Water Modelling-Stochastic Climate Data-Greater Sydney-Silo Station (v of xi) ID Title

#### Abstract

The stochastic climate data include 10,000 replicates of 130-yr daily data sets of rainfall and potential evapotranspiration generated using observed data sets without and with combined climate data. This work has been undertaken by researchers at the University of Newcastle and used in modelling for Greater Sydney Water Strategy.

This particular Asset (067021-068000) houses Silo Station IDs:

• 067021 - RICHMOND - UWS HAWKESBURY

• 067024 - ST MARYS BOWLING CLUB

• 067026 - SEVEN HILLS (COLLINS ST)

• 067029 - WALLACIA POST OFFICE

067076 - QUAKERS HILL TREATMENT WORKS

• 067084 - ORCHARD HILLS TREATMENT WORKS

• 067086 - DURAL (OLD NORTHERN ROAD)

• 067089 - WEST PENNANT HILLS (CUMBERLAND)

Note: If you would like to ask a question, make any suggestions, or tell us how you are using this dataset, please visit the <u>NSW Water Hub which has an online</u> <u>forum</u> you can join.

#### Resource locator

**Data Quality Statement** 

Name: Data Quality Statement

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

Description:

Data quality statement

Function: download

<u>067021\_RICHMOND -</u> **UWS** 

Name: 067021\_RICHMOND - UWS HAWKESBURY\_FAO56

**HAWKESBURY\_FA056** 

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

Description:

Stochastic FAO56 data for 3250 replicates for 067021 (RICHMOND - UWS HAWKESBURY); each with 130 year daily timeseries; including metadata and

quality assurance pdfs.

Function: download

067021\_RICHMOND -UWS

Name: 067021 RICHMOND - UWS HAWKESBURY Mlake

**HAWKESBURY\_Mlake** 

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

Description:

Stochastic Mlake data for 3250 replicates for 067021 (RICHMOND - UWS HAWKESBURY); each with 130 year daily timeseries; including metadata and

quality assurance pdfs.

Function: download

<u>067021\_RICHMOND -</u> UWS

Name: 067021 RICHMOND - UWS HAWKESBURY Mwet

HAWKESBURY\_Mwet

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

Description:

Stochastic Mwet data for 3250 replicates for 067021 (RICHMOND - UWS HAWKESBURY); each with 130 year daily timeseries; including metadata and

quality assurance pdfs.

Function: download

<u>067021\_RICHMOND -</u>

**UWS** 

**HAWKESBURY\_Rain** 

Name: 067021\_RICHMOND - UWS HAWKESBURY\_Rain

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

Description:

Stochastic Rain data for 3250 replicates for 067021 (RICHMOND - UWS HAWKESBURY); each with 130 year daily timeseries; including metadata and quality assurance pdfs.

Function: download

067024\_ST MARYS BOWLING CLUB\_FA056 Name: 067024\_ST MARYS BOWLING CLUB\_FAO56

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

Description:

Stochastic FAO56 data for 3250 replicates for 067024 (ST MARYS BOWLING CLUB); each with 130 year daily timeseries; including metadata and quality

assurance pdfs.

Function: download

067024\_ST MARYS BOWLING CLUB\_Rain Name: 067024\_ST MARYS BOWLING CLUB\_Rain

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

Description:

Stochastic Rain data for 3250 replicates for 067024 (ST MARYS BOWLING CLUB); each with 130 year daily timeseries; including metadata and quality assurance

pdfs.

Function: download

067024\_ST MARYS BOWLING CLUB\_Mlake Name: 067024\_ST MARYS BOWLING CLUB\_Mlake

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

Description:

Stochastic Mlake data for 3250 replicates for 067024 (ST MARYS BOWLING CLUB); each with 130 year daily timeseries; including metadata and quality

assurance pdfs.

Function: download

067026\_SEVEN HILLS (COLLINS ST)\_Rain Name: 067026\_SEVEN HILLS (COLLINS ST)\_Rain

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

Description:

Stochastic Rain data for 3250 replicates for 067026 (SEVEN HILLS (COLLINS ST)); each with 130 year daily timeseries; including metadata and quality assurance

pdfs.

Function: download

067026\_SEVEN HILLS (COLLINS ST)\_Mwet Name: 067026\_SEVEN HILLS (COLLINS ST)\_Mwet

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

Description:

Stochastic Mwet data for 3250 replicates for 067026 (SEVEN HILLS (COLLINS ST)); each with 130 year daily timeseries; including metadata and quality

assurance pdfs.

Function: download

067029\_WALLACIA POST OFFICE\_FA056 Name: 067029\_WALLACIA POST OFFICE\_FAO56

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

Description:

Stochastic FAO56 data for 3250 replicates for 067029 (WALLACIA POST OFFICE); each with 130 year daily timeseries; including metadata and quality assurance

pdfs.

Function: download

067029\_WALLACIA POST OFFICE\_Rain Name: 06/029\_WALLACIA POST OFFICE\_Rain

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

Description:

Stochastic Rain data for 3250 replicates for 067029 (WALLACIA POST OFFICE); each with 130 year daily timeseries; including metadata and quality assurance

pats.

Function: download

067029\_WALLACIA POST OFFICE\_Mlake Name: 067029\_WALLACIA POST OFFICE\_Mlake

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

Description:

Stochastic Mlake data for 3250 replicates for 067029 (WALLACIA POST OFFICE); each with 130 year daily timeseries; including metadata and quality assurance

pdfs.

Function: download

067029\_WALLACIA POST OFFICE\_Mwet Name: 067029\_WALLACIA POST OFFICE\_Mwet

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

Description:

Stochastic Mwet data for 3250 replicates for 067029 (WALLACIA POST OFFICE); each with 130 year daily timeseries; including metadata and quality assurance

pdfs.

Function: download

067076\_QUAKERS HILL TREATMENT WORKS\_FA056 Name: 067076\_QUAKERS HILL TREATMENT WORKS\_FAO56

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

Description:

Stochastic FAO56 data for 3250 replicates for 067076 (QUAKERS HILL

TREATMENT WORKS); each with 130 year daily timeseries; including metadata

and quality assurance pdfs.

Function: download

067076\_QUAKERS HILL TREATMENT WORKS\_Rain Name: 067076\_QUAKERS HILL TREATMENT WORKS\_Rain

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

Description:

Stochastic Rain data for 3250 replicates for 067076 (QUAKERS HILL TREATMENT WORKS); each with 130 year daily timeseries; including metadata and quality

assurance pdfs.

Function: download

067076\_QUAKERS HILL TREATMENT WORKS\_Mlake Name: 067076 QUAKERS HILL TREATMENT WORKS Mlake

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

Description:

Stochastic Mlake data for 3250 replicates for 067076 (QUAKERS HILL

TREATMENT WORKS); each with 130 year daily timeseries; including metadata

and quality assurance pdfs.

Function: download

067076\_QUAKERS HILL TREATMENT WORKS\_Mwet Name: 067076\_QUAKERS HILL TREATMENT WORKS\_Mwet

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

Description:

Stochastic Mwet data for 3250 replicates for 067076 (QUAKERS HILL TREATMENT WORKS); each with 130 year daily timeseries; including metadata and quality

assurance pdfs.

Function: download

067084\_ORCHARD HILLS TREATMENT WORKS\_FA056 Name: 067084\_ORCHARD HILLS TREATMENT WORKS\_FAO56

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

Description:

Stochastic FAO56 data for 3250 replicates for 067084 (ORCHARD HILLS TREATMENT WORKS); each with 130 year daily timeseries; including metadata

and quality assurance pdfs.

Function: download

067084\_ORCHARD HILLS TREATMENT WORKS\_Rain Name: 067084 ORCHARD HILLS TREATMENT WORKS Rain

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

Description:

Stochastic Rain data for 3250 replicates for 067084 (ORCHARD HILLS

TREATMENT WORKS); each with 130 year daily timeseries; including metadata

and quality assurance pdfs.

Function: download

067084\_ORCHARD HILLS TREATMENT WORKS\_Mlake Name: 067084\_ORCHARD HILLS TREATMENT WORKS\_Mlake

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

Description:

Stochastic Mlake data for 3250 replicates for 067084 (ORCHARD HILLS TREATMENT WORKS); each with 130 year daily timeseries; including metadata

and quality assurance pdfs.

Function: download

067084\_ORCHARD HILLS TREATMENT WORKS\_Mwet Name: 067084 ORCHARD HILLS TREATMENT WORKS Mwet

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

Description:

Stochastic Mwet data for 3250 replicates for 067084 (ORCHARD HILLS TREATMENT WORKS); each with 130 year daily timeseries; including metadata and quality assurance pdfs.

Function: download

067086\_DURAL (OLD NORTHERN

ROAD)\_FA056

Name: 067086\_DURAL (OLD NORTHERN ROAD)\_FAO56

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

Description:

Stochastic FAO56 data for 3250 replicates for 067086 (DURAL (OLD NORTHERN ROAD)); each with 130 year daily timeseries; including metadata and quality

assurance pdfs.

Function: download

067086\_DURAL (OLD NORTHERN

ROAD)\_Rain

Name: 067086\_DURAL (OLD NORTHERN ROAD)\_Rain

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

Description:

Stochastic Rain data for 3250 replicates for 067086 (DURAL (OLD NORTHERN ROAD)); each with 130 year daily timeseries; including metadata and quality

assurance pdfs.

Function: download

067086\_DURAL (OLD NORTHERN ROAD)\_Mwet Name: 067086\_DURAL (OLD NORTHERN ROAD)\_Mwet

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

Description: Stochastic Mwet data for 3250 replicates for 067086 (DURAL (OLD NORTHERN ROAD)); each with 130 year daily timeseries; including metadata and quality assurance pdfs. Function: download Name: 067086 DURAL (OLD NORTHERN ROAD) Rain 067086\_DURAL (OLD **NORTHERN** Protocol: WWW:DOWNLOAD-1.0-http--download ROAD)\_Rain Description: Stochastic Rain data for 3250 replicates for 067086 (DURAL (OLD NORTHERN ROAD)); each with 130 year daily timeseries; including metadata and quality assurance pdfs. Function: download Name: 067089\_WEST PENNANT HILLS (CUMBERLAND STATE FOR\_Rain 067089\_WEST **PENNANT HILLS** Protocol: WWW:DOWNLOAD-1.0-http--download (CUMBERLAND STATE FOR\_Rain Description: Stochastic Rain data for 3250 replicates for 067089 (WEST PENNANT HILLS (CUMBERLAND STATE FOR); each with 130 year daily timeseries; including metadata and quality assurance pdfs. Function: download Name: Map View for data download Map View for data download Protocol: WWW:DOWNLOAD-1.0-http--download Description: All the stations in Greater Sydney area are shown in this State level map (ESRI Rest Map Service Format), and the data can be downloaded by clicking each station. Function: download Unique resource identifier Code 91828e5d-3c22-45f6-9114-362f38614969 Presentation form Table digital Edition 1.0 Dataset language **English** Metadata standard Name ISO 19115 Edition 2016 https://datasets.seed.nsw.gov.au/dataset/91828e5d-3c22-45f6-9114-**Dataset URI** 362f38614969 Climate data is a fundamental input dataset required for water modelling. The Purpose 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

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

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	150.2
East bounding longitude	151.5
North bounding latitude	-34.23
South bounding latitude	-33.35
NSW Place Name	Greater Sydney
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 (<a href="https://www.longpaddock.qld.gov.au/silo/">https://www.longpaddock.qld.gov.au/silo/</a>), 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 <u>data.broker@environment.nsw.gov.au</u>

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

# Metadata point of contact

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Metadata date 2024-08-20T20:58:37.403049

### Metadata language