Name of dataset or data source:	Climate change in New South Wales - NARCliM2.0
Custodian of the dataset or data source:	ED Science (E&H)
Description:	**Do you want to know more about how climate change may impact New South Wales?** The Department of Climate Change, Energy, the Environment and Water has undertaken research to develop climate change information for the NSW public using climate projections from the NSW and Australian Regional Climate Modelling initiative ('NARCliM2.0'). This climate change information is available on the AdaptNSW Interactive climate change projections map (https://www.climatechange.environment.nsw.gov.au/projections-map) as maps and GIS-ready raster data. The Interactive map currently displays data for changes in mean, maximum and minimum temperature, precipitation, hot days, cold nights, and severe fire weather days. This geospatial data available on the Interactive map are accessible below as links to the downloadable data packs. These data packs and the Interactive map have been designed to enhance awareness of climate change in NSW and provide climate change data and information for decision making to support climate risk assessment and adaptation planning. **What is included in these data packs?** Data packs provide users with 145 GIS-ready raster datasets in GeoTIFF format and layer files (map symbology). The GeoTIFFs display data at 4 km resolution for the entire New South Wales (NSW) region for seven climate variables: • minimum, mean and maximum temperature • rainfall (precipitation) • hot days (35ºC or over) • cold nights (below 2ºC) • severe fire weather days (FFDI over 50) The list of GeoTIFFs include historical baseline and future projections under two emission scenarios, providing modelled outputs on a range of plausible climates: Low emissions scenario (SSP1-2.6) and High emissions scenario (SSP3-7.0) The GeoTIFFs are raster (spatially referenced gridded) data. The data at each 4 km grid cell is calculated as an average from the results of 10 NARCliM2.0 climate models. Temporally, the GeoTIFFs are 20-year climatologies, defined as the "Historical baseline" (the 1990-2009 period represents a ‘2000’ climatology, serving as a reference period for future projections to be compared with), and "Future projections" (seven future periods or climatologies including 2020-2039, 2030-2049, 2040-2059, 2050-2069, 2060-2089, 2070-2089, and 2080-2099). This is an appropriate temporal resolution for understanding plausible climate change trends in the future. The GeoTiFFs are also arranged to provide statistics, including: • Annual means: calculated from 1 January to 31 December for each 20-year period • Seasonal means: calculated for each 20-year period for Summer (December, January, February), Autumn (March, April, May), Winter (Jun, July, August), Spring (September, October, November) Data provided in two ways or flavours: • Absolute values: the projected values for the variable for each period (i.e., degrees Celsius, number of days, mm of rainfall) • Percent change: the difference between the future climatology and the historical baseline, presented as a percentage of the historical baseline Note that a continuous time series of the daily and monthly modelled output can be accessed from the Climate Data Portal https://climatedata.environment.nsw.gov.au/

The data packs also provide, map symbology files (ArcGIS layer files and QGIS layer files) and a “READ ME” file in each data package for more information on the GeoTIFFs.

What is NARCliM?

The New South Wales (NSW) and Australian Regional Climate Modelling ("NARCliM") is a project that was established by the NSW Government to address the need for high-resolution climate change projections for regional decision-making and impact assessments. The NSW Government has released climate projections for over a decade, with latest release (known as NARCliM2.0), being a public commitment under the Climate Change Adaptation Strategy (https://climatechange.environment.nsw.gov.au/about-adaptnsw/nsw-climate-change-adaptation-strategy) and the NSW Climate Change Fund (https://www.energy.nsw.gov.au/nsw-plans-and-progress/government-strategies-and-frameworks/taking-action-climate-change/nsw). See the resource link below to learn more about NARCliM.

What else do I need to know?

For more information, please review the linked resources below. If you have more questions, please contact us at narclim@environment.nsw.gov.au.

Data quality rating:

★Institutional Environment - 5
★Accuracy - 5
★Coherence - 5
★Interpretability - 5
★Accessibility - 5

INSTITUTIONAL ENVIRONMENT

Excellent ★

✔ Does the information have the potential to enhance services or service delivery?

✔ The data aligns with the Data Quality Framework, including:

- Legislation
- Policies
- Information Asset Governance
- Standards
- Data Management Plans

✔ The following governance roles and responsibilities for this asset are clearly assigned:

- Information Asset Owner
- Information Asset Custodian
- Information Steward

✔ Data collection is authorised by law, regulation or agreement

✔ The Custodial agency has no commercial interest or conflict of interest in the data

ACCURACY

Excellent ★

✔ Data has been subject to a data assurance process (for example: Checking for errors at each stage of data collection and processing, or verifying data entry and making corrections if necessary.)

✔ Data is revised and the revision is published if errors are identified

✔ There are no known gaps in the data or if there are gaps (for example: non-responses, missing records, data not collected), they have been identified in caveats attached to the dataset.

✔ No changes have been made or other factors identified (for example: weighting, rounding, de-identification of data, changes or flaws in data collection or verification methods) that could affect the validity of the data; or any changes/factors have been identified in caveats attached to the asset.

✔ The data collection met the objectives of the primary user. The data correctly represents what it was designed to measure, monitor or report.

COHERENCE — Excellent ★

✔ Standard definitions, common concepts, classifications and data recording practices have been used.

✔ Elements within the data can be meaningfully compared.

✔ This data is generally consistent with similar or related data sources from the same discipline

✔ The data can be analysed over time (for example, there have not been any significant changes in the way items are defined, classified or counted over time).

✔ The data does not form part of a collection or, if it is the latest in a series of data releases, there have not been any changes in methodology or external impacts since the last data release.

INTERPRETABILITY — Excellent ★

✔ A data dictionary is available to explain the meaning of data elements, their origin, format and relationships

✔ Information is available about the primary data sources and methods of data collection (e.g. instruments, forms, instructions).

✔ Information is available to help users evaluate the accuracy of the data and any level of error

✔ Information is available to explain concepts, help users correctly interpret the data and understand how it can be used

✔ Information is available to explain ambiguous or technical terms used in the data

ℹ Find out more about the data dictionary from the Custodian (contact details below).

ℹ Find out more about the primary data sources and methods of data collection from the Custodian (contact details below).

ℹ Find out more about concepts used in this dataset and how to understand or interpret the data from the Custodian (contact details below).

ℹ Find out more about ambiguous or technical terms used in the data from the Custodian (contact details below).

ACCESSIBILITY — Excellent ★

✔ Data is available online with an open licence

✔ Data is available in machine-processable, structured form (e.g. CSV format instead of an image scan of a table)

✔ Data is available in a non-proprietary format (e.g. CSV, XML)

✔ Data is described using open standards (e.g. RDF, SPARQL) and persistent identifiers (URIs or DOIs)

✔ Data is linked to other data, to provide context (e.g. employee ID is linked to employee name or species name is linked to genus)

DATA DISCLAIMER

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For more information about this dataset or data source, contact:	NSW Department of Climate Change, Energy, the Environment and Water
Data Broker email:	data.broker@environment.nsw.gov.au
Data Broker phone:	131555

Understanding the Data Quality Statement

The data quality statement aims to help you understand how a particular dataset could be used and whether it can be compared with other, similar datasets. It provides a description of the characteristics of the data to help you decide whether the data will be fit for your specific purpose.
The Data Quality statement is prepared by the data custodian (provider of the dataset), using a questionnaire that has been developed in accordance with the NSW Government Standard for Data Quality Reporting.
About the quality rating:
The reporting questionnaire asks five questions for each of these data quality dimensions:

- Institutional Environment
- Accuracy
- Coherence
- Interpretability
- Accessibility

For each question: “yes” = 1 point; “no” = 0 points
The number of points determines the Quality Level for each dimension (high, medium, low).
Only dimensions with four or five points receive a star.

Points	Quality Level	Star / No Star
0	Poor	No Star
1	Poor	No Star
2	Fair	No Star
3	Good	No Star
4	Very Good	Star
5	Excellent	Star

Evaluating data quality

Quality relates to the data's “fitness for purpose”. Users can make different assessments about the dataquality of the same data, depending on their “purpose” or the way they plan to use the data.
The following questions may help you evaluate data quality for your requirements. This list is not exhaustive.Generate your own questions to assess data quality according to your specific needs and environment.

- What was the primary purpose or aim for collecting the data?
- How well does the coverage (and exclusions) match your needs?
- How useful are these data at small levels of geography?
- Does the population presented by the data match your needs?
- To what extent does the method of data collection seem appropriate for the information being gathered?
- Have standard classifications (eg industry or occupation classifications) been used in the collection of the data?If not, why? Does this affect the ability to compare or bring together data from different sources?
- Have rates and percentages been calculated consistently throughout the data?
- Is there a time difference between your reference period, and the reference period of the data?
- What is the gap of time between the reference period (when the data were collected) and the release date of thedata?
- Will there be subsequent surveys or data collection exercises for this topic?
- Are there likely to be updates or revisions to the data after official release?