

## Title

Water Modelling-Palaeo Stochastic Climate Data-Murray

## Abstract

This stochastic climate dataset relates to the **Murray** 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

### [Murray zip files](#)

Name: Murray zip files

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

Description:

Contains all of the Stochastic Climate Data files within the Murray 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

### [Map View for data download by regions](#)

Name: Map View for data download by regions

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

Description:

All the regions are shown in this map (ESRI Rest Map Service Format), and the data can be downloaded by clicking each region area/polygon.

Function: download

### [Map View for Silo Stations](#)

Name: Map View for Silo Stations

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

Description:

All the silo stations are shown in this map for the reference (ESRI Rest Map Service Format).

Function: download

<b>Unique resource identifier</b>	
Code	3f4dc223-8b17-4229-bcf2-cc8b97f23661
<b>Presentation form</b>	Table digital
<b>Edition</b>	1.0
<b>Dataset language</b>	English
<b>Metadata standard</b>	
Name	ISO 19115
Edition	2016
<b>Dataset URI</b>	<a href="https://datasets.seed.nsw.gov.au/dataset/3f4dc223-8b17-4229-bcf2-cc8b97f23661">https://datasets.seed.nsw.gov.au/dataset/3f4dc223-8b17-4229-bcf2-cc8b97f23661</a>
<b>Purpose</b>	<p>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 (<a href="https://www.longpaddock.qld.gov.au/silo/">https://www.longpaddock.qld.gov.au/silo/</a>), 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.</p>
<b>Status</b>	On going
<b>Spatial representation type</b>	textTable
<b>Spatial reference system</b>	
Code identifying the spatial reference system	4283
<b>Spatial resolution</b>	1 km
<b>Additional information source</b>	Raw data series commenced 01/01/0000 to 31/12/9999
<b>Topic category</b>	

<b>Keyword set</b>	
keyword value	WATER
<b>Originating controlled vocabulary</b>	
Title	ANZLIC Search Words
Reference date	2008-05-16
<b>Geographic location</b>	
West bounding longitude	143.32
East bounding longitude	147.06
North bounding latitude	-36.12
South bounding latitude	-34.82
NSW Place Name	Murray
<b>Vertical extent information</b>	
Minimum value	-100
Maximum value	2228
<b>Coordinate reference system</b>	
Authority code	urn:ogc:def:cs:EPSG::
Code identifying the coordinate reference system	5711
<b>Temporal extent</b>	
Begin position	0001-01-01
End position	N/A
<b>Dataset reference date</b>	
<b>Resource maintenance</b>	
Maintenance and update frequency	As needed
<b>Contact info</b>	
Contact position	Data Broker
Organisation name	NSW Department of Climate Change, Energy, the Environment and Water
Telephone number	131555
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Web address	<a href="https://www.nsw.gov.au/departments-and-agencies/dcceew">https://www.nsw.gov.au/departments-and-agencies/dcceew</a>
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
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Responsible party role	pointOfContact

## Metadata point of contact

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Responsible party role	pointOfContact

**Metadata date** 2024-08-20T21:38:49.528396

**Metadata language**