GOLOVIN
INTELLIGENT MODELLING FRAMEWORK

Surface Water Solutions
www.surfacewater.biz

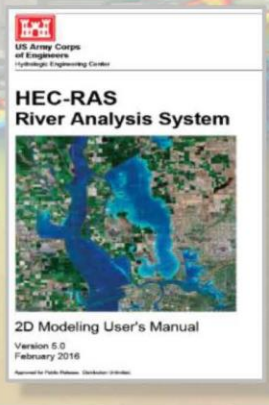
Learn rainfall-runoff and flood routing

Build, run, and animate 1D and 2D flood models

HEC-HMS HEC-RAS

Master free software in this intensive, interactive course

Christchurch 16-19 Oct 2018



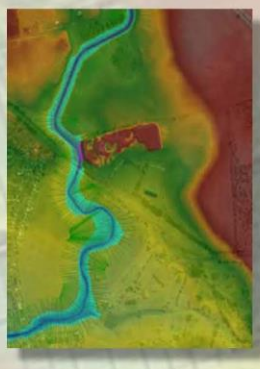
Register at www.surfacewater.biz

- Rainfall Runoff
- Hydraulic Structures
- Flood Mapping
- Risk Assessment
- GIS Interfacing
- Output Animations

★ Professional Membership Discounts

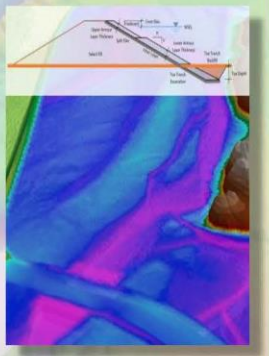
★ Academic and Group Rate Discounts

★ Professional Development Certification



Day 1-2 Instructor: Dr. Steven Joynes, Golovin

Steven has over 30 years' experience in rainfall runoff modelling, hydraulic design, and flood mapping. He has conducted HEC-HMS and HEC-RAS training courses in New Zealand since 2011.



Day 3-4 Instructor: Krey Price, SWS

Krey is a civil engineer with a 20-year, international career focussed on river mechanics and hydraulic modelling. Krey has trained over 500 HEC-RAS 2D course attendees since the release of Version 5.0.

- **Day 1 Tuesday 16 Oct:** HEC-HMS Rainfall-Runoff
- **Day 2 Wednesday 17 Oct:** HEC-RAS 1D Hydraulics
- **Day 3 Thursday 18 Oct:** HEC-RAS 2D Model Setup
- **Day 4 Friday 19 Oct:** HEC-RAS 2D Model Results

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Queries:
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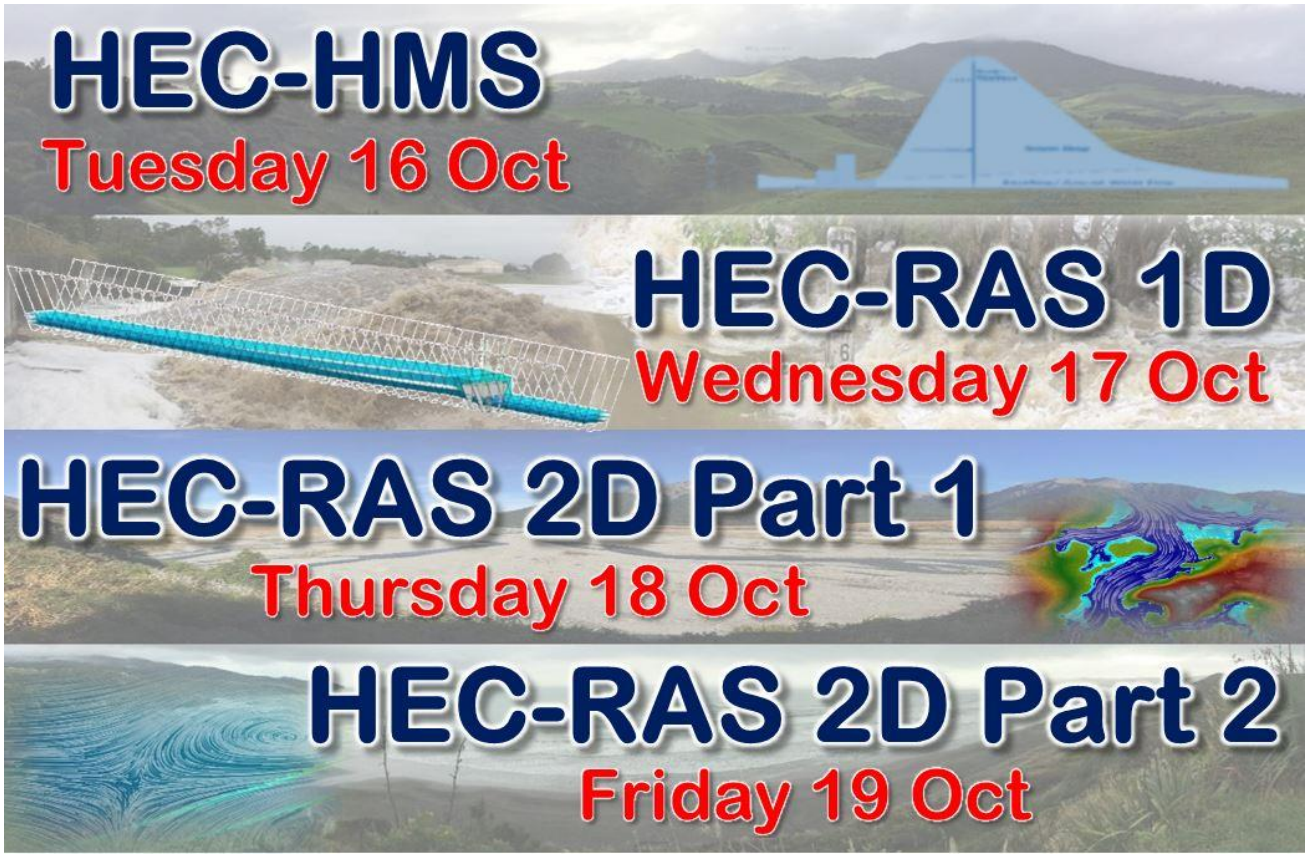
Attention water resources professionals, regulators, consultants, academics, and practitioners: Save the date for an intensive, interactive course covering the full range of hydrology and hydraulics.

The course will be held from 16 to 19 October 2018 and will consist of 4 modules across 4 days:



Pricing:

Day			Subject	Instructor	Registration Fee		
					1-Day	2-Day	4-Day
Day 1	Mon	16-Oct	HEC-HMS	Steven Joynes	$750	$ 1,350	$2,000
Day 2	Tue	17-Oct	HEC-RAS 1D	Golovin	$750		
Day 3	Wed	18-Oct	HEC-RAS 2D Pt 1	Krey Price	$750	$ 1,000	
Day 4	Thu	19-Oct	HEC-RAS 2D Pt 2	Sfc Wtr Solutions	$750		

Registration discounts are available for previous course attendees, multiple registrants from a single organisation, and members of selected professional organisations, including NZHS, ANCOLD, NZSOLD, EA, and IPENZ. Please enquire for coupon codes to apply at checkout.

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Contents:

DAY 1 Tuesday 16 October:
HEC-HMS Rainfall-Runoff
Instructor: Steve Joynes, Golovin

- Review of TP108
- Overview of Precipitation-Runoff Processes
- Basin Precipitation
- Rainfall Loss Rates Computation
- Channel Routing
- Multiple catchment and stream modelling
- Basin Model Manager
- Meteorologic Model Manager
- Control specifications and time-series data
- Conducting simulation runs
- Data interpretation and calibration
- Exporting results for use in HEC-RAS

DAY 2 Wednesday 17 October:
HEC-RAS 1D Hydraulics
Instructor: Steve Joynes, Golovin

- File management with HEC-RAS
- Setting up a network
- Entering reach data
- Entering cross sectional data
- Entering roughness daya
- Junctions
- Bridges and culverts
- Steady and unsteady flow
- Executing plan files
- Floodplain analysis
- Interpreting and checking 1D results
- Exporting results for use in HEC-RAS

DAY 3 Thursday 18 October:
HEC-RAS 2D Hydraulics Part 1
Instructor: Krey Price, Surface Water Solutions

- RAS Mapper and GIS interfacing
- Importing terrain files
- Computational mesh generation
- Creating 2D areas
- Hydrologic boundary conditions
- Time step selection
- Entering unsteady flow data
- Computational options and tolerances

Friday 19 October:
HEC-RAS 2D Hydraulics Part 2
Instructor: Krey Price, Surface Water Solutions

- Setting up plan files
- Adding internal structures
- Breaching dams and lateral weirs
- Viewing and exporting in RAS Mapper
- Troubleshooting models
- Calibrating models
- Benchmarking HEC-RAS vs. other models
- Building your own model from scratch

All course days run from 8:30 am to 5:00 pm
Certification of professional development hours available to all attendees

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Certification of continuing professional development hours will be provided to all course attendees.

Location:

Environment Canterbury
200 Tuam Street
Canterbury 8011 New Zealand

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Registration Details

Organisation _____

Postal Address _____

Email contact _____

Dietary requirements _____

Course	Date	Attendees Name	Fee ($)
	Discounts		
	Sub-total		
	GST		
	TOTAL TO PAY		

Method of Payment

[ ] Invoice Me (purchase order or reference required)

[ ] If you are based in Australia you can pay by credit card.
Email hec-ras@surfacewater.biz

Register by email to steven@golovin.co.nz or post to P O Box 5545, Hamilton 3242

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Terms and Conditions

1. Registration is by 1st in - 1st paid basis.
2. If you cannot attend a course, a substitute participant is welcome.
3. If you withdraw from a course in writing or email more than 20 working days prior to the course, you will receive a full refund less a $50 administration fee.
4. If you withdraw with 10 working days' notice, you will receive a 50% refund.
5. After this, if you do not attend the course there is no refund.
6. If a course is rescheduled or cancelled due to lack of numbers, or any other valid reason, you will be advised 10 working days before the course and your course fee will be refunded in full.
7. Participants are responsible for their own travel/accommodation bookings and no compensation will be made should the course be rescheduled or cancelled.
8. Participants bringing their own laptop should install HEC-HMS and/or HEC-RAS and test the software prior to attending the course. Download links will be provided to all registrants.
9. To hire a laptop pre-loaded with all required software and tutorials for $50 per day, please contact hec-ras@surfacewater.biz.

Authorisation Signature

Name _____

Signature _____ Date _____

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