

# 2020 CONFERENCE PROCEEDINGS

The 2020 eWater Software Conference showcased a wide range of innovative applications of the Source platform, workflow automation developments and much more. Plus a special session focussing on Source and water management in the Mekong region.

The conference program, copies of presentations and session recordings are now available on the eWater Wiki.

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# SOURCE 5.4 IS NOW AVAILABLE



Current licence holders can now download the latest version of Source.

Source 5.4 includes a range of enhancements, including new recorders for analysing orders, updates to the Tabular Editor to assist river operations and better end-use customisation in the Urban Developer plugin.

[Find out more](#)

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# SOURCE 5.0 HIGHLIGHTS

Released in June 2020, Source 5.0 contains many new features and enhancements, including the new Urban Developer plugin.

[Watch the Source 5.0 video](#)

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# SUPPORTING QUEENSLAND'S NEXT GENERATION OF WATER MODELLERS

The Queensland  
Water Modelling  
Network (QWMN) aims

to improve the state's  
capacity to model its  
surface water and  
groundwater  
resources and  
improve the quality of  
it's models.

Established by the Queensland Government in 2017, the QWMN provides tools, information and collaborative platforms to support best-practice use of water models and the uptake of their results by policy makers and natural resource managers.

The QWMN encourages engagement between modellers, researchers, policy makers and resource managers.

A key focus of the QWMN is building Queensland water sector capability through its mentoring program. The program partners experienced modellers with university undergraduate students and young water professionals interested in water modelling, it The aims to:

- Grow the size and capabilities of the Queensland water modelling workforce by building a pipeline of skilled and enthusiastic graduates who want to pursue water modelling careers in Queensland.

- Expose students to 'real world' water policy issues so that they develop applied knowledge and become enthused about the work of water modellers.

- Develop undergraduate student critical analysis and systemic understanding of how the outputs from water models are and can be used.

The program has two components. Firstly, students undertake online water model training and tutorials to become familiar

with the relevant models and tools. Students then undertake a 'real world' modelling challenge, supported by mentors who are experienced Queensland Government modellers.

eWater is an active supporter of the mentoring program, providing access to the full version of Source, training materials and technical support for participants.

Phase 1 of the program has been successfully completed by students from Griffith University, James Cook University, University of South Queensland, Queensland University of Technology and University of Queensland and a young professional within the Queensland Department of Natural Resources Mines and Energy (DNRME).

Students used eWater Source to understand how water quality targets are set for the Great Barrier Reef catchments. The Cattle Creek sub catchment within the Mackay/Whitsunday region used in the challenge. Through the project, participants both learn how to use Australia's National Hydrological Modelling Platform, eWater Source and are exposed to the challenges faced by both government and industry to meet

the Great Barrier Reef water quality targets.

The program has since been extended to students at the universities of Central Queensland and the Sunshine Coast in 2020-21. The QWMN is also working to engage modelling experts from the private sector.

## More about the QWMN

## More about eWater Source and managing the Great Barrier Reef

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# POST BUSHFIRE HYDROLOGY

The recent devastating bushfires have left many water supply catchments significantly damaged.

Water and catchment managers will be faced with a range of short and long-term impacts on both water quality and volumes of runoff.

In this page, we bring together information to support our community work through these challenging times, including:

an overview of the current state of knowledge of post bushfire hydrology,  
how to apply Source functionality to assess post bushfire hydrology, and  
useful information sources.

Research and past experience tell us that it could take decades for catchments to recover and that the impacts will vary at different stages of the recovery process. Modelling will be an important tool, providing water and catchment managers with a platform to understand the different risks to water availability and water quality as catchment conditions change and to test the performance of different management responses.

If you would like more information or support with using Source to help understand the impact of bushfire on your catchment or water supply, please contact:

Geoff Adams ([geoff.adams@ewater.org.au](mailto:geoff.adams@ewater.org.au)/02 6201 2386)

or

Trudy Green (trudy.green@ewater.org.au / 02 6206 8796)

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# Bushfire impacts on hydrology

The two most significant impacts of bushfires on hydrology are changes to water quality and runoff rates. We have compiled a short summary of information on these impacts.

Find out more

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# Representing bushfire impacts in Source

Source has a range of functionality that can be adapted to model the impacts of bushfires. This section provides an overview of how this can be done.

Find out more

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## Useful resources



The eWater Cooperative Research Centre (CRC) and its predecessors the CRC for Catchment Hydrology and CRC for

Freshwater Ecology led a range of initiatives investigating the impacts of bushfires on catchments. Much of this information remains relevant

today. <https://ewater.org.au/bushfire/main.shtml>

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Bushfire and Hazards CRC

Water Quality Australia

Factsheet Bushfires and Risks to Drinking Water Quality (Water Research Australia)

Arthur Rylah Institute for Environmental Research

Fire and Soils: A review of the potential impacts of different fire regimes on soil erosion and sedimentation, nutrient and carbon cycling, and water quantity and quality (NSW Environment Energy and Science)

US Geological Survey – Water Quality after wildfire