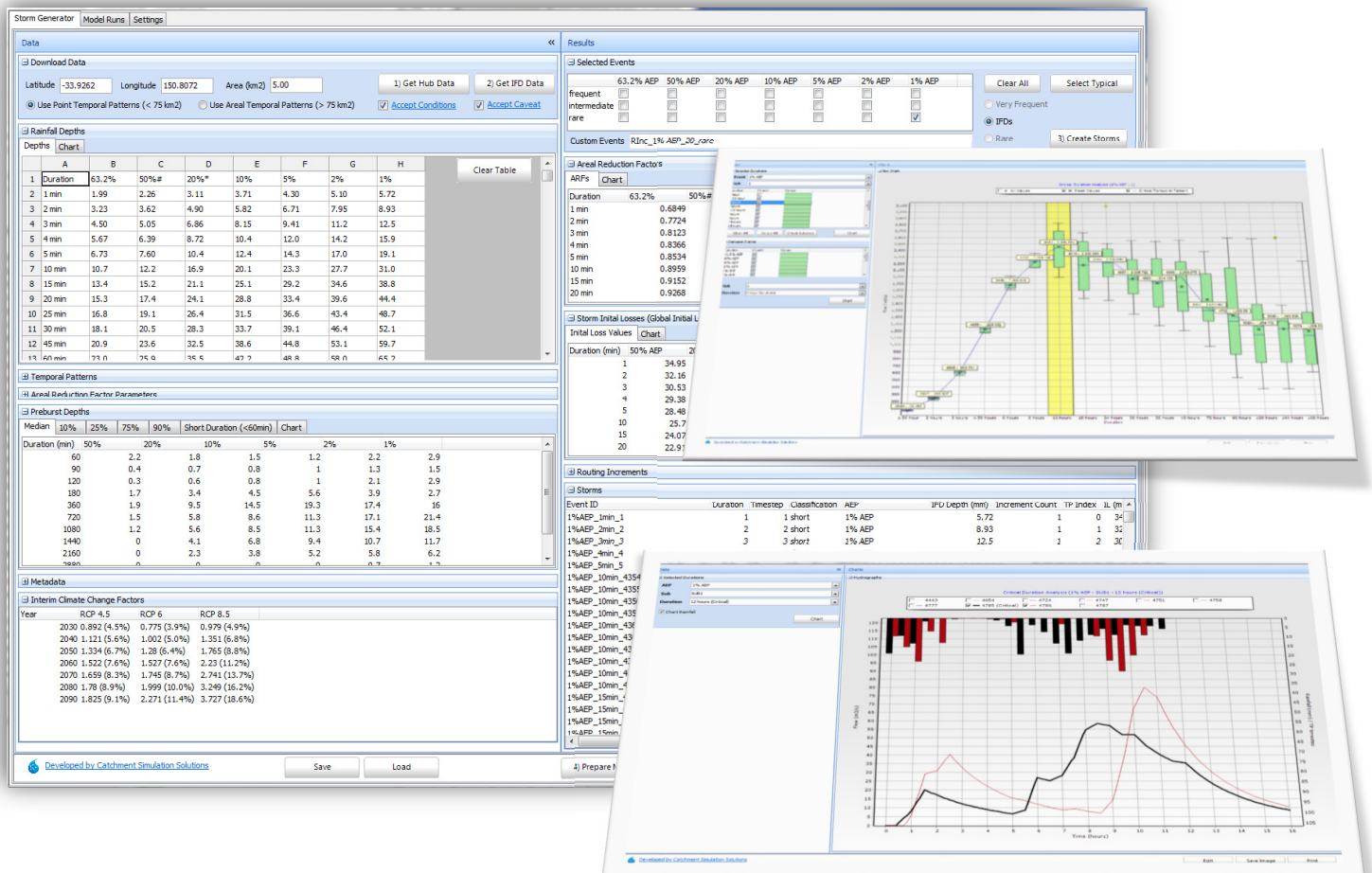




ARR 2016 & Storm Injector Training

CSS is pleased to offer a one-day course on using Storm Injector to automate the application of ARR 2016 design storms and analysis of results, in XP-RAFTS, RORB or WBNM. This course will include an overview of ARR 2016 and practical instruction for using Storm Injector with the user's preferred hydrologic model. The dates and locations can be found overleaf, and a detailed course program can be found on Page 3. The enrolment form can be found on the last page.



Dates & Locations

Location	Date	Inclusions	Price (ex GST)	RSVP
Brisbane # Level 11, 300 Adelaide St	Friday 4 th May 2018	Desktop PC, Catering	\$500	6/4/2018
Sydney # Level 10, 10 Barrack St	Friday 11 th May 2018	Desktop PC, Catering	\$500	13/4/2018
Melbourne # Level 8, 500 Collins St	Friday 18 th May 2018	Desktop PC, Catering	\$500	20/4/2018
Gold Coast * 10 Marine Parade, Southport	Tuesday 29 th May 2018	Laptops, Catering	\$400	01/05/2018

Saxons Training Facilities including desktop PC with large screen and second shared screen for presentation.

* The Gold Coast course is a BYO device (Windows laptop) venue. Laptop hire is available for \$45 + GST.

* The Gold Coast course is aimed towards participants at the 2018 Floodplain Management Australia National Conference (conference registration not required) which has its Welcome Reception at 5pm on 29th May 2018. Transport will be provided from the training venue to the Welcome Reception.

Multiple participants from the same organisation (to courses in any city) will attract a 10% discount off all registrations.

Storm Injector is currently freely available in Beta. On release, Storm Injector will likely retail from \$500 AUD (ex GST).

Course Program

- Theory (9:30 -10:30) - Overview of ARR 2016 ensemble storm approach to hydrologic modelling including:
 - New Point and Areal Temporal Patterns
 - New Intensity Frequency Duration (IFD) datasets
 - Revised Initial Loss approaches including pre-burst rainfall adjustments
 - Areal Reduction Factors (ARF) and Partial Area Effects
 - Areas of remaining uncertainty (selection of critical flow and representative temporal pattern, urban catchment loss rates, rare events with < 24hr storms, pre-burst adjustment for < 1hr storms, temporal patterns for <10min storms etc)
- Morning Tea
- Practical Session 1 (11:00 – 12:00) – Introduction to Storm Injector (user’s choice of WBNM, XP-RAFTS* or RORB)
 - Simple analysis of a catchment using a single IFD location for standard IFD events.
 - Introduction to tabular reporting for subcatchment results and temporal pattern analysis
 - Introduction to box plots and hydrograph charts
- Lunch
- Practical Session 2 (1:00 – 2:30) – Advanced Storm Injector (user’s choice of WBNM, XP-RAFTS* or RORB)
 - Using multiple IFD datasets to create a spatially varying analysis
 - Simultaneous analysis of Very Frequent and Rare IFD data and events
 - Running ARR 1987 events and comparison using charting and tables
 - Identifying Temporal Patterns for hydraulic modelling
- Afternoon Tea
- Practical Session 3 (3:00 – 4:30) – Work on your own project or try the following advanced topics:
 - Using growth curve approaches to analysis rare events with < 24hr duration
 - Sensitivity analysis for climate change rainfall increase scenarios, changes in initial loss
 - Interpreting partial area error results and running partial area checks
 - Importing results from multiple projects for comparative charting

*Participants that prefer to use XP-RAFTS should bring an appropriate license dongle / installation software or their own laptop with RAFTS installed.

Enrolment Form

Company Name: _____

Participants

Name	Location (Bris, Syd, Mel, GC)	Participant Email

** Participant substitutions are welcome until the day of the course.*

Invoicing Contact

Name: _____

Email: _____

Phone: _____

Return by email to info@csse.com.au or fax at 02 8355 5505

Please contact our office (02) 8355 5500 for further information.