasia (CORDEX domain). NARClIM1.0 data has been used for a range of NSW climate adaptation and impact studies and climate change visualisations.</p> <p>An enhanced set of climate projections (NARClIM1.5) were released in 2020. NARClIM1.5 contains simulations from three CMIP5 GCMs and two RCMs and two GHG scenarios (RCP4.5 and RCP8.5). The simulated time period is continuous from 1951 to 2100. NARClIM1.5 has the same grid resolution as NARClIM1.0 – a 10km grid nested within a 50km grid, and is useful for analysis of climate extremes, impact thresholds and stress testing.</p> <p>Model output</p> <p>For access to NARClIM climate projections data, please visit the NSW Climate Data Portal or the National Computational Infrastructure at ANU. The Climate Data Portal provides users access to NARClIM's most commonly used "core variables" at daily and monthly frequencies. Additional variables useful for specialist analysis are available upon request. For more information, contact us through the NARClIM Mailbox, narclim@environment.nsw.gov.au.</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 NARClIM model output</p> <p>Function: download</p>
Unique resource identifier	
Code	96ceaa59-9e26-47f2-a80e-64a3bf6f8d76
Presentation form	Model digital
Edition	Version 2.0
Dataset language	English

Metadata standard

Name ISO 19115

Edition 2016

Dataset URI <https://datasets.seed.nsw.gov.au/dataset/96ceaa59-9e26-47f2-a80e-64a3bf6f8d76>

Purpose Decision making on impacts and risks from and adaptation to climate change

Status Under development

Spatial representation type None

Spatial reference system

Code identifying the spatial reference system 4283

Additional information source

NARClIM output

The NARClIM models generate data for more than 100 variables. The most commonly used variables are provided on the Climate Data Portal in multiple formats. These include:

- 2-metre temperature (hourly)
- Daily maximum 2-metre temperature
- Daily minimum 2-metre temperature
- Precipitation
- Surface pressure
- 2-metre specific humidity (hourly)
- 10-metre wind speed (hourly)
- Surface evaporation
- Soil moisture
- Radiation (upward and downward longwave, upward and downward short wave)
- Forest fire danger index (FFDI)
- Areal potential evapotranspiration (APET)

For daily mean variables:

- Mean is average within daily values time: point values 1hour
- Max is maximum within daily values time: point values 1 hour
- Min is minimum within daily values time: point values 1 hour.
- Meantstep is average within daily values time: point values 300 second
- Maxtstep is maximum within daily values time: point values 300 second
- Mintstep is minimum within daily values time: point values 300 second

For monthly mean variables:

- Mean is average within monthly values time: point values 1hour
- Max is maximum within monthly values time: point values 1 hour
- Maxmean is mean of daily maximum within daily values: point value 1 hour
- Min is minimum within monthly values time: point values 1 hour

- Minmean is mean of daily minimum within daily values: point value 1 hour
- Meantstep is average within monthly values time: point values 300 second
- Maxtstep is maximum within monthly values time: point values 300 second
- Mintstep is minimum within monthly values time: point values 300 second

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For all enquires, feedback and complaints relating to NARClIM data, please contact: narclim@environment.nsw.gov.au

Topic category

Keyword set	
keyword value	CLIMATE-AND-WEATHER CLIMATE-AND-WEATHER-Climate-change
Originating controlled vocabulary	
Title	ANZLIC Search Words
Reference date	2008-05-16
Geographic location	
West bounding longitude	133.7271
East bounding longitude	168.1256
North bounding latitude	-39.7919
South bounding latitude	-22.471
NSW Place Name	South-eastern Australia
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	1951-01-01
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
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Responsible party role	pointOfContact
Limitations on public access	

Scope dataset

DQ Completeness Commission

Effective date 2020-03-09

Explanation Excess datum in the dataset are projections of southern Queensland, eastern South Australia and all of Victoria.

NARClIM Domain Grid Type: rotated pole Grid north pole: (141.38N, 60.31E) Grid corner (rotated coordinates): (174.42, -10.38) (-158.476, 5.724) Grid corner (regular coordinates): (133.7271, -39.7919) (168.1256, -22.4710)

DQ Completeness Omission

Effective date 2020-03-09

Explanation All data has been provided except for the variables 'snow amount' and 'sea surface temperature' at monthly, daily and 3-hourly timesteps. These variables can be derived at these temporal frequencies based on the raw model output developed for the project.

DQ Absolute External Positional Accuracy

Effective date 2020-03-09

Explanation Resolution is 10 km for the NARClIM domain and 50 km for the CORDEX domain.

Responsible party

Contact position Data Broker

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Metadata date 2024-06-14T00:52:22.338800

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