



Briefing 22-17

May 2022

## **APSE Highways, Winter Maintenance and Street Lighting Seminar 2022: A Report Back**

To: All Chief Executives, Senior Policy Officers, Main Contacts and APSE Contacts in England, Scotland, Wales and Northern Ireland.

### **Brief Overview**

From 24-25 March 2022, APSE held its first in-person Highways, Winter Maintenance and Street Lighting Seminar for over two years at the Village Hotel in Blackpool. A two-day event, this briefing provides a short summary of the Seminar's speakers and the topics of discussion.

[Each presentation from the event can be downloaded for free from the APSE website here.](#)

### **1. Exploring the core issues that will impact on the sector**

97.6% of the roads network is managed by local authorities. Whilst spending on A roads has improved, budgetary pressures have seen that spent on minor roads at a decade low. This annual event allows delegates from across the UK - ranging from officers to directors to elected members – to navigate their way through the latest policy and technological developments and identify ways to protect and enhance these vital frontline services; services which public opinion polling consistently shows the public consider a priority.

One of the biggest events of its kind in the industry, APSE's annual two-day Highways Seminar provides an excellent opportunity for those who work in local government highways, winter

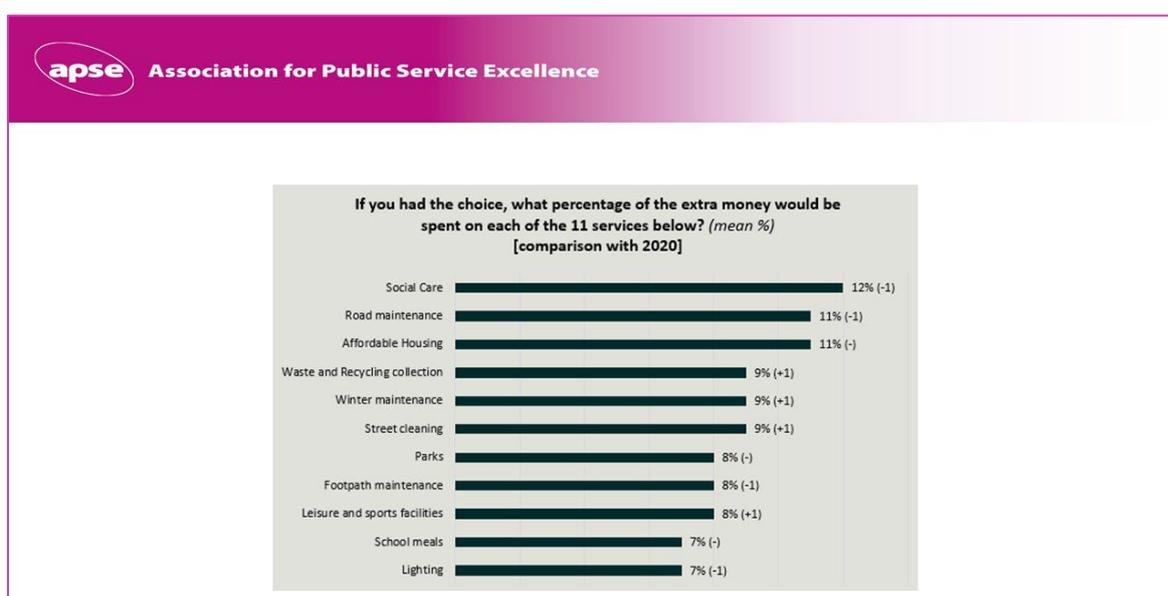
maintenance and street lighting teams to highlight case studies in excellence and share best practice.

## 2. The state of the highways sector

APSE Chief Executive Paul O'Brien was first to the podium to present the findings of APSE's latest State of the Market on Highways, Street Lighting and Winter Maintenance. On the issue of funding for highways, for the majority of respondents, the budget stayed the same from the last financial year (66.67%), 16.67% said it had increased, and 16.67% said it had decreased.

On the issue of funding for street lighting, for the majority of respondents, the budget for the service stayed the same from the last financial year (58.9%); 17.7% said it had increased, and 23.5% said it had decreased. On the issue of funding for winter maintenance, for the majority of respondents, the budget for the service stayed the same from the last financial year (67.8%), 25.4% said it had increased, and 6.8% said it had decreased.

APSE's Chief Executive proceeded to present the findings of the latest Survation poll for APSE, and what they mean for local authority road maintenance teams. We asked "If you had a choice, what percentage of the extra money would be spent on the following 11 services?" Social care topped the list of priorities (12%), followed by affordable housing and road maintenance both on 11%.



That said, when local climate action was added to the list of 11 services, it emerged as the equal second highest new spending priority after Social Care and Housing, on a par with Road Maintenance. This demonstrates the tricky balancing act councils are confronted with now that climate change has reached a point of critical concern which has gained parity with road maintenance as a core issue for the public. Indeed, climate change adaptation is one of the key areas of growth for the highways service, alongside walking and cycling schemes, identified in APSE's most recent state of the market survey.

APSE's Chief Executive rounded off his presentation by expressing gratitude to those frontline service workers in attendance; acknowledging that, despite the tumult of the pandemic, the sector response had been very good in terms of cost reduction, efficiency and improving productivity. However, Paul O'Brien urged the need for collective action on the issue of funding, pressing the need for a better system of funding to mitigate the cumulative effect of years of austerity on road maintenance teams and their backlog of repairs.

### **3. The ambition for highways**

The challenges and ambition for modern highways was the topic of our next speaker, Gary Kemp from the Department for Transport (DfT). In light of the publication of the Annual Local Authority Road Maintenance (ALARM) survey, which estimated that £12.64bn is needed to deal with carriageway repairs, Mr Kemp highlighted that £2.7bn of funding has been committed for local highways maintenance over the next three years. Mr Kemp also touched on the DfT's 2021 report 'Decarbonising Transport: A Better, Greener Britain', and its ambition that half of all journeys in towns and cities be cycled or walked by 2030. Mr Kemp highlighted cities where good progress had been made in that regard, such as Oxford and Manchester.

### **4. The evolution of local authority lighting**

Our final speaker of the session, Fiona Horgan, President at the Institution of Lighting Professionals (ILP), highlighted a key challenge for the industry, which is the need for investment in people, particularly in engineering and lighting. Without investment in people, the sector risks having a workforce that lacks the competency to fulfil the challenges that lie ahead, particularly ominous considering the hundreds of local authority climate emergencies

declared in the past few years and their technological ramifications for highways and street lighting services.

Justin Blades, Chief Executive Officer at Institution of Lighting Professionals, then joined Ms Horgan to present specific examples of highways teams from across the UK advancing the cause of career pathways and apprenticeships in their localities; putting real effort into recruitment, retention and retraining. For the ILP, the key is to think of investing in people as investing in places.

## **5. Solar powering Wigan's way to carbon net zero**

Opening Session Two, John Williams Technical and Operational Manager at Wigan Council, shed light on various projects the Council had undertaken to improve resident safety and reduce carbon emissions. With the Council committed to reaching net-zero carbon by 2038, the Council's street lighting service has already reduced annual energy consumption by 9,187,229 kWh (63%) and 4,937 tonnes of associated CO2 emissions. However, to reach 'net-zero' carbon emissions, Wigan will need to utilise solar power and smart sensor technology to create a truly environmentally friendly and sustainable street lighting service. This approach also has significant benefits in reducing cost and disruption and could be replicated by other councils.

One scheme highlighted by Wigan comprised the installation of 70 new lighting units, with thirteen fold-down type columns used where there is limited vehicular access. The PIR sensors pick up motion within 15 metres of the unit and remain on for a period of 15 minutes. The Scheme delivered benefits including: -

- The estimated cost to undertake the works using a conventional installation was £194,240. By comparison, the solar lighting solution was £74,727, offering a significant financial saving of £119,513;
- Avoidance of excavating 2,200m of trenching for underground cable supply networks;
- Avoidance of heavy machinery and lorry movements and their carbon emissions;
- Significantly reduced disruption to residents – the scheme installation was reduced from the forecasted 75 to 10 working days;

- Avoided 115,000 kwh energy consumption, 58 tonnes carbon emissions and £17,000 energy charges over the planned life-time of the lighting units.

## Case Study – Net Zero?



- Solar Powered Lighting
- Avoidance of trenching and connections
- Reduced disruption to residents
- Scheme cost was reduced compared to conventional scheme
- Eliminate energy consumption and CO<sub>2</sub>
- Avoid energy charges – and inflation
- Feedback very positive comments
- Scale-able for certain locations
- Grid connected may be used to offset energy consumption
- Invest to Save – typically 1kW rated 1m<sup>2</sup> panel generates @ 150 to 200W per annum?

Confident Place, Confident People.

## 6. Moata Ash Dieback – vehicle-borne mapping of ash trees

The discussion then turned to the pressing issue of ash dieback with our next speakers, John Farrow at Mott MacDonald, and Sophie Birchall-Rogerson of Conwy Council who is a Project Manager. Due to the sheer scale of the ash dieback problem, it is estimated to cost Britain £15 billion in management. Ash dieback isn't a problem that can just be left to progress and that is why each authority must have an action plan to manage the risk it poses. This presentation focused on Conwy's response.

Moata - Mott McDonald's vehicle-borne mapping technology - has helped Conwy Council get ahead of others by enabling an up-to-date and clear picture of ash health. Conwy can now boast of the fact that: -

- 68.7km of highway network has been treated.
- 554 areas of high-risk trees have been removed.

- Quantified condition data provided by the inspection technology has enabled targeted resources at the highest risk areas.

In parallel, early identification of trees in the infancy of the disease has led to the adoption of compensatory mitigation measures, and has also reduced future adverse impacts on local biodiversity.

## **7. The carbon challenge for highways**

Former President of the Institute of Highways Engineers, Richard Hayes, opened Session Three with an in-depth look at the climate emergency, and how local authority highways teams can contribute to building a sustainable society, present and future.

Mr Hayes identified areas where highways teams had already secured positive environmental outcomes such as increasing the use of warm mix asphalts, LED lighting, electric fleets and lower carbon concrete. The presentation then moved on to other potential 'hanging fruit' highways teams may wish to consider when attempting to reduce their carbon output:-

- Reuse of buildings instead of constructing new ones.
- Specify low-carbon concrete mixes.
- Limit carbon-intensive materials.
- Choose lower carbon alternatives.
- Choose carbon sequestering materials.
- Reuse materials.

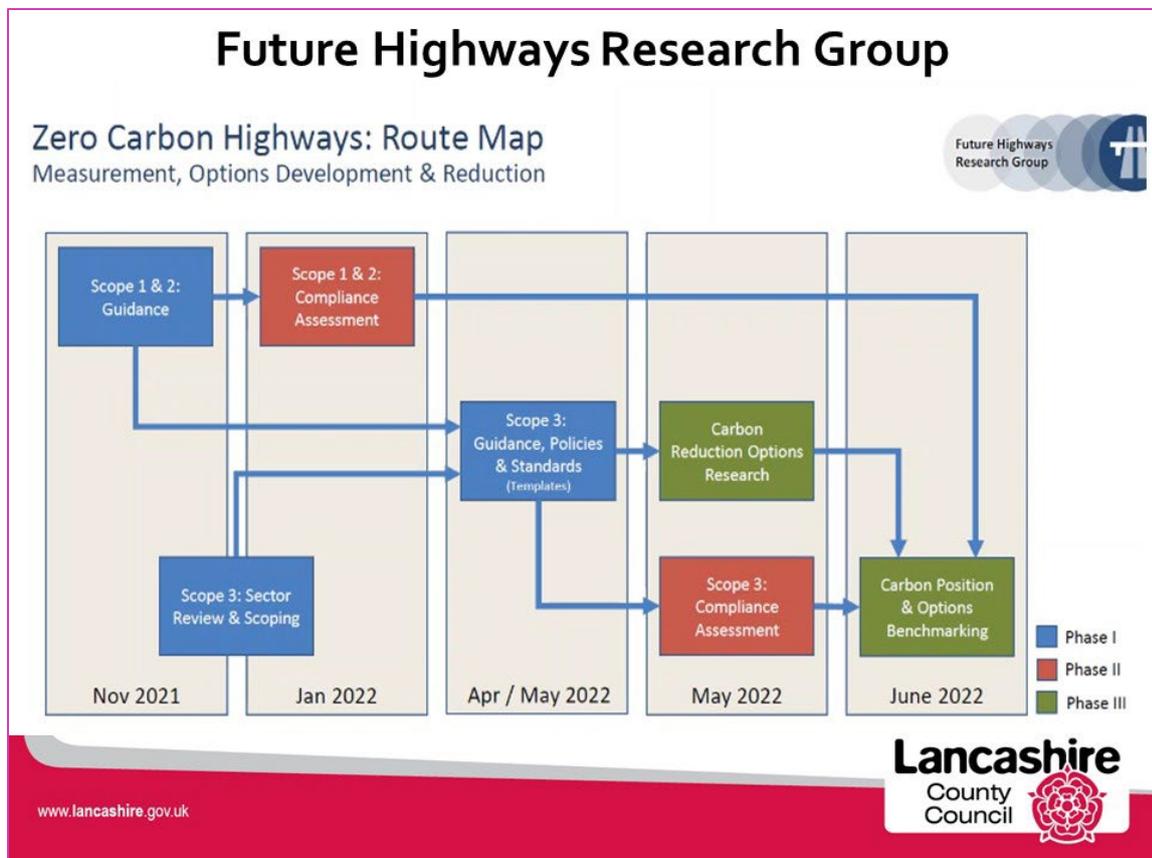
## **8. CO2e assessment and reduction in carriageway resurfacing**

Paul Binks, Highways Asset Manager and Stuart Bradshaw, Materials Engineer, Lancashire County Council, were next to the podium to discuss their service's Decarbonisation Strategy. The objectives of this Strategy include: -

- A focus on Scope 3 emissions (80% of all emissions).
- Quantifying the CO2e usage of the carriageway surfacing and other programmes.

- Identifying opportunities to reduce CO2e usage.
- Implementing CO2e reduction measures.
- Measuring CO2e savings.
- Developing and implementing a CO2e lifecycle planning model.

Lancashire were keen to stress how the Strategy plays a key role in Informing the decision-making process when it comes to choice of materials, treatments and intervention timing. One such process – ‘Carbon saving through ex situ recycling process’ - allows the Council to not only maintain the quality and longevity of a road but also allows road maintenance teams to treat more of the road to a greater depth, resulting in a thicker, more robust road pavement. The Council has saved 115 tons of carbon over the last three recycling schemes, which could heat an average house for over five years.



## **9. Digging into the data with APSE Performance Networks**

Our final speaker of Day One was APSE Associate Andy Martin who asked: ‘what is the APSE data telling us about the state of local authority highways and street lighting teams?’ Mr Martin analysed the data sets on: -

- Revenue and capital budgets.
- Total carriageway defects.
- Percentage of street lights that are LED.
- Average number of days taken to repair a street lighting fault.
- Sums paid out to third parties as a result of third-party claims.
- Percentage of directly employed staff trained within apprenticeship schemes.

Having scrutinised the data, Andy Martin emphasised the importance of performance measurement as a mechanism to learn how other local authority highways teams are meeting the big public policy challenges, and the impact that their service changes are making in terms of cost, quality, productivity and customer satisfaction levels.

## **10. Active Travel Workshop**

Active Travel is now a priority with up to £2 billion pledged and a target of 50% of travel in towns and cities by foot or bicycle by 2030. Delivering a scheme that works requires a combination of an excellent bid containing strong design. With this in mind, Day Two included a workshop facilitated by those who work at, or with, Lancashire County Council, outlining the Council’s various attempts at securing local buy-in to Active Travel.

Adrian Leather, CEO at Active Lancashire, shed light on his organisation’s partnership with the Council and their highly effective “Cycle Recycle” scheme. Cycle Recycle aims to support participants with a recycled bike and the skills to maintain that bike to help encourage them to live a more active lifestyle. The project has so many benefits such as access to active travel support, health and wellbeing, education, training opportunities, volunteer opportunities and increasing employment prospects. Thus far, 5000 bikes have been collected with 3000 bikes returned to the road.

The Lancaster City Centre Movement Strategy was the topic of our next speaker, Dr. Andrew Hewitson, Senior Public Health Practitioner at Lancashire County Council. The aim of the Strategy is to reimagine a city centre that facilitates and prioritises movement for people and sustainable and active travel. Dr. Hewitson stressed the need to 'win hearts and minds' on this topic, and noted that the attempts to do just that by the Council culminated in an exceptionally high response rate to the consultation. Following on from the consultation, a report was undertaken to analyse the views and comments and respondents, and this expressed a preference for three options, including a 'No through City Centre Traffic' option and a 'City Centre Clean Air Zone' option. These options are currently being assessed.

Our final speaker, Tony Lund, Senior Environmental Project Officer at Lancashire County Council, shed light on improvements to the East Lancashire Strategic Cycleway. Mr Lund discussed overcoming initial opposition to improving the cycleway by opting for a surface comprised of Granulated SBRA (Styrene Butadiene Rubber Aggregate). This decision has been received positively by walkers, cyclists and equestrians alike, with the British Horse Society commenting: "The rubber compound is the ideal surface for a shared route, particularly instead of tarmac, as we horse riders have had a couple of serious accidents locally now when horses have slipped and fallen over. These paths are smooth enough that the cyclists aren't impeded, soft enough for walkers and joggers, and soft and most importantly, slip free for horse riders."

## **11. Insight from our exhibitors...**

### **Velocity: Managing an ageing network sustainably**

*"No excavation, no waste, no need for road closures, and because there's no heat involved, it's also exceptionally low on carbon emissions."*

Gavin Blogg, Head of Business Development at Velocity, highlighted Velocity Patching's exceptionally low carbon emissions, with 90% carbon savings as all materials are cold applied.

### **KaarbonTech: A risk-based approach to drainage management**

*"The more you know about an asset, the better you can manage it"*

Mark Entwistle, Managing Director at KaarbonTech Asset Management, outlined the benefits of Gully SMART: software which allows you to create a proactive maintenance programme to improve efficiencies.

## **WJ Group: The value of social value**

Paul Aldridge, Group Sustainability Director at WJ Group, addressed the social value agenda, and how WJ Group are quantifying the benefits and presenting it to stakeholders in as accessible a fashion as possible.

## **WSP UK: Design-centred thinking delivering sustainable outcomes**

Giles Perkins, Head of Future Mobility at WSP UK, discussed future mobility, rural and human centric design, with an emphasis on how emerging technology, services and solutions can meet the needs of our communities at the various life-stages

## **Multevo: A look at the cutting-edge Multihog range**

Josh Sweeney, Director of Marketing and Growth at Multevo, showcased the robust, road legal and hydrostatic four-wheel drive Multihog machine range.

## **12. A testament to resilience and inventiveness**

COVID has disrupted the lives of millions over the past 2 years, not least this Seminar. Yet, as made abundantly clear within the findings of APSE's 2021 Public Perceptions Survey carried out by Survation, road maintenance remains one of the most highly regarded services by UK residents. The Seminar was a testament to the resilience and inventiveness of highways teams across the UK; teams that often have to respond to emergencies despite intense budgetary pressures. [You can view the survey here.](#)

As the foremost specialist in local authority frontline services, APSE continues to support local authority highways, street lighting and winter maintenance teams via our extensive network of over 250 local authorities. Through our training suite, advisory groups, research programmes and benchmarking service, membership of APSE can bring significant benefits to those who work in local government – from officers to directors to elected members to chief executives – by helping them comprehensively get to grips with the latest policy and technological developments. Not a member? [Sign up today!](#)

**Matthew Ellis, Communications Officer**

## **How APSE's rich suite of services can help your highways, street lighting and winter maintenance service...**



### **Highways and Street Lighting Advisory Group – Free for APSE members**

Free to join for APSE members, this Group addresses issues of interest to officers and members with responsibilities in highways maintenance, street lighting and winter maintenance. The meetings focus on operational issues such as approaches to renewing and repairing highways, reducing energy use in street lighting, gritting, road openings, highways and pavement repairs as well as service improvement. They also cover strategic issues such as asset management, procurement, management of utilities and changes to legislation and regulations. Speakers from major suppliers keep the group up-to-date with new products and services. information. [You can sign up for the Group here.](#)



### **Step in as an APSE Interim Manager and join our network of excellence**

APSE Solutions are currently assisting a number of councils with a high demand in interim requirements. We are therefore looking to expand on available associates who can confidently step into a team, and hit the ground running. We are currently seeing a growing demand in highways management. We understand that as people leave their roles, we lose so much valuable experience and local government knowledge, APSE Solutions strive to share that knowledge and expertise amongst those authorities that need the support the most. If you have a background in operational and/or senior management within highway services, you may have the skills required to step in as an ASPE Interim Manager and deliver the Solutions to excellent public service.

If you would be interested with working with APSE as an associate for interim assignments, email Nathan Horrocks at [nhorrocks@apse.org.uk](mailto:nhorrocks@apse.org.uk) or call 0161 772 1810.

## Data is power: Measure the performance of your highways teams

APSE Performance Networks is the largest voluntary public sector benchmarking service in the UK. With more than 200 UK local authorities in membership, Performance Networks benchmarks across 17 frontline services, including highways and street lighting.

As a membership of APSE Performance Networks, local authority highways and street lighting teams are provided with the following data: Cost of service; Productivity Staff absence; Customer satisfaction; Human resources and people management; Quality assurance and community consultation; Cleanliness standards achieved; Cost: service/transport/staff; Enforcement Education/publicity; Fly-tipping and abandoned vehicles.

Not a member? [Sign up today!](#)

## Health & Safety - Working on Highways and Verges (CPD)

In addition to new concerns and requirements, accidents to workers and road users on the highway regularly make headlines and attract investigation and enforcement action. Litter picking, mowing, treework, dealing with emergencies, removing road kill and any other work on or near the highway are all high-risk activities and incidents can have far reaching consequences for local authorities and individuals.

These place significant responsibilities on local authorities to ensure competence at all levels, and this masterclass provides an opportunity for those managing or delivering these activities to step back from the pressures of their 'day job' and take an overview and an update on key issues, together with sharing experiences and good practice. Discounted for APSE members, [book your place here.](#)

## Helping your council municipalise local energy generation

APSE Energy is designed to bring councils together to share information, ideas, resources, best practice, and to support local energy projects. Our dedicated team of specialists assist APSE Energy members through:

- Regular briefings about the most up-to-date issues related to the energy agenda and their impact on local government;
- Detailed publications on relevant topics such as energy efficiency and renewables technologies, legislation and the climate emergency;
- Events, workshops and webinars to bring people, experience and ideas together to enable sharing of knowledge;
- Circulating specific operational queries to find answers from our membership;
- Providing consultancy support for individual projects where internal capacity means help and expertise is required.

Not a member? [Sign up today!](#)