



AARES
AUSTRALASIAN AGRICULTURAL &
RESOURCE ECONOMICS SOCIETY

NSW BRANCH AGM and end-of-year seminar and drinks

Samuel Miller

NSW Branch President and Principal Economist, NSW Farmers

Decision Making Under Clouds of Uncertainty - A Monte Carlo Cost Benefit Analysis of the Warragamba Dam Wall Raising Project

Previous Cost-Benefit Analyses (CBAs) into the proposal to increase the height of Warragamba Dam have not accounted for the uncertainties inherent in natural disasters and large capital projects. As a result, successive governments have committed and uncommitted funds to rise the height of Warragamba Dam wall without a full understanding of the risks, even as climate change and development causes those risks to accumulate. This research takes a probabilistic approach to CBA, utilising a new open-source program designed to make complex Monte Carlo modelling transparent and accessible. The results show how complex uncertainties with respect to floods, climate change, environmental and indigenous values, and development patterns can be considered simultaneously to inform decision makers of the drivers of risk, and how they can be controlled.

Samuel Miller is the Principal Economist for NSW Farmers, and was formerly a consultant who has undertaken extensive economic impact, program evaluation and business case development work on behalf of Government and non-Government clients throughout NSW and Australia. His areas of expertise include regional economic development, the economics of water, and natural and built environments.

In 2022 Sam began development of the Random Uncertainty Benefit / Cost Simulator (RUBICS) program - an open-source Cost-Benefit Analysis tool to enable replicable and transparent Monte Carlo and distributional analysis. Sam studied Resource Economics at the University of Sydney, holds a Graduate Diploma of Professional Practice (Economics and Geography) and a Masters of Economics from the University of New England (UNE), the latter where he researched the application of Monte Carlo methods to Cost-Benefit Analysis.

Thursday 12 December 2024

The Corinthian Room, Sydney Masonic Centre at 66 Goulburn Street, Sydney NSW 2000

Committee meeting 4:00pm - 4:30pm

NSW Branch AGM 4:30pm - 5:30pm

Seminar 5:30pm - 6:30 pm

End of year drinks and canapes 6:30pm - 7:30pm

This is a free event and non-members are encouraged to attend.

Please **RSVP by 10 December** by registering here: [REGISTRATION PAGE](#)

Enquiries: AARES.nsw@gmail.com