

SoPHE NEWSLETTER

WINTER 2025

VOLUME 07



SoPHE London Dinner

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On 13 November 2024,
we celebrated our flagship
Annual SoPHE London Dinner
at the Royal Lancaster Hotel.

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AN UPDATE FROM THE SOPHE CHAIR

Mike Carter

Welcome to the winter edition of our SoPHE Newsletter. Well, I hope you all enjoyed a well-earned break, enabling all of us to spend time with our friends and families over the festive season.

The society continues to grow with membership increasing and many excellent events held throughout the year. Recently we were privileged to welcome John Sage from Tideway to give a technical talk on the Thames Tideway Sewer, which runs 16 miles from Acton in the West of London to Abbey Mills in the East. John gave a truly fascinating insight into the development of the new Thames Tideway sewer that has been developed to collect 34 of the current combined sewer overflows and is due to complete and become operational in 2025. The project is a staggering piece of engineering, significantly enhancing the original combined sewer system developed by Sir Joseph Bazalgette.



In November we also held our annual SoPHE dinner. The event was a great success with just under 300 people attending. The event, as in recent years, was held at the Royal Lancaster Hotel in Central London. We decided to change the format a little this year and included a live 10-piece Jazz-Funk band (Grooveline). An excellent time was had by all. It was a truly memorable evening. During the evening, we also collected donations for our chosen charity Village by Village and between our guests and the Industrial Associates we raised a wonderful £3,250 for the charity. Thank you all so much for your kind donations, they are all really appreciated.

This year sees our next technical day which is to be held on March 27th will focus on water scarcity and resilience. You can book your place using the link further down the newsletter.

Happy New Year everyone.

Mike Carter
Arup
SoPHE Chair

IT'S TIME TO MAKE A DIFFERENCE

It's been yet another busy year for SoPHE. As the newsletter editor, I have the privileged position of receiving the updates from each region and working group throughout the year. Everyone has pulled out the stops in such a busy year for SoPHE. The entire industry has clearly had a busy year too. It's been a joy to watch the society has been moving from strength to strength, particularly with the growth of the Southwest group.

The newsletter has been growing alongside SoPHE. This year we have added a CPD section into the newsletter. The editorial team for the newsletter has also expanded to welcome Tom Bailey from the IWG. Thank you to all the members who have contributed to the newsletter this year, contributions from the SoPHE membership make this newsletter possible. If you would like provide a thought piece, contribute an



article or advertise within the newsletter, please email sophe@cibse.org.

Wishing everyone a happy new year!

Amanda Stanley
FCIPHE MSOPHE,
Senior Public Health Design Engineer,

SoPHE Technical Conference 2025

Water Scarcity, climate change and engineering challenges



Date:
27 March 2025



Location:
1 Birdcage Walk, London SW1H 9JJ



9:00-17:00



Book Now!



SoPHE London Dinner

13th November 2024

On 13 November 2024, we celebrated our flagship Annual SoPHE London Dinner at the Royal Lancaster Hotel. The dinner was a great chance for professionals from across public health engineering to network and celebrate our industry.

We would like to say a huge congratulations to Roma Prychidko for winning Young Engineer of the Year and to our runners up Klaudia Rudzionek, Bushra Mamnoon and Tamim Zeineddine, as well as Lisa Paul for winning this years Chris Sneath Bursary.

Thank you to Sanjay Modasia, Sam Burgess, Ki Beard and Rennie Llewellyn for their amazing work in organising the Plumbing Centre of Excellence and awards, CIBSE Patrons for sponsoring the award and Polypipe Building Services for providing the certificates.



This year we were joined by Neil Kerfoot and Anna Kotsonouris representing the SoPHE Chairs chosen charity Village by Village. Due to the generosity of attendees, we were delighted to present Village by Village with a £3250.00 donation which will be used to aid their projects in Ghana, uplifting communities, whilst striving for sustainable development.

The dinner would not be possible without the continued support and generosity of our sponsoring Industrial Associates.



Thank you to all those who attended and we look forward to welcoming you next year to celebrate the 21st Annual London Dinner on 6 November 2025 at the Royal Lancaster Hotel.

Thank you to our sponsors



SoPHE Young Engineer Award sponsored by



UPCOMING EVENTS

Save these dates

	JANUARY	FEBRUARY	MARCH
London & South East		<p>Wednesday 12th February Waste Water & Packaged Pumping Stations Josh Thomas and Daniel Frazer (Edincare) L&P Group (80 Canon Street) 5.00 to 5.30pm Start</p> <p>BOOK NOW</p>	<p>Wednesday 5th March Packaged Boosted Water Systems CPD with Grundfos Pumps chapmanbdsp 40 Gracechurch Street London EC3V 0BT 5:30 - 6:30pm GMT</p> <p>BOOK NOW</p>
South West	Future Events in Planning		
West Midlands	<p>Wednesday 29 January Internal Rainwater Drainage Shaun Fowler / Andrew Lee / Wayne Willmott (Alumasc Water Management Solutions Ltd)</p>		<p>Wednesday 26 March Effective Grease Management Aidan Davey (ACO Drainage Ltd)</p>
North West	<p>Wednesday 15 January Filling of Commercial Heating & Chilled Water Systems Adrian Morris (Mikrofill) Email Malcolm directly on m.atherton@water-c.co.uk if you wish to attend</p>		<p>Wednesday 19 March Design requirements for commercial drainage (stainless steel) Mario Finelli / Scott Cain (ACO Drainage) Email Malcolm directly on m.atherton@water-c.co.uk if you wish to attend</p>
UAE	Future Events in Planning		
YEN		<p>Temperature Control CPD Steve Vaughan</p>	<p>Spring Social</p>
Special Events			<p>27th March SoPHE Technical Conference</p>

SoPHE have a busy 2025 planned across all the regions, keep your eyes peeled for updated & announcements.

SoPHE Northern Dinner 2025

We are pleased to inform you that we will be returning to the Midlands Hotel in Manchester, for this year's 13th Northern Celebration Dinner on Friday 9 May. We very much hope that the SoPHE Industrial Associates will want to continue to support us, and I am writing to offer you the opportunity to make this year's Celebration Dinner another memorable occasion.

Book your table now

Vacuum Drainage for Buildings

Written in collaboration by Kris Wojcik from Jets Vacuum Group and Steve Royal from EVDS Limited.

Knowledge and experience about vacuum drainage systems may vary significantly among the professional team members. Some of you may have specified and worked with vacuum drainage on a project, but there are still some myths associated with the operation of the vacuum toilet that we would like to dispel whilst outlining some key facts about the vacuum drainage sanitation.

Most first encounters with vacuum toilets are via aircrafts, trains or ships – not the best environment to showcase the technology! Vacuum toilets for buildings are vastly different. They look and feel like a conventional flush toilet, but without the requirement for a flush cistern, as the flushing mechanism concealed within the body of the WC pan. Vacuum toilet flushing is operated pneumatically utilising the pressure difference (vacuum) in the system (so no electrical power is required to be connected to the WC).

The next most asked question, mainly based on the experience from aircrafts, is about noise from the toilet. There has been much development focused on the toilet flushing mechanism and the latest vacuum toilets on the market will emit just 67dB. While a standard gravity toilet will emit approx. 70dB, so there is no apparent difference in sound levels.



Vacuum toilets look and feel like a conventional WCs



All vacuum components are concealed within the body of the pan

[Click here for full article](#)

Giving public health a platform: SoPHE YEN member shortlisted for CIBSE ASHRAE Graduate of the Year

Jack Batley

Klaudia Rudzionic, Graduate Public Health Engineer, Arup and SoPHE Young Engineers Network member (YEN) was short-listed for the CIBSE ASHRAE Graduate of the Year at this year's CIBSE Young Engineers Awards. The prestigious annual CIBSE ASHRAE Graduate of the Year Award is one of the industry's most sought-after accolades and was presented at the CIBSE Young Engineers Awards on 10 October 2024 at the BMA House, London.

Klaudia is a Graduate Public Health Engineer at Arup, based in the London office. She graduated with a BEng in Architectural Environmental Engineering from the University of Nottingham, completing her studies with a dissertation on 'Investigating the application of phase change materials in a HVAC system to improve energy efficiency in school buildings'. During her time at Arup, Klaudia became a Public Health Sustainability Champion and a PH YEN representative for the UK supporting engineers with their technical development and providing a wider platform for YEN networking.

This year there were over seventy applicants for the coveted title of CIBSE ASHRAE Graduate of the Year, with only nine submissions being shortlisted. Finalists were asked to present for five minutes on a topic at the Awards to a crowd of over two hundred attendees from across the globe including fellow young engineers, students, senior industry representatives, CIBSE staff, sponsors, the CIBSE and ASHRAE Presidents, and members of the CIBSE Board.

This year, finalists were asked the question, 'What do you consider as the main implications for building performance of changing demographics, lifestyles, and the need to keep people safe, healthy, and productive? In her well received presentation Klaudia identified the shift in building performance which now extends beyond energy use and comfort. With changing demographics like population growth, global mobility, and urbanisation, the focus has moved to greater resilience against hazardous events, increased awareness for buildings to perform better and



increased adaptability so that we not only meet immediate needs, but also contribute positively to the environment, occupants and prepare for future.

Catching up with Klaudia after the event, she said "this has been an amazing opportunity to gain further insight into building performance and discover the innovative ideas within the young engineering network. On top of that, I've had the chance to expand my network within CIBSE and connect with some fantastic people."

SoPHE and CIBSE would like to congratulate Klaudia for her monumental achievement of being shortlisted and her engaging and insightful presentation. As well as a huge personal achievement, Klaudia's accomplishment gives public health engineering a voice on a global, CIBSE wide platform.

ABOUT THE AUTHOR

Lutz Johnen is the MD of Aquality Trading & Consulting Ltd and a founder-member and Chairman of the UK Rainwater Management Association.



THE FUTURE WATER MANAGEMENT CHALLENGE ...

The long hot summer of 2022 and the equally long wet winter of 2023/24 serve to emphasise to the general public the changes to the UK's climate expected to be caused by global warming.

These changes to UK weather patterns have long been predicted by the Environment Agency which expects total annual rainfalls to remain broadly unchanged but in the future be distributed less evenly through the year. As a result, winter rainfalls are likely to become more intense, making them less manageable from a flood avoidance and water capture perspective, whilst long dry summers will lead increasingly to droughts. These increasing risks of both floods and droughts will be exacerbated by steady growth in the UK's population leading to increased urbanisation and demand.

According to DEFRA (2023), water undertakers supply approx. 14 bn litres of water for public consumption a day. It was previously estimated that by 2050 approx. 4 bn litres a day of additional water supply would be required to meet the demand in England. However, on 21 March 2024 the Environment Agency published a revised estimate, stating that the shortfall of nearly 5 bn litres per day by 2050 (EA, 2024), which represents over a third of the today's water supply in England.



[Click here for full article](#)

Phil Henry from Genuit Group and current chair of the CIBSE Resilient Cities Special Interest Group, chaired a session entitled 'Climate resilience in the built environment' at the CIBSE B2P live on the 13th November 2024.

The chair gave a brief update from the opening statement from COP 29 sitting at the same time, that planned emissions of 51.5 gigatonnes of CO₂ in 2030 are only 2.6% lower than 2019 levels. These levels are required to be 46% against 2019 levels and Greenhouse gas emissions at this level the statement says 'will guarantee a human and economic shipwreck for every country without exception'.

The first presentation was delivered by Ruth Shilston Technical Director Engineering Sciences from consultants Mott MacDonald.

Ruth set the scene with a presentation called the 'The impact of heat on the urban environment'. The presentation looked at increase temperatures, deaths from excess heat in particular in summer months and the impacts of increasing heat on urban environments and how to reduce the well-known 'Heat Island effect' required joined up thinking regarding water and urban greening. Combining the benefits of both water and green cooling can assist with the issue of 'Heat Island effect'. The use of low energy solutions and shading use in designs of buildings, should be considered early on in the design process.

Simple solutions such as blinds, window shutters and ceiling fans should be considered to reduce the over heating of buildings as set out in 'Approved Document O'. The use of better design simulators to assist with design of buildings and reduce the impact of what the speaker called the 'Wicked solution' of using large scale air conditioning to adapt to the climate change .

The second presentation was from Jonathan Waggott FRSPH representing the Water Management Society entitled 'How climate change and green technologies are adversely effecting legionella risk' Jonathan's presentation explored the history of water use and hand washing within the health care sector to reduce the risk of infection and the necessity for clean water in health care for infection control, cleaning and washing.



The greater acceptance is required for low flow taps and sprays in taps and showers to reduce water usage. And to encourage the greater use and acceptance of smart technology for example :-sensors at a strategic level for water control (reservoirs and SuDS) and at local level to assist with reducing both hot and cold water use and associated carbon Co₂e.

The presentation also advised that 1.1 billion people currently lack access to water and suggested that better acceptance of innovation would be required to meet the challenges of climate change, population growth and water use.

WATER THE NEXT LIQUID GOLD DAY ZERO IS COMING

Amanda Stanley

While the world grapples with the impending 'Climate Emergency' another lesser known crisis is emerging. The UK is running out of water.

In the United Kingdom, the widely held assumption is that fresh potable water is abundant, readily available and cheap. Since it is an island surrounded by water and known to have regular rainfall, this is an understandable mistake.

The truth is that the sustainability of the UK's water supply is affected by multiple factors. Regardless of rainfall volume, conditions in and on the earth determine how much of that water gets added to the usable water supply. Climate change, population growth and irresponsible water use are all contributing to a water shortage. Water supplies are being stretched, as this essential resource is being taken for granted.



[Click here for full article](#)

SoPHE Technical Conference 2025

Water Scarcity, climate change and engineering challenges

Date: 27 March 2025 **Location:** 1 Birdcage Walk, London SW1H 9JJ **Time:** 9:00-17:00



[Book Now!](#)



YEN Update

Charlie Hill

It's been a brilliant year for YEN, where we've been keeping busy. Since our last update, the Young Engineers Network have hosted an autumn social gathering at the Britannia pub sponsored by Oventrop, thank you to all who attended and made it an enjoyable evening – singing some karaoke and networking with other young engineers from across the industry. Its always a highlight of the YEN year to meet the incoming graduates.

We have also assisted with the organization of SoPHE events, such as the Tideway presentation. The presentation by John Sage was a roaring success. It was great to learn about the broader aspects of Public Health. The insightful presentation explored how London's 150-year-old sewer system and the steps taken to create the Super Sewer.



For the first year, SoPHE YEN had our own table at the annual dinner. Thank you to the IWG for making this happen. Also thank you to the CIBSE Patrons for sponsoring the YEN award. We really appreciate all the manufacturers who sponsored tables and hosted members of YEN to attend. All the members of YEN that I spoke to on the night had an excellent time.

Lastly, I would like to thank all the committee members for their time and hard work over the past year and I look forward to continuing our work in the new year. There is always space for more people on the YEN committee, please email sophe@cibse.org.

SoPHE Northern IHEEM Healthcare Exhibition 2024

Malcolm Atherton



For the past few years, SoPHE Northern have been present at the IHEEM Healthcare Exhibition & Conference which takes place over two days in October, at the Manchester Central Conference Centre. The Exhibition is free to attend and is the place for healthcare engineering and EFM professionals of all levels to discover the products and services to help them meet current and future challenges, as well as to take advantage of the free programme of Keynotes and Technical Seminars.

SoPHE have a Stand space in which both SoPHE & CIBSE are promoted; recently, the CIBSE Healthcare Specialist Group have joined us, to raise awareness of what they do!

The organisation of the Stand, and the principal manning of it, is undertaken by me, Malcolm Atherton, as the SoPHE Northern representative. I am assisted over the two days by various engineers representing SoPHE, CIBSE NW & CIBSE Healthcare Group who volunteer their time to meet people – young engineers, students, Healthcare representatives, etc. – to explain what SoPHE & CIBSE are all about and (hopefully) get the younger ones to become members!!

At this year's event, we were visited by over 80 people who wished to know more about the organisations & how we "influence" things! There were a couple of manufacturers, who used to be SoPHE Industrial Associate members, who now wish to re-apply!

Next year's IHEEM event takes place on Tuesday 21st & Wednesday 22nd October 2025; if you are in Manchester at the time and wish to help us man the Stand, meet some interesting people & have a laugh whilst doing it (boxes of chocolates are provided!), then please contact me on m.atherton@water-c.co.uk; it's great fun & a wonderful experience at meeting people of all ages!

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**Book your
table now**

SoPHE West Midlands Update

As a result of Rod Green having to step down due to ill-health, I volunteered to keep the SoPHE West Midlands Region running on a temporary basis until someone could be found to manage it on a permanent basis.

As I have, what I consider to be, a “successful” region here in the North with a structured programme of CPD’s and contacts with other organisations such as CIBSE NW, CIBSE Merseyside & North Wales, IHEEM NW and WMSoc, I felt that I could – at the very least – continue with the programme of CPD’s that Rod was doing in order to serve the public health engineers (& others) within the area.

Over recent months we have been working to strengthen the Region with the help of the regional representative of the Industry Working Group (IWG); discussions have taken place, and continue to do so, with committee members of CIBSE West Midlands region to provide awareness of SoPHE, encourage membership and develop plans for future support & growth.

Initially, the focus is on continuing the programme of CPD’s - at the time of writing, the next available slot is May 2027! These take place on the last Wednesday of every other month at Cundall’s offices in the centre of Birmingham. We wish to thank Cundall in allowing us to have our event there; we are, however, sourcing an alternative venue which isn’t an office environment! If anyone who knows the area of Birmingham well & has any suggestions, please let me know on m.atherton@water-c.co.uk; we will then carry out the necessary investigations.



We are also exploring the idea of having a networking event in Birmingham, in the early part of 2025. This will be a chance to meet people from the IWG as well as fellow members – everyone is welcome to attend. It’s an opportunity to hear about the plans for the Region & to share your thoughts as to what you would like to see / hear / do. Further details about this event will be provided once it’s considered that this event will be beneficial to all!

Finally, if you have an “urge” to get more involved with SoPHE & specifically the West Midlands Region then please don’t hesitate to contact me at the above email address.

Water Management Society Webinar Series



The Water Management Society (WMSoc) are excited to be hosting three webinars over the first six months of 2025. Starting with 'NHS NTM Technical Bulletin Update' on Friday 24th January, Paul McDermott, one of the co-authors of this document, will present his experience regarding the recent NHS technical bulletin concerning Nontuberculous Mycobacteria.

We are planning a roundtable webinar on Friday 7th March to discuss recruitment and diversity within industries allied to water and we would welcome anyone to attend this as it will be free of charge.

We'll then move on to our next webinar, Water Regulations, which is in collaboration with Welsh Water on Friday 18th March. Adam Jones from Welsh Water will be joined by our Chair, Jemma Tennant, to deliver a presentation on water regulations, notifications, and RPZ Valves. This webinar is also free for anyone to attend.

The last webinar in this series will be delivered by one of our Directors (and chair of the Training and Accreditation Committee), Colin Shekleton, and the Q&A will be hosted by the Legionella Control Association manager, Matt Morse. Titled 'LRA Executive Summaries and Written Schemes', it will be delivered on Friday 9th May.

Our webinars are free for all members, and non-members can pay a fee of £95 + VAT to attend. All who attend will gain a CPD certificate, and members can rewatch recordings of all webinars on the Members Area of the WMSoc website, though CPD certificates are not given for watching the recordings back. Visit the [WMSoc website](#) for more information!