Title

WATER MODELLING

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
Metadata standard	
Name	ISO 19115
Edition	2016
Dataset URI	https://datasets.seed.nsw.gov.au/dataset/8b191df0-fac2-421a-bd78-9b1161dc7f20
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
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	141
East bounding longitude	154
North bounding latitude	-37.7
South bounding latitude	-28
NSW Place Name	NSW

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

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Limitations on public access

Responsible party

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Metadata point of contact

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Metadata date

2024-06-19T05:16:28.793242

Metadata language