

# SoPHE NEWSLETTER

SUMMER 2024

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# AN UPDATE FROM THE SOPHE CHAIR

Mike Carter

Welcome to the summer edition of our SoPHE Newsletter. Having recently taken on the reigns as the new SoPHE Chair, I firstly wanted to thank my predecessor Peter White for all the hard work and enthusiasm developing the SoPHE brand within CIBSE. I hope I can continue to build on Peter's legacy. The Society is in great shape and I am really looking forward to my role as Chair over the next 3 years.

It has been a busy start to my role and to the year, commencing with the SoPHE AGM in April. This was swiftly followed by the annual Manchester Dinner which took place on the 10th of May. It was a great event, superbly compared by our Northern Region Chair Malcolm Atherton. Jeff Winter (retired Premier

League referee) joined us for the evening as our guest speaker and had many enlightening stories, giving us a glimpse of what sometimes happens behind the scenes and away from the cameras.

In early June, Hywel Davies, former CIBSE Technical Director, gave an excellent talk on the Building Safety Act. We then held the inaugural SoPHE Southwest evening function. The SoPHE Industrial Associate Group came out in force to support the event, as did many of the Public Health fraternity in the region. An hour of speed networking ensued, which was great fun, swiftly followed by drinks and pizza. Another great evening. We've also had our Learners skills competition hosted by our Vice Chair Sanjay Modasia. Looking forwards, we have next SoPHE Technical Conference on rainwater design which is set for 19th September 9:30 to 4:30 at One Birdcage Walk London with sponsored drinks after in a local watering hole. Do come along to both events if you can.

Finally, I would like to draw your attention to the new version of the Water Regulations that are now accessible online. These can be accessed for free via the Water Regs UK website. This online guidance replaces the Water Regulations Guidebook. A more detailed article on this topic will follow later on in the newsletter.

**Best Wishes,  
Mike Carter  
Arup  
SoPHE Chair**



## IT'S TIME TO MAKE A DIFFERENCE

It's been a joy to collate this edition, everyone has pulled together in support of bringing you another excellent newsletter. In this time of political unrest global issues we should never take a back seat, and with this in mind recognising those in the industry for their hard and transformative work is important. I would like to celebrate Clara Beganal George, for her recent MBE for her work in founding LETI (London Energy Transformation Initiative), which has transformed the industry to act on Zero Carbon with Operational and Embodied Carbons including Potable Water Use and Health Metrics.



Amanda Stanley



Clara Beganal George

Potable Water Use – Water Scarcity is not being shouted about enough, as its importance is now critical and at a state that we cannot hide away from. We as engineers have a duty to ensure that we consider all options. You can read more in Lutz Johnen of Aquality's article later on in this issue.

We need to drive the idea of Water Scarcity forward and have a place where we can make the difference, not only in our industry, but also into the household and commercial industries where alternative methods can be used instead of using our finite natural resource.

We would love to hear your opinion on how best to tackle these issues via [sophe@cibse.org](mailto:sophe@cibse.org) and we hope you enjoy this issue.

**Amanda Stanley**  
**FCIPHE MSoPHE,**  
**Senior Public Health Design Engineer,**  
**Introba UK**

# Book now: SoPHE Technical Conference 2024 - Rainwater

<b>Date:</b>	<b>19th September 2024</b>
<b>Time:</b>	<b>09:00 to 16:30</b>
<b>Location:</b>	<b>One Bird Cage Walk, London, SW1H 9JJ</b>
<b>Tickets:</b>	<b>SoPHE members and early bird: £50 (+VAT)</b>

The Conference will focus on 'Rainwater; collection, reuse and disposal'. This year we will be looking at the challenges that public health engineers face when dealing with all the various aspects of rainwater design from the impact of climate change through to final disposal.

The conference will be split into four sessions throughout the day:

## Session 1: Project Showcase

A chance for engineers to present some of the amazing work they are doing to overcome the challenges with meeting the requirements of modern developments, highlighting some of the innovative design solutions and issues engineers are having to overcome.

[Enter your project now](#)

## Session 2: Compliance

Why do we need to do things past, present and future issues? Legal requirements. What is required for the different building/sites – green field, brown field, existing buildings etc.? What is the process?

## Session 3: Design Principles

Presentations from a selection of manufacturers and suppliers on the solutions that available to meet the requirements modern developments and rainwater systems.

## Session 4: Mitigation and watch points

Installation and design watch points and mitigation of risks relating to rainwater systems.

***There will be breaks throughout the day with food and beverages provided. There will also be further socialising and networking opportunities afterwards at nearby venue with drinks provided by some of our event sponsors.***

[Book your place now!](#)

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# UPCOMING EVENTS

Save these dates

	SEPTEMBER	OCTOBER	NOVEMBER
London & South East (AS)	<p><b>IN PERSON</b>  <b>11 September</b>                      Water Regulations - Moving with the times / Neil Weston (Hurlstone Associates)                      Venue TBC                      5.00 to 5.30pm Start</p>	<p><b>9th October</b>                      Hot water and reduced temperature design                      Steve Vaughan                      150 Holborn</p> <p><b>IN PERSON</b>  <b>17 October</b>                      Josh Thomas and Daniel Frazer (Edincare)                      Venue TBC                      5.00 to 5.30pm Start</p>	<p><b>20th November</b>                      Hari Sing Goodwater                      Water Treatments                      5.30 to 6.30 PM</p>
West Midlands (MA)	<p><b>25 September</b>                      Water Transportation Systems within Buildings                      Martin Murray (Geberit Ltd)</p>		<p><b>27 November</b>                      Mitigating the Risk of Water Leaks in Property                      Tony Gorman (AquaLeak Detection Ltd)</p>
North West (MA)	<p><b>18 September</b>                      Total Water purification by an Advanced Oxidation Process Gary Maddison / James Maddison (Brightwater Environmental Ltd)</p>		<p><b>20 November</b>                      Understanding the Specifications of Stainless Steel Drainage Matthew Cartwright (Blucher Drainage Ltd)</p>
UAE (GT)	<p><b>27 September</b>                      Drainage &amp; BIM integration                      Geberit                      Vineet Kumar</p>	<p><b>Date TBC</b>                      Water Solutions                      EnviroChemie                      Tariq Hussain</p>	<p><b>Date TBC</b>                      Smarter Designs for drainage system                      Vlasir                      Fahad G.K</p>
Flagship Events	<p><b>19th September</b>                      SoPHE Conference</p>	<p><b>8th - 9th October</b>                      SoPHE/CIBSE Stand at the IHEEM Healthcare Exhibition &amp; Conference                      Manchester Central Conference Centre</p>	<p><b>Date TBC</b>                      SoPHE London &amp; South East Dinner</p>

# Mitigating the risk of biological growth in a wholesome water supply- Reliance Worldwide Corporation CPD

This CPD module explores key considerations for preventing bacteria contamination in cold water supplies within healthcare applications. This will count as an equivalent hour of CPD.

One of the main challenges currently facing plumbing professionals, especially within healthcare settings, is the need to deliver a safe water supply while maintaining the highest hygiene levels to protect all users of the plumbing system. To ensure this is the case, it is crucial to understand the conditions in which bacteria can grow within a system, and what measures can be taken to help prevent bacteria growth.

The collective term for bacteria found in water supplies is known as Legionella Pnuemophila. There are over 50 types of this bacteria with half of those dangerous to humans. Commonly found in natural water systems such as lakes, rivers, and ponds, it is also prevalent in water supplies and plumbing systems where temperatures are high enough to enable growth, or where water remains stagnant for a period of time.

Bacteria are transmitted aerobically from small droplets of water that are contaminated and suspended in the air. Aerosol droplets that allow transmission of Legionella are commonly found in whirlpool spas, showers, cooling towers, taps with sprays, etc. However, Legionella can grow in any water system that is not properly maintained.

**Read more to contribute to your CIBSE CPD Requirements.**

Legionnaires disease is among the greatest health concerns, so signs of the disease in the water supply system must be caught early to safeguard people from infection.

Legionella bacteria is contracted by breathing in tiny droplets of water containing the bacteria. The incubation period can be anywhere from two to ten days. Early symptoms can include fever, feeling lethargic and loss of appetite. Affected patients can also begin to develop a light cough, but the severity of this can potentially increase, and in some cases lead to lung inflammation and in extreme cases fatal pneumonia. Therefore, Legionella prevention is absolutely critical. In environments such as hospitals, where vulnerable people are deemed at



# RWC

a higher risk due to their age or weakened immune systems, it is even more important to get your approach to Legionella bacteria prevention correct.

## Legislation and guidance on Legionella prevention

Building Regulations and Approved Codes of Practice demand that hot water is circulated at sufficiently high temperatures to stop bacteria growth in the water supply from multiplying to a level that will cause serious health problems to vulnerable groups of people. In the UK, Building Regulations stipulate that hot water should be stored at no less than 60°C and circulated at no less than 55°C to prevent the growth of Legionella.



**Read full CPD article**

# A Cause for Celebration: SoPHE Northern Dinner

Friday 10th May 2024

Our 12th Northern Dinner of the Society took place, once again at the Midland Hotel Manchester, on Friday 10th May 2024.

It was held in the Trafford Suite starting with pre-dinner drinks where colleagues & guests alike could mingle and meet-up with both 'old' and new friends.

This year, we went back to tradition of naming tables based – loosely – on the guest speaker. However, it was with a 'twist' in that each name had a QR Code beneath which each guest could download; this would then reveal that person being part of a particular advert! This year we welcomed Jeff Winter, former Premiership Referee, who has a very 'easy-going' style of speaking & has a very wry humour. This was borne out with the many stories of his 'clashes' with football managers & players alike!

Our newly-elected Chair, Mike Carter, started the proceedings off by giving his opening dinner speech, reflecting on the Public Health Industry as a whole & how PH designers have to 'overcome' many issues.



During the evening, a table quiz took place in which a number of football related questions were asked; a tie-break question between the top 3 tables involved guessing the number of yellow cards Jeff Winter issued during his career, to which even Jeff himself had no idea [the answer is – 535]. The closest guess fell to the Wayne Rooney – 'Red Wine' table hosted by Aquality. Congratulations to the winners & I hope you've had great fun with your prize!

Paul Marsden, SoPHE Industrial Associate Chair, concluded the evening by thanking everyone present & especially the respective table sponsors for their continuing support.

SoPHE Northern would like to take this opportunity to thank everyone involved for their support in this dinner; the next one – our 13th – will be held on Friday 9th May 2025; hope to see you there.

# The Next Generation: SoPHE YEN Update

Charlie Hill

Since our last update, the Young Engineers Network have hosted our first social gathering for this year at the 1920 Pool Bar. Thank you to all who attended and made it an enjoyable evening playing pool and connecting with other young engineers from across the industry.

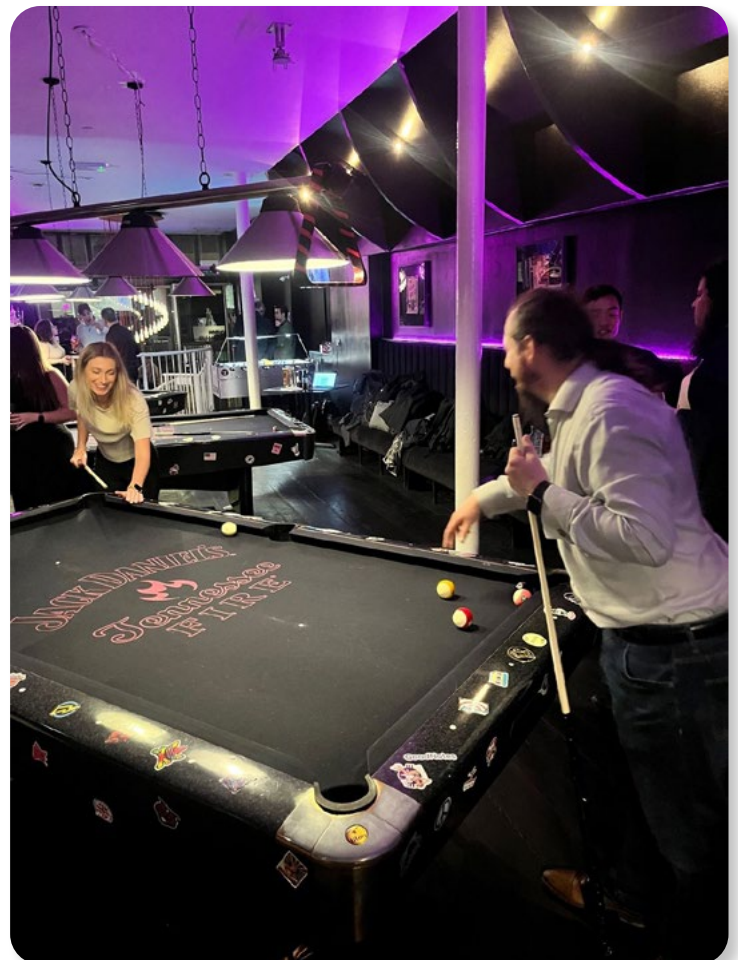
We have also assisted with the judging at the Plumbing Centre of Excellence (PCE) competition day. George Fall, Ed Fall and Jenny Thompson (YEN committee members) attended Waltham Forest of Northwest London and Tower Hamlets College. The aim of this event is to provide plumbing trainees and apprentices with a better understanding of the wider industry and a clear route to progression. Congratulations and well done to all involved.

On the 14th of June we returned to Waltham Forest College to team up again with the plumbing students to participate in the Plumbing Centre of Excellence annual plumbing competition. This is another fantastic opportunity for knowledge to be shared between all participants from across various sectors of the construction industry.

We will also be looking to set a date around October for our next social to welcome new starters within the industry - watch this space for updates.

Lastly, as a committee we would like to give our thanks to Joe Russell for his hard work and dedication during his tenure as chair and wish him luck in his new role on the main committee group. I am now stepping into the role as Yen Chair with Lucy Bennet from Atelier Ten as the Vice Chair. I recently finished my degree apprenticeship at ChapmanBDSP where I am now an intermediate PH engineer. Lucy Bennett from Atelier Ten is our new Vice Chair. I'm looking forward to my term and we are excited to see where YEN goes in the next year.

**Charlie Hill,**  
**SoPHE YEN Chair**  
**chapmanbdsp**





# Bridging the Gap: SoPHE Young Engineers Network- ing/ Plumbing Centre of Excellence Annual Plumbing Competition

On 14 June 2024, we welcomed SoPHE YEN and College Students to Waltham Forest College to participate in the Annual SoPHE YEN/ PCE Plumbing Competition to compete in problem solving, hand skills and practical fault finding of installations at PCE's flagship event.

The purpose behind the competition is to bridge the gap in students' learning from domestic to commercial installations, giving students and young public health engineers a chance to collaborate and learn from each other in an event which has established itself as a staple of SoPHE's schedule of events.

The competition winners will be announced at this years Annual SoPHE London Dinner on 13 November, alongside the Chris Sneath Bursary and SoPHE Honorary Fellow award. Held at the Royal Lancaster Hotel, the Annual SoPHE London Dinner is a key industry event within public health engineering and will bring together hundreds of individuals from across the supply chain.



SoPHE would like to extend a huge thank you to the supporting Colleges: Waltham Forest College, the College of North West London and Tower Hamlets College. As well as the Annual Plumbing Competition, the PCE has been supported throughout the year by some of our incredible Industrial Associates: J A Brooks, Aalberts integrated piping systems, BLÜCHER, Geberit, Alumasc Water Management Solutions, Polypipe Building Services, PAM Building UK, GRUNDFOS, Goodwater Ltd & Reliance Worldwide Corporation.

CIBSE would like to give a special mention to the hard work of Sanjay Modasia (SoPHE Vice Chair and SoPHE IWG Contractors Group Chair), Sam Burgess (SoPHE IWG Education Lead) and Ki Beard (SoPHE IWG Committee member). Without their time, effort, expertise and knowledge, the SoPHE PCE would not be where it is today, a constantly growing and crucial asset to the Society and an inspirational initiative for the future of public health engineering.

**Jack Batley**  
**Membership Networks and Engagement**  
**Coordinator,**  
**CIBSE**

# Connecting Industry: SoPHE Industry Working Group (IWG) Update

Paul Marsden



It is encouraging to see the SoPHE continue to grow and develop its activities, with more technical and social events happening recently. This included the SoPHE South West region holding their inaugural network event in Bristol at the beginning of June. A number of our Industrial Associate members sponsored the evening, attended by engineers from Bristol and around the region. Other technical and social events are planned throughout the summer and into Autumn and further details are included in this newsletter.

For those Industrial Associate members reading this newsletter will have received an e-mail containing a survey on member benefits. The IWG are always looking at ways to improve and we would welcome feedback from all our Industrial Associate members and encourage you to participate.

## Complete Survey

We would also like to extend a huge thank you to the Industrial Associates who generously sponsored the annual SoPHE Summer Networking Event held at the Barbican Conservatory Terrace on 25 July 2024. It was a great opportunity for supporting manufacturers and public health professionals to make new friends and catch up with old faces.

I look forward to seeing you over the coming months.

**Paul Marsden**  
**SoPHE Industry Working Group Chair**



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.

## RESPONDING TO THE CHALLENGE ...

In responding to these challenges, it will be necessary to build up over time the national capacity to resist both floods and droughts, rather than expect "magic bullets" to be found once at some time in the future when the impacts of both on the general public becomes a political issue. This need to build capacity is well illustrated by the long-term strategic programs already underway to achieve a "zero carbon" future many years hence.

At the moment there is limited to no sign of the UK taking a similar strategic approach to water management by taking significant action now to build-up future flood and drought avoidance. Although the water supply side of the equation is firmly on the Government's agenda, practical action has so far been muted, as best illustrated in the housebuilding sector where the emphasis is on marginally improving the potential of new homes to be more water efficient whilst horizoning into the distant future more ambitious measures such as water reuse. The urgency for need of significant change is illustrated by the example of Cambridge, where the government wants to double the housing stock on the one hand to support business growth but can't proceed due to no water availability on the other.

Our European neighbours have shown which significant and save impact water reuse can have on water consumption. More European countries are following suit and are now embedding water reuse in their water strategies.



[Click here for link to full article](#)



## The SoPHE Network Grows: SoPHE Southwest Update

Over recent months SoPHE have been working to strengthen the Southwest and Wales Region of the Society. Members of the Industrial Working Group (IWG), Local committee members and Local Members have been in discussions to raise awareness of SOPHE, encourage membership and develop plans for future support and growth.

Initially the focus is on the Bristol and Bath area where the largest numbers of public health engineers are located and then reaching out to Plymouth, Cardiff and Gloucester.

On the 6th of June 2024 was the first SoPHE Southwest networking event held at The Bristol Stable in Bristol. This event was a great opportunity to meet the Industrial Working Group members as well as existing and new SoPHE members. The event was a great success and will be first of many moving forward. If you are interested in the development of SOPHE in the region, it's also an opportunity to hear the plans for the region and share your thoughts.

If you would like to know more, please contact David Sorisi via email [davidsorisi@hoarelea.com](mailto:davidsorisi@hoarelea.com).

## UK Water Supply (Water Fittings) Regulations /bye-laws Scotland

We asked the certification bodies in the UK to explain why the Water Regulations are so important and here's what they had to say...



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