

Title

Water Modelling-Palaeo Stochastic Climate Data-Macquarie

Abstract

This stochastic climate dataset relates to the **Macquarie** region.

The stochastic data are 10,000-year daily data sets of rainfall and potential evapotranspiration generated using observed data sets combined with palaeo-logical climate data. This work has been undertaken by researchers at University of Adelaide and University of Newcastle and used in Regional Water Strategies.

The climate for each climate variable is uploaded as a single ZIP file, which includes three files:

1. a .csv file of daily climate data of 10,000 years (format: date, data; filename starts with station ID)
2. a pdf file of the meta data of the climate data describing the geographic location of the climate station, data type, period of observed data used for generating stochastic data, a location map.
3. a pdf file of the quality assurance information.

The climate variables include one or more of the following: rainfall, evapotranspiration (Mwet: Morton's wet area potential evapotranspiration, Mlake: Morton's lake evaporation, Penman-Monteith reference evapotranspiration (FAO56)), Maximum temperature, Minimum temperature.

Note: Within each ZIP file, the number seen within the filename i.e. 9093_SILO_Rain.zip represents the Station ID Number 59093.

Resource locator

[Data Quality Statement](#)

Name: Data Quality Statement

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

Description:

Data quality statement

Function: download

[Macquarie zip files](#)

Name: Macquarie zip files

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

Description:

Contains all of the Stochastic Climate Data files within the Macquarie region.

Note: Within each ZIP file, the number seen within the filename i.e. 59093_SILO_Rain.zip represents the Station ID Number 59093. The climate variables include one or more of the following: rainfall, evapotranspiration (Mwet: Morton's wet area potential evapotranspiration, Mlake: Morton's lake evaporation, Penman-Monteith reference evapotranspiration (FAO56)), Maximum temperature, Minimum temperature. Refer to the Metadata PDF file for full description.

Function: download

[Water Modelling Regions \(MapService\) \(nsw.gov.au\)](#)

Name: Water_Modelling_Regions (MapService) (nsw.gov.au)

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

Description:

ESRI Rest Map Service of Water_Modelling_Regions

Function: download

[Water Modelling Silo Climate Stations \(MapService\) \(nsw.gov.au\)](#)

Name: Water_Modelling_Silo_Climate_Stations (MapService) (nsw.gov.au)

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

Description:

ESRI Rest Map Service of Water_Modelling_Silo_Climate_Stations

Function: download

Unique resource identifier

Code e0ba1e0e-2319-4121-97af-3608cc56da82

Presentation form Table digital

Edition 1.0

Dataset language English

Metadata standard

Name ISO 19115

Edition 2016

Dataset URI <https://datasets.seed.nsw.gov.au/dataset/e0ba1e0e-2319-4121-97af-3608cc56da82>

Purpose

Climate data is a fundamental input dataset required for water modelling. The stochastic climate data is 10,000 years of daily data representing the variability of the long-term climate at a location generated. The primary purpose of the stochastic climate data is to be used as input data for water modelling to analysis water related outcomes of river basins under long-term climate and inform the development of water policies, planning and strategies for water management. Climate data is a fundamental input dataset required for water modelling. Rainfall and potential evapotranspiration are the two main types of climate required for the types of water models used for water planning. Temperature data is used in some of the water models (in particular for snowmelt modelling, water demand modelling). Climate data in daily temporal resolution is used as input data to water models of varying types, purposes, and complexity. The water models transform this input data to produce a range of water related modelled data. Stochastic climate data has been generated based on observed climate dataset combined with paleo-climatic information. The observed data is downloaded from the SILO data-base of Australian climate data (<https://www.longpaddock.qld.gov.au/silo/>), which has climate data from 1889-present based on instrumental records at thousands of climate stations. The stochastic data are 10,000-year daily data sets of each climate data at different climate stations.

Status On going

Spatial representation type textTable

Spatial reference system

Code identifying the spatial reference system 4283

Spatial resolution 1 km

Additional information source Raw data series commenced 01/01/0000 to 31/12/9999

Topic category

Keyword set	
keyword value	WATER
Originating controlled vocabulary	
Title	ANZLIC Search Words
Reference date	2008-05-16
Geographic location	
West bounding longitude	145.94
East bounding longitude	150.36
North bounding latitude	-33.95
South bounding latitude	-29.9
NSW Place Name	Macquarie
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	0001-01-01
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
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 stochastic data are 10,000-year daily data sets at different climate stations, which were generated using observed or derived data sets combined with palaeo-logical climate data information. This work was undertaken by researchers at University of Adelaide and University of Newcastle and used in Regional Water Strategies. The stochastic data were generated region by region with spatial and temporal consistency of the data between regions maintained. Stochastic datasets were generated using the observed climate data and paleo-climatic information. The observed and derived data is downloaded from the SILO data-base of Australian climate data (<https://www.longpaddock.qld.gov.au/silo/>), which has climate data from 1889-present.

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	https://www.nsw.gov.au/departments-and-agencies/dcceew
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Metadata date 2024-08-01T03:32:14.400768

Metadata language