Draft National Policy Statement for National Networks

Response to Consultation 2023
on behalf of the Stonehenge Alliance

Foreword

The Stonehenge Alliance is supported by Ancient Sacred Landscape Network, CPRE, FoE, Rescue, the British Archaeological Trust, Transport Action Network and many individuals worldwide.
The Alliance has for many years campaigned for a solution to congestion on the A303 at Stonehenge that does not compromise protection of the World Heritage Site and its outstanding universal value. We have, looked at all potential transport and other alternatives to the damaging road scheme currently under consideration and are increasingly aware of the need for any solution not only to protect the World Heritage Site but also to fully address the changes in Government policy required as an outcome of the Climate Emergency.
This response to the Draft NPSNN consultation has been prepared by our transport specialists and agreed by members of the Committee.

Introduction

Transport Policy Incoherence. In the High Court judgement on the Stonehenge scheme the significant conclusion was that the promoters of the scheme should have considered alternatives. The response so far from National Highways has been to posit alternative road schemes and then dismiss them for various reasons. This seems entirely to miss the point, that transport policy should be a matter of transport policy. It is completely understandable that National Highways should take the point of view it does, because NH is not a transport-oriented organisation. It exists entirely to build and manage part of the road system. Its very existence and, consequently, all its careers, its defence mechanisms and its thinking, are dependent on the building of roads. It not only has no interest in other modes of transport, it has a self-interest in finding reasons to oppose them.

One would hope that the Department for Transport was concerned with transport, that is with finding the best solutions to transport problems. Unfortunately, the DfT has never behaved as if this was its concern. It has been content, for many decades, to compartmentalise transport modes and minimise any interaction between those responsible for facilitating each of them. The separation between infrastructure spend and service support spend, though doubtless a consequence of the way the Treasury thinks about economics, is another compartmentalisation which gets in the way of solving transport problems. It is for these reasons that transport appraisal across modes is incoherent.

There seems to be no department of government that questions this incoherence in the Department for Transport. Neither the Treasury, the Transport Select Committee, the National Audit Office, nor the Infrastructure Commission ever seems to do so. Eight years after its creation, the Infrastructure Commission has still not got beyond thinking of the disposition of transport infrastructure provision as it is,

rather than as it should be. In its 2nd Baseline Report[1] it appears to be vaguely thinking of cross-modal transport:

> *Investment in interurban road and rail can support regional growth. Transport connectivity varies significantly between places, but there is not an obvious north-south or rural-urban divide in performance. Furthermore, technological innovation, decarbonisation and behaviour change all mean that patterns of transport demand, and ways to meet that demand, may be very different in future.*
>
> *It is difficult to determine the optimal balance of investment between different places and modes. A multi modal transport strategy could help the country plan more effectively for sustainable growth, quality of life outcomes and the shift to net zero, optimising the use of different accessible modes.*
>
> *Challenge 9: Interurban transport across modes – the Commission will consider relative priorities and long term investment needs, including the role of new technologies, as part of a strategic multimodal transport plan*. (pages 16 and 17)

So, coherent transport policy, maybe tomorrow or sometime, but meanwhile billions are spent, and environments are ruined, without any concern for whether current policy makes any sense.

The draft NPSNN at §5.163 has, in respect of development in exceptional areas (National Parks, AONBs etc.):

> *The Secretary of State should refuse development consent in these areas unless there are exceptional circumstances, where the benefits outweigh the harm and where it can be demonstrated that it is in the public interest. Consideration of such applications should include an assessment of:*
>
> - *the need for the development, including any national considerations, and the impact of consenting, or not consenting it, upon the local economy*
> - *the cost of, and scope for, developing elsewhere, outside the designated area, or meeting the need for it in some other way, taking account of the policy on alternatives set out in paragraphs 4.17 to 4.19*
> - *any detrimental effect on the environment, the landscape and recreational opportunities, and the extent to which that could be moderated*

The second bullet point clearly indicates that an application for a development like a major road scheme in a sensitive area, should assess whether the need can be addressed *"in some other way".* The High Court judgment on Stonehenge ought clearly to imply that non-road alternatives should also be assessed as *some other way,* when National Highways are asserting that there are no other road alternatives than their scheme. Yet the draft NPSNN is obscure when it talks about policy on alternatives. Thus at §4.18:

> *National road or rail schemes that have been identified in relevant Road or Rail Investment Strategies* ***will have been subject to an options appraisal process where relevant in line with existing Transport Appraisal Guidance,*** *and proportionate consideration of alternatives* ***will have been undertaken as part of the investment decision making process****. The options appraisal may include other viable options for achieving the objectives of the project, including (where appropriate) other modes of travel, regulation, or other ways of influencing behaviour in line with Department for Transport guidance. The Examining Authority and the Secretary of State should satisfy themselves that the options appraisal process has been undertaken.*

[1] National Infrastructure Commission, *The Second National Infrastructure Assessment: Baseline Report*, November 2021

The bold text are assertions for which we find no evidence of fact. Where in the Road Investment Strategies (e.g. RIS2) is there any optioneering including non-road alternatives to road schemes? Where else might we find such optioneering?

Road Investment Insanity: *"Insanity is doing the same thing over and over and expecting different results."* The supposed witticism of Einstein may not have been appropriate to work in the uncertain world of quantum mechanics, but it is surely applicable to everyday life, policy and business. When Gulliver encounters the land of Balnibarbi, he finds an almost universal ruin brought about by a cabal of ministers, dedicated to the 'modern manner' of doing things. The lord of the one remaining area of prosperity and order is under pressure by the cabal to adopt this failed policy.

The draft policy statement, in respect of road infrastructure, fails the Einstein test of rationality. It fails to learn the obvious lessons of past mistaken policy and reckons the only solution to it is to have even more of the same. Worse than its inability to recognise its past failure, its authors exhibit startling ignorance of what the Climate Crisis means and a reckless complacency in forming policy on it. This is the DfT's *New Climate Change Denial*, not that anthropogenic climate change is not real, but that we don't have to do anything about it – technology (real or fantastic) will release us from any obligation to change behaviour.

The Five Drivers

Congestion Relief: Thus, for example, road network congestion is given as a reason for increasing capacity of the road system. But we know that increased capacity increases traffic, though this document erroneously seeks to downplay the well-known SACTRA[2] report, by essentially asserting that the evidence is cloudy.

Thus, at draft NPSNN §3.3, we see:

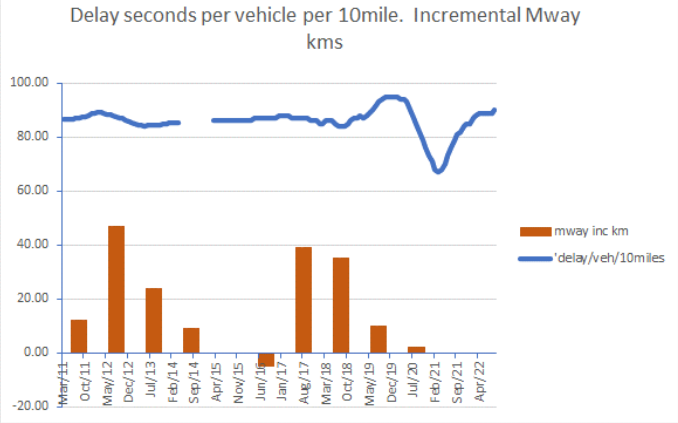
> *Evidence that development on the network leads to induced demand is limited. A recent literature review suggested that the scale of any induced demand is likely to vary depending on circumstances. Under Department for Transport's Transport Appraisal Guidance, government-funded investments in transport schemes need to consider the effects of variable demand (and the resultant induced or suppressed traffic) on the justification for intervention.*

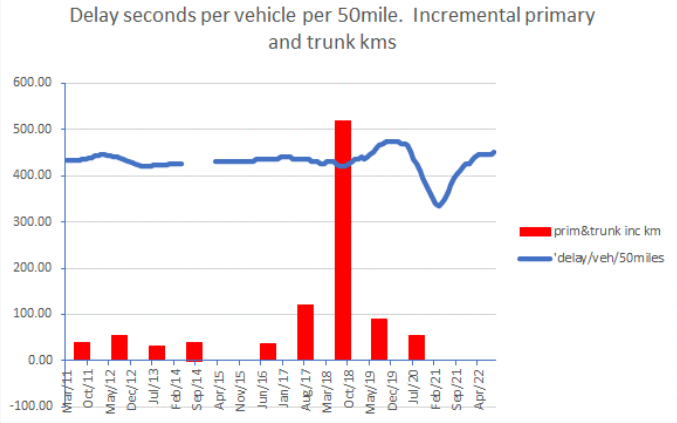
The reference quoted[3] does not, in any way, go counter to SACTRA. It does not suggest that induced traffic is not significant; rather it stresses the obvious, that induced traffic is likely to be greater where congestion (or predicted congestion) is high, precisely the conditions that are usually cited as a reason for building a road and precisely the conditions for ensuring that the economic model spews out a significant benefit.

That of itself does not mean that more new congestion arises than is relieved (obviously, in principle, one could keep increasing capacity until there is no population left to occupy it), but one might have expected that the DfT or National Highways would at some stage have researched whether an economically and politically plausible level of road building would bring about an overall reduction of congestion on the network. In fact, no such research has ever been carried out. Such evidence as exists rather demonstrates that the congestion problem never was, nor ever will be solved by capacity increase on the SRN. Indeed, all scenarios in the National Road Traffic Projections, with road building up to 2035 modelled, all predict congestion rising up to 2040 apart from the behavioural change one.

[2] The Standing Advisory Committee on Trunk Road Assessment, *Trunk Roads and the Generation of Traffic*, DfT, 1994
[3] WSP and RAND Europe, *Latest Evidence on Induced Travel Demand: An Evidence Review*, May 2018

Data on total network congestion is surprisingly hard to come by, considering the eye-watering sums of money that have been expended with the objective of reducing it. Data on average delay across the network appears to only exist from March 2016 until September 2022. A different measure of network congestion is the percentage of journeys on time, for which DfT published data from March 2011 to March 2015. The best we can assume is that the one measure is inversely proportional to the other, so we simply scale the reciprocal of the earlier measure so that March 2015 and March 2016 are the same. The gradient of the earlier data appears to continue across this data hiatus, giving some confidence that the two sets can be related in this way. We then plot the delay as a function of incremental motorway kilometres and the increment of all trunk and principal roads (DfT RDL0201).





It is not clear whether the large increment in all trunk and principal roads at 2018 is a real increment in road capacity or some sort of redesignation. But neither the motorway nor the all-roads capacity increases can be seen to demonstrate any beneficial effect on overall network congestion. The motorway capacity increases around 2012 are followed by a slow general climb in congestion, and a slight decline around 2017, but the 2017/2018 expansion is followed by a very significant congestion rise up to the start of COVID. The all-roads figure can be similarly interpreted. We don't yet know how the congestion curve for late 2022 into the current year will turn out. It is reasonable, however, to assume that COVID will have had some lasting effect on overall traffic, with changes of travel habit, particularly as a result of increased home working. What ought to be depressing is the fact that, despite the changes in work behaviour brought about by COVID and despite the new splurge of road building in 2017 and 2018, congestion is back to the level of 2018.

So the claim of network relief by road building has no basis in the observable data. Nor indeed does the draft NPSNN document see any prospect of actual relief. At §3.30 we have:

> *Increases in the number of seconds of time lost due to congestion on motorways also varies under the Core scenario; from 81.8% in one region to 215.5% in another.*

So what conclusion can the DfT draw from this? If the rate of new road construction pertaining to the last decade has not brought the congestion down at all, their only road-building argument is the Balnibarbi one – let's do even more road building than we have historically achieved. It hasn't worked before, but maybe it will work this time. But if that is the argument then the extent of the carbon and other environmental consequence of such an expansion is not being calculated by the present policy thinking.

Economic Growth: The *sustainable economic growth* that politicians universally proclaim to be their goal, is as near being oxymoronic as it is possible to be for any economic model that acknowledges a trophic reality. But we won't labour this point, fundamental though it is. It suffices to point out that neither the Department for Transport nor the Treasury have been able to point to any research that demonstrates that growth (as measured, say, by GDP) arises from building additional roads in a relatively mature network. When pressed on this matter the DfT cites the Eddington Report.[4] This report should actually be re-examined by the authors of the NPSNN document. What it says is that GDP correlates with road building, but Eddington was at pains to point out that he did not know which way the correlation ran. This specific question is one of several questions repeatedly put to the DfT, through a previous Transport SoS and through two submissions to the Transport Select Committee[5]. It has never been answered. The question was put in relation to some work in cross-correlation, which actually implies that incremental road building correlates negatively with changes in GDP in following years.[6] The Department has never countered this observation.

The DfT has been known to add up all the net-present-values of its road schemes and claim that that is a demonstration of economic value of its overall road programme. This is simply a circular argument, because it starts with the assumption that road transport is an economically beneficial activity at any level of traffic and that, therefore, it must be beneficial to reduce its costs. The economic principle is that of the user's willingness to pay, an argument that only has force if it is the user that pays all the costs. If the user is subsidised by externalising costs, this is a manifestly false principle. Eddington stated that users should pay for the externalities, but this has never been the case. The Blueprint 5[7] analysis, long before the extent of climate cost externality was appreciated, showed that motorists were subsidised to the extent of about three times the total tax and duty take on the activity. If even these externalities were recovered (e.g. through road pricing) and the mass of climate externality ignored, the elasticity of road use demand over price would signify a level of traffic on UK roads comparable to that pertaining in the 1950s.

The arguments outlined here can be read in greater detail in the document at footnote 3. The DfT has never countered any element of these arguments.

Resilience in Network: The irony implicit in this 'driver' appears to have passed the authors by. That the network will suffer from the consequences of climate change seems almost poetic justice, since our transport excesses figure very large in the cause of the problem. Continued expansion of the capacity of the SRN can only serve to make the problem worse.

If resilience is about maintaining the integrity of the whole of the UK road network, then it seems extraordinary that the DfT stresses increase of capacity over the elementary business of repair and renewal. The cost of repairing the nation's potholes, according to the ALARM Survey 2022,[8] has been estimated at £12.6B, an increase on the previous year's estimate of £2.4B, or 23%. If the problem is

[4] Butcher, L., Eddington Transport Study, A Brief Overview, SN/BT/4208, DfT and Treasury, updated 1 March 2010. Full report: The Eddington Transport Study: The case for action: Sir Rod Eddington's advice to Government: December 2006

[5] E.g. Better roads: Improving England's Strategic Road Network, Fifteenth Report of Session 2013–14, April 2014, and SRI 0047 2023.

[6] See *World Transport Policy and Practice*; 20.2/3; May 2014; p.75 et seq.

[7] Maddison D, Pearce D, Johansson O, Calthrop E, Litman T and Verhoef E, *Blueprint 5*: True Costs of Road Transport, Earthscan, London 1996

[8] Asphalt Industry Alliance, Annual Local Authority Road Maintenance Survey 2022, March 2022

worsening by £2.4B per year, presumably that represents a shortfall in annual funding for carriageway repair, a shortfall unlikely to be much remedied by the Spring Budget's £200M of funding. At this rate of shortfall, the one-time cost of putting the network back into condition will have risen to around the cost of the whole RIS2 programme in 6 years time. That is without counting the likely increased threats to the structural integrity of the network that will arise from climate change.

Net-Zero Priorities: It is here that the draft NPSNN is so bizarrely complacent, that it seems its authors are out of contact with reality. The government has already admitted, in its Carbon Budget Delivery Plan update (March 2023)[9] that it is not on course to meet at 2030, the carbon trajectory of its treaty obligation under the Paris Agreement. Indeed, like King Lear, '*I will do such things - what they are, yet I know not'*:

> *We have quantified emissions savings to deliver 88 Mt or 92% of the NDC. We are confident the delivery of emissions savings by unquantified policies detailed in this package will largely close this gap and the government will bring forward further measures to ensure that the UK will meet its international commitments if required.* (Para. 29)

But it is in the DfT's *Transport Decarbonisation Strategy*,[10] that highlights just how far the government is from facing reality. Or perhaps it would be more accurate to say that the DfT has been unwilling to draw attention to reality, since it has taken more than a year from March 2022, for it to release important data to Dr. Greg Marsden, first refusing an FoIA request, then appealing the Information Commission's instruction to release.

What Marsden discovered[11] from the data is that the Transport Decarbonisation Pathway assumes a low trip rate prediction, high fuel costs and low GDP at odds with government policy, a trajectory that assumes traffic in 2035 will be 40 billion vehicle miles (14%) less than the National Road Traffic Projections used by the DfT to justify its road building. Marsden also shows that the technology uptake assumptions are wildly optimistic and that none of the decarbonisation scenarios will meet the 6th Carbon Budget on current government policy.

Apart from Marsden, the reliance on technology rather than behavioural or organisational/political prioritisation of alternatives (like investing in public transport), presupposes quite a lot about how much renewable energy will be available and that road transport should have priority access to what is available. Much road transport in fact is highly discretionary – we don't really need to do it, whereas most other activities that consume energy (heating houses, hospitals, schools etc; fuelling industrial processes etc.) are much less discretionary.

'When you're in a hole, the first thing to do is stop digging'. It is beyond extraordinary, that the DfT, staring the climate reality of transport in the face, should continue with a deliberate policy of increasing traffic and emitting large quantities of carbon in road construction. It is then beyond irresponsible to pretend that those emissions are small, with the preposterous policy of not summing up all the carbon emissions arising directly and indirectly from their individual schemes. The argument is that, for a given scheme, the carbon

[9] House of Commons, Carbon Budget Delivery Plan, 30 March 2023
[10] DfT, *Decarbonising Transport A Better, Greener Britain*, 2021
[11] Marsden, G., The route to Net Zero: DfT assumptions look well off course, *TransportExtra* Magazine, 8 February 2023

emission is small compared with the total emissions of the UK (why not, while they are about it, compare its insignificance with the total emissions across the planet?). The camel's back is broken by straws.

The DfT idea that the sum of small emissions (though no road scheme has small emissions) is small is also completely at odds with its Webtag appraisal methodology, where the sum of millions of insignificant time savings is somehow deemed to be economically significant. There is hypocrisy here. It is summed up in perhaps the most preposterous statement (§5.37) in the draft NPSNN document, essentially breaking the UK's Paris Agreement obligations:

> *Operational greenhouse gas emissions from some types of national network infrastructure cannot be totally avoided. Given the range of non-planning policies aimed at decarbonising the transport system, government has determined that a net increase in operational greenhouse gas emissions is not, of itself, reason to prohibit the consenting of national network projects or to impose more restrictions on them in the planning policy framework. Any carbon assessment will include an assessment of operational greenhouse gas emissions, but the policies set out in chapter 2 of the NPS, apply to these emissions. Operational emissions will be addressed in a managed, economy-wide manner, to ensure consistency with carbon budgets, net zero and our international climate commitments. Therefore, approval of schemes with residual carbon emissions is allowable and can be consistent with meeting carbon budgets, net zero and the UK's Nationally Determined Contribution.*

Safety: The idea that road safety is improved by road building is a nice little invention of the Webtag appraisal process. The idea is that a high capacity modern road has a lower accident rate than any road it replaces. In fact it has never been demonstrated that the building of such roads improves the overall safety of the network. DfT has never researched the matter, so we just do not know whether there are effects (e.g. off-junction speed behaviour) that add accident risk to the surrounding network. Cross-correlation of road building and accident increments suggests that negative effects might be occurring (see our footnote 6, above).

Road safety would, of course, be improved if the DfT invested in modal shift and pothole repair rather than big road scheme construction. And what would be the health benefit to the nation as a whole if the huge burden of air pollution brought about by DfT policy were removed?

Appraisal of Sustainability

Stage B (1) Developing Alternatives: The text here appears to be stupefying in its dishonesty:

> *The development of strategic alternatives to the NNNPS was guided by the Department for Transport (DfT). In developing the alternatives DfT focused on the key strategic choices the Government has in setting policy related to development of the national networks.*
>
> *DfT consider that there are three reasonable approaches to development of the NNNPS. These reasonable approaches are:*
>
> - *An approach which delivers balanced national priorities (as selected by the DfT as the basis of the draft NNNPS);*
> - *An approach which prioritises environmental sustainability benefits (Alternative 1); and*
> - *An approach which prioritises wider economic and levelling up benefits (Alternative 2).*
>
> *The Government is committed to a vision led approach to transport development, which moves away from unconstrained traffic growth and towards using investment to tackle specific issues. This underlying commitment*

means that the alternative scenarios presented are not vastly different in their approach. Rather, they present subtle variations with regard to the way issues (and therefore investment) are prioritised. (p.5)

Whether there is seriously the possibility of balancing the economic priorities of government with its environmental imperatives is scarcely a moot point. 'Balance' implies equivalence. There can be no equivalence between a government concept of economic importance and the imperative of avoiding catastrophic climate change. We have already discussed above, that the DfT does not develop alternatives. It does not do coherent transport – it compartmentalises road and rail. And how is it possible to assert that the Government '*moves away from unconstrained traffic growth'* when the draft document does nothing other than commit us to more of the old predict-and-provide model?

The AOS assessments in Appendix 3 are very largely unevidenced and even fantastic. Much of the claimed positive effects of the policy are the result of the unevidenced assumptions (economy, emissions, safety, etc.) that we have contested above. We do not have time for detailed commentary on the Appendix; suffice to say we find it extraordinary that the AoS finds that there are no significant environmental impacts arising from the draft NPSNN and that the impact on climate change is only classified as uncertain.

The Questionnaire

As always with consultations of this kind, the questionnaire is somewhat tendentious. In expressing our disappointment on the draft document, the narrative text above probably does the job. Nevertheless, we have some specific responses to the questionnaire.

4. In your view does the draft NNNPS provide suitable information to those engaged in the process of submitting, examining and determining applications for development consent for nationally significant infrastructure projects on the:
strategic road network?
strategic rail network?
strategic rail freight interchanges?
We strongly disagree that the draft NNNPS provides suitable information to those engaged in the process of submitting nationally significant infrastructure projects.

Explain why, referring to specific sections of the NNNPS in your response.
Currently there seems a presumption that transport will continue to be a problem area as regards meeting net zero targets (e.g. *"While all steps should be taken to reduce and mitigate climate change impacts, there will likely be residual emissions from national networks infrastructure, particularly during the economy wide transition to net zero, and potentially beyond."* [NNNPS, 5.28)

The DfT needs to focus far more on the steps which will be necessary to meet 'net zero' targets. A policy presumption against road expansion would help to address this, as has been done in Wales.
https://www.gov.wales/sites/default/files/publications/2023-02/the-future-road-investment-wales.pdf

The priority should be investment in rail and in public transport generally, including light rail, bus and tram as well as new and better interchanges.

There also needs to be much more emphasis on how modal shift is to be achieved. The Government's 'Decarbonising Transport' document had *"Accelerating modal shift to public transport and active travel*" as the top priority, with the introduction stating, *"we must make public transport, cycling and walking the natural first choice for all who can take it."*

5. Does the draft NNNPS adequately set out:
the need for developing national networks?
our policy for addressing the need for the development of national networks?
Provide comments on improvements referring to specific sections of the NNNPS in your response.
Regarding capacity increases on the road network, the draft NNNPS suggests that *"Evidence that development on the network leads to induced demand is limited."* (NNNPS, 3.3). The document referenced actually concludes that *"The evidence reviewed in this study supports the findings of the SACTRA (1994) report that induced traffic does exist and may be significant in some situations"* (See WSP and RAND Europe, 'Latest Evidence on Induced Travel Demand: an evidence review' (footnote 35 in draft NNNPS), para 5.3.1)

The NNNPS is assuming that traffic growth is inevitable: "*However, all scenarios have projected a growth of traffic between 2025 and 2060 for England and Wales, with forecasts ranging from 12% to 54%."* [NNNPS 3.28]
This conflicts with aspirations to limit traffic growth which the Government has supported, see for example the following:
"We will use our cars differently and less often" (DfT, 'Decarbonising Transport', July 2021, p.36)
https://www.gov.uk/government/publications/transport-decarbonisation-plan

The recommendation from authoritative bodies is that traffic growth needs not just to be limited but to be reversed. They state that *"Overall, we expect that 6% of baseline car demand can be avoided or switched to other modes by 2030, rising to 17% by 2050."* (Climate Change Committee 'The Sixth Carbon Budget, Surface Transport' available from https://www.theccc.org.uk/publication/sixth-carbon-budget/, p. 34)

As the Climate Change Committee has stated in its 2022 report *"The Government has acknowledged the need to limit traffic growth, shifting travel to public transport and active travel, but action is now required to ensure this."* (Climate Change Committee Progress in reducing emissions: 2022 Report to Parliament June 2022, p. 33)
https://www.theccc.org.uk/wp-content/uploads/2022/06/Progress-in-reducing-emissions-2022-Report-to-Parliament.pdf

The NNNPS makes the case for *"Enabling more active travel and public transport (including buses, coaches and rail) in urban areas"* (NNNPS, 3.42). It fails however to recognise that increasing capacity on the SRN is likely to lead to further congestion throughout the road network, including urban areas, since journeys invariable start and end away from the SRN. Once people are in their cars they prefer to make the end to end trip in them, unless there are penalties (e.g. congestion charging) for doing so. What is needed is a country-wide step-change in the provision of public transport (on road and rail), shared mobility options and improved and safer active travel infrastructure.

6. In your view, is there any information missing from the "General Principles and considerations" chapter?
Yes

7. Provide comments on missing information, referring to specific sections of the NNNPS in your response.
There is a section on climate change adaptation [NNNPS, 4.30-4.41] however no section to cover the vitally important area of climate change mitigation. See 8 below.

8. Provide any supporting evidence of your view.
[Attach any additional document evidence to your response.]
Comments:
Climate change mitigation
The UK has committed to reach net zero greenhouse gas emissions by 2050, and the UK's Nationally Determined Contribution (NDC) under the Paris agreement is to reduce all gas emissions by at least 68% by 2030 on 1990 levels. (see https://www.gov.uk/government/publications/the-uks-nationally-determined-contribution-communication-to-the-unfccc).

The transport sector is the largest contributor to greenhouse gas emissions, according to 'Decarbonising Transport': *"Transport is the largest contributor to UK domestic greenhouse gas (GHG) emissions, responsible for 27% in 2019."*

(p.14). A good deal of emphasis is placed in this document and others on switching to alternative fuels, largely electric vehicles, however this switch alone will not be enough. The Climate Change Committee's 'balanced net zero pathway' makes the assumption that total car miles will fall by 9% by 2035 relative to the baseline and there is a 3% reduction for vans. [Climate Change Committee, The Sixth Carbon Budget, The UK's path to Net Zero, Table 3.1.a, p. 100, downloadable from https://www.theccc.org.uk/publication/sixth-carbon-budget/). This is needed in addition to the proposed switch to alternative fuelled vehicles.
The NNNPS needs to link in with the Sixth Carbon Budget recommendations or explain how the sector intends to achieve net zero targets without following these recommendations.

9. Does the NNNPS support development of:
freight facilities on the strategic road network, including lorry parking facilities?
freight interchange infrastructure that encourages modal shift from road to rail?
Explain why, referring to specific sections of the NNNPS in your response.
The document certainly does not encourage modal shift. Rail is the obvious mode for freight movement in an integrated transport policy. While freight interchange makes sense for last mile delivery/collection, the current road-dominated policy can only result in more freight moving long distances by road, an economic and environmental absurdity. Freight interchange infrastructure provision in this context is merely lip-service paid to rational thinking.

12. Does, in your view, the NNNPS adequately address:
carbon considerations in the development of national networks?
wider environmental targets in the development of national networks?
Explain why, referring to specific sections in your response.
It is unacceptable that the section on Greenhouse Gas emissions (NNNPS 5.25-5.37) indicates that *'there will likely be residual emissions from national networks infrastructure, particularly during the economy wide transition to net zero, and potentially beyond'* (NNNPS 5.28).
The explanation as to why it is permissible to approve schemes despite their carbon generating impact needs to be changed. The current statement is *"Any carbon assessment will include an assessment of operational greenhouse gas emissions, but the policies set out in chapter 2 of the NPS, apply to these emissions. Operational emissions will be addressed in a managed, economy-wide manner, to ensure consistency with carbon budgets, net zero and our international climate commitments. Therefore, approval of schemes with residual carbon emissions is allowable and can be consistent with meeting carbon budgets, net zero and the UK's Nationally Determined Contribution."* (NNNPS para. 5.37) This is not an adequate explanation, it appears to be allowing road schemes to be approved irrespective of the carbon emissions which would ensue.

Wider Environmental targets: More consideration needs to be given to air pollution, including the dangers of particulate matter. The problem has rightly been highlighted: *"By contrast and related to increases in vehicle mileage, non-exhaust particulate matter (2.5 and 10) has proved more difficult to reduce. Non-exhaust particulate matter from brake and tyre wear has increased by 35% since 1990, and non-exhaust particulate matter from road abrasion has increased by 34% in the same period. These two sources together represent 61% of particulate matter (10) emissions from transport in 2019*" (NNNPS 2.34).
The dangers of particulates to human health are increasingly being recognised, and there needs to be more focus on their reduction. Extra particulate emissions from EVs will be a growing problem as the weight of vehicles increases with battery size.

13. In your view, is there any information missing from the Generic Impacts chapter (chapter 5)?
Yes – covered in 12 above.

Appraisal of sustainability (AoS)
16. Do you agree or disagree with the findings of the AoS?
Disagree

AoS findings
17. Explain why, referring to specific sections of the AoS in your response.
See our commentary.