Nick Harris
Chief Executive
National Highways
Bridge House
1 Walnut Tree Close
Guildford
GU1 4LZ

Toby Perkins MP,
Chair of the Environmental Audit Committee,
House of Commons
London
SW1A 0AA

30 September 2025

Dear Mr Perkins,

Thank you for the invitation to provide oral evidence to the Environmental Audit Committee on 3 September 2025. I hope you found the information we shared on environmental sustainability, including biodiversity and water quality, helpful.

We valued the opportunity to listen to the other witnesses who appeared before the Committee. We look forward to continuing to work with them and other expert individuals and organisations as we further progress our important work on environmental sustainability. This approach reflects our intent to work collaboratively and openly to address shared environmental challenges.

Firstly, I would like to clarify a couple of points in our oral evidence:

- In relation to Q74 to Q77, I want to clarify the funding position for the replanting of the trees on the A14. To date, National Highways has funded the replanting from existing project funds and contingencies, meaning this was absorbed in existing National Highways funding. Whilst we did not request additional funding, the costs have been met by National Highways from public funds, so I am keen to correct any misunderstanding of my evidence. Funding for any further replanting would be provided from future National Highways Road Investment Strategy funding where required. There are considerable lessons learned from this project on how to maintain trees once planted, which are set out below.
- In relation to Q59, the Office for Rail and Road (ORR) does not have specific responsibility to monitor or assess our compliance with DCOs. However, the ORR does hold National Highways to account for the timetables set out in the project plans following DCO approval.

I hope these clarifications are helpful.

Tree-planting on the A14 Cambridge to Huntingdon scheme

I recognise the strength of the Committee's feeling about our tree-planting performance on the A14 in Cambridgeshire. As I set out to the Committee, I accept that we have not yet delivered the environmental outcome we set out to, and we are determined to address that. However, I'd also like to re-iterate that we continue to work on this issue and have already completed a significant proportion of the re-

planting programme, having reviewed the original execution and learnt and applied some clear lessons. The re-planted trees are establishing, and we will continue to maintain them in this crucial phase of their development. We remain committed to delivering the environmental benefits of the scheme in full and applying the lessons learnt elsewhere.

At the session, we committed to provide the Committee with some further detail related to tree-planting on the A14, which is set out below.

Surveys that took place ahead of tree-planting on the A14 scheme

The Development Consent Order process required National Highways to provide detailed information on all aspects of the project. On the A14 Cambridge to Huntingdon scheme this included a detailed Environmental Statement that set out our approach to environmental sustainability, including air quality, cultural heritage, landscape, nature conservation, geology and soils, materials, noise and vibration and road drainage and the water environment.

In support of the Development Consent Order process, National Highways undertook a range of surveys to inform our approach. The surveys most relevant to tree-planting and establishment included:

- Geophysical surveys to identify archaeological remains, buried structures, and natural geological features like cavities and soil variations.
- Topographical surveys to map the natural and man-made features of a piece of land, recording its physical characteristics like elevation changes, contours, and the location of existing structures, vegetation, and underground utilities.
- Arboriculture surveys to provide a detailed assessment of the impact of building, infrastructure, storm water drainage and landscape construction on existing trees within the proposed development site.

Due to the long time period between DCO application and tree planting (typically up to 5-8 years), we would not normally assess the suitability of existing soils in the planning phase of the project. Soil that is stockpiled over this period can degrade and change characteristics and during construction it is normal for soil to be moved around the site to create embankments and other essential landscaping features. Therefore, it is better practice to undertake soil surveys closer to the time of planting.

On the A14 project, soil nutrient surveys were completed in December 2016. These surveys were used to inform our A14 soil resource plan, which fed into the overall 2017 planting strategy.

Ground investigation was undertaken again in 2017 to ensure that the data we had was current and accurate. Surveys for the identification of ancient woodland, Sites of Special Scientific Interest, (SSSI's) Special Areas of Conservation (SAC's) and trees with Preservation Orders (TPO's) were also reviewed ahead of planting.

Planting dates

The original planting of most tree and shrub species on the A14 scheme largely took place between November 2019 and March 2020 in line with the construction schedule and informed by expert advice.

Lessons learned on tree-planting

Having reviewed the reasons for the higher-than-usual failure rate of trees planted on the A14, we concluded that the following were the main factors:

- Rootstock choice – using bareroot trees increased the risk of failure.
- Weather – a period of hot, dry weather impacted the young trees.
- Soil nutrients – the soil nutrients were not optimal.
- Aftercare – maintenance of the trees should have been better.

Working with our sub-contractor, we developed a replanting strategy that builds on these lessons learned. The replanting strategy is underpinned by an analysis of the options and recommendations set out below:

	Option	Conclusion
1	Bare Root v's Cell Grown	Scots Pine transplanted from pots to the ground have been successful. It is expected by using cell grown trees that there will be higher success rates than bare root transplants.
2	Use of mulch	Mulching should be used for increasing nutrient levels within the soil and supressing plant growth in the area surrounding tree shelters. Options for mulch variants are suggested as follows: woodchip mulch, imported/improved mulch, grass cuttings.
3	Use of fertilisers	There are several options that can be implemented to fertilise the soil, such as the introduction of natural mycorrhizae at the point of planting or using synthetic fertilisers that slowly release into the ground. Potash is an alternative natural fertiliser which should be considered for acidic soils.
4	Maintenance interventions	The establishment or maintenance completed on the A14 did not ensure the normal survival rate for trees. Therefore, different maintenance regimes are required, tailored to the species, location and rootstock.
5	Sizes/age of trees planted	Variations on tree sizes are also recommended. Ordinarily for woodland mix, trees 40-60cm in height are planted, however some species may have a 60-80cm height requirement. Where possible, the proposal would be to install trees at both ends of the standard size specification.
6	The type of tree guards	Various alternatives to plastic available including biodegradable options to be considered.
7	The use of topsoil	Embankments are typically constructed of granular fill and or heavy clay soils. Topsoil is then applied on top to provide a suitable planting environment. Deep rooted planting such as trees naturally root into the subsoil. Species selection for planting on embankments and planting techniques must therefore be adapted to suit the plot conditions.

8	Tree species specifically planted for “biomass fuels”	In a changing climate, native tree species will be adapted to suit the higher temperatures and lower volumes of rainfall. Many biomass species are fast growing and need minimal maintenance. A mix of planting including non-native species may be necessary to achieve a suitable mix of resilient trees

Early indications are that the re-planting strategy is delivering improved results, and we will continue to maintain the young trees for a five-year establishment period in line with best practice. We will apply lessons learned to other tree and shrub planting that we undertake in the future, recognising the importance of this to our environmental commitments at scheme level and more widely.

Water quality

I want to emphasise to the Committee that water quality around the SRN is a priority for National Highways. We have developed a Water Quality Plan that sets out our approach and commitments to 2030. We believe that is right to maintain a risk-based approach to this issue, focussing our resources on those outfalls that we know to be high-risk. There is more we need to do on this issue, but we are making progress and remain committed to work with others collaboratively to improve water quality around the SRN.

National Highways Environmental Sustainability Strategy progress

More broadly, I would like to re-iterate to the Committee that we take our wider environmental sustainability commitments extremely seriously. We believe that investment in infrastructure is good for the economy and good for the environment, providing an opportunity to invest in and work with nature.

Although tree planting and water quality are important elements of our work on environmental sustainability, they are by no means our only contribution. In 2023, we published our Environmental Sustainability Strategy, and we are making good progress in our delivery against those commitments.

As we set out in our evidence session, we work closely with expert partners to ensure that our approach to environmental sustainability is informed and aligned with best practice.

One such partnership is with The Wildlife Trusts through our shared Network for Nature programme, which has delivered landscape-scale biodiversity projects at 51 locations across England. This work has enhanced and restored a wide range of habitats, including:

- Delivery of 3,688 biodiversity units.
- Creation of 169 hectares of new habitat and restoration of a further 1,204 hectares.
- Improvement of 142 hectares of peatland and 35km of waterways.
- Planting of 13,733 trees.
- Creation or management of 129 ponds and 12km of hedgerow.

- Contribution to the improved condition of 30 Sites of Special Scientific Interest.

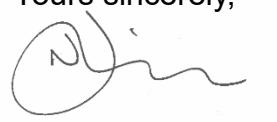
As part of this programme, we delivered a project to protect and improve the Manchester Mosses, by recreating a nature recovery network across this endangered landscape, which is bisected by the M62. Our work to enhance and re-wet lowland raised bog for specialist plants, including sphagnum mosses, aims to improve biodiversity, carbon storage and flood resilience and offer stepping stone sites and buffer areas for wildlife.

I have set out some further information on our work on wider environmental sustainability in the annex to this letter. I hope this additional information is of interest and value to the Committee as you consider your conclusions and recommendations.

Finally, I would be delighted for the Committee to come and see some of the work we've undertaken across the country to improve the environment, including biodiversity and water quality, if that would be of interest.

In the meantime, please do get in touch if we can be of further assistance.

Yours sincerely,



Nick Harris
Chief Executive
Email: nick.harris@nationalhighways.co.uk

Annex – National Highways Environmental Sustainability Strategy – progress on delivery

Biodiversity

- In Road Investment Strategy (RIS) 2 we had a biodiversity KPI to achieve no net loss of biodiversity at an organisational level between 2020 and 2025.
- Working collaboratively with a range of conservation partners, by the end of 2024/25, we delivered 6,744 biodiversity units against a target of 6,148 – an overall net gain of 596 units.

In 2024/25, National Highways:

- Delivered 2,221 biodiversity units.
- Forecasts that 67% of our new road building projects that started construction this year will achieve a net positive outcome for biodiversity.
- Delivered 237 hectares of woodland.
- Delivered 528 hectares of wildflower grassland.
- Created 12 hectares of wetland habitat.
- Started construction on three green bridges as part of the A30, A417 and M25 junction 10 major enhancement schemes. These structures will provide grass, heath or shrub connectivity across the road network and improve resilience for protected habitats and species.
- Completed all four phases of our Network for Nature partnership with The Wildlife Trusts which delivered 46 biodiversity projects to create and enhance habitats, improve waterways and increase the condition of 30 Sites of Special Scientific Interest.

Air quality

- Our latest monitoring for 2024 continues to show ongoing improvements in measured NO2 concentrations, continuing the trend seen since the end of the pandemic.
- The ongoing improvements in air quality mean that many of the sections of our network that we have been asked to assess over recent years are now well below the annual mean NO2 legal limit value of 40µg/m³.
- We are exploring the measures available to National Highways to address these remaining areas of poor air quality as quickly as possible.

In 2024/25, National Highways:

- Completed of our review of the performance of our air quality speed limit trials.
- Removed speed limit trials on the M602 junctions 1 to 3, Eccles after evidence showed that air quality at this location had improved.
- Continued work to develop measures for the A3, Guildford to provide better health outcomes for pedestrians and cyclists in the area.
- Completed and published the findings for 15 new sections of the network identified as at potential risk of exceeding annual mean NO2 limit values.

- Launched air quality mapping presenting data from our annual evaluation reports, National Air Quality Monitoring Network and diffusion tube monitoring.

Flooding and water quality

- We have two performance indicators for the water environment:
  - Water quality: We report the length of watercourses improved through the treatment of polluting discharges to surface and groundwater bodies and other interventions, for example river retraining, the removal of barriers or the provision of fish passes to aid migratory fish and eel populations.
  - Drainage resilience: We report the percentage length of carriageway that does not have an observed significant risk to flooding and is supported through interventions across our network that address locations susceptible to repeated flooding.

In 2024/25, National Highways:

- Improved 16 kilometres of waterbody through 44 local initiatives.
- Improved flood resilience at 16 locations on the strategic road network.
- Validated and verified 1,236 high priority drainage assets, to determine whether they posed a significant risk to water quality.
- Commenced a programme of interventions to improve water quality at those locations confirmed as high-risk. Note that this work is continuing and we would envisage that around 250 locations will require intervention. We are continuing to review the risk of pollution from all our other outfalls and soakaways.
- Delivered mitigations to outfalls posing a high risk of pollution on the M42 junction 6, M25 junction 26 to 27, M3 Thorpe Park and A47 North Tuddenham. A further three high priority soakaways were also mitigated in a drinking water protection zone on the A27, using a series of sustainable drainage systems and creating some rainscape gardens for the benefit of the local community.
- Continued our microplastics research programme. This continues to give us a better understanding of the burden of microplastic pollution on the strategic road network and whether there are any other emerging pollutants in road runoff of concern to the water environment.

Net zero

In 2021, we published our Net Zero Highways Plan.

The plan commits to achieve net zero for:

- Day to day corporate emissions by 2030.
- Maintenance and construction projects by 2040.
- Travel on our roads by 2050.

In 2024/25, National Highways:

- Continued the transition to LED lighting on the strategic road network, ensuring that 51% of the lit network is now illuminated by LED lighting.

- Transitioned a further 10% of our fleet to electric and plug-in hybrid vehicles, meaning that 98% of our fleet has moved away from pure petrol or diesel engines at the end of 2024-25, with 28% of our fleet now electric vehicles.
- We have continued to increase the efficiency across our estate, including the improvement of lighting and heating systems at 5 depots, the installation of solar PV at 9 depots and the continuation of installing electric vehicle charge points.
- Our travel and expenses policy and travel hierarchy encourage staff to prioritise sustainable travel choices. There was an 83% reduction in domestic flights seen in 2024-25 compared to 2023-24.
- Planted over 177,000 trees across 27 National Highways and community projects in addition to tree planting in the design and mitigation of road projects.
- Retained our PAS 2080:2023 certification (Carbon Management in Infrastructure).
- Continued to explore low carbon road surfacing opportunities to decide if this and similar products are suitable for wider use on our network. We trialled a new low carbon asphalt on the M11, resulting in around 60% carbon savings compared to traditional methods. We also installed a 12-month trial of graphene-based asphalt on the A12.
- Delivered the UK's lowest carbon resurfacing scheme on the A64 near Bramham in North Yorkshire, achieving a 75% reduction in carbon emissions compared to traditional resurfacing, saving over 260 tonnes of carbon.
- Trialled biogenic asphalt on the A2 in June 2024 and the A34 in July 2024. These trials achieved Institution of Civil Engineering Carbon Champion recognition in September 2024.
- Continued to collaborate with Nottingham University to accelerate this testing. If it is successful, the results will be used to update our specification to allow for use across the network.
- Developed a low carbon demonstrator fund to run in 2025-26, to identify schemes where we can demonstrate low carbon asphalt materials and techniques.
- Continued our delivery of energy storage systems at motorway service areas (MSAs) to supplement the grid supply, enabling ultra-rapid electric vehicle charging. One site is live and a further seven are being commissioned. A further site is in the design and planning stage.
- Undertook research to produce a roadmap for heavy goods vehicle (HGV) decarbonisation to improve our understanding of how the sector will evolve and likely investment needs to support decarbonisation initiatives. The roadmap is closely aligned to the Climate Change Committee's seventh carbon budget.
- Continued to support the Zero Emission HGV and Infrastructure Demonstrator (ZEHID) programme, which aims to deploy over 350 zero-emission HGVs and build over 70 infrastructure installations by 2030. In 2024, four projects were launched, investigating the transition to electric HGVs, UK charging technology, open-access depots, and hydrogen fuel cell vehicles and refuelling stations.

Noise mitigation

- We understand that vehicles using our network generate noise for neighbouring homes and communities.
- We know noise from vehicles using our roads affects people's peace and comfort, as well as posing risks to their health and wellbeing.
- In RIS-2 we had a target to mitigate noise for 7,500 households in noise important areas and achieved 7,776.

In 2024/25, National Highways:

- Installed acoustic glazing and ventilation in 432 properties affected by noise from our network.
- Installed noise barriers to reduce the noise on the A1 at Eaton Ford, benefitting 234 households and covering 1,065 metres of barrier across various sections.
- Delivered low-noise surfacing, including at M5 Catshill, M67 Denton and M57 Westvale, benefitting 1,913 households.