

## Abstract

The Department of Planning and Environment – Water is working to make models and data publicly available. These can be grouped into three high level categories:

1) **Climate Data:** The fundamental input for Water models is climate data in the form of daily rainfall and potential evapotranspiration. This data is input 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. There are three sub-categories of climate data used in our water models:

- **observed data:** The observed data is downloaded from the Silo database <https://www.longpaddock.qld.gov.au/silo/> which has data from 1889-present based on recorded rainfall at thousands of locations, and derived data for various evapotranspiration data sets. We use patched-point rainfall, Morton's wet area potential evapotranspiration, and Morton's lake evaporation from Silo
- **stochastic data:** 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.
- **stochastic data perturbed** by results from climate models for projected greenhouse gas emission scenarios. The climate change perturbed data (1c) are 10,000-year daily data sets of rainfall and potential evapo-transpiration developed by combining the stochastic data with results reductions changes in climate based on results of the NARcliM climate models that show the greatest reductions in rainfall. Note: The Department does not own the IP of NARcliM products to release any climate data (such as stochastic data perturbed) with NARcliM climate projection. NARcliM data is available on public domain for users to download directly such as <https://climatedata-beta.environment.nsw.gov.au/>

2) **Water Models:** (Not yet released) There are three subcategories of water models that we develop and maintain with **catchment models** the fundamental unit. These can be linked to form **pre-development models** of river systems, which are further developed by adding water infrastructure, demands, and management arrangements to form a full **unregulated or regulated river system model**.

3) **Modelled Data:** (Partially released) The dataset comprises the outcomes generated by water models, encompassing a comprehensive array of findings pertaining to various aspects of the water balance. These findings encompass, but are not restricted to, factors such as flow, diversions, water storage, and allocations, with an initial emphasis on flow.

## Resource locator

[Data Quality Statement](#)

Name: Data Quality Statement

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

Description:

Data quality statement for WATER MODELLING

Function: download

[NOTE to users](#)

Name: NOTE to users

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

Description:

This record is a landing page. Datasets are available attached to individual related datasets. Please expand 'Related Datasets' to view the related datasets and select 'View Dataset' for the appropriate dataset.

Function: download

## Unique resource identifier

Code

8b191df0-fac2-421a-bd78-9b1161dc7f20

Presentation

Table digital

|   |   |
|---|---|
| form  |   |
| Edition                                       | 1.0   |
| Dataset language                              | English   |
| <b>Metadata standard</b>                      |   |
| Name  | ISO 19115   |
| Edition                                       | 2016  |
| Dataset URI                                   | <a href="https://datasets.seed.nsw.gov.au/dataset/8b191df0-fac2-421a-bd78-9b1161dc7f20">https://datasets.seed.nsw.gov.au/dataset/8b191df0-fac2-421a-bd78-9b1161dc7f20</a> |
| Purpose                                       | Modelling provides high quality data and analytics to help the planner's make informed decisions when creating water policies.  |
| Status  | On going  |
| Spatial representation type                   | textTable   |
| <b>Spatial reference system</b>               |   |
| 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                                |   |

|  |   |
|--|---|
| <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                          | 141   |
| East bounding longitude                          | 154   |
| North bounding latitude                          | -37.7   |
| South bounding latitude                          | -28   |
| NSW Place Name                                   | NSW   |
| <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  |
| Email address                                    | <a href="mailto:data.broker@environment.nsw.gov.au">data.broker@environment.nsw.gov.au</a>                                  |
| 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  |
| <b>Lineage</b>                                   |   |
| <b>Limitations on public access</b>              |   |

## Responsible party

|                        |   |
|------------------------|---|
| Contact position       | Data Broker   |
| Organisation name      | NSW Department of Climate Change, Energy, the Environment and Water   |
| Telephone number       | 131555  |
| Email address          | <a href="mailto:data.broker@environment.nsw.gov.au">data.broker@environment.nsw.gov.au</a>                                  |
| Web address            | <a href="https://www.nsw.gov.au/departments-and-agencies/dcceew">https://www.nsw.gov.au/departments-and-agencies/dcceew</a> |
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## Metadata point of contact

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Metadata date 2024-02-26T12:50:14.546944

Metadata language