**DAY 1: TECHNICAL PROGRAM**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>7:30</td>
<td>Registration Desk Opens</td>
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<tr>
<td></td>
<td><strong>Grand Ballroom</strong></td>
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<tr>
<td>8:45</td>
<td>Welcome Day</td>
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<tr>
<td>8:50</td>
<td>Official Opening</td>
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<tr>
<td>9:00</td>
<td>Opening Keynote Speaker</td>
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<tr>
<td>9:15</td>
<td>Q&amp;A</td>
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<td>9:30</td>
<td>Morning Break</td>
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<tr>
<td>10:00</td>
<td>Keynote Speaker</td>
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<tr>
<td>10:30</td>
<td>Q&amp;A</td>
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<tr>
<td>11:00</td>
<td>Major Sponsor address</td>
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**Session sponsor:**

**Session 1A**

- A Logical ALARP Risk Procedure (ALARP)
- Ms Kate Robilliard, AECOM

**Session 1B**

- Emergency management in an age of Social Media.
- The Development of WaterNSW's Seismic Monitoring and Response Strategy
- Mr Alexander Duwell, WaterNSW
<table>
<thead>
<tr>
<th>Time</th>
<th>Session/Activity</th>
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</table>
| 12:05 | Of Droughts & Flooding Rains: The Influence of Major Incidents on Dam Ownership in Victoria  
Mr Richard Mannix  
Southern Rural Water |
| 12:05 | Queensland Dam Safety Legislation Review and Emergency Action Planning  
Ms Lorelle Hatch  
Department of Natural Resources, Mines and Energy |
| 12:05 | Performance of U.S. Federal Flood Protection Systems From 2010 through 2017  
Mr Nate Snorteland  
U.S. Army Corps Of Engineers |
| 12:15 | Lunch |
| 13:15 | Dam Safety Management of Junction and Clover Dams: A Risk Based and Observational Approach  
Mr Steve O’Brien  
AECOM |
| 13:15 | Incorporating flood forecasting systems into dam safety management  
Dr Fiona Ling  
WMAWater |
| 13:15 | 2018 Revision of Queensland’s Failure Impact Assessment Guidelines  
Mr Chris Nielson  
Department of Natural Resources, Mines and Energy |
| 13:15 | Review of the impacts of dam operations on flood hydrology  
Mr David Stephens  
HARC |
| 13:15 | The Challenges of Increasing Public Use and Expectations around Dams  
Ms Martina Cusack  
Goulburn-Murray Water |
| 13:15 | Remediation study of a multiple-arch dam built with precast elements and several combined pre-stressed steel systems  
Mr Vicent Espert  
Ofiteco |
| 14:35 | Importance of integrated asset management for dams and outlet works – a Melbourne Water perspective  
Mr Mark Callander  
Melbourne Water |
| 14:35 | The Development and Application of the Guide to Drawdown Capacity for Reservoir Safety and Emergency Planning in the UK and comparison with Australian practice  
Mr John Gosden  
Jacobs |
| 14:45 | Poster Session One  
Poster presentation, reporting and defence. |
| 15:15 | Poster #1  
Comparison of EZ-FRISK and OpenQuake Seismic Hazard Programs  
Miss Elodie Borleis, Seismology Research Centre |
| 15:15 | Poster #2  
Design and Construction of Reservoir Rim Stabilisation for Ulu Jelai HEP  
Mr James Martin, EIC Activities Pty Ltd |
| Poster #3 | Design development and construction of cofferdam within HPP scheme  
Mr Nikifor Petrovic, GHD |
| Poster #4 | Understanding Transverse Deformation for Zoned Embankment Dams  
Miss Beth Scott, Entura |
| Poster #5 | Exploring the potential of advanced instrumentation in physical hydraulic modelling for spillway design  
Mr Benjamin Modra, UNSW - Water Research Laboratory |
| Poster #6 | Ash Tailings Dam Rehabilitation - Challenges and Stretch Targets  
Mr Stafford Griffiths, Aurecon |
| Poster #7 | Demonstration of HEC-LifeSim Analysis of Dam Failure  
Mr Tyson Leong-Cuzack, Department of Natural Resources, Mines and Energy |

### Session sponsor

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<thead>
<tr>
<th>Grand Ballroom</th>
<th>LaTrobe Ballroom</th>
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<tr>
<td><strong>Session 3A</strong></td>
<td><strong>Session 3B</strong></td>
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<tr>
<td>Modern investigation techniques – Seismology</td>
<td>Dams - do we still design and build them to last?</td>
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</tbody>
</table>
| Hazard assessment of surface faulting affecting a vulnerable structure  
Mr Russell Cuthbertson  
Seismology Research Centre | Massingir Dam Rehabilitation Project: Construction and operational challenges  
Mr Peter Blersch  
Aurecon South Africa (Pty) Ltd |
| Potential geologic sources of seismic hazard in Australia’s south-eastern highlands: what do we know?  
Dr Dan Clark  
Geoscience Australia | Integrating Climate Change into Dams Management Practices  
Mr Tusitha Karunaratne  
DELWP |
| Evaluating potentially active tectonic faults for seismic hazard assessments in Australia  
Ms Dee Ninis  
Seismology Research Centre | Refurbishment of the 100 year old inlet tower on Mundaring Dam  
Mr Bob Wark  
GHD |
| **16:45** | **16:55** |
| Impacts of New Knowledge and the 2018 Draft ANCOLD Guidelines on Ground Motion Levels at Dam Sites in Australia  
Dr Paul Somerville  
AECOM | Omega-type external waterstops on a CFRD – an Australian first  
Mr Peter Buchanan  
GHD |

### Schedule
- **15:15** - **15:45** Afternoon Break
- **15:45** - **16:45** Session 3A Question Time  
Session 3B Question Time
- **16:55** - **17:00** End of day announcements  
Grand Ballroom  
LaTrobe Ballroom
- **18:00** Meet in the Sofitel foyer to walk to dinner
- **18:30** ANCOLD Conference Dinner  
SEA LIFE Melbourne Aquarium
**DAY 2: TECHNICAL PROGRAM**

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<tr>
<td>8:00</td>
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| 8:45  - 8:50 | Welcome Day 1, Safety, Housekeeping.  
*Conference Convenor: Paul Maisano* |
| 8:50  - 9:20 | Keynote Speaker  
*Carla Liedtke, Director – Control Risks*  
*Presentation Title: Cyber security for critical infrastructure*  
*Introduced by: ANCOLD Deputy Chair, Andrew Reynolds* |
| 9:20  - 9:30 | Q&A                                                                   |
| 9:30  - 10:00 | Poster Session Two  
*Poster presentation, reporting and defence.  
Please refer to Day One for titles and authors.* |
| 10:00  - 10:30 | Morning break                                                         |

**Grand Ballroom**

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<thead>
<tr>
<th>Session sponsor TBC</th>
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| 10:30 -              | The Review and Assessment of Scour in the Unlined Spillway Channel at Burdekin Falls Dam  
*Mr David Ryan  
SunWater*  
|                     | Dynamic analysis and design of stilling basin slabs at Fairbairn Dam  
*Mr Bob Wark  
GHD*  
|                     | Localised repairs of spillway concrete scour at the base of a 42m high arch dam  
*Mr Oliver Giudici  
Hydro Tasmania*  
|                     | Using Poisson Distribution to Compare CFD and Physical Modelling of Water Surface Levels for a High Speed Aerated Spillway  
*Mr Franz Jacobsen  
Engys*  
|                     | Lake Buffalo Spillway Gates Upgrade  
*Mr Tony Corbett  
Goulburn-Murray Water*  
| - 11:50 | Controlling the Murray River - Electrical & Control System Upgrades  
*Mr Chee Woo  
Goulburn-Murray Water*  
| 11:50 - 12:00 | Session 4A Question Time  
<p>| 12:00 - 13:00 | Lunch |</p>
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<tr>
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<tr>
<td>13:00</td>
<td>Seepage Flow Path Identification for Leakage Detection and Asset Management</td>
<td>Dam Safety Decision Making – should it all be about loss of life?</td>
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<td>Mr Richard Campbell HydroTerra</td>
<td>Ms Jane Branson Jacobs</td>
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<td>Assessing the accuracy of a two-dimensional hydraulic model for dambreak analysis</td>
<td>Planning for Exceedance in a Changing World: Incorporating Climate Variability and Uncertainty into a Framework for Dam Design and Management</td>
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<td>Mr Daniel Sheehy WRM Water &amp; Environment</td>
<td>Mr Adam Hosking Jacobs</td>
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<td>13:55</td>
<td>Advanced InSAR Techniques for Remote Monitoring of Dam and Slope Stability Ms Jessica Morgan TRE Altamira Inc.</td>
<td>Potential Biological and Geochemical Clogging of Vibrating Wire Piezometers in Low-lying Acid Sulphate Soil Dr Buddhima Indraratna University Of Wollongong</td>
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<td>Experiences in the use of TCP/IP technologies and IP cameras for remote surveillance of dams Mr Vicent Espert Ofiteco</td>
<td>Spillway and Still Basin Lining Design using Physical Hydraulic Modelling and DES CFD Modelling: Application of New Technologies Mr Shayan Maleki GHD</td>
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<tr>
<td>13:55</td>
<td>Session 5A Question Time</td>
<td>Session 5B Question Time</td>
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<td>14:05</td>
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<tr>
<td>14:05</td>
<td>Afternoon Break</td>
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<td>14:35</td>
<td>Conference Close, Awards and Presentations Facilitated by: ANCOLD Chairman, Shane McGrath</td>
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<tr>
<td>15:45</td>
<td>ANCOLD AGM</td>
<td>After AGM End of Conference Drinks – Sofi’s Lounge</td>
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