

ANCOLD HYDROLOGY, DAMBREAK & CONSEQUENCE WORKSHOPS

COURSE OBJECTIVES AND OUTLINE

This course is designed to present the state of practice on hydrometeorology, flood hydrology, dambreak modelling and estimation of consequences of dam failure for dam safety risk management.

Day 1

Hydrometeorology and Hydrology

Guidance for design flood estimation is provided in Australian Rainfall and Runoff and extreme floods are covered in Book VI. Such estimates are required for defining hydrologic loadings for dams and as input to dambreak models. Over the last decade there has been increasing application of stochastic simulation approaches for design flood estimation. There has been associated improved information and more sophisticated treatment of inputs such as design rainfalls, areal reduction factors, losses, baseflow and initial contents of reservoirs. A significant development has been the revision of the Intensity-Frequency-Duration (IFD) design rainfalls by the Bureau of Meteorology. The session will cover improved approaches to design flood estimation such as Monte-Carlo analysis and the characterisation of inputs.

Day 2

Dambreak and Consequence

An understanding of the consequences of dam failure is essential in dam safety emergency planning and as an input to risk assessment. In recent years there have been significant advances in hydraulic modelling and access to high quality elevation data which has revolutionised dambreak modelling. The advent of risk based approaches has increased the focus on estimating the consequence of dam failure and particularly the potential loss of life. The method developed by the USBR in 1999 has had widespread application in Australia and in recent years a number of more sophisticated simulation approaches have been developed. This session will cover the latest developments in dambreak modelling and the estimation of consequences of dam failure, focussing on the potential loss of life.

CONTINUING PROFESSIONAL DEVELOPMENT ENGINEERS AUSTRALIA

Attendees may claim as CPD hours their time at this short course, when subject to audit for the National Professional Engineers Register or National Engineering Technologists Register. Attendees will be issued with a certificate of attendance, detailing the hours of attendance, via email if requested.

WHO SHOULD ATTEND

This short course is designed for dam engineers working in the design of dams, dam safety risk assessments or emergency planning. This includes professionals specialising in hydrology, dambreak and consequence assessments or others desiring an introduction to these topics and is suitable for consultants, owners and regulators.



ANCOLD HYDROLOGY, DAMBREAK & CONSEQUENCE WORKSHOPS

Melbourne

2 – 3 September

Rydges Exhibition Street

Brisbane

5 – 6 September

Rydges South Bank

Sydney

9 – 10 September

Rydges World Square



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COURSE PRESENTERS

The course will be presented by the following keynote speakers and will be supported by a selection of local experts.



Wayne Graham

Wayne worked for the Bureau of Reclamation for more than 30 years and was responsible for preparing dam failure inundation mapping and downstream hazard potential classifications. In 1999, he authored DSO-99-06, "A Procedure for Estimating Loss of Life Caused by Dam Failure." The procedure has been used by the Australian dams industry as the de facto standard for more than a decade.



Janice Green

Janice has over 25 years experience in hydrology, hydraulics and water resource management incorporating a range of studies in Australia, Asia and India. She is heading up the team responsible for the revision of the Bureau's Intensity-Frequency-Duration (IFD) design rainfall estimates as part of the overall revision of Australian Rainfall and Runoff.



Dr Rory Nathan

Rory has over 30 years experience in academic and consulting positions, with specialist expertise in the characterisation of hydrologic risk. He was the senior author of Book VI of Australian Rainfall and Runoff and is ANCOLD's representative on the ICOLD Floods Committee.



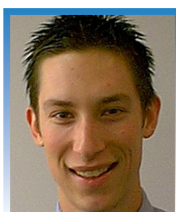
Peter Hill

Peter has 20 years experience in hydrology and dam safety risk management and has authored more than 60 technical papers. He is a member of Engineers Australia's National Committee for Water Engineering and is Convenor of the ANCOLD Acceptable Flood Guidelines.



Grantley Smith

Grantley is Principal Engineer and Manager of the Water Research Laboratory of the University of New South Wales. Grantley is an expert in the application of numerical models to catchments and floodplains and was instrumental in the pioneering use of 2D hydrodynamic models for floodplain modelling and inundation mapping.



Simon Lang

Simon has 8 years experience as a hydrologist. In 2009, he was awarded the ANCOLD travel bursary for young professionals, which he used to study methods for estimating the loss of life from dam failure. He has assessed the potential consequence of failure for approximately 70 dams and has pioneered the application of HEC-FIA in Australia.



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PROGRAM

DAY 1 Hydrometeorology & Hydrology

Time	Topic
0900-1000	Registration
0930 - 1000	Arrival Tea and Coffee
1000 - 1030	Workshop Welcome Introduction to Hydrometeorology & Hydrology
1030 - 1215	Streamflow & Rainfall Data Rainfall-runoff Routing Modelling Frequency Analysis
1215 - 1315	Lunch
1315 - 1515	Design Rainfall Estimation (including CRC-FORGE and PMP) Design Flood Inputs
1515 - 1545	Afternoon Refreshments
1515 - 1715	Simulations Frameworks – Deterministic Stochastic Uncertainty in Flood Estimates Climate Change Considerations
1715 - 1730	Summary & Close of Day 1

DAY 2 Dambreak & Consequence Assessment

0830 - 0910	Welcome Introduction to Dambreak & Consequence Assessment
0910 - 1010	Dam Breach Parameters Dambreak Modelling
1010 - 1030	Morning Refreshments
1030-1215	Concurrent Floods Loss of Life Case Histories
1215 - 1300	Lunch
1300 - 1445	Guidance in the Application of Graham (1999) Recent Developments in Estimating Loss of Life
1445 - 1505	Afternoon Refreshments
1505 - 1545	Economic, Social & Environmental Consequences
1545 - 1600	Summary & Close

REGISTRATION FORM



DELEGATE DETAILS:

Title (please circle): Ms / Miss / Mrs / Mr / Dr / Other _____
Given Name: _____
Surname: _____
Position: _____
Organisation: _____
Postal Address: _____
Suburb: _____ State: _____ Country: _____
Business Phone: _____ Mobile: _____
Email: _____
Special Diet or Access Requirements: _____

Attendee names will be added to a list of name and organisation details for general distribution to other delegates. If you do not want your name to appear on this list please indicate below.

I do not wish to have my name on the delegate list

REGISTRATION:

Please indicate which course you will be attending:

	ANCOLD Member	Non Member	Young Professional (U35)	Day Registration
Melbourne: 2 – 3 September 2013 Rydges Exhibition Street	<input type="checkbox"/> \$1,295	<input type="checkbox"/> \$1,400	<input type="checkbox"/> \$1,190	<input type="checkbox"/> \$750
Brisbane: 5 – 6 September 2013 Rydges South Bank	<input type="checkbox"/> \$1,295	<input type="checkbox"/> \$1,400	<input type="checkbox"/> \$1,190	<input type="checkbox"/> \$750
Sydney: 9 – 10 September 2013 Rydges World Square	<input type="checkbox"/> \$1,295	<input type="checkbox"/> \$1,400	<input type="checkbox"/> \$1,190	<input type="checkbox"/> \$750

If you have selected a day registration please indicate which day you will be attending

Please tick Day 1 Day 2

Please tick this box if you would like to apply to become an ANCOLD Associate Member which will entitle you to the "Member Rate". The secretariat will contact you directly in relation to the application process and an entrance fee (equating to half the membership fee) will apply on approval.

PAYMENT:

All fees are quoted in Australian dollars. Cheques, Money Orders or Bank Drafts should be made payable to "ANCOLD" and drawn on an Australian Bank or Australian branch of a foreign bank for the total amount in Australian dollars.

Method of Payment:

Credit Card Cheque Bank Transfer \$ _____

Credit Card Payments (We do not accept AMEX or Diners):

Visa MasterCard

Card Number: _____ / _____ / _____ / _____ Expiry Date: ____ / ____

Cardholder Name: _____ Cardholder Signature: _____

Please complete form and return with payment
Leishman Associates:
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Privacy Statement: When we collect and hold personal information about you, that is, information that can identify you, such as your name, address, other contact details and other information, it will be relevant to providing you with the services you are seeking. The personal information that we collect and hold about you depends on your interaction with us. Generally, we will collect and hold your personal information for the purposes of: providing services to you, to respond to queries made by you, to keep ourselves and you informed of the status of a former event you have expressed an interest in, or are attending. For a full version of the Leishman Associates Privacy Policy, please visit the website: www.leishman-associates.com.au