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Using Australian Water Resource Assessment (AWRA-L) model for catchment conditions

Hosted by Sydney Division Water Engineering Panel

Abstract

In this seminar we introduce the AWRA-L model and website; detailing outputs, performance and use. An in-house use case of how the Bureau of Meteorology is using AWRA-L to estimate antecedent soil moisture conditions for operational flood warning is presented.

Details

Prolonged extreme drought and resulting water shortages within Australia during the 'Millennium drought', over the period 1997 to 2009, triggered the implementation of the federally mandated Water Act (2007) towards better monitoring of water availability and water use nationwide. As a result, the Australian Bureau of Meteorology (the Bureau) was given responsibilities including collating water data from jurisdictional agencies and analysing and reporting on water status, in addition to its existing weather and flood forecasting responsibilities.

The Australian Water Resources Assessment (AWRA) Modelling System underpins the Bureau's water information services for national water resource assessment reporting, water use accounting and situation monitoring. The modelling system has been developed by the Bureau and CSIRO over the last decade and is run operationally within the Bureau to provide both situational awareness and national retrospective water resource assessment.

AWRA-L is optimised to the whole water balance using a national streamflow dataset along with satellite derived soil moisture and evapotranspiration estimates. The model is validated against a wide range of observational datasets including point scale soil moisture probe data, flux tower estimates and groundwater recharge estimates. The modelling system has recently been released as a community modelling system (https://github.com/awracms/awra_cms), enabling application and development by the wider research community.

Speakers

Andrew Frost
Justin Robinson

DATE & TIME
Date 8th April 2019

Registration/Networking: 5:30pm
Formal start: 6pm

VENUE
Bureau of Meteorology
Level 15
300 Elizabeth Street
Surry Hills

CPD
Eligible for 2.0 CPD hours

TICKETS
Members, Students & BoM: Free
Non-members $30

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