

# NEWSLETTER

## Conference 2020

**Best Ever!** Those who participated in our EPUK Conference 2020 on 18/19<sup>th</sup> November, will be aware of how successful our first virtual event has been. We hope to return to a traditional approach in 2021, but nonetheless, our e-experience this year will stand us in good stead whichever way the current pandemic unfolds.

## HIGHLIGHTS IN THIS MONTH'S ISSUE

### Conference Report

An outline of the Annual Conference and key outcomes follows below. But for those members who missed out, presentations will be added to our website at some point in the future for a small fee.

### Air Quality Hub

A new online Air Quality Hub was launched at the end of October and we include their press release below. You can find details of how to join the Zoom meeting on the 26th November.

### EPUK Merchandise

Our EPUK Merchandise Online Shop is now up and running and open for business. Details on how to order from this charity initiative are below. Goods will be delivered right to your door.

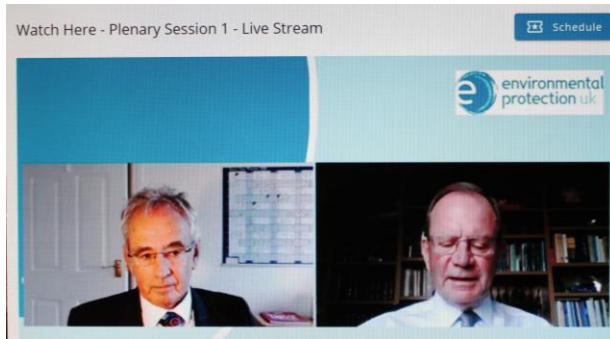
## Conference 2020 Report

### Environmental Challenges in 2021 What can we do?

#### Day 1 Plenary Session 1

Our **President Lord Whitty** got the first morning plenary session proceedings underway noting that the new Environment Bill has been improved but there was not much detail evident. Additionally, for the question whether or not Defra could successfully develop and enforce the rules in the place of the EU, there was no answer. This provided EPUK with a key role in addressing the shortcomings with its considerable expertise and experience. And encouragingly, the public now recognised the problems and were supportive of the need to improve environmental quality.

**Christopher Fry** then introduced **Professor Sir Stephen Holgate** for his keynote address on *The Special Priorities for Clean Air*.



He noted that although we have learnt much on the effects of air pollution and public health, we are still learning more about the ultra-fines (<100nm). They will penetrate lungs and pass into other tissues with their large surface areas hosting a wide range of toxic materials. These are as yet unregulated. In spite of new scientific advances however, communication barriers exist between the physical and biological health scientists, and one of the roles of Clean Air Champions is to break them down. Cooperative projects have been set up with coordinated work between the Met Office and Universities and EPUK could play its part in such initiatives including dissemination of research outcomes. An aspect that came up in his presentation, and one that other speakers came back to later in the Conference, was the subject of indoor air pollution. Secondary organic products are becoming of concern, and an area that EPUK might take onboard. He ended on a positive note in that inter-disciplinary research was the way forward, as the public are onside and would change their behaviour if they saw it easy and rewarding.

**Professor Eloise Scotford** then took a closer look at the Environment Bill to establish if it was or not fit for purpose. She made the point that such legislation does not happen every day and so it was worth getting right with the devil being in the detail. There are clearly ambitions in it but also challenges such as target setting and as to who should be consulted on these. Objectives aren't clear for example, on whether it will stick with the EU approach, repeal EU standards, or indeed strengthen these. Enforcement is a major issue too, as failure to comply with environmental law decisions lack teeth. Reporting duties appear weak with the Secretary of State charged with most decisions, without the stick of financial penalties for non-compliance. A tension also exists between central and local government with local authorities (LAs) being charged with more responsibility with regards to enforcement of standards in LAQM. Nonetheless, it recognises that air quality partners should assist LAs in carrying out their requirements, with the get-out that they are not obliged to do so. All in all, the answer to the 'fit for purpose' question is that the policy direction and level still needs to be set.

**William Wilson** then examined key issues relevant to the 2021 COP 26 climate negotiations. He first expressed disappointment that measures associated with the Agricultural Bill and Sustainable Fishing were voted down by the UK Parliament. He felt that the Environmental Bill was deliberately weak, with the Secretary of State taking over

all aspects of power. The WHO standards have been voted down too, in spite of the UK's global ambitions. There were signs of hope nonetheless, as China has set a new pledge for 2060, the EU has made pledges and the USA might well rejoin the Paris Agreement. Our own Green Recovery is on the agenda here too. Whole societal changes will be taking place in the coming years. It is encouraging that on 12 December, the UK, Italy, France and Chile are taking part in an ambition summit to make the Paris agreement a reality matching the 'think globally' with 'acting locally'.

**David Rudland** officially launched the *EPUK Petrol Station Guidance: Before You Dig, What's beneath your feet?* Because of the planned shift from combustion engines to greener forms of propulsion, most petrol stations are likely to be redeveloped (40,000 in 1960, 14,000 in 2000 and 8,000 now). The life cycle of a petrol station is 30 years during that time they can range from mildly to heavily contaminated sites. Therefore, in each case, investment decisions need to be made. The guidance has been set up to address the need to provide specialist help with sign-posting contaminants and give guidance on risk assessments associated with such sites. It also contains case studies. Questions noted that although the Climate Change Committee's independence from Government was valuable, and the Climate Change Committee could provide a valuable oversight, the lack of a Royal Commission to support such issues as this is much missed. The Guide is free to practitioners and can be downloaded from the EPUK website. Although it has already received plaudits, David would still welcome more feedback.

## Day 1 Plenary Session 2

The secondary plenary afternoon session was introduced by **John Murlis** who invited **Peter Atchinson** to speak on prospects for the contaminated land sector in these turbulent times. He noted that the redevelopment of brownfield sites is expensive, but emphasised that we are good at it. The green economy is seen as expensive for economists but this concept needs to be fought. Four-year changes in politics aren't helpful as this leads to short-termism. The 2008 financial crisis saw many leaving the land development industry presenting us with a training and skills challenge. We are nervous thinking ahead to the post-Covid World and Brexit. In spite of the turbulence created by political and enforcement changes, tougher fines are needed especially as single use plastics have multiplied due to the pandemic. Peter concluded that the public needs better education on contaminated land reclamation and development heralding success such as the Olympic Site. The public perception of contaminated land at present is fear. More work clearly for EPUK!

**Tom Burke** is an Environment Policy Advisor for E3G and looked into the future for environmental policy. He too took up the theme of turbulent times. He too noted the increasingly alarmed public with a Government that knows more but does less. Politicians

appear to be following public opinion and science in a reactive mode. Organisations such as the Environment Agency and Natural England have been neutralised due to a lack of resources. Consequently, the infrastructure for the environment has been weakened. Judicial review by the Government, for example, is making it more difficult for citizens as planning laws are weakened. Post Brexit, we will rely on the Department of Environmental Protection which is unlikely to maintain environmental standards. We don't need green headlines without the substance. So, Tom's 5 point plan is: 1. An Office for Environmental Protection with teeth, 2. A Royal Commission for Environment, 3. An Environmental audit Committee of Environment, 4. Parliament to set an appropriate budget, and 5. An Office of Budget Responsibility to give the public confidence. Local leaders are best to deliver locally, as shown by the pandemic.

To explore how EPUK could meet the expectations of local authorities and private companies as members, a panel discussion followed with **David Muir** (Air), **Robin Lancefield** (Land), **Robin Whitehouse** (Noise) and **Professor Jim Longhurst** (Vice President) with **Louise Siddorn** representing the private sector. The policy chairs outlined the work they had done this year for members during the difficult months of lockdown. These included Zoom Meetings and the updating of EPUK's much valued leaflets. These are now available on the website. Jim stressed the need for environmental practitioners to stop working in silos and that this presented a huge opportunity for EPUK. There are fewer on the ground now with expertise and experience, so this is where the organisation can support by building alliances and sharing its accumulated knowledge. Louise noted that environmental officers were now pulled in all directions and so there was a growing need for virtual resources and services. There might be only one person in a local authority or private company, for example, to promote the success stories, so this is where EPUK could step in.

**Lord Whitty** gave the closing remarks for day one, appreciating how virtual technology had managed to bring us all together. He felt that we shouldn't be over pessimistic. The public are aware of environmental issues, so we start from a much better sociological base. He wouldn't bet on a money tree, however, as we will go forward short of cash. EPUK's strength is its membership and it should seek a wider membership including the corporate sector, not seeing them as the problem so much, but as part of the solution. New partnerships with some corporate members would be beneficial. He has already supported us considerably with his extended Presidency but now needs to retire. He concluded day one with the promise that he will continue to support us in the future as our influential friend.

## Day 2 - Air Quality Technical Session

**David Muir** introduced this session on the technical issues associated with air quality. In this regard, **Ian Mudway** began by exploring the emerging impacts of noise and air quality on human health. He emphasised that our response to such issues needs to be proportionate and immediate. He then demonstrated through a series of research findings internationally from 2016 to the present day, how dementia was often associated with air pollution. Relationship with roads was important in this regard, with most cases falling away with distance up to 200m from kerbside. Barbara Meyer's work on magnetic pollution nanoparticles found in the brain from combustion processes, including those from the young was cited too. Work from Barcelona showed that pupils there showed better cognitive development in low pollution areas compared with their counterparts in highly polluted locations. A south London study in Lambeth revealed an association of mental health in children linked to PM<sub>10</sub>. Like other speakers, the need for more attention paid to indoor air quality was noted. He concluded that whilst the air quality/cardiac cost is estimated at £20 million to the economy, the issues cited here could amount to considerably more.

**Nick Molden** then looked at the plug-in hybrid vehicle conundrum using the Schrödinger's Cat as a metaphor for the car. That is, the cat in a sealed box is both dead and alive until the box is opened. Euro VI vehicles have shown a wide range of validity with regard to NO<sub>x</sub> and CO<sub>2</sub> performance, but the gap to the target is being closed due to the growth of battery powered and hybrid vehicles. But the key to the performance of hybrids is enigmatic however. It relies on how hybrids are driven. As one example, if just 37% of miles are driven by a hybrid on the battery, this equates to a normal non-hybrid vehicle. Better labelling was urged too to contrast official labels with real world ones and showing both numbers for CO<sub>2</sub>.

**Neil Wait** then reported on the extensive air quality measures being undertaken during the preparation and construction phases of the High Speed 2 Rail Route (HS2). Tree planting for 216 miles has taken place. All construction road vehicles must comply with standards and plant with EU Stage IV 3b for the rest of the route. Monthly reports are prepared for each relevant local authority. Compliance to date has been 99.6%. Partnerships have been set up and more encouraged so that the team can employ innovative environmental control. Kings College, for example, recommended a stricter 190g/m<sup>3</sup> dust limit for a 15-minute period and this was adopted. They have also set up dust monitors with alarms for non-compliance. The Oaktec clean air gas engine is replacing diesel power with ultra-low emission engines and offers hybrid and heat recovery technology options. Batteries being silent are valuable for night works. Solar panels are being employed and solar wind versions are also being trialled, along with alternative fuels. Neil encourages any groups who want to participate with their innovative approaches in this field to contact him.



## Land Quality Technical Session

**Robin Lancefield** introduced the session on contaminated land with **Steve Forster** giving us an insight into the complexities associated with asbestos in soil and C&D materials. He noted the 1997 Helsinki "state-of-the-art" criteria for the diagnosis and attribution of certain lung and pleural disorders to asbestos exposure and Control of Asbestos Regulations **2012** applying to all workers. He covered the stages of assessment from preliminary to site walkover under BS 10175 (2011) and land Contaminated Risk Assessment (LCRM 2020). He cited Planning Regulation 7 and detailed the need for a Plan of Work on how the works would be carried out including emergency procedures and noted that the new guidance includes table guides and case studies to assist in this regard. He hopes that companies will adopt such approaches and that training issues will be improved. He hopes that a standardised traffic light system will be adopted as a screening tool. It remains a complex area as asbestos fibres are not always readily evident and yet, some 80-90% of brownfield sites are contaminated with it to some degree. Once again, indoor air pollution was mentioned in questions with Scotch Guard Stain Protection being one example cited.

**Tom Henman** examined the risk of carbon dioxide from former coal workings and the implications for development. As a result of incidents in 2013 and 2014 affecting a new-build estate by Lovell Homes in Gorebridge, a former mining village in Midlothian, the Scottish government commissioned research. Almost 200 residents contacted healthcare services complaining of symptoms including dizziness, headaches, and coughs. Tom's review of the past 50 years revealed 15 such CO<sub>2</sub> events in Scotland, and more than 50 in the UK overall. BS 8576 provides guidance on the monitoring and sampling of ground gases including volatile organic compounds (VOCs) and permanent gases such as carbon dioxide, methane and oxygen. The resulting report here includes guidance to local authorities on such issues as ventilation needs. Energy efficiency improvement to households is not seen as an issue. One Scottish LA has piloted this approach. Areas of uncertainty exist over ingress of water from closed mines and the production of 'new' gas. Cumulative development is an issue too, with potential lack of awareness by developers on previous issues. Recommendations from Tom comprise: 1. Improved Planning and Technical Guidance, 2. Improved Communication with Training and Upskilling Staff, 3. Examination of Building Methods (granular fill) sharing knowledge with LAs, and 4. The need not to work in silos.

**Francesca Giacomello** then re-introduced the spectre of indoor environmental pollution with her presentation on polyfluoroalkyl and perfluoroalkyl (PFASs). These aliphatic substances are found in the blood serums of workers. They are used in fire fighting foams, carpet stain protection and other day to day aspect of our lives. Hydrophobic long chains

are oleophobic lacking affinity for oils and are harder to remove. The water soluble with shorter chains are less bio-accumulative in humans. The bio-accumulative types are stable and recalcitrant with a strong C/F bonding. They originated in the USA in the 1940s and widely used since the 1950s. After 2000 there was more consensus internationally on their toxicity. The 2009 Stockholm Convention raised these concerns with some banning in 2015. The 2020 new EU Drinking Water Directive includes their monitoring. The USA and Australia have the most active research. Here, the Environment Agency supported by Jacobs and the British Geological Survey is publishing a review across the UK and developing a mitigation methodology. Phase 1 was completed in the Spring 2020. Attempts at replacement in fire-fighting foam has not been that successful to date. PFAS coating in non-stick kitchenware and packaging is still widespread and of course toxic. Whilst this research is progressing, the need exists to explore new compounds.

## Noise Technical Session

**Robin Whitehouse** introduced the final technical session and also **Oliver Bewes** who presented the approach to noise on the HS2 programme. The Noise Policy Statement of 2010 and Planning Policy Guidance Noise 2014 updated in 2019 were bedrocks of their noise strategy. NPPG's purpose being to provide more detailed guidance than contained in the National Planning Policy Framework (NPPF) of 2012, which replaced PPG24 'Planning and Noise'. Anticipated sound, noise and vibration effects have all been presented by the team for the various stages including mitigation measures. Noise control methods have included some 60 km of noise barriers to date. As an example, the Ruislip portal (Schedule 17 Application) allows for procedures to be agreed and presenting of information on progress, and detailed study of eg., geometry of noise barriers. Cost benefit analysis has been undertaken using the formula:

$$\frac{\text{No Mitigation} - \text{Impact with Mitigation}}{\text{Cost of Mitigation.}}$$

**George Gibbs** then presented results of Noise Consultants Ltd's strategic noise mapping based on the Directive 2002/49/EC of the European Parliament and of the Council of 25 June 2002. This relates to the assessment and management of environmental noise. Their Planning and Noise (ProPG) was produced to provide practitioners with guidance on a recommended approach to the management of noise within the planning system in England. It was produced to fill the gap left by the replacement of the PPG24 guidance with the NPPF, NPSE and NPPG. Data is freely available as an SSI with the need to revisit the survey in a 5-year cycle. Examples were given regards green amenity spaces in Manchester and how this approach could be used strategically in planning of quiet areas (ie <55dBL<sub>den</sub>) within 5 minutes' walk of dwellings. Overlays can be added to the noise

mapping such as population densities. George's team hopes that this approach will be taken up nationally and response so far indicates a sound potential for further use.

Our final presentation came from **Antonio Torija Martinez** on environmental noise after Covid-19. Noise levels dropped by 50% in the March-May period compared with the pre-lockdown. In Madrid, the normally densest road traffic areas achieved the most reduction of 4-6 dBAs due to less travel and industry. In the UK, the University College of London recorded similar reductions of 4.5dBAs from 2019 to the spring of 2020. These investigations suggest that increased cycling with resetting of urban goals and access to quiet areas are opportunities for example. Decline in use of public transport and growth in car movements due to Covid-19 are risks. Homeworking exposes the public to noisy neighbours as significant noise complaints have arisen during the pandemic. So again, the subject of noise versus indoor air quality was raised. In relation to BS8233:2014 Guidance on Sound Insulation and Noise, this research is intended to develop more metrics to inform regulation for home environments. To conclude, de-carbonisation interventions with air source heat pumps and the works involved are all threats regarding noise disturbance and underline the need for further surveillance.

**Robin Whitehouse** closed the Conference with thanks to all for making it so successful.

So, what was the answer to the Conference Question: Environmental Challenges in 2021 What can we do?

Well, several themes ran right through the event and can be listed below for members to consider and hopefully act upon:

- 1. The need to enroll and engage more with industry as fellow EPUK members.**
- 2. Promote EPUK as a Cooperative Environmental Champion in its own right.**
- 3. Breakdown the silos of scientific and regulatory barriers with interdisciplinary engagement.**
- 4. Consider the status of the indoor environment in EPUK's three policy areas.**

### **Exhibitors**

As always, the exhibitors' space was ably supported by arguably the foremost UK environmental monitoring organisation; **EnviroTechnology**. They also gave us a video presentation of their services to the industry. And this year for the first time **EPUK** was able to present its new range of merchandise just in time for the Festive Season and which we highlight elsewhere in this issue.

You can still watch recordings of the presentations and read the questions until 29<sup>th</sup> November. For more details and to register for access to the site, contact Vanessa Tanner on [secretariat@environmental-protection.org.uk](mailto:secretariat@environmental-protection.org.uk)



## Air Quality Hub

### The Low Emission Partnership Team

The Air Quality Hub is a new, free online knowledge sharing resource for those working in the field of local air quality management. Focused on information exchange between local authority professionals, the Hub features a range of content areas related to strategy measures that local authorities can adopt, as well as more specific practitioner advice notes that focus on various aspects of air quality management planning, monitoring and enforcement. The Hub also includes a growing library of relevant case studies and a forum for direct peer to peer communication. The funding for the project is via a Defra air quality grant.

The Air Quality Hub will be officially launched on the 26th November and we'd like eligible practitioners to join us for an hour on Zoom @ 1pm to learn what it does and how it can help you on an ongoing basis. There are also lots of opportunities to help your fellow practitioners by contributing your own real-world experience and best practice advice.

If you're working in local or national government, other national bodies or in academia and would like to join us, please email us at [admin@airqualityhub.co.uk](mailto:admin@airqualityhub.co.uk) and we'll send joining instructions.

Academics and public sector professionals with a legitimate interest in air quality management can also access the site and forum, subject to specific approval. The Air Quality Hub is not currently available for commercial organisations.

The Low Emission Partnership, which developed and operates the Hub, is seeking case studies for a number of strategy areas that are currently under-represented on the Hub, and welcome ad hoc submissions or enquiries about becoming a regular content contributor.

Please contact [admin@airqualityhub.co.uk](mailto:admin@airqualityhub.co.uk) for more information.

## CALLS MADE FOR AN ISO STANDARD FOR BERYLLIUM

Beryllium Solutions International are calling for an ISO Standard for Beryllium which is now recognized as a carcinogen. More on this later when Newsletter space permits, but in the meantime, Beth Walker can be contacted at: [bethwalker@novanta.com](mailto:bethwalker@novanta.com)

## EPUK PRODUCTS AVAILABLE NOW

Our new and exclusive products are now available to order online. We have face masks which have a 93.6% particle filtration efficiency (PFE) rating so protecting against particles and viruses; tee-shirts in a choice of three colours and style; hoodies in navy or grey; and stylish bags with shoulder straps. All are made with recycled materials and come in a variety of sizes and colours. Products will be delivered directly to your home. Order your environmentally friendly presents, with a donation to EPUK, in time for Christmas.

<https://ohmcharities.org.uk/shop/environmental-protection-uk/>



T-shirts in 3 colours and 2 styles, £12.99, including a donation to EPUK.



Hoodies in 2 colours, sizes XS to XXL £24.99 including a donation to EPUK.



Bags in three colours, 16l, £12.99, including a donation to EPUK.



Masks, navy blue made of 80% recycled materials, £8 including a donation to EPUK.

## AND FINALLY, FROM THE PRESS

# The Guardian

**The Guardian reports** this month on a study, by Prof Rachel Aldred and Dr Ersilia Verlinghieri from the Westminster University's Active Travel Academy with climate charity on the effects of Low Traffic Zones (LTZs). It focused on London, where schemes to filter through traffic from residential streets have existed for decades, but which saw a rush of more than 70 LTNs created across various boroughs between March and September 2020. A number of other cities around the UK, including Edinburgh, Leeds, [Manchester](#) and [Bristol](#), have introduced or are discussing LTNs.

A number of these have proved controversial, with critics arguing that filtering residential streets simply pushes traffic elsewhere. notably on to main roads and high streets, forcing congestion, noise, pollution and danger towards poorer residents.

## MEMBERSHIP

*We are always looking for new members. Please recommend EPUK and its services to your colleagues and any organisation you feel would benefit from membership. Follow the link below for more information regarding types of membership and associated cost.*

<https://www.environmental-protection.org.uk/membership/>

*Or ask us for a Membership Booklet by emailing [info@environmental-protection.org.uk](mailto:info@environmental-protection.org.uk)*

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