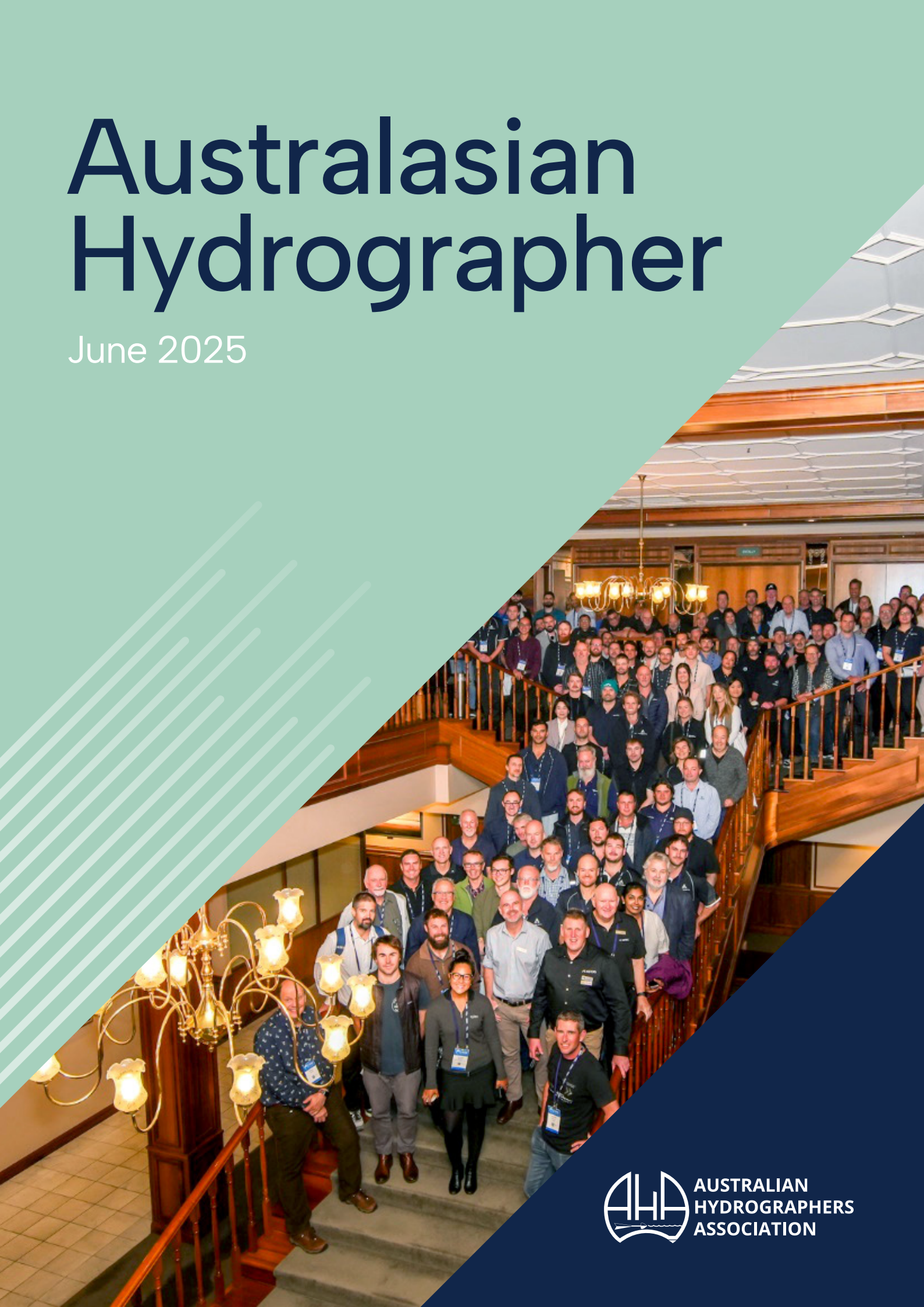


Australasian Hydrographer

June 2025



AUSTRALIAN
HYDROGRAPHERS
ASSOCIATION

AHA
Australian Hydrographers Association

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AHA Conference 2025

Acknowledgement of Country

The AHA acknowledges the Australian Aboriginal and Torres Strait Islander peoples of this nation. We acknowledge the traditional custodians of the lands on which our association is located and where we conduct our business. We pay our respects to ancestors and Elders past, present and emerging. The AHA is committed to honouring Australian Aboriginal and Torres Strait Islander peoples' unique cultural and spiritual relationships to the land, waters and seas and their rich contribution to society.

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From the Editor-In-Chief Zac Ward



And so, it comes to a close. All the hard work & tireless efforts that so many people have put into the recent AHA Conference (May 2025, Launceston) have definitely not been in vain. From all accounts the event was a huge success which I'm sure Arran & others will go into below.

I'm sure now the dust has settled many AHA Members will be thinking ahead to 2027 and pondering where the next conference might be held, the overarching topic/theme, what they might like to see, and hopefully what professionals may like to present come the time. Thank you so much to all who got involved, sponsors, exhibitors and a big congratulations to the well-deserving award recipients.

Unfortunately, I myself was not able to attend (massive amount of FOMO here team) but I would like to put out a call for any photo's, personal recounts/stories, articles or data from the Technical Field Demonstrations held at the conference. Last conference there were a plethora of photo's from the ADCP Regatta and I'd love to see the same contributed in order to round out this conference in all its glory.

I look forward to receiving some material in this space (I'm sure there's lots) and will ensure it is published in the next edition of the Australasian Hydrographer. We all have a passion for water, rivers & technical data so please share so I can live vicariously through hydrographer's detailed field notes.

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Cheers,

Zac

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From the President Arran Corbett



Dear Members of the Australian Hydrographers Association,

Thank you for bringing such incredible energy and enthusiasm to our recent biennial conference, held at the Country Club Tasmania in Launceston. Your participation made the event a resounding success, and the feedback we've received has been overwhelmingly positive and constructive.

On behalf of the organising committee, I want to express our heartfelt appreciation to all delegates for your ideas, engagement, and feedback—both in person and through the event app. Your contributions have helped shape a memorable and meaningful experience for everyone involved. This year's event brought together 207 attendees creating a vibrant and diverse community of professionals. We hosted 17 trade exhibitors, each showcasing innovative technologies and solutions that are helping to shape the future of water monitoring. Impressively, 96.43% of attendees rated the conference 4 or 5 stars—clear evidence of the value and impact this gathering delivered.

I'm pleased to acknowledge the winners of this year's conference awards:

- The Alex Miller Award was presented to Logan Cameron (Department of Local Government, Water and Volunteers) for his exceptional presentation, *"The Use of Hydro-STIV Incorporating Low-Cost Cameras."*

- The Young Professional Award—which includes the opportunity to present at the upcoming NZHS Conference in Greymouth—was awarded to Matthew Pilkington (QLD Hydro) for *"From Zero to Flow – Hydrometric Monitoring for Pumped Hydro."* Special thanks to Manly Hydraulics Laboratory for generously sponsoring this award.

A sincere thank you to Agnes Zalan and the Blue Mountains Events & Conferences team, whose dedication and professionalism ensured a smooth and successful event.

We are also grateful to our sponsors:

- Platinum Sponsor: Kisters
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To all our sponsors and exhibitors—your support is vital to the success of the AHA Conference and the broader hydrography community. You can find links to sponsor websites on the AHA website.

Thank you again for your continued commitment to excellence in hydrography. Your passion and support are what keep our industry progressing. I look forward to what we will achieve together over the months ahead.

Best regards,

Arran Corbett

President, Australian Hydrographers Association

International Women's Day March 8, 2025

Original compiled by Tara Matthews (Water Quality Community of Practice and AHA contributor). Original published by Zac Ward (Editor-In-Chief, Australasian Hydrographer)

*Corrigendum approved by Editor-In-Chief after feedback from author (Krystal Hoult) on currency of interview/photo published. Original document:
https://www.aha.net.au/downloads/journal/Australasian-Hydrographer_Feb2025.pdf

Krystal Hoult

Senior Project Manager

What led you to the world of water monitoring?

I completed a Bachelor of Science (Technology) at the University of Waikato in New Zealand, which has work placement papers as part of the core study plan. One of the placements on offer was a Monitoring Officer role within the Hydrology Team at Northland Regional Council i.e. low-flow stream gauging over summer.

In my placement report I concluded that while it was a great summer job, hydrology was not for me; I have now been in the industry for twenty years.

My degree focused on earth sciences – hydrology, groundwater, soils and coastal; as well as biology, chemistry, resource management, GIS, business management and work placement papers; a well-rounded tertiary education.

I have worked in a wide variety of spaces – NZ Regional Councils, hydraulic modelling, suppliers of environmental monitoring equipment and services, consulting, NSW and VIC state government and environmental protection.



What is your favourite part of your role?

My favourite part is supporting our hydrographers. I love being involved with our people, particularly those who are experiencing growth within our industry, or are newer to it.

The people within ALS Hydrographics and our wider industry in general, are fantastic humans, it tends to attract a very down-to-earth personality type.

Where we fit in the water/environmental industry is very real, monitoring and validating what is actually going on in the real world. The work we do is critical for the management of Australia's most important resource – water and our environment. Many people, in very important roles, use the information we supply, to make crucial, life altering decisions – every day. It can be very easy to lose sight of the fundamental significance of what we do.

What is your proudest career achievement?

My proudest career achievement is my Associate Fellow of the Australian Hydrographers Association (AFAHA). This was announced at an AHA Conference and took me completely by surprise.

Are there any emerging trends that have piqued your interest?

"We are Safe" – there are now so many tools and technical advancements available to enhance personal safety, reduce time onsite and keep people out of the water e.g. apps, drones, remote cameras, trackers, unmanned boats, use of imagery etc.

I have experienced loss within our industry, because of workplace accidents, nothing is more important than safety, nothing.

What advice do you have for anyone who is considering a career in water monitoring?

Give it a go, it will not disappoint, I adore our industry. If you would like it to, it can take you all over Australia and overseas. There is so much variety and always something new to learn – every monitoring site is different.

Work placements and experience are brilliant, they provide you with invaluable skills and a taste of what we do.

Recruitment and development of our people is a very active process for us at ALS Hydrographics,

we have intentional recruitment strategies and development pathways.

We aim to give insight into what we do, for those considering their future career options – day in the life videos, virtual reality headset experiences, attendance at careers days, industry tours and work experience opportunities.

We endeavour to support and develop those already on board with us – funded access to AHA Membership, Certification and Diploma; secondments; access to senior team members/mentors; specialist training; Enterprise Bargaining Agreement (EBA). We are currently developing our people, who are interested, in bathymetry monitoring. Our current EBA has transparent and consistent pathways (essential for gender parity!) – trainee, assistant, standard, senior – for the following areas – hydrographer, instrument technician, data analyst and wastewater technician.

The future of our industry is exciting and likely consists of opportunities that we cannot even fathom today! Over twenty years ago when I undertook my first gauging in rural Northland, New Zealand with a pygmy current meter, current meter counter, a laminated NIWA chart, waterproof paper and pencil – I certainly had no idea we would be where we are today.

What's your International Women's Day message and what does this day mean to you?

We must continue to innovate in our industry, to do this we need to think in different ways, we need to be diverse. Diversity is key, celebrating and advancing women, is a core part of diversity.

Women have different lived experiences, we see things differently, we are an asset across a wide range of areas. Women are capable of so many things. I am constantly in awe of the incredible women across our business and industry.

AHA Special General Meeting – 13th May, 2025

Info provided by Edna Coetzee (AHA Secretariat)

As communicated before, the Australian Hydrographers Association (AHA) held a **Special General Meeting on Tuesday, 13 May 2025** at the 2025 AHA Conference. Members could attend the meeting in person and online. **73 AHA members attended the Special General Meeting** and voted overwhelmingly in favour for AHA to convert from an incorporated association to a company limited by guarantee. This includes a new Constitution.

Members also approved that the current Committee members would be the inaugural directors of the company. The directors were authorised to do all things necessary to give effect to these resolutions and to cancel the registration of AHA as an incorporated association once the conversion is completed.

The first step in the process is to obtain authorisation from NSW Fair Trading to apply for AHA to be registered as a company limited by guarantee.

The Committee thanks all members for the professional way in which they approached the Special General Meeting, asked insightful questions and voted for the Australian Hydrographers Association to be the peak body in hydrometric monitoring in Australia.

The Committee will keep the members updated on the progress made in this regard at the Annual General Meeting scheduled to be held on Wednesday, 19th November 2025.



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AHA Conference 2025 – Launceston, Tasmania (overview)

Compiled by Tara Matthews
(Water Quality Community of Practice and AHA contributor)

After two years of planning, anticipation turned into excitement as the AHA 2025 Conference took place from 12–15th May in Launceston, at the picturesque Country Club Tasmania. With 207 attendees from across Australia, New Zealand and internationally the setting was as memorable as the event itself—many woke to the sight of wallabies just outside their windows. The week was filled with valuable insights from interstate colleagues and plenty of opportunities to connect with the industry through a variety of engaging social events.

Kicking off on Monday was our pre-conference workshops which ran concurrently and included a **Bureau of Metereology** Flood Warning Network session which lead to the transition from ALERT to ALERT2 workshop, sponsored by **Campbells Scientific**.

Daniel Wagenaar from **Xylem Water Solutions** presented on Acoustic Doppler Theory and Applications, and **Christoph Sommer** from **Sommer GmbH** presented on TQ Tracer postprocessing and better understanding of the tracer dilution method.

On Monday evening the delegates gathered in the exhibition hall for the Welcome to Country presented by **Denni**, a proud Pakana women and artist in Launceston.

Following this, the kick off of the welcoming drinks sponsored by **Ventia** this was presented by **Tom Gerdei**.



Daniel Waagner – Acoustic Doppler Theory and Applications



Bureau of Metereology pre-conference Flood Warning



Bureau of Metereology pre-conference Flood Warning



Delegates at the Opening Drinks Reception



Tom Gerdei from Ventia kicking off the Welcome Drinks

Tuesday marked the official start of the conference sessions, beginning with an international keynote address by **Dave Mueller from Genesis Hydrotech (USA)**, who presented on *Advances in Hydrometric Technology: New Insights and Emerging Challenges*.

This was followed by a plenary session featuring **Bernadette Proemse from Eco Detection**, who spoke on high-frequency real-time analyser technology and its role in advancing water quality monitoring.

The afternoon sessions were divided across three streams where delegates could choose their subject interest, before gathering together for Plenary sessions in the afternoon to close day 1.

One of the many highlights of the day included the Plenary session presented by **Dr Ryan Turner** titled *Best practice in real-time (in-field) water quality monitoring for improved management and assessment* and formally introduced the *AHA National Water Quality Monitoring Community of Practice*.



Delegates on the first day of the conference.



Dr Ryan Turner presenting on the AHA National Water Quality Monitoring Community of Practice



Dave Mueller, Key note presenter from Genesis

The Community of Practice has a steering committee formed alongside Ryan including **Malcolm Robinson** from **WaterNSW**, **Michael Whiting** from **DWER** in Western Australia, Ben Ferguson from **DETSI** and **Tara Matthews** from the **AHA** and are currently reviewing the Water Quality Metadata National Industry Guideline and are looking at the inclusion of a real-time monitoring component into a revised guideline.

The evening festivities included the Conference Dinner at the Grand Chancellor Hotel in Launceston. The dinner was generously sponsored by **Esdat** which was followed by the presentation of the **AHA Fellowship award** recipient **Mike Lysaght**, that **Bill Steen** and Arran Corbett from the **AHA** introduced.

The evenings entertainment was acclaimed comedian **Rachel Berger** and a big thanks to **Kim Millar** our conference MC for MCing the dinner.



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To wrap up the final day of the conference the delegates attended a 'kiwi themed' morning. Here, the crowd favourite that had won the best presentation at our sister association the New Zealand Hydrological Society (NZHS) **Reuben Stuart** and **Pete Mason** from West Coast Regional Council presented on *Validating High Flow Rating Curves: a Comparative Approach Using Slope Area, STIV and radar gun gaugings*. Their stage presence was captivating with a very clear message in comparing the fundamental slope methods with the latest technology.

Before a night of drinks and networking at the Ducane Brewery in Launceston, our conference awards presentation were awarded. A big congratulations to our award recipients:

Logan Cameron recipient of the Alex Miller Award

Matthew Pilkington recipient of the Young Professionals Award



Matthew Pilkington from Queensland Hydro accepting the Young Professionals Award sponsored by Manly Hydraulics Laboratory.



Logan Cameron from Department of Local Government, Water and Volunteers accepting the 2025 Alex Miller Award

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A warm thank you to our conference organising committee: **Andrew Weatherburn** from **DWER**, **Harrison Schofield** from the **Bureau of Metereology**, **James Newett** from **Hydro Tasmania** and **Tara Matthews** from **Thermo Fisher Scientific** and to **Agnes** and **Tabatha** at **Blue Mountains Events & Conferences**, as well as **Andrew Davidson** from

the **Department of Local Government, Water And Volunteers** for volunteering his time and to all the speakers and delegates who made the time to attend and present.

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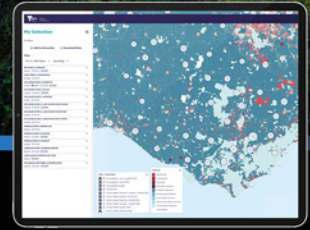


AHA Conference Photos – Launceston 2025

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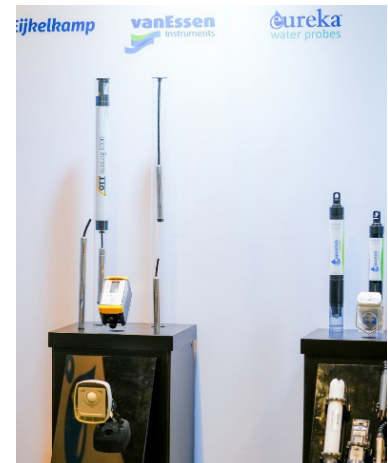
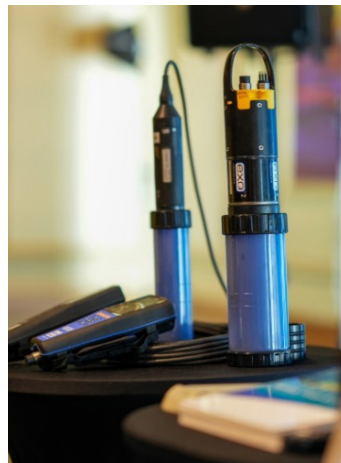
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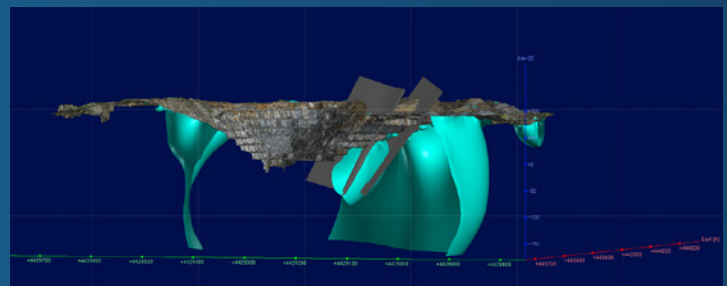
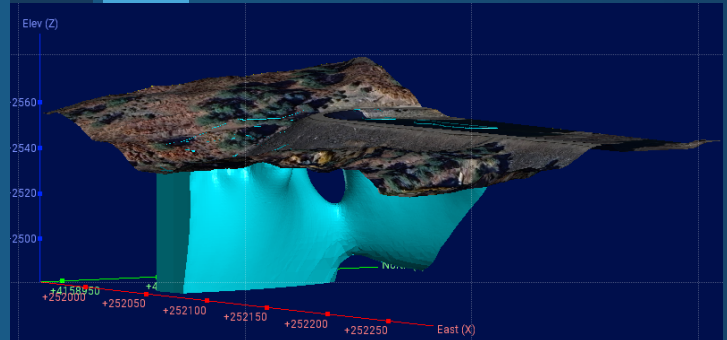




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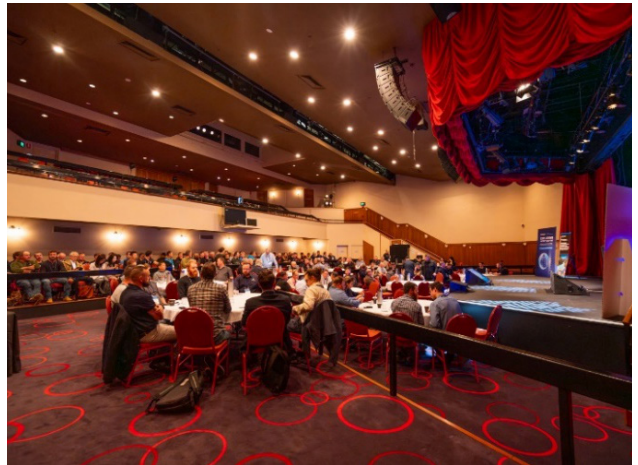


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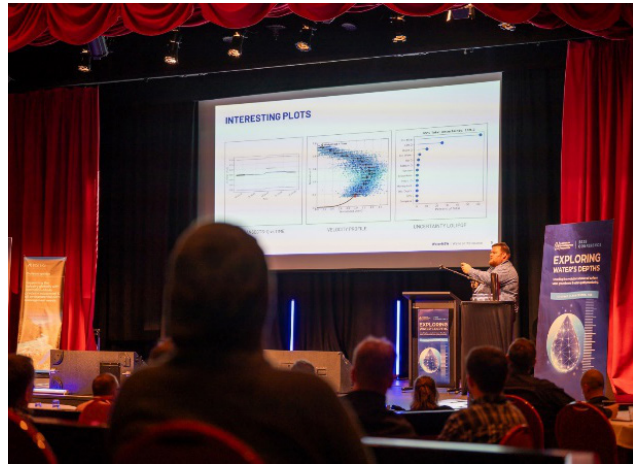
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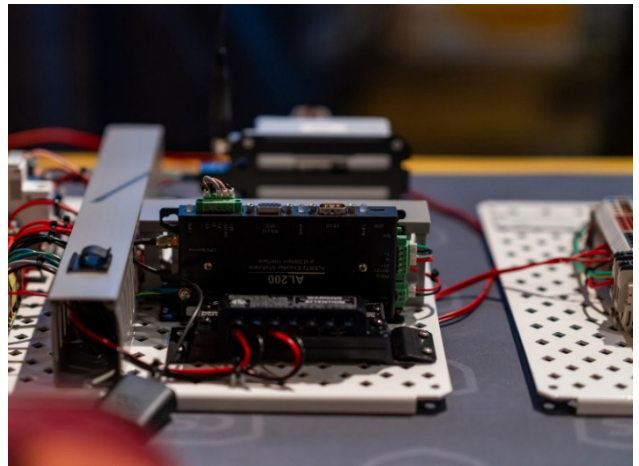




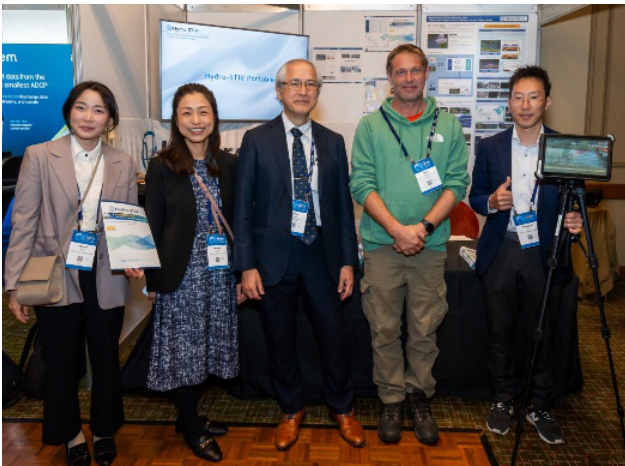
DAY TWO











A Week in “THE TRON”, 2025

Author – Mic Clayton (FAHA, CPH) Cooma, NSW.

The TRON!

Couldn't resist it!

The New Zealand Hydrological Society (NZHS) Technical Workshop was held in late March in Hamilton, New Zealand. The venue at GloBox Arena was a fantastic venue – with fine sustenance through each day to keep the delegates engaged through the light and heavy topics that were presented.

Note – The name currently attributed to Hamilton is The Tron, that has stuck in recent times as the gently self-mocking title of *Hamiltron, City of the Future*. It was masterminded by student radio DJs in the late 90s after a competition was run to see who could come up with a decent name for the place.

(I thought it was connected to GloBox arena but I do prefer the student DJ's version of the world!!)

The theme of the workshop was “Our Evolving Relationship with Water: Drawing on the past as we explore the future.”. The workshop ran over 3½ days including a regatta under challenging operational conditions (more on that later). A Data Day was held for the indoor boffins, while those who were at the regatta collecting wet data had a nice day in the sun, down by the river! Keynote speakers included representatives from the Korea Institute of Hydrological Survey with following subsequent international speakers in the opening session helping to assist with setting the picture for the rest of the workshop. The workshop included hydrology, water quality, network management and knowledge transfer from old hands to young hands in the mix of discussions.

Keynote speakers from the Korea Institute of Hydrological Survey revealed the challenges of this relatively young organisation in monitoring and contributing to the management of water resources in South Korea. Apart from the hydrological monitoring of Korea's water resources, the historical aspects and twists of turns of the water world in Korea were fascinating. The speakers explained the history of water monitoring from the Joseon Dynasty (1441), through the Japanese occupation period in the early 20th century, then through a number of versions of the current organisation formed in 2017.

A master plan for the development of critical hydrometeorological infrastructure was developed in 2008. The second revision as of 2020 for the 2029 target showed:

- Precipitation Gauge target of 814 gauges was 77% completed,
- Water Level sites target of 988 was 83% completed,
- Discharge Sites target of 380 sites was 77% completed,

amongst other variables being monitored.

Interestingly though, the philosophy of validation/calibration of sites showed a different perspective to those of us, in Australia, involved in regular ISO 9001 audits and the like!

It was fascinating and refreshing to see a forward-looking mindset with regards to being focused on the monitoring and subsequent management of a country's water resources, in comparison to the scenario many of us encounter with battling for resources and funds after the big flood event or major weather event has occurred!

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Evapotranspiration	5



[On-site certification]



[Indoor(Laboratory) certification]

Figure 1: Source KIHS presentation – NZHS Technical Workshop 2025

Hydrological Newbies

The challenges of the younger entrants to the ‘most venerable’ occupation of hydrography were a regular theme throughout the workshop.

Whatever the reason, or circumstance, some regions in New Zealand have a relatively young hydrological demographic or short periods of hydrological experience. Sometimes in these instances there was little or no planned transition from old hands to the young. In one region the mean ‘hydrological career length’ of the practitioners was just on two years! These ‘newbies’ are thirsting for hydrological knowledge to help them achieve the best for their communities. Events, like this workshop, provide them with avenues to seek advice and assistance from others they would not have known existed.

Standards Development and Maintenance

Sessions on the National Environmental Standards (NEMS – the equivalent of our National Industry Guidelines in Australia), included a workshoping session on targeting issues with NEMS and where work should be focused on into the future.

Presentations throughout the common sessions were thought provoking and engendered much out of session, and at the networking events, discussions between participants. I can’t vouch for the Data Session though – but I understand that they were allowed outside once in a while, while all those at the Regatta were enjoying the outside – but not necessarily wanting to go inside!

Flow Measurement Day (Regatta)

This day is a major component of the workshop in the NZHS field expertise development calendar.

Authorities, vendors, and those wanting to learn more about what the challenges are in getting this primary field measurement, keenly participate in this collaborative event during NZHS workshops. This event is always a highlight of the workshop – enabling participants to compare and refine their processes against the NEMs and how others do things. A practical improvement opportunity in action! The Regatta was conducted on the Waikato River in Hamilton. While challenges existed for the day – it was a successful event showing the resilience and agility of our NZ counterparts in measuring rivers.

Firstly, the flow challenge of the day:

The flow in the Waikato was 150-160m³/s – apparently the river was “a bit low” according to the Waikato Regional Council water monitoring team! With there being little option for any wading gauging’s, flow measurements were restricted to USVs (unmanned surface vessels) and a jet ski gauging in action. *Some may remember the jet ski presentation by Tane at the 2023 AHA conference.*

The Waikato Regional Council staff have access to the Waikato Harbourmaster’s jet ski vessel to which a special mount for an ADCP has been fitted.



Figure 2: Waikato Harbourmaster vessel (ADCP at rear)

Apart from undertaking a moving boat measurement the jet ski was also used to generate water surface features (disturbances) on the far bank flow areas for ‘video’ gauging’s as well as an impromptu rescue of one wayward USV!



Figure 3: Close up of ADCP mounted on the Waikato Harbourmaster vessel

It was described as a 'swarm' of Surfbees on the day though.

Many authorities in New Zealand have recognised the ability of Australian made Surfbees to improve the ability to safely obtain ADCP flow measurements in a variety of monitoring situations. The Surfbee platform is certainly a dominant participant in the New Zealand hydrological monitoring space. Mind you there weren't only Surfbees, participants also utilised Arcboats, QBoats and RQPods in the flotilla on the river on the day.



Figure 4: Surfbees, Arcboats, QBoats and RQPod in use during the Flow Measurement Regatta

But 'low' flows weren't the only challenge of the day! Here is number two.

The lower Waikato has a biosecurity risk for water activities with the invasive freshwater Golden Clam becoming a recent problem in this part of New Zealand where this invasive pest smothers the riverbed with its infestations and resultant dead shells. Locally the Waikato team have to manage equipment used in stream on an everyday basis including:

- Washing down vessels with appropriate additives,
- Leaving equipment dry for many weeks before reuse or,
- Freezing equipment overnight (including waders) before use the next day

The Waikato Regional Council team implemented a wash down station for equipment used in the river on the day, in line with the biosecurity risks control measures, enabling out of region participants to be confident with bringing their equipment to Hamilton for this important workshop activity.



Figure 5: Biosecurity washdown at the Regatta

Out of session activities

Each evening was an opportunity for participants to discuss further the topics of the day.

Kisters sponsored a 'discussion' evening, Envco a games night at a local community club, and the workshop dinner at a prominent winery of the Hamilton region sponsored by NZHS. All events had their golden moments.

The New Zealand Hydrological Society Technical Workshop occurs annually in late March/Early April.

I would recommend it as a worthwhile addition to your continual professional development programme, being affordable and pure value for money in my opinion.

Next year's workshop is slated for the West Coast Region (South Island). This region is spectacular and challenging for hydrological work. The workshop should prove to be equally exciting and challenging!



Figure 6: Evening Bowls night at the Hamilton Cosmopolitan Club (sponsored by Envco)

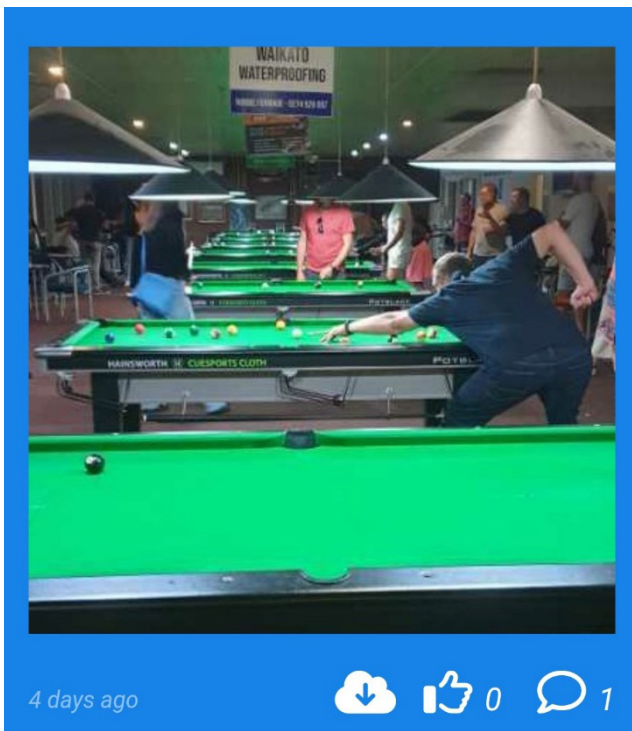


Figure 7: More action from the 'Cosmo' night! (Source Eventair App)

