# Title W

Water Modelling-Stochastic Climate Data-Greater Sydney-Silo Station (vi of xi) ID 068001-068020

#### **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 (068001-068020) houses Silo Station IDs:

- 068002 AVON DAM
- 068003 BERRY MASONIC VILLAGE
- 068007 CAMDEN (BROWNLOW HILL)
- 068008 BUNDANOON (BALLYMENA)
- 068009 BURRAWANG (RANGE STREET)
- 068013 MENANGLE
- 068016 CATARACT DAM
- 068018 CORDEAUX NO.1 DAM

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 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

068002\_AVON DAM MWSDB\_FA056 Name: 068002\_AVON DAM MWSDB\_FAO56

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

Description:

Stochastic FAO56 data for 3250 replicates for 068002 (AVON DAM MWSDB); each with 130 year daily timeseries; including metadata and quality assurance pdfs.

Function: download

068002\_AVON DAM MWSDB\_Mlake Name: 068002 AVON DAM MWSDB Mlake

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

Description:

Stochastic Mlake data for 3250 replicates for 068002 (AVON DAM MWSDB); each with 130 year daily timeseries; including metadata and quality assurance pdfs.

Function: download

068002\_AVON DAM MWSDB\_Mwet Name: 068002\_AVON DAM MWSDB\_Mwet

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

Description:

Stochastic Mwet data for 3250 replicates for 068002 (AVON DAM MWSDB); each with 130 year daily timeseries; including metadata and quality assurance pdfs.

Function: download

068002\_AVON DAM MWSDB\_Rain Name: 068002\_AVON DAM MWSDB\_Rain

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

Description:

Stochastic Rain data for 3250 replicates for 068002 (AVON DAM MWSDB); each with 130 year daily timeseries; including metadata and quality assurance pdfs.

Function: download

068003\_BERRY MASONIC VILLAGE\_Rain Name: 068003\_BERRY MASONIC VILLAGE\_Rain

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

Description:

Stochastic Rain data for 3250 replicates for 068003 (BERRY MASONIC VILLAGE); each with 130 year daily timeseries; including metadata and quality assurance

pdfs.

Function: download

068007\_CAMDEN (BROWNLOW HILL)\_FA056 Name: 068007\_CAMDEN (BROWNLOW HILL)\_FAO56

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

Description:

Stochastic FAO56 data for 3250 replicates for 068007 (CAMDEN (BROWNLOW HILL)); each with 130 year daily timeseries; including metadata and quality

assurance pdfs.

Function: download

068007\_CAMDEN (BROWNLOW HILL)\_Mlake Name: 068007\_CAMDEN (BROWNLOW HILL)\_Mlake

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

Description:

Stochastic Mlake data for 3250 replicates for 068007 (CAMDEN (BROWNLOW HILL)); each with 130 year daily timeseries; including metadata and quality

assurance pdfs.

Function: download

068007\_CAMDEN (BROWNLOW HILL)\_Rain Name: 068007\_CAMDEN (BROWNLOW HILL)\_Rain

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

Description:

Stochastic Rain data for 3250 replicates for 068007 (CAMDEN (BROWNLOW HILL)); each with 130 year daily timeseries; including metadata and quality

assurance pdfs.

Function: download

068007\_CAMDEN (BROWNLOW HILL)\_Mwet Name: 068007 CAMDEN (BROWNLOW HILL)\_Mwet

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

Description:

Stochastic Mwet data for 3250 replicates for 068007 (CAMDEN (BROWNLOW HILL)); each with 130 year daily timeseries; including metadata and quality

assurance pdfs.

Function: download

068008\_BUNDANOON (BALLYMENA)\_FA056 Name: 068008\_BUNDANOON (BALLYMENA)\_FAO56

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

Description:

Stochastic FAO56 data for 3250 replicates for 068008 (BUNDANOON (BALLYMENA)); each with 130 year daily timeseries; including metadata and

quality assurance pdfs.

Function: download

068008\_BUNDANOON (BALLYMENA)\_Mlake Name: 068008\_BUNDANOON (BALLYMENA)\_Mlake

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

Description:

Stochastic Mlake data for 3250 replicates for 068008 (BUNDANOON (BALLYMENA)); each with 130 year daily timeseries; including metadata and

quality assurance pdfs.

Function: download

068008\_BUNDANOON (BALLYMENA)\_Rain

Name: 068008 BUNDANOON (BALLYMENA) Rain

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

Description:

Stochastic Rain data for 3250 replicates for 068008 (BUNDANOON

(BALLYMENA)); each with 130 year daily timeseries; including metadata and

quality assurance pdfs.

Function: download

068008\_BUNDANOON (BALLYMENA)\_Mwet

Name: 068008 BUNDANOON (BALLYMENA) Mwet

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

Description:

Stochastic Mwet data for 3250 replicates for 068008 (BUNDANOON

(BALLYMENA)); each with 130 year daily timeseries; including metadata and

quality assurance pdfs.

Function: download

068009\_BURRAWANG (RANGE

STREET)\_FA056

Name: 068009 BURRAWANG (RANGE STREET) FAO56

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

Description:

Stochastic FAO56 data for 3250 replicates for 068009 (BURRAWANG (RANGE STREET)); each with 130 year daily timeseries; including metadata and quality

assurance pdfs.

Function: download

068009\_BURRAWANG (RANGE

Name: 068009 BURRAWANG (RANGE STREET) Mlake

STREET)\_Mlake

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

Description:

Stochastic Mlake data for 3250 replicates for 068009 (BURRAWANG (RANGE STREET)); each with 130 year daily timeseries; including metadata and quality

assurance pdfs.

Function: download

068009\_BURRAWANG

(RANGE STREET)\_Rain Name: 068009 BURRAWANG (RANGE STREET) Rain

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

Description:

Stochastic Rain data for 3250 replicates for 068009 (BURRAWANG (RANGE STREET)); each with 130 year daily timeseries; including metadata and quality

assurance pdfs.

Function: download

068009\_BURRAWANG

(RANGE STREET)\_Mwet Name: 068009\_BURRAWANG (RANGE STREET)\_Mwet

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

Description:

Stochastic Mwet data for 3250 replicates for 068009 (BURRAWANG (RANGE STREET)); each with 130 year daily timeseries; including metadata and quality

assurance pdfs.

Function: download

068013\_MENANGLE JMAI\_Rain

Name: 068013 MENANGLE JMAI Rain

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

Description:

Stochastic Rain data for 3250 replicates for 068013 (MENANGLE JMAI); each with 130 year daily timeseries; including metadata and quality assurance pdfs.

Function: download

068013\_MENANGLE JMAI\_FA056 Name: 068013\_MENANGLE JMAI\_FAO56

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

Description:

Stochastic FAO56 data for 3250 replicates for 068013 (MENANGLE JMAI); each with 130 year daily timeseries; including metadata and quality assurance pdfs.

Function: download

068013\_MENANGLE JMAI\_Mlake Name: 068013 MENANGLE JMAI Mlake

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

Description:

Stochastic Mlake data for 3250 replicates for 068013 (MENANGLE JMAI); each with 130 year daily timeseries; including metadata and quality assurance pdfs.

Function: download

068013\_MENANGLE JMAI\_Mwet Name: 068013 MENANGLE JMAI Mwet

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

Description:

Stochastic Mwet data for 3250 replicates for 068013 (MENANGLE JMAI); each with 130 year daily timeseries; including metadata and quality assurance pdfs.

Function: download

068016\_CATARACT DAM\_Rain Name: 068016\_CATARACT DAM\_Rain

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

Description:

Stochastic Rain data for 3250 replicates for 068016 (CATARACT DAM); each with 130 year daily timeseries; including metadata and quality assurance pdfs.

Function: download

068016\_CATARACT DAM\_Mlake Name: 068016\_CATARACT DAM\_Mlake

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

Description:

Stochastic Mlake data for 3250 replicates for 068016 (CATARACT DAM); each with 130 year daily timeseries; including metadata and quality assurance pdfs.

Function: download

068016\_CATARACT DAM\_Mwet Name: 068016 CATARACT DAM Mwet

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

Description:

Stochastic Mwet data for 3250 replicates for 068016 (CATARACT DAM); each with 130 year daily timeseries; including metadata and quality assurance pdfs.

Function: download

068018\_CORDEAUX NO.1 DAM\_FA056 Name: 068018\_CORDEAUX NO.1 DAM\_FAO56

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

Description:

Stochastic FAO56 data for 3250 replicates for 068018 (CORDEAUX NO.1 DAM);

each with 130 year daily timeseries; including metadata and quality assurance pdfs. Function: download Name: 068018 CORDEAUX NO.1 DAM Mlake 068018\_CORDEAUX NO.1 DAM\_Mlake Protocol: WWW:DOWNLOAD-1.0-http--download Description: Stochastic Mlake data for 3250 replicates for 068018 (CORDEAUX NO.1 DAM); each with 130 year daily timeseries; including metadata and quality assurance pdfs. Function: download Name: 068018 CORDEAUX NO.1 DAM\_Rain 068018\_CORDEAUX NO.1 DAM\_Rain Protocol: WWW:DOWNLOAD-1.0-http--download Description: Stochastic Rain data for 3250 replicates for 068018 (CORDEAUX NO.1 DAM); each with 130 year daily timeseries; including metadata and quality assurance Function: download Name: 068018\_CORDEAUX NO.1 DAM\_Mwet 068018\_CORDEAUX NO.1 DAM\_Mwet Protocol: WWW:DOWNLOAD-1.0-http--download Description: Stochastic Mwet data for 3250 replicates for 068018 (CORDEAUX NO.1 DAM); each with 130 year daily timeseries; including metadata and quality assurance Function: download Map View for data Name: Map View for data download 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 c96a6a99-acc2-4547-8fc3-1f6acb3f001e Code Presentation form Table digital Edition 1.0 Dataset language English Metadata standard ISO 19115 Name 2016 Edition https://datasets.seed.nsw.gov.au/dataset/c96a6a99-acc2-4547-8fc3-**Dataset URI** 1f6acb3f001e 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

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 1889present 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                          | 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

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 date 2024-08-20T21:04:27.778870

### Metadata language