



# Flood Disaster Emergency Response Planning



Pre-planning, hazard identification, risk assessment and the development of robust, reliable emergency response systems reduces the risk to life-and-limb and socio-economic impacts from flooding. Accurate flood modelling is a vital input into preparation activities, plans and services. It is the most cost-effective tool for hazard identification and risk classification. Conversely, inaccurate modelling will lead to more uncertainties, misleading responses and greater risk to life.

TUFLOW has been developed over three decades. It is the most feature packed, precise and fastest flood simulation

software available, accurately informing flood disaster emergency response planning and hazard estimation in real-time flood decision support systems.

The complementary nature and ability to be integrated and customised with GIS software and emergency management platforms such as DELFT FEWS makes TUFLOW extremely workflow efficient for modellers. For stakeholders who simply rely on the flood modelling computations to occur in the background and inform their decision making, using TUFLOW gives confidence on accuracy and performance.

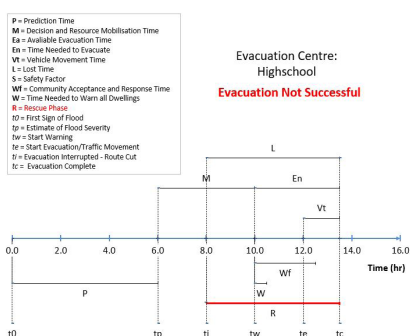
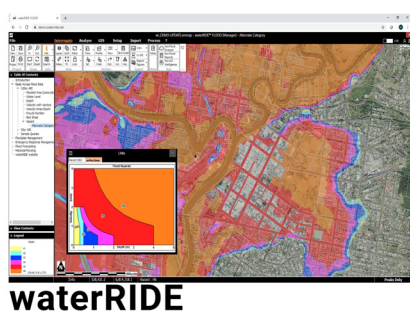
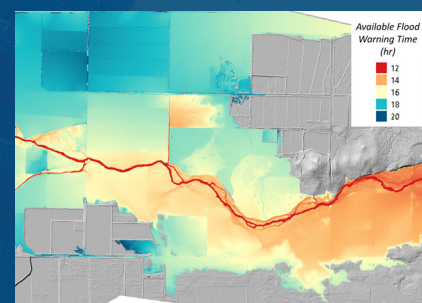
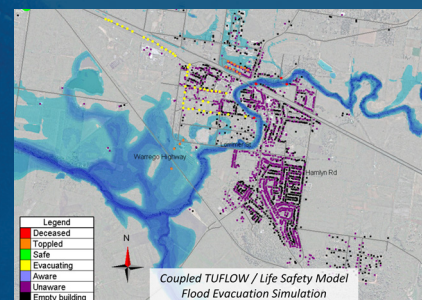
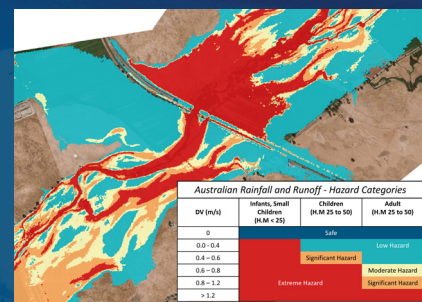
As researchers, scientists and engineers we work in a range of industries that solve complex environmental problems. Our assessments span scales from the molecular to global, from the instantaneous to the inter-decadal. Our projects require flexible, accurate, fast and powerful tools backed up by research, benchmarking and support.



# The worlds fastest and most accurate flood analysis software

## TUFLOW Feature Focus

- Accuracy and performance beyond any other software.
- Numerous in-built flood evacuation assessment features. Understand where, when and how properties, evacuation routes and shelters are affected by flooding and how it relates to real-time local gauge information.
- Multiple emergency response focused output data formats, such as time of first inundation, duration of inundation and numerous hazard categorisation options.
- TUFLOW is easily integrated with industry standard pre-event and real time flood response decision support platforms, such as DELFT FEWS, FloodIntel and WaterRide, or within customised GIS applications.
- TUFLOW's world-leading GPU acceleration achieves simulation speeds required for real-time flood warning.
- Use TUFLOW's multiple scenario and event management options to facilitate ensemble modelling for a clearer understanding of the risk profile.
- Access unlimited computing power by running simulations on the Cloud during real-time flood events.



NSW SES Flood Evacuation Timeline Assessment

TUFLOW is renowned as the world's fastest, most stable, and precise flood modelling software. The hydraulic computational solvers are extensively benchmarked against theory, lab scale experiments and real-world flood events. The finer resolution modelling that TUFLOW can achieve allows the user to conduct detailed hazard mapping down to street and property scale for accurate risk identification and evacuation planning.

Unlike other software, TUFLOW is not limited by functioning within the constraints of a Graphical User Interface (GUI). In contrast, TUFLOW's open format structure combined with the interoperability across a wide range of GIS and industry standard real-time decision support systems make it the most flexible and powerful flood modelling software available for emergency management.

Behind the scenes, TUFLOW models can be easily buried within workflow scripts used to customise flood forecasting modelling systems. These scripts automate pre-processing of rainfall forecast datasets, headless execution of the TUFLOW flood forecast simulations, and post-processing of results for presentation to decision makers.

TUFLOW itself is highly scriptable allowing numerous simulations to be initiated from one master file making ensemble modelling to cover the breadth of uncertainties in rainfall forecasts a breeze.

Take advantage and tackle the most complex ensemble flood modelling problems using TUFLOW so your emergency response is fast, accurate and covers the range of possible outcomes from meteorological predictions.

For more information:

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