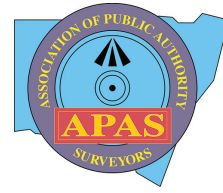


Plumb Lines and Mulled Wines: APAS2025 Conference



The Association of Public Authority Surveyors NSW (APAS) was formed in 1994 primarily to cater for the needs of surveying and spatial information professionals working within state and local government and the education sector. Nevertheless, private surveyors also benefit immensely from APAS events such as the annual conference, which forms an important part of the professional development events calendar. In fact, private surveyors are now eligible to become associate members of APAS.



APAS2025 conference

APAS prides itself on organising an annual conference that is highly informative, focused on practical outcomes relevant to the surveying and spatial information community and provides ample opportunity for interaction with colleagues and exhibitors showcasing their newest technology.

The APAS2025 conference was held in Lovedale in the Hunter Valley on 24-26 March 2025, with the theme "Plumb Lines and Mulled Wines". As we continue to embrace the digital age, leveraging available technology to improve workflows and reap the benefits of increased automation, the surveying profession must not forget its roots and the value of historic measurements.

APAS2025 encompassed 7 sessions with 19 presentations, half of which included a full paper. Continuing the tradition of being a practically oriented conference, a wide range of topics relevant to our profession

was covered. This year's conference focused on cadastral surveying, with other key topics being the NSW Gravity Model, LiDAR and laser scanning, surveying history, and how modern technology can be used to our advantage. There was also plenty of opportunity for networking and exploring the newest developments at the technical exhibitors' booths.

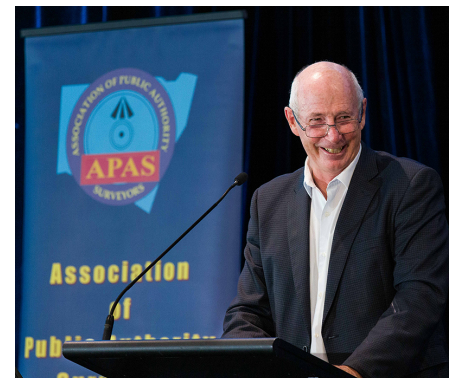
APAS2025 was a highlight on the CPD calendar and attracted 135 delegates from New South Wales and interstate, with 45% of delegates from private industry. As usual, the conference kicked off on Monday afternoon with the annual APAS team building event (golf tournament).

25TH MARCH - MORNING

The first session started with Vittorio Sussanna (DCS Spatial Services) introducing the NSW Gravity Model on behalf of NSW Deputy Surveyor-General Thomas Grinter. This is Australia's first model produced from a comprehensive, state-wide gravity survey captured in a single airborne campaign. He discussed the data collection and processing, and outlined the benefits this model will provide to the surveying profession and wider community, with gravity data made freely available to the public for the benefit of all.

Geoff Songberg (formerly Crown Lands) investigated the use of the range ratio method for transferring a level for Mean High Water (MHW) from a long-running tide gauge to a remote survey site. This included considering whether this method would satisfy the requirements of the surveying regulations in establishing tidal cadastral boundaries and the relationships of land tenure to the level of MHW.

Nick Thompson (Beveridge Williams) reported on a 2024 EISSI award-winning project that initially appeared to be a routine task but soon evolved from a delimitation survey for the construction of a new garage into a complex adverse possession claim. He highlighted the challenges and innovative solutions employed in this particularly intriguing urban land titling endeavour.



Top: Robert Monteath giving the ISNSW keynote address during the Opening Ceremony.
Above: John Brock presenting on 'how Surveyors changed the world'.

The Official Opening took place at the beginning of the day's second session, starting with a Welcome to Country by Uncle Warren Taggart, Wonnarua Elder. Keynote addresses were then given by Daniel Watton, Mayor of Cessnock City Council, Robert Monteath, Director of ISNSW, Michelle Blicavs, CEO of Surveyors Australia, Cathy Moses, Manager of the Association of Consulting Surveyors NSW, Tony Wheeler, CEO of the Geospatial Council of Australia, and Micheal Kocoski, President of APAS.

After the official opening, Phillip Nixon (Jacobs) marked 10 years since the commencement of the back capture of existing cadastral plans in NSW. He outlined the basic components of LandXML that are important to cadastral surveyors and the advantages that having almost all plans captured in a topologically vector-based format can bring.

John Evans (former council surveyor) outlined the wide range of cadastral services provided by surveyors working within local government. This included establishing an existing physical road through a public reserve that is classified as community land as a public road without changing the classification as well as researching and classifying existing drainage structures passing through private property not covered by an easement.

25TH MARCH - AFTERNOON

The first afternoon session began with Lochie Graauwmans (University of Southern Queensland graduate & APAS UniSQ Student Project Prize 2024 winner) evaluating the suitability of post-processed LiDAR data derived from a low-cost UAV-borne LiDAR sensor. He found that the application of post-processing methods is effective in improving the precision of the datasets, but not necessarily their accuracy.

Mansoor Sabzali (University of Newcastle) investigated how to improve the accuracy of Terrestrial Laser Scanning for structural monitoring tasks where direct site access is typically not possible. He focused on establishing standards for accuracy improvement (verification and/or calibration) to distinguish between actual geometric changes and uncertainties caused by measurement procedures.

This was followed by several technical exhibitor presentations, showcasing new advances in technology and surveying instrumentation and how these can be used in practice for a wide range of applications. Practical demonstrations gave delegates the opportunity to appreciate and evaluate the capabilities of these instruments in practical scenarios.

The afternoon's second session consisted of Billy Steer (ACT Office of the Surveyor-General) providing a brief history of NSW titles within the ACT and their redefinition. He examined a recent ACT supreme court case in which a lack of appreciation for the principles of redefinition and likely poor supervision and training resulted in a significant error when redefining pre-ACT plans of survey. For this contribution, Billy later received the Keith Haddon Memorial Prize for the best conference paper.

The gala dinner, with MC Thomas Casey, concluded the day. Dinner speaker Russell Turner (Fire and Rescue NSW) captivated the audience by elaborating on what happens when disaster strikes and how Incident Management Teams require accurate



Technical exhibition



Top: Gala dinner. Above Left: Gala dinner speaker Russell Turner. Above Right: Gala dinner MC Thomas Casey.

intelligence to make good decisions and render incidents safe as quickly and safely as possible. Crucial ingredients are datasets drawn from drones and satellite imagery and the collaboration with specialist practitioners like engineers, surveyors and scientific personnel.

Fred de Belin was awarded APAS Life Membership in recognition of his outstanding service to the organisation and the profession over many years, particularly regarding the protection of survey marks and as author and presenter of 18 papers at 13 consecutive APAS conferences between 2012 and 2024. Unfortunately, Fred was unable to attend but will receive his award at this year's Government Surveyors' Dinner.

26TH MARCH - MORNING

The day's first session kicked off with Dr Terry Kass (Historian and Heritage Consultant) showcasing surveyors and their key role in allocating place names in 19th century NSW, which determined much of the cadastre and conceptual framework of today's place knowledge. Nostalgia, personal attachment, friendship

and professional flattery all contributed to names submitted for consideration.

John Brock (Brock Surveys) explored the surveyors of Australia, focussing on those who charted our unknown coastlines as well as home-grown surveyors responsible for ensuring that structures like the Sydney Opera House and Harbour Bridge were erected with the highest precision. He also noted that the only two surveyors of Olympic tracks in the southern hemisphere in the 20th century were Australians.

Michelle Blicavs (Surveyors Australia) discussed the art of communication and its importance to surveyors. She provided tips on how to deliver a compelling message, craft messages suitable for the various channels we use professionally (i.e. email, texting, F2F meetings and addressing the media) and present confidently at a meeting or event (the ultimate fear for many).

Cathy Moses (Consulting Surveyors NSW) updated us on the stakeholder and engagement plan being implemented

by Surveying Careers NSW to promote and champion a career in surveying to teachers, students, families and individuals across the country. She also touched on initiatives and collaborative activities that are in motion for the future to help combat the ongoing skills shortage in surveying.

At the beginning of the second session, Les Gardner (DCS Spatial Services) reported that more than 2,000 historical trigonometrical (trig) stations in the Sydney region will be added to SCIMS so that surveyors can easily discover and access valuable survey information on public record relating to these marks (and survey plans that used the marks). He explained how this important historic information was sourced and checked to be added to SCIMS for the benefit of the surveying community.

Mark Butler (retired Registered Surveyor) discussed resurrecting the original intent from old cadastral data when dealing with rounded values obtained on survey plans as the input for cadastral calculations. He presented several methods for a

potential solution where every dimension is considered on its merits, including implied dimensions which can sometimes be a little hidden.

Nick Thompson (Beveridge Williams) returned to outline another 2024 EISSI award-winning project, dealing with a cadastral acquisition survey for the Muswellbrook Bypass in support of regional growth and renewable energy infrastructure in the Hunter Valley. He highlighted the challenges faced and the

importance of a collaborative approach to problem solving within challenging timelines for this complex rural cadastral acquisition survey.

Last but not least, Geoff Songberg (formerly Crown Lands) returned to examine the use of tidal gradients derived from long-running tide gauges throughout an estuary to determine the level of MHW. He analysed tide gauge data along 11 coastal estuaries in NSW to see whether the theory behind tidal

gradients measures up to the standards required by the surveying regulations and our changing knowledge base.

26TH MARCH - AFTERNOON

The last session commenced with Thomas Casey (BOSSI) describing the operation of the BOSSI Professional Audit and Investigation Committee (PAIC), which is charged with the investigation of complaints against surveyors that have been received and accepted by the Board. He outlined the complaint assessment and investigation process and detailed recent cases that have resulted in disciplinary action against surveyors and the prosecution of unregistered persons.

The conference concluded with Wayne Fenwick (DCS Spatial Services) presenting the revamped and reformatted Surveyor-General's Direction No. 7, following the release of the new Surveying and Spatial Information Regulation 2024. Along with the major changes to the Regulation, he covered topics such as the chain of traceability, natural feature reports, marking arc boundaries and permanent survey marking density.

During (and after) the Annual General Meeting, the following APAS office bearers were elected for 2025/26: Micheal Kocoski (President & ISNSW Representative), Wayne Fenwick (Vice President), Alex Burridge (Secretary & Public Officer), Don Urquhart (Treasurer), Nigel Petersen (Past President), Dr Volker Janssen (Publications Officer), Michael Spiteri (Conference Manager), and Committee Members Thomas Casey, Alecia Goodrich, Joel Haasdyk and Laura Walsh.

The APAS2025 conference proceedings are available online from the APAS website (<https://www.apas.org.au/>).

APAS2026

APAS2026 will be held in Bowral on 16-18 March 2026. Please consider contributing to next year's conference by presenting a paper. There is a lot of fantastic work being done out there – why not tell the profession about it? For more information and to indicate interest in presenting at APAS2026, please contact the APAS Publications Officer, Dr Volker Janssen (Publications@apas.org.au).

Dr Volker Janssen, DCS Spatial Services



Top: Billy Steer accepts the Keith Haddon Memorial Prize for the best conference paper from APAS President Micheal Kocoski. Above: APAS committee for 2025/26.