**Congestion, Capacity, Carbon:** Priorities for National Infrastructure, a consultation response on a National Infrastructure Assessment from the Campaign to Protect Rural England

11 January 2018

**Introduction**

1. The Campaign to Protect Rural England (CPRE) welcomes this opportunity to respond to the National Infrastructure Commission Consultation on a National Infrastructure Assessment. CPRE fights for a better future for the English countryside. We work locally and nationally to protect, shape and enhance a beautiful, thriving countryside for everyone to value and enjoy.
2. As a charity with about 60,000 members, a branch in every county, over 200 district groups and more than 2,000 parish council members, we have long had an interest in infrastructure proposals, whether of local or national scale.
3. We have selected ten questions from the consultation in which to focus our response, ranging from Brexit to Water Policy, Autonomous Vehicles to Land Value Capture. With over 90 years of campaigning and policy experience, we look forward to engaging with the Commission further on these and other issues, ahead of the publication of the final assessment later in 2018.

**Q1. How does the UK maximise the opportunities for its infrastructure, and mitigate the risks, from Brexit?**

1. An estimated 80% of UK environmental policy derives from EU laws.[[1]](#footnote-1) The decision to leave the EU is a source of significant uncertainty for the continuation of these principles and policies that have guided environmental protection over the last forty years. It is essential that, if our infrastructure-related decision-making is to be environmentally sustainable, the entirety of EU environmental law must be converted into primary legislation in the UK. This conversion should be done through legislation, with appropriate parliamentary scrutiny for the process to be effective and accountable.
2. CPRE encourages the government to use the transposition of EU laws as an opportunity to consider how to make them more transparent and digestible to the public. The Environmental Statement for HS2 Phase One amounted to over 56,000 pages. This kind of approach makes it very challenging for local authorities and NGOs to interpret and understand proposals. Greater use of open data could empower communities to hold powerful bodies to account, ensuring that environmental regulations are more effectively understood and enforced.
3. Underpinning much of the EU laws is the Precautionary Principle. This has been a cornerstone of UK environmental policy and should be explicitly established as a concept in UK law. Failing to do so in a bid to be “competitive” with nations we seek trade deals with, (such as the United States), would risk prompting a race to the bottom in environmental policy. We therefore warmly welcome the commitment made by the Environment Secretary in his speech of 21st July in which he said, “I have no intention of weakening the environmental protections that we have put in place while in the European Union”, before going on to argue that the current level of protections could be strengthened after Brexit.[[2]](#footnote-2)
4. It is highly probable, that in exiting the EU, a great number of new infrastructure projects may be undertaken by the public and private sectors in order to prepare for future economic uncertainty. This may require the government to tighten legislation and consider new laws to protect against new and emerging threats to the countryside.
5. In addition, domestic governance arrangements must be put in place to ensure supervision, monitoring and enforcement of environmental law is equivalent or better than that currently provided by the EU Commission and the European Court of Justice.
6. With an increasingly devolved system of government, there must be clear lines of accountability for proposals that cut across-devolved boundaries. DEFRA’s proposals for an independent environmental regulator are welcome; however, the precise powers of any new body are unclear. A new ombudsman service must be given the powers to respond effectively when environmental laws are contravened, if it is to have the teeth necessary to ensure compliance. Proposals should reflect the spirit of the Well-being of Future Generations (Wales) Act, which has established a Future Generations Commissioner to highlight decisions made across government departments that do not take future generations into account. If the Government is really to leave the environment in a better state than it was found, these considerations must be incorporated into any post-Brexit environmental strategy. The importance of ensuring future regulatory and governance mechanisms are correctly established is underlined by the fact that the majority of cases for which the UK has been referred to the European Court of Justice have been environment based.[[3]](#footnote-3)
7. Finally, the loss of European Investment Bank and EU Structural Funds financing risk delivering significant blows to the UK’s progress in the provision of environmentally sustainable infrastructure. The Structural Funds have played a significant role in urban regeneration on brownfield sites, which has helped to preserve the countryside from inappropriate development as well as ensure the successful regeneration of run-down and neglected urban economies. However, Brexit may be considered an opportunity for the creation of a UK National Infrastructure Bank, as suggested by the LSE Growth Commission and currently underway in Scotland.[[4]](#footnote-4) Such a bank must be oriented towards financing environmentally sustainable projects, and must operate subject to democratic scrutiny.

**Q2. How might an expert national infrastructure design panel best add value and support good design in UK infrastructure? What other measures could support these aims?**

1. CPRE is pleased by the Commission’s recognition of the importance of good design. Having played a key role in helping secure the setting up of design panels for HS2, Highways England and most recently Network Rail, we are keen that the potential of design review is secured more broadly. In considering the role of a national infrastructure design panel, it is helpful to consider not only the wide range of infrastructure projects, but also gaps in terms of sectors, stages and locations. In particular, a new panel should seek to improve the design quality of existing infrastructure, as well as new projects.
2. The sectors that rely on private rather than public investment have far less use of design panels, such as the energy sector. A national panel could help fill the gaps in this regard. Sometimes there may be a need for a project’s scope to be broadened beyond one type of infrastructure. One example of this can be seen in our call for the opportunity to be taken to bury cables carried by existing electricity transmission pylons in the Chilterns AONB alongside HS2, but this was hindered by responsibilities being split between HS2 Ltd and National Grid. This should be something that a national panel could address, so long as it is involved at the earliest stage.
3. Crucial to the success of a panel would be careful consideration of its composition, ensuring a broad spectrum of representation. In order to achieve public confidence there should be a clear definition of what role it serves in the planning process and the boundaries within which it operates.
4. The work of design panels has tended to focus on individual schemes rather than broader processes, in particular procurement, and standards. The two existing transport panels have started to challenge this, in recognition of the national importance of designing infrastructure to meet a future where integration of processes and standards is essential for the protection of biodiversity from increasing growth pressures.
5. In terms of location, many infrastructure projects aim to provide some regeneration benefits for their surrounding areas and even more have potential to do so. Design Panels should not merely exist to mitigate and minimise negative impacts but also to champion overall landscape enhancement. It is worth asking the extent to which design panels should be locally rather than sectorally based. According to new research by the Place Alliance, less than a fifth of local authorities regularly use design review. When they do, it is normally for housing and commercial developments, indeed we are not aware of any local authority led transport scheme being design reviewed.[[5]](#footnote-5) This was reflected in the Highways England Design Panel’s first progress report, which recognised the need for good practice to spread to local road schemes.[[6]](#footnote-6)
6. A national panel could perhaps best fill the gaps, join the dots and act as a champion in promoting design thinking. It would need to have explicit powers in order that it can not only make recommendations but also apply sanctions.
7. Additional Comments

* Good design is sometimes stripped out in later project stages to cut costs. It will be critical for better appraisal methods to recognise the benefits of good design before construction and for better monitoring, enforcement and evaluation post-construction as part of a benefits management strategy.
* The role of regulators will be critical. CPRE was greatly concerned by Ofgem’s decision to challenge the cost of National Grid’s proposals to mitigate the environmental impacts of the Hinkley interconnector. As a champion of the long-term interest, the Commission should ensure that concerns about short-term costs do not trump realisation of long-term benefits, particularly where these are far cheaper to avoid when a scheme is first built. Changes to regulatory frameworks are needed.
* CPRE also commends to the NIC the joint CPRE/Campaign for Better Transport (CBT) publication ‘Better not bigger’, published in September 2014, a report reflected in the landmark speech that the Rt. Hon John Hayes, Minister for Roads, made to CPRE and CBT.[[7]](#footnote-7) In the speech he spoke of the need for greater harmony between roads and their surroundings, something CPRE would like to see developed further by the NIC and government.[[8]](#footnote-8)

**Q9. What strategic plans for transport, housing and the urban environment are needed? How can they be developed to reflect the specific needs of different city regions?**

1. CPRE welcomes the NIC’s acknowledgement that new roads will not solve congestion issues, as highlighted by our report, *The End of the Road*, published earlier this year.[[9]](#footnote-9) The findings of the report also challenge the widely held assumption that new road infrastructure leads to increased economic growth. Analysis of 25 schemes that were justified based on local economic uplift found that fewer than a quarter showed any sign of economic benefit. When one considers the devastating impacts that new road infrastructure has on the landscape and on pollution, both local and global, these findings should be taken into account when considering infrastructure projects.
2. In recent years, devolution deals have led to greater local control over transport budgets. In particular, the establishment of Sub-national Transport Bodies (STBs) holds significant potential for the widening of sustainable travel choices within their areas. Plans to increase public transport provision, such as re-opening old railway lines and walking and cycling infrastructure in city-regions would be strongly welcomed by CPRE.
3. Whilst dedicated pots of money such as the Transforming Cities Fund are a sign of progress in the decentralisation of transport funding, CPRE believes that budgets must be fully devolved for local authorities to gain true control over an integrated and sustainable transport strategy. This includes granting local authorities and city regions revenue raising powers to provide ring fenced funding of public transport infrastructure in the long term. CPRE remains strongly concerned that STBs currently suffer from a lack of accountability, alienating the public from the drafting of Transport Strategies and the general oversight of local transport infrastructure. CPRE believes that reforms must be made to the STBs to allow for real accountability of these transport bodies to their citizens.
4. CPRE believes the STB model must not be allowed to become the only solution to transport devolution. Many rural areas are already excluded by the city-deal approach to devolution that the government has adopted, and require equal attention regarding the provision of public transport and a scale-appropriate democratic body to govern local transport planning. The use of economic metrics such as GVA often mean that rural transport proposals are unable to compete with their urban counterparts, resulting in an uneven playing field. Securing opportunities for regeneration and increased sustainability should be given equal consideration in transport planning. The problem is exemplified by the fact that even rural areas like the Lake District that have a thriving tourist industry and strong economic case for public transport expenditure, still fail to attract investment. The lack of provision threatens the tranquillity and unique character of the area for residents and visitors alike. This issue is discussed further in Appendix A to this response.
5. One of the first STBs to emerge is Transport for the North, which CPRE would like to see deliver a ‘sustainable’ transport system fit for the future. The current national policy of road building is promoting a speculative ‘free for all’ of new development in inappropriate locations. No single authority is effectively in control of the harmful cumulative impacts, which is why a more regional approach has the potential to develop more creative multimodal transport policies.
6. The current fragmented decision making process for transport infrastructure has resulted in roadbuilding becoming the recognised default. There are numerous opportunities to correct this imbalance, including at the Port of Liverpool where only 2% of goods are conveyed by rail, compared with 40% in London. The gravity of the issue can be seen in the case of Rimrose Valley Country Park, a strip of Green Belt land separating two densely populated areas in Sefton, Merseyside. This is currently under threat by Highways England’s proposal to build a dual carriageway along its centre for its entire length, in order to service Peel Ports’ enlargement of the Port of Liverpool.
7. CPRE welcomes the NIC’s approach to connecting cities, and emphasises the importance of making metropolitan areas more liveable. The report’s chapter on housing rightly frames the lack of housebuilding as symptomatic of the poor coordination in which infrastructure is planned. In particular, the focus in land-use planning policies, largely expressed through the NPPF, on delivering new housing above any other national priorities, is increasingly resulting in decisions being made on housing development that are entirely divorced from decisions made on infrastructure, inevitably widening the infrastructure deficit: housing developments, especially on the edge of or outside urban areas, must never be countenanced without proper consideration of the provision of infrastructure needed to support them. We agree on the need for joining up housing, transport infrastructure and workplaces as a single integrated system, much like the Greater London Authority has done with their Public Transport Access Level (PTAL) tool.[[10]](#footnote-10) Such a system would help to facilitate the construction of the right homes in the right places, supported by appropriate sustainable transport infrastructure. Incorporating land value capture approaches would further help to ensure brownfield sites are prioritised and public infrastructure is fully funded. As well as linking these concepts, it is important infrastructure decision making is undertaken in a transparent way. We are concerned that Local Enterprise Partnerships (LEPs), like STBs, suffer from a lack of accountability. Increased efforts to improve on this should be made in order to ensure that local people have a say on the infrastructure that affects their daily lives, and leads to more effective and acceptable outcomes.

**Q10. What sort of funding arrangements are needed for city transport and how far should they be focused on the areas with the greatest pressures from growth?**

1. CPRE would welcome the creation of stable, long-term arrangements for revenue as well as capital funding to support the work of both urban and rural transport authorities; however, checks and balances must be enacted locally to ensure public accountability, such as for devolution deals that may bind areas beyond the local electoral cycle.
2. CPRE believes that key to securing future financing for sustainable transport would be the effective utilisation of the economic levers already available, such as congestion charging and work-place parking levies. Whilst there is no “silver bullet”, market interventions whose purpose may be environmental rather than explicitly revenue raising, could make a significant contribution to long-term financing of sustainable transport infrastructure.
3. CPRE recognises that in order to protect the countryside we must seek to shape the future growth of England’s cities. To that end, we are supportive of funding arrangements which give local transport authorities the scope to increase bus and rail provision and invest in new sustainable travel infrastructure that facilitates the most effective use of brownfield land.
4. However, whilst we recognise the value to rural areas of new funding arrangements for cities, this must not be at the expense of rural areas where in most cases the governance infrastructure remains at the sub-regional level. Whilst any form of devolution inevitably creates multiple tiers of development, we would be very concerned about any funding formula that embeds an urban/rural divide in transport funding and networks. For too long, rural areas have always been considered “the poor relation” with inadequate public transport infrastructure. Many rural communities feel they have no alternative but to rely on the private car. The NIC must recognise the importance of promoting a “travel choices” agenda in tandem with promoting sustainable travel in urban areas.

**Q11. How can the Section 106 and Community Infrastructure Levy regimes be improved to capture land and property value uplift efficiently and help fund infrastructure? Under what conditions are new mechanisms needed?**

1. The Section 106 (S106) and Community Infrastructure Levy (CIL) schemes raise important funds for affordable housing and infrastructure associated with new development. Notwithstanding this however, both regimes suffer from serious limitations and are not in themselves providing sufficiently for communities.
2. Since the NPPF was introduced in 2012, S106 contributions for affordable housing have substantially decreased. Developers have been reducing the number of affordable housing contributions provided on the grounds that their provision would jeopardize the viability (in other words profitability) of a scheme - see paragraph 173 of the NPPF which encourages development margins that will provide ‘competitive returns to a willing land owner and willing developer’. The current approach to viability, which enables developers to reduce or remove S106 obligations on sometimes questionable viability grounds, was introduced to ease the burden on developers during the tricky financial circumstances in the immediate aftermath of the ‘Credit Crunch’; those circumstances have now been eased and the housing market is buoyant enough to support renewed efforts to address the deficits in affordable housing and infrastructure.
3. There are other flaws associated with S106 and CIL that merit attention.  CIL is based on the uplift value for specific areas – thus in less affluent areas, where property and land values are lower, CIL regimes are less easy to progress. This is due to the lower levels of viability that development in such areas provides. In her review of the CIL regime, Liz Peace and her team, as commissioned by DCLG, provided proposals aimed at overcoming the patchy, ad-hoc application of CIL, including the introduction of a Local Infrastructure Levy Tariff that would apply to all developments without exception. The review also put forward the option of a Strategic Infrastructure Tariff that would be collected by a cluster of local authorities and overseen by Combined Authorities. Care needs to be taken to ensure that proximity to and accessibility of infrastructure such as schools and hospitals (existing and proposed) is accounted for, as well as simply the provision of infrastructure, especially where the area being considered is large. These proposals, as well as others set out in the review, would represent improvements on the scheme as it currently operates. Yet with the 2017 Budget announcing a further review of CIL, it is unclear whether these suggestions will feature as part of changes that are made going forward.
4. Numerous organisations have pointed to the need to reform compulsory purchase order (CPO) mechanisms in order to facilitate the provision of affordable/social housing and infrastructure. The key barrier preventing local planning authorities from leveraging CPO powers more instrumentally is the Land Compensation Act 1961. This legislation confers guarantees to landowners by which were their land to be compulsorily acquired - they would be compensated for the value of the land as if planning permission had already been granted.
5. Proposals to bring England more into line with other European and G7 countries that have adopted a different approach to capturing land values in development often revolve around amendments to the Land Compensation Act 1961. Such changes would permit local planning authorities to purchase land at near to existing use value. The obvious vehicle to strategically acquire sites through CPO powers and bring forward development is public development corporations, which could compulsorily purchase land needed for strategic investment in public transport infrastructure. The required investment could be raised through the Capital Market in the form of bonds, to be repaid to investors once housing brought forward had been sold.

**Q14. What should be the ambition and timeline for greater energy efficiency in buildings? What combination of funding, incentives and regulation will be most effective for delivering this ambition?**

1. While progress in the UK power sector is being made, direct emissions from the building sector are rising, leaving a widening policy gap if the UK is to meet its fourth and fifth carbon budgets.[[11]](#footnote-11) Furthermore, if we are to meet the Paris Agreement commitments, the global building sector would need a near doubling of current building energy performance improvements, requiring international construction standards of near-zero energy, zero-emission buildings within the next decade.[[12]](#footnote-12)
2. The UK had at one time a number of initiatives that made it a world leader in energy efficiency. The loss of the Zero Carbon Homes standard and the Green Deal have made the drive towards energy efficiency substantially more difficult. While the announcement of new initiatives such as investment in the Energy Company Obligation (ECO) and targets for Energy Performance Certificates (EPC) in the private rented sector are welcome, they are not nearly enough. We welcome the NIC’s stance that implementing targets requires the mass roll out of proven technologies such as heat pumps, and the use of district heating in urban areas. We are particularly concerned about rural communities, which face much higher energy bills and much worse energy efficiency. The fuel poverty crisis is far more striking in rural areas, so targets announced in the Clean Growth Strategy for improving the EPC in fuel poor households must be binding.
3. While further research into energy efficiency is important, the time window for retrofitting the 26 million existing homes and ensuring new homes are built to stringent performance standards is closing. Apart from ensuring better insulation, the electrification of domestic heating is an essential first step in improving the energy efficiency of buildings, along with ensuring that new targets for energy performance standards are binding, and proper supervision and enforcement measures are in place. Examples of best practice do exist, from the zero-energy EDGE building in Amsterdam, which maximises natural light intake and uses intelligent ventilation systems, to a waste sharing service in France that recycles construction materials.[[13]](#footnote-13) In Sweden, there is a reduction in VAT for energy efficiency measures, which has acted as an effective incentive for retrofitting the existing building stock.[[14]](#footnote-14) Solutions evidently exist, so the timeline for energy efficiency measures should reflect this. Continued research is essential, but it is important that standards are enforced and incentives are sufficient if any real impact is to be seen on the scale required.

**Q19. Could the packaging regulations be reformed to sharpen the incentives on producers to reduce packaging, without placing disproportionate costs on businesses or creating significant market distortions?**

1. We welcome the steps the Government has taken in recent years to reduce unnecessary packaging, including the 5p carrier bag charge which has helped reduce consumption by over 80% in England since its introduction in 2015.[[15]](#footnote-15) While it represents only one intervention in a range of potential complementary reforms, we believe a deposit return system (DRS) for single-use drinks containers would be a valuable addition to the UK’s national infrastructure, increasing recycling rates and reducing the cost of waste disposal.
2. Under a DRS, a small deposit (typically 10-20p) is added to the price of drinks sold in single-use containers, which is redeemable when the consumer returns the container for recycling. Many countries and subnational jurisdictions around the world operate a form of DRS, and the overwhelming evidence is that these systems increase recycling rates and reduce litter. For instance, a PwC report into Germany’s DRS found that “there is practically no longer any littering of single-use beverage containers bearing deposits”.[[16]](#footnote-16) In addition, research undertaken by Eunomia indicates that a DRS could save English local authorities £35 million each year.[[17]](#footnote-17)
3. Furthermore, the recent decision by the Chinese government to cease importing plastic waste has increased the need for the UK to make better use of its own waste materials. To take just one example, the six biggest global drinks companies use an average of just 6.6% recycled PET plastic when manufacturing their bottles.[[18]](#footnote-18) By providing producers with a reliable stream of high-quality materials, a DRS could reduce the need for the UK to export its waste while providing growth opportunities for the domestic waste management sector.
4. Various models exist to equitably spread the costs of introducing a DRS through the supply chain, and an effective system would be primarily self-funding through the value of unredeemed deposits and the onward sale of recyclable materials. However, where additional costs arise we would argue that those companies placing unsustainable quantities of single-use drinks containers on the market should be responsible for covering these costs.
5. It is worth noting that the DRS option has already been brought to the attention of the UK administrations. In September 2017, the Scottish Government announced that it plans to introduce a DRS, and a UK Government working group is currently examining the potential for a DRS in England alongside other measures.
6. The British public is increasingly aware of the immense damage caused by single-use packaging on both land and marine environments. A DRS would help remove one of the most visible forms of pollution from these environments while also providing a valuable source of materials for reuse.

**Q20. What changes to the design and use of the road would be needed to maximise the opportunities from connected and autonomous vehicles on:**

**• motorways and ‘A’ roads outside of cities?**

**• roads in the urban environment?**

**How should it be established which changes are socially acceptable and how could they be brought about?**

Design

1. Many of the features of road design that are being adopted as part of ‘smart’ roads may no longer be justified when considering standard 60 year appraisal periods or even the medium term. Proposals in 2008 for domestic fridges in homes in new eco-towns to have screens for bus timetables totally misjudged the impact of smartphones. Overhead gantries, which can have an extensive visual impact, are likely to become superfluous as voice AI in the next few years enables road users to receive updates in their vehicle.
2. Given the pace and uncertainty of technological change, the adaptability of new roads and modifications to existing roads will be critical to maximise value for money and minimise the need for disruptive future reconfiguration. For instance, CPRE has criticised the requirements of the new road class of expressways to be dual carriageways with at least four lanes and a concrete median. The alternative of “two plus one” [lane] roads with a barrier, common elsewhere in Europe, is cheaper, far less environmentally intrusive and above all more adaptable for an Autonomous Vehicle (AV) future.
3. Past experience would advise caution when considering new technologies such as AVs and connected vehicles. They can lead to long-term consequences for quality of life and health as well as the natural and built environment. Whether in urban or rural areas, it is important to learn from the road-building mistakes of the 1960s and 1970s. Indeed, without careful management, AVs could cut out active travel, even at its most basic level, the walk through the car park, and increase the obesity crisis. A new generation of AV or Connected Vehicles would not provide a “silver bullet” to the challenges of congestion, pollution and landscape damage. Large-scale modal-shift remains the most credible way to meet the challenges we presently face.
4. It will be important to consider not just the road network itself but also ancillary facilities for interchange between modes and vehicles, such as feeder services, and for freight. The demand for such facilities is likely to be highest on the edge of cities, often in Green Belt, potentially posing serious concerns regarding impact on openness and development patterns.
5. Recent trends in logistics suggest a move away from expensive mega depots in cities and out of town locations. A distributed network of smaller scale facilities, such as consolidation hubs for freight and ‘Link & Ride’ for people, are likely to be easier to fit into the landscape as well as reducing vehicle mileage and operating costs. A distributed network of consolidation hubs offer a very different vision of modernity to the vast Operation Stack Lorry Park currently proposed to service channel freight at the foot of the Kent Downs AONB.
6. The development of smaller consolidation hubs should not be seen as an alternative to the use of rail for transporting freight. Globally, important trading partners are now making increasing use of rail, with China launching direct rail freight services to Europe and France now using scanning equipment that can more easily identify stowaways on freight entering the Channel Tunnel, thus alleviating security concerns.

Acceptability

1. Some studies suggest rapid disruption from shared ownership AVs leading to existing cars becoming ‘stranded assets’.[[19]](#footnote-19) This could also rapidly reduce receipts from Vehicle Excise Duty and with it the supposedly stable long-term funding stream for Highways England, even as AV vehicle miles increase, leading to more congestion on urban and interurban roads. By contrast these trends are likely to take hold far later in rural areas, the places where there is perhaps most to gain for those too young, old or unwell to drive.
2. Connected and autonomous vehicles that are shared - in terms of having higher occupancy rates rather than being passed from one single occupant to another - are more likely to lead to net benefits. Unfortunately policy and regulation, such as the Automated and Electric Vehicles Bill currently before Parliament, focus on what is essentially a ‘driverless car’ concept, on autonomous and electric, at the expense of ‘shared’. This is as limiting for thinking about the future as the term ‘horseless carriages’ was at the start of the 20th century, whether in terms of vehicle design or the wider changes to the way we use transport networks. CPRE would welcome the Commission undertaking a study into what levers and business models could help ensure AVs lead to higher - rather than lower - vehicle occupancy rates.
3. While the automotive industry is pouring huge amounts of funding into developing AVs inspired by current cars, there is far less investment into AVs catering for higher occupancy levels, in other words the next generation of buses, minibuses or coaches. Yet it is these types of vehicles that could offer the greatest environmental and social benefits, particularly in rural areas, which are suffering from severe bus cuts and increases in motor traffic. In the next decade or two, it is likely to be easier to introduce AVs on a few rural roads, i.e. bus routes, where they can learn road conditions and on which 5G coverage can be targeted, than expect them to be able to operate without drivers across all rural roads.

**Q4.** **Cost-benefit analysis too often focuses on producing too much detail about too few alternatives. What sort of tools would best ensure the full range of options are identified to inform the selection of future projects?**

1. Cost Benefit Analysis, (COBA) should be conducted rigorously, as part of a strict adherence to the New Approach to Appraisal (NATA) process. The Department for Transport should recognise that, it is not appropriate to count all travelling time on public transport as automatically non-productive. Given this fact, there is a much-reduced need to seek out an entirely new toolkit.

1. NATA asks for project promoters seeking transport interventions to first of all examine what the problems are that they are trying to resolve and to come up with a wide range of possible solutions, including non-transport ones.  These are supposed to undergo a reasonable level of scrutiny before narrowing them down.  At this next stage, the remaining possible interventions are supposed to be subjected to a greater level of consideration before they are whittled down again to two or three options that should be examined in detail.  (This later stage ought to include a cost and benefit analysis for each of the 'finalists').  However, this process does not happen in the manner intended.  Consultants frequently dismiss early options with well-rehearsed, trite, arguments and the more detailed scrutiny of options that are not the ones the promoter wants to take forward often does not happen to the extent it should.
2. CPRE interacts with many road schemes around England and can assert that NATA is not followed as it should be. Specific case studies can be provided on request.
3. We would strongly emphasise the need for the detailed assessment of schemes to use Land-Use/ Transport Interaction (LUTI) models. These can assess the indirect changes in the patterns of economic activity and housing that may result from the proposed intervention.

**Q24. What are the key factors that should be considered in taking decisions on new water supply infrastructure?**

1. Climate change and increasing water demand present a significant threat to the UK water supply. However, the recent Water Resources Long Term Planning Framework published by Water UK did not sufficiently consider these issues. This is one example of a lack of long-term, strategic planning in the water sector, which will only worsen if the government continues to rely heavily on siloed water companies to manage long-term supply and demand.
2. The recently published consultation on a new National Policy Statement (NPS) for Water continues to overemphasise the role of water companies’ Water Resource Management Plans (WRMPs) in delivering sustainable water management. Yet WRMPs are still failing to identify options with the least environmental risk in decision-making. Wider, regional initiatives such as Water Resources East (WRE), that draw in the agriculture, industry, energy and environment sectors, have shown that wider or catchment scale management can produce different, more strategic results. They also allow water transfer to be considered more often when reviewing supply issues, which is important in a future of dwindling water supply.
3. Water demand is also a significant factor to consider in deciding new water supply infrastructure. Demand management is currently neglected, particularly in agriculture, where demand is set to grow the most before 2050.[[20]](#footnote-20) Precision agriculture, winter storage and rainwater harvesting should all be encouraged. Water efficiency standards in housing are long overdue, particularly in areas of water stress. In accordance with circular economy principles, treated wastewater should be considered a new source of water supply in order to reduce the need for new supply and storage infrastructure such as reservoirs.
4. The importance of water quality is an essential factor to be considered in decisions on new water supply infrastructure. Water quality is largely absent from the Water NPS, which focuses more on water availability. Yet the distinction is key, as water quality considerations include the issue of emerging pollutants from rural or urban parts of a catchment, such as agricultural or chemical runoff.
5. These considerations will only become more apparent as we leave the EU, as land management alternatives to schemes such as the Common Agricultural Policy will have substantial impacts on water quality. The Water Framework Directive places heavy emphasis on water quality, and contains an objective of ‘Restoring Sustainable Abstraction’, which ensures freshwater supplies are used far less wastefully. Losing such directives would have severe implications for the environment and our water supply, so it is critically important that EU laws such as the WFD are directly transposed into UK law.
6. Finally, the Environment Agency needs to be well resourced if any of these factors are to be taken seriously in the design of new water supply infrastructure. Currently, the EA lacks the resources and teeth to scrutinise WRMPs and object to new schemes, yet this is critical for a strategic approach to water management that looks beyond the fragmented regional approach taken by water companies.

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**Appendix A**

Case Study: lack of consistent funding sources for public transport in the Lake District

The Lake District is a rural area that attracts a very large number of visitors, which means that the rural roads can become very congested, particularly at busy times of the year. For more information on the statistics, see the LDNPA Access and Travel Main Issues paper published in 2017. Whilst there has been a decline in use of car transport in the last 20 years, there is still a lack of cheap, regular, widespread and easily accessible public transport through much of the Lake District National Park.

The National Park Authority projects an increase in visitor numbers to the National Park from 17.3 million (equivalent to more than 30 million visitor days a year) to 22 million per annum by 2040. There will have to be a significant modal shift in transport choices to avoid the Lake District’s roads becoming gridlocked, reducing people’s appreciation of the National Park and negatively affecting businesses. Previously, there has been DfT investment in two sustainable transport schemes via the Local Sustainable Transport Fund, GoLakes Travel and See More Cumbria and the Lake District. The schemes included funding for bus services to allow visitors to leave their cars behind.

However, cuts to budgets means that there is no further money available for sustainable transport schemes such as this. Even if more short term funding was available, it is just not sustainable to keep having short-term projects providing services, which then cease at the end of the scheme. This leaves visitors confused and let down on subsequent visits and stops residents being able to consistently rely on public transport for their transport needs.

Consistent, long-term funding for reliable, non-car based transport is necessary for the Lake District to enable it to implement sustainable transport to move the millions of visitors around the Park and to reduce the significant congestion found on rural roads in the National Park. However, because it is a rural area, it is not considered for these sorts of funding awards, where cities with similar numbers of people to transport would be. We are looking for recognition from the National Infrastructure Commission that long-term funding for sustainable public transport to be used by millions of people in rural tourist hot-spots needs to be considered to be as much of a priority as funding for public transport in cities.

1. [Green Alliance, Inside Track Blog](https://greenallianceblog.org.uk/2017/07/13/will-the-withdrawal-bill-work-for-the-environment/) (13.7.17) (Accessed 20.12.17) and Environmental Audit Committee: [Chapter 3 Legislative Issues, The Future of the Natural Environment after the EU Referendum](https://publications.parliament.uk/pa/cm201617/cmselect/cmenvaud/599/59906.htm#footnote-154) (21.12.16) (Accessed 22.12.17) [↑](#footnote-ref-1)
2. Rt Hon Michael Gove MP: [The Unfrozen Moment - Delivering A Green Brexit](https://www.gov.uk/government/speeches/the-unfrozen-moment-delivering-a-green-brexit) (21.7.17) [↑](#footnote-ref-2)
3. Jill Rutter (Institute for Government) : [Gove’s post-Brexit environment watchdog](https://www.instituteforgovernment.org.uk/blog/gove-post-brexit-environment-watchdog) (15.11.17) (Accessed 22.12.17) [↑](#footnote-ref-3)
4. [LSE Growth Commission](http://www.lse.ac.uk/researchAndExpertise/units/growthCommission/documents/pdf/LSEGC-Report.pdf) (2017) (Accessed 11.1.18) [↑](#footnote-ref-4)
5. Place Alliance: [Skills in English Local Authorities](https://indd.adobe.com/view/f2dce345-a265-4c28-9ab3-223ac41110b6) (September 2017) (Accessed 21.12.17) [↑](#footnote-ref-5)
6. Gov.UK:  [Highways England Strategic Design Panel progress report](https://www.gov.uk/government/publications/highways-england-strategic-design-panel-progress-report) (29.9.17) (Accessed 21.12.17) [↑](#footnote-ref-6)
7. CPRE and CBT: [Better not Bigger](http://www.cpre.org.uk/resources/transport/roads/item/3738-better-not-bigger) (September 2014) (Accessed 22.12.17) [↑](#footnote-ref-7)
8. Rt. Hon John Hayes: [Beautiful by Design Speech](http://www.cpre.org.uk/resources/transport/roads/item/3984-beautiful-by-design) (June 2015) (Accessed 22.12.17) [↑](#footnote-ref-8)
9. CPRE: [The end of the road? Challenging the road-building consensus](https://www.cpre.org.uk/resources/transport/roads/item/4543-the-end-of-the-road-challenging-the-road-building-consensus) (CPRE, March 2017) (Accessed 20.12.17) [↑](#footnote-ref-9)
10. [PTAL, Transport for London](https://data.london.gov.uk/dataset/public-transport-accessibility-levels) (Accessed 20.12.17) [↑](#footnote-ref-10)
11. [Committee on Climate Change final report](https://www.theccc.org.uk/publications/), June 2017 (Accessed 20.12.17) [↑](#footnote-ref-11)
12. [Global Alliance for Buildings and Construction Status Report 2017](https://globalabc.org/uploads/media/default/0001/01/9b41263b4e958d2e0a49943e98b5c6ab64bbac54.pdf) (Accessed 20.12.17) p.27-28 [↑](#footnote-ref-12)
13. Ibid. [↑](#footnote-ref-13)
14. IEMA Webinar 7.12.2017, 12.30-1.30 - The State of Sustainability in Housing – Numbers, Trends and Silver Bullets. [↑](#footnote-ref-14)
15. <https://www.theguardian.com/environment/2016/jul/30/england-plastic-bag-usage-drops-85-per-cent-since-5p-charged-introduced> [↑](#footnote-ref-15)
16. <http://www.duh.de/fileadmin/user_upload/download/Projektinformation/Kreislaufwirtschaft/PwC-Study_reading_version.pdf> [↑](#footnote-ref-16)
17. <http://www.cpre.org.uk/resources/energy-and-waste/litter-and-fly-tipping/item/4692-impacts-of-a-deposit-refund-system-on-local-authority-waste-services> [↑](#footnote-ref-17)
18. <https://www.greenpeace.org.uk/press-releases/greenpeacereport-reveals-plastic-footprint-worlds-largest-soft-drinks-companies-20170314/> [↑](#footnote-ref-18)
19. RethinkX : [Rethinking Transportation (RethinkX, 2017)](https://www.rethinkx.com/transportation) (Accessed 21.12.17) [↑](#footnote-ref-19)
20. [DEFRA Consultation document for National Policy Statement for Water Resources](https://consult.defra.gov.uk/water/nps-water-supply-planning-act-2008/supporting_documents/Consultation%20document%20for%20National%20Policy%20Statement%20for%20Water%20Resources.pdf) p.9 (13.11.17) (Accessed 20.12.17) [↑](#footnote-ref-20)