POOL WATER TREATMENT ADVISORY GROUP

# PWTAG CONFERENCE 2025

***World-Class Pool Water***

This year's conference at Loughborough University's Holywell Conference Centre attracted 140 individual delegates and 9 sponsors. This was a significant increase on previous years.

For the first time, the final session of the day was available online as it was of interest to schools in particular, but other organisations also took the opportunity to join us.

The conference presentations were delivered in four sessions:

- Changing pool chemistry
- The impact of poor pool water
- Future methods
- Temporary pools

**Changing pool chemistry**

PWTAG's Ian Nicks explained how the levels of chemicals needed for a successful swimming pool operation are entwined and clarified the relationship between the various levels of chemicals required to achieve a positive outcome.
Ian gave a practical demonstration indicating the importance of ensuring that total alkalinity is maintained above 80mg/l in order to facilitate flocculation.

PWTAG chair Ian Ogilvie explained the impact of EN-15288 on the delivery of chemicals and their storage requirements. He discussed the key principles of chemical safety, including appropriate segregation of incompatible substances, secure and ventilated storage areas, and robust

delivery protocols, the importance of clear signage, and chemical spillage controls.

Dr Sonia Guri, the Research and Development Manager for Air Products Ltd, promoted the use of carbon dioxide as a particularly safe and sustainable pH stabiliser.

**The impact of poor pool water**

Rob Johnston from the UK Health Security Agency described the work that the investigatory and enforcing agencies and authorities do – not just with swimming pools, but for the water industry as a whole. He analysed pool water incidents and the reporting and investigative processes that assist organisations in pool water incident response and preventative public health measures.


PWTAG technical adviser Dr John Lee discussed how the standards used for disinfected pool water were derived. It was also discussed how results of monitoring should be interpreted and whether non-chemical treatments mean the standards currently used for natural bathing waters are more appropriate. Dr Lee also presented the potential for change in testing methodology.

Dr Martin Wood from Pool Sentry outlined the case for revisiting the calculation of bather loads. The traditional guidance uses the general rule that 1.7m$^3$ of water needs to be circulated per bather as a conservative value to ensure acceptable water quality. There is now a scientific underpinning that brings that guidance in line with the DIN standard and offers opportunities to minimise the amount of energy used to circulate water while maintaining excellent water quality.

**Future methods**

Conference was delighted to welcome Dr Alexander Kämpfe, Head of the Department for Swimming Pool Water and Chemical Analytics in Germany's Federal Environment Agency. He discussed the methods they use to achieve

their high level of health protection. There is a federal document of the recommendations and pool water treatment goals that should be reached by applying the standard methods in DIN 19643.
This raised the question: are there any standards, polices or practices that we might adopt from Germany?

James Coombes of Devin Consulting spoke about the importance of considering water treatment design at an early stage, including in the building layout – to achieve an energy efficient pool water treatment system. It is also critical to establish realistic energy targets and then design and operate to achieve these. The adoption of Passivhaus standards, PWTAG net zero carbon pools guidance and a greater project focus on sustainability – all are beginning to encourage designers and operators to optimise energy usage and ultimately save the operator money.

Senior representatives from Lovibond and Palintest shared the stage for the first time, to discuss the future of water testing. Colin Day and Jessica McKenna described the impact of turbidity on getting accurate results, as well as UV performance. Should we undertake regular testing for phosphate levels as an indication of algae formation?

Abdul Abdalla from Xylem Water Solutions discussed the online monitoring of pool water quality as it continues to evolve, with the industry possibly shifting away from reactive testing towards more predictive, real-time insights. Emerging technologies can enhance the accuracy, responsiveness, and connectivity of measurement systems, and we can begin see the expanded use of parameters such as turbidity, ORP, total chlorine, conductivity and temperature — all captured digitally and evaluated automatically. Cloud-connected platforms are now capable of gathering signals from chemical analysers, dosing systems, pumps, and flow meters to deliver actionable alerts, remote access, and even usage-based insights into prioritising maintenance.

**Temporary pools**
The final session was a conference first for PWTAG. The topic to be discussed was temporary pools, and as many of these are located on school premises, this session was available online for our educational colleagues to attend.

PWTAG Vice-Chair Mike Shuff opened the discussion by itemising the questions that should be asked by those considered having a temporary pool before contracts are exchanged. A checklist of these has been produced by PWTAG and can be found on our website. The checklist is also available to installers so that they may be prepared prior to confirming their interest.

Andy Heald and Amy Gilluley from Swim:ED followed with claims that the provision of temporary pools on school grounds has enabled children to experience swimming and water safety for the very first time. In the past two academic years alone, over 20,000 pupils have participated. However, such results are possible only with a robust operational model.

***Overall, this year's PWTAG conference, the first for new Chair Ian Ogilvie, can be considered an unmitigated success. It really did offer something for everyone, as we all work towards world-class pool water.***