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Department for Transport

Project

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NATIONAL NETWORKS NATIONAL POLICY STATEMENT

AOS APPENDIX 3



Bright ideas. Sustainable change.



APPENDIX 3: ASSESSMENT OF CONSULTATION DRAFT NNNPS

AOS Criteria 1. Greenhouse Gas Emissions

Effect Description	Direct/indirect	Time scale	Permanence	Significance			Explanation of Assessment	Recommended Mitigation/Enhancement
				Draft NNNPS	Alt 1	Alt 2		
Emissions from construction and maintenance activities (Road, Rail and SFRIs).	Indirect	Short/Medium	Irreversible	?	?	?	<p>Draft NNNPS: The Draft NNNPS supports a significant package of improvements and enhancements across the road and rail networks and the development of SRFIs. The construction and maintenance of infrastructure will involve activities and the use of materials which could lead to substantial GHG emissions, and the Draft NNNPS states that the Secretary of State accepts that there are likely to be some residual emissions from construction of national network infrastructure. However, The Draft NNNPS states that The Secretary of State must be satisfied that the applicant has as far as possible assessed the GHG emissions of all stages of the development, and it also includes measures to reduce emissions, such as requiring applicants to use a carbon assessment to drive down emissions at every stage of the proposed development, and to look for opportunities to embed nature-based or technological solutions to mitigate, capture or offset the emissions of construction. In addition, National Highways has established a Net Zero target for construction and maintenance emissions by 2040, with associated plans to deliver this, and Network Rail has a Net Zero target of 2050.</p> <p>However, there is uncertainty relating to the how effectively National Highways and Network Rail can decarbonise construction activities (e.g., there is dependency on supply of low carbon materials, which is currently limited), and also how effectively the measures included in the Draft NNNPS can reduce construction emissions.</p> <p>Overall, this effect is considered uncertain. There could be an increase in emissions, but there is uncertainty in the assessment due to lack of modelled evidence and uncertainties around the effectiveness of carbon reduction measures.</p> <p>Alternative 1: Under Alternative 1, investment will only be permitted where these avoid significant negative impacts on carbon and in addition, and less infrastructure would be delivered under this alternative. However, the overall effect remains uncertain for the same reasons as the Draft NNNPS – lack of modelled evidence and uncertainties around the effectiveness of carbon reduction measures.</p> <p>Alternative 2: Similar effects as Draft NNNPS.</p>	All new SRN, rail and SRFIs could be required to ensure they can be delivered without impact on ability to meet net zero GHG emissions at a network/investment programme level.

Effect Description	Direct/indirect	Time scale	Permanence	Significance			Explanation of Assessment	Recommended Mitigation/Enhancement
				Draft NNNPS	Alt 1	Alt 2		
Changes in emissions from road users due to investment in road infrastructure (Operation)	Indirect	Long/Longer	Irreversible	?	?	?	<p>Draft NNNPS: The Draft NNNPS supports a significant package of improvements and enhancements across the road networks, and these could result in substantial increases in greenhouse gas emissions due to increased use of the network, and facilitation of further growth. The Draft NNNPS acknowledges that operational GHG emissions from some types of national network infrastructure cannot be totally avoided. National Highways' Evaluation Insight Paper (2019) analyses 85 scheme evaluations, relating to all major schemes opening between 2002-2014. The report states "The majority of major schemes resulted in an increase in carbon emissions in the opening year. Changes in carbon emissions were typically due to changes in traffic volumes, journey distances, vehicle composition and/or speed of traffic". The Draft NNNPS states that a net increase in operational GHG 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, and that The Secretary of State does not, therefore need to assess individual applications for planning consent against operational carbon emissions and their contribution to carbon budgets, net zero and the UK's NDC.</p> <p>However, the Draft NNNPS includes several requirements on applicants to drive down emissions at every stage of development including during operation. In addition, the Government has published the Decarbonising Transport Plan, and the Climate Change Committee has indicated that this is a reasonably comprehensive strategy for transitioning to a system in which almost all journeys are zero-carbon.</p> <p>There is uncertainty over several factors relating to decarbonising road transport, including of the rate of the transition to low emission vehicles and management of demand.</p> <p>Overall, this effect is considered uncertain. There could be an increase in emissions, but there is uncertainty in the assessment due to lack of modelled evidence and uncertainties around the effectiveness of carbon reduction measures.</p> <p>Alternative 1: Under Alternative 1, investment will only be permitted where these avoid significant negative impacts on carbon and less infrastructure would be delivered under this alternative. However, the overall effect remains uncertain for the same reasons as the Draft NNNPS – lack of modelled evidence and uncertainties around the effectiveness of carbon reduction measures.</p> <p>Alternative 2: Similar effects as Draft NNNPS.</p>	All new SRN, rail and SRFIs could be required to ensure they can be delivered without impact on ability to meet net zero GHG emissions at a network/investment programme level.
Changes in emissions from road users due to modal shift to rail and public transport	Indirect	N/A	N/A	0	0	0	<p>Draft NNNPS: The Draft NNNPS supports rail improvements and enhancements, which may in the longer-term result in a modal shift of some passengers (work and leisure) from road to rail. It also requires applicants to consider supporting other transport modes and improving local connectivity and accessibility. However, it is not considered that the Draft NNNPS will result in material modal shift and overall, this effect of the Draft NNNPS on greenhouse gas emissions is considered neutral.</p> <p>Alternative 1: Similar effects as Draft NNNPS.</p>	

Effect Description	Direct/indirect	Time scale	Permanence	Significance			Explanation of Assessment	Recommended Mitigation/Enhancement
				Draft NNNPS	Alt 1	Alt 2		
							Alternative 2: Similar effects as Draft NNNPS.	
Changes in direct emissions from railways	Direct	Long/Longer	Irreversible	?	?	?	<p>Draft NNNPS: The Draft NNNPS supports a significant package of improvements and enhancements across the rail networks.</p> <p>The Draft NNNPS states that The Secretary of State must be satisfied that the applicant has as far as possible assessed the GHG emissions of all stages of the development, and it also includes measures to reduce emissions, such as requiring applicants to use a carbon assessment to drive down emissions at every stage of the proposed development and to demonstrate the use of best available technology (BAT) to reduce operational emissions. However, the Draft NNNPS states that a net increase in operational GHG 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, and that The Secretary of State does not, therefore need to assess individual applications for planning consent against operational carbon emissions and their contribution to carbon budgets, net zero and the UK's NDC.</p> <p>Effects on greenhouse gas emissions are considered uncertain, because of uncertainty relating to the balance of rail use related to this infrastructure being electrified (with associated lower and reducing emissions over time) versus diesel powered trains. Whilst the Government's Transport Decarbonisation Plan (July 2021) includes an ambition to remove all diesel-only trains from the network by 2040, the rate of change is uncertain.</p> <p>Alternative 1: Similar effects as Draft NNNPS, although under alternative 1, investment will only be permitted where these avoid significant negative impacts on carbon and negative effects could be lesser than the Draft NNNPS. However, the overall effect remains uncertain</p> <p>Alternative 2: Similar effects as Draft NNNPS.</p>	<p>The NNNPS could include a commitment that (wherever possible) all new rail development will be electric.</p> <p>The NNNPS could include a commitment to prioritise electrifying the network around new SFRIs.</p>
Modal shift from road to rail freight.	Indirect	Long/Longer	Irreversible	+	+	+	<p>Draft NNNPS: The Draft NNNPS suggests the provision of additional SRFIs and a significant package of improvements and enhancements across the rail network. In turn these will support modal shift, with an associated reduction in greenhouse gas emissions from the transport of freight. It is noted that the Draft NNNPS acknowledges that freight will still rely on the SRN to facilitate road freight as part of the second leg journey of freight from SRFIs. Road transport dominates between distribution centres and goods destinations. Overall, it is considered that this supports the Net Zero target, but not substantially.</p> <p>Alternative 1: Similar effects as Draft NNNPS.</p> <p>Alternative 2: Similar effects as Draft NNNPS.</p>	
Changes in emissions from road users due to	Indirect	N/A	N/A	0	0	0	<p>Draft NNNPS: The Draft NNNPS requires applicants to consider supporting other transport modes and improving local connectivity and accessibility</p> <p>It is considered that the NNNPS will have a neutral effect on modal shift, with regards to active travel, due to the long-distance nature of travel on the SRN.</p>	Stronger direction for new schemes to have a positive effect on active transport (where applicable), for example, facilitating safer links and connections across the SRN to minimise severance, increasing

Effect Description	Direct/indirect	Time scale	Permanence	Significance			Explanation of Assessment	Recommended Mitigation/Enhancement
				Draft NNNPS	Alt 1	Alt 2		
modal shift to active travel							<p>Alternative 1: Similar effects as Draft NNNPS.</p> <p>Alternative 2: Similar effects as Draft NNNPS.</p>	access to the local active transport network, or improving public access.
Carbon sinks	Indirect	Medium/Long/Longer	Irreversible	-	-	-	<p>Draft NNNPS: The Draft NNNPS supports a significant package of improvements and enhancements across the rail and road network, which could result in losses of carbon sinks which are part of natural and semi natural habitats on the national networks. Overall, this is considered that this could detract from progress towards the delivery of the declared target of Net Zero by 2050, but not substantially. The Draft NNNPS states that applicants should consider whether nature-based solutions are appropriate. This will help to reduce the effect on carbon sinks but a stronger policy should be considered.</p> <p>Alternative 1: Similar effects as Draft NNNPS, although because this alternative places an emphasis on improvements to the environment and community wellbeing, the negative effects could be lesser than the Draft NNNPS.</p> <p>Alternative 2: Similar effects as Draft NNNPS.</p>	<p>Amend the NNNPS to say (new text in bold italics)</p> <p>Having regard to current knowledge, the carbon assessment should include: ...</p> <p>A whole life carbon assessment (including during the design and option selection process) showing construction and operational carbon impacts. <i>This assessment should also consider the effects of any significant changes to habitats and their ability to sequester carbon in the future.</i></p>

AOS Criteria 2. Biodiversity and Geodiversity

Effect Description	Direct/ Indirect	Time scale	Permanence	Significance			Explanation of Assessment	Recommended Mitigation/ Enhancement
				Draft NNNPS	Alt 1	Alt 2		
Effects on nationally, locally designated sites / Habitats and Species of Principal Importance from road, rail SFRIs (construction and operation)	Direct	Short/ Medium/ Long	Irreversible	-	-	-	<p>Draft NNNPS: The Draft NNNPS supports a significant package of improvements and enhancements across the road and rail networks and the development of SRFIs, which have the potential to affect national or locally designated habitats, species and sites designated for biodiversity and geodiversity. Whilst infrastructure development poses risks to biodiversity, it also presents opportunity. The Draft NNNPS helps applicants to make the most of these opportunities by ensuring that the Secretary of State attaches appropriate weight to designated sites of international, national, and local importance, irreplaceable habitats, protected species, habitats, and other species of principal importance for the conservation of biodiversity, local nature recovery strategies and to biodiversity and geological interests within the wider environment. However, in recognition of the fact that biodiversity is in steep decline and that there are likely to be some occasions where significant harm cannot be avoided or mitigated, it is felt that the Draft NNNPS will have a minor negative effect on designated habitats and species.</p> <p>Alternative 1: Similar effects as Draft NNNPS, although because this alternative places an emphasis on improvements to the natural environment, the effects will be slightly less negative than the Draft NNNPS. However, the potential for harm remains.</p> <p>Alternative 2: Similar effects as the Draft NNNPS but effects will be more focused in areas which require Levelling Up.</p>	
Effects on European Designated Sites from road, rail and SFRIs (construction and operation)	Direct	Short/ Medium/ Long	Irreversible	-	-	-	<p>Draft NNNPS: The Draft NNNPS supports a significant package of improvements and enhancements across the road and rail networks and the development of SRFIs, which will have the potential to affect European designated sites. Protection to European designated sites would be provided via the implementation of the Habitat Regulations (referenced in the Draft NNNPS).</p> <p>It is considered that the package of improvements across the network could negatively affect European designated sites, however this is not considered significantly negative as the Habitat Regulation effectively ensures that the overall integrity of these areas is protected.</p> <p>Alternative 1: Similar effects as Draft NNNPS, although because this alternative places an emphasis on improvements to the natural environment, the effects will be slightly less negative than the Draft NNNPS. However, the potential for harm remains.</p> <p>Alternative 2: Similar effects as the Draft NNNPS but effects will be more focused in areas which require Levelling Up.</p>	
Effects outside designated sites (on wider landscape, biodiversity gain, green	Direct	Short/ Medium/ Long	Irreversible	-	-	-	<p>Draft NNNPS: The Draft NNNPS supports a significant package of improvements and enhancements across the road and rail networks and the development of SRFIs, which will have the potential to affect biodiversity outside of designated areas. Whilst infrastructure development poses risk to biodiversity, it also presents opportunity. The Draft NNNPS helps applicants to make the most of these opportunities by ensuring that biodiversity net gain is applied in conjunction with the mitigation hierarchy. However, in recognition of the fact that biodiversity is in steep decline and that there are likely to be some occasions where</p>	

infrastructure and ecosystems services) from road, rail and SFRIs (construction and operation)							<p>significant harm cannot be avoided or mitigated, it is felt that the Draft NNNPS will have a minor negative effect on wider biodiversity / ecosystems services.</p> <p>Alternative 1: Similar effects as Draft NNNPS, although because this alternative places an emphasis on improvements to the natural environment, the effects will be slightly less negative than the Draft NNNPS. However, the potential for harm remains.</p> <p>Alternative 2: Similar effects as the Draft NNNPS but effects will be more focused in areas which require Levelling Up.</p>	
Effect on irreplaceable habitats and veteran trees from road, rail and SFRIs (construction and operation).	Direct	Short/ Medium/ Long	Irreversible	-	-	-	<p>Draft NNNPS: The Draft NNNPS supports a significant package of improvements and enhancements across the road and rail networks and the development of SRFIs, which will have the potential to affect irreplaceable habitats and veteran trees.</p> <p>The NNNPS provides some protection to irreplaceable habitats, in so far as it states the SoS should not grant development consent for any development that would result in the loss or deterioration of irreplaceable habitats, including ancient woodland and ancient or veteran trees.</p> <p>However, the Draft NNNPS allows for various scenarios whereby loss or deterioration would be permitted, e.g., there are wholly exceptional reasons, and a suitable compensation strategy exists, where the public benefit would clearly outweigh the loss or deterioration of habitat.</p> <p>Although this policy in part provides some assurance that harm will be wholly exceptional, it does allow occasions when harm is accepted, which would have a negative effect on biodiversity. It is noted that by their very nature, irreplaceable habitats cannot be compensated.</p> <p>Overall, it is considered that the effect on irreplaceable habitats is negative, but not significant, due to the protection given by the Draft NNNPS.</p> <p>Alternative 1: Similar effects as Draft NNNPS, although because this alternative places an emphasis on improvements to the natural environment, the effects will be slightly less negative than the Draft NNNPS. However, the potential for harm remains.</p> <p>Alternative 2: Similar effects as the Draft NNNPS but effects will be more focused in areas which require Levelling Up.</p>	Stronger direction regarding the protection of irreplaceable habitats.
Direct effects on coastal / marine habitats and species from development of road, rail and SFRI during construction and maintenance	Direct	During construction	Irreversible	-	-	-	<p>Draft NNNPS: The Draft NNNPS supports a significant package of road and rail schemes. However, as the NNNPS is non-spatial it not possible to establish if any schemes brought forward would impact the coasts or marine environment.</p> <p>The Draft NNNPS states provides reference to measures to restrict damaging activities, which will be implemented by the Marine Management Organisation (MMO) and other relevant organisations. As a public authority, the Secretary of State is bound by the duties in relation to Marine Coastal Zone (MCZ) imposed by sections 125 and 126 of the Marine and Coastal Access Act 2009. The policy does not afford the marine environment any further protection than which is legally required.</p> <p>It is worth noting that Biodiversity Net Gain is not applicable to the marine environment and the Draft NNNPS does not provide any guidance of what gain would be required in these</p>	Include a detailed policy around the marine environment regarding its protection and requiring opportunities and enhancement in lieu of a formal requirement of net gain.

							<p>circumstances. The effect to the marine environment is considered negative, but on balance is not considered significantly negative.</p> <p>Alternative 1: Similar effects as Draft NNNPS, although because this alternative places an emphasis on improvements to the natural environment, the effects will be slightly less negative than the Draft NNNPS. However, the potential for harm remains.</p> <p>Alternative 2: Similar effects as the Draft NNNPS but effects will be more focused in areas which require Levelling Up.</p>	
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AOS Criteria 3. Air Quality

Effect description	Direct / indirect	Time scale	Permanence	Significance score			Explanation of Assessment	Recommended Mitigation/ Enhancement
				Draft NNNPS	Alt 1	Alt 2		
Construction and maintenance emissions	Indirect	Short/ Medium	Reversible	-	-	-	<p>Draft NNNPS: The Draft NNNPS supports a significant package of improvements and enhancements across the road and rail networks and the development of SRFIs. The construction and operation phases of projects brought forward on the national networks will result in emissions to air (affecting communities, ecosystems and users of the network) which could lead to negative effects on health, on protected species and habitats (which along with other direct land use effects on habitats and species could cause a cumulative biodiversity effect), or on the wider countryside and species. Air quality may temporarily decline because of infrastructure upgrades or construction due to an increase in levels of air pollutant emissions, particularly dust (particulate matter). This could particularly affect deprived communities as they tend to be more affected by infrastructure development.</p> <p>The NNNPS includes the requirement for the Secretary of State to consider mitigation measure for the construction stage of the development.</p> <p>Although the effects are largely short term, emissions can result in a negative effect for a local area. Overall, the effects are considered to be minor negative.</p> <p>Alternative 1: Similar effects as Draft NNNPS, although under alternative 1, investment will only be permitted where these avoid significant negative impacts on air quality and negative effects could be lesser than the Draft NNNPS.</p> <p>Alternative 2: Similar effects as the Draft NNNPS but effects will be more focused in areas which require Levelling Up.</p>	Include a requirement that all appropriate measures should be taken to avoid and mitigate emissions including the use of best available techniques.
Changes in air quality from road users due to investment in road infrastructure	Indirect	Short/ Medium/ Long/ Longer	Irreversible	-	-	-	<p>Draft NNNPS: The Draft NNNPS supports a significant package of improvements and enhancements across the road and rail networks and the development of SRFIs. These schemes could result in increased emissions to air over the long/ longer term (affecting communities, ecosystems and users of the network).</p> <p>The NNNPS provides some protection to ensure those areas of the country which are the worst affected by NOX are not subject to further decline as it states 'The Secretary of State should refuse consent, where the air pollutant emissions resulting from the proposed scheme will:</p> <ul style="list-style-type: none"> • result in a zone/agglomeration which is currently reported as being compliant with the Air Quality Standards Regulations 2010 becoming non-compliant; or • affect the ability of a non-compliant area to achieve compliance within the most recent timescales reported to the Examining Authority at the time of the decision'. <p>It also states where the 'increase in air pollutant emissions resulting from the proposed scheme would significantly impact the Government's ability to comply with a statutory limit or statutory air quality objective the Secretary of State should refuse consent'. This ensures that other emissions such as PM 10 and 2.5 are taken into consideration.</p>	

Effect description	Direct / indirect	Time scale	Permanence	Significance score			Explanation of Assessment	Recommended Mitigation/ Enhancement
				Draft NNNPS	Alt 1	Alt 2		
							<p>Whilst the draft NNNPS does include measures to minimise breaches of standards and air quality objectives, it is considered that it could result in air quality deterioration, although cumulatively this is not considered to be significant.</p> <p>Alternative 1: Similar effects as Draft NNNPS, although under alternative 1, investment will only be permitted where these avoid significant negative impacts on air quality and negative effects could be lesser than the Draft NNNPS.</p> <p>Alternative 2: Similar effects as the Draft NNNPS but effects will be more focused in areas which require Levelling Up.</p>	
Changes in air quality from road users due to modal shift to rail (freight and passengers)	Indirect	N/A	N/A	0	0	0	<p>Draft NNNPS: Although the NNNPS supports modal shift from road to rail, the effects of any modal shift from passenger and active transport on air emissions are considered likely to be negligible.</p> <p>It is recognised that individual rail schemes may have a positive effect on localised air quality with regards to freight if a portion of freight was removed from a certain route, although cumulatively this is negligible.</p> <p>Alternative 1: Similar effects to the Draft NNNPS.</p> <p>Alternative 2: Similar effects as the Draft NNNPS but effects will be more focused in areas which require Levelling Up.</p>	Stronger direction for new schemes to have a positive effect on active transport (where applicable), for example, facilitating safer links and connections across the SRN to minimise severance, increasing access to the local active transport network, or improving public access.
Changes in direct emissions from railways	Direct	Short/ Medium	Irreversible	?	?	?	<p>Draft NNNPS: The Draft NNNPS supports a significant package of improvements and enhancements across the rail networks. Effects on air quality are considered uncertain because of uncertainty relating to the balance of rail use related to this infrastructure being electric (with associated lower and reducing emissions over time) versus diesel powered trains. Whilst the Government's Transport Decarbonisation Plan (July 2021) includes an ambition to remove all diesel-only trains from the network by 2040, the rate of change is uncertain. The Draft NNNPS provides some protection to ensure those areas of the country which are the worst affected by NOX are not subject to further decline as it states 'The Secretary of State should refuse consent, where the air pollutant emissions resulting from the proposed scheme will:</p> <ul style="list-style-type: none"> • result in a zone/agglomeration which is currently reported as being compliant with the Air Quality Standards Regulations 2010 becoming non-compliant; or • affect the ability of a non-compliant area to achieve compliance within the most recent timescales reported to the Examining Authority at the time of the decision'. <p>It also states where the 'increase in air pollutant emissions resulting from the proposed scheme would significantly impact the Government's ability to comply with a statutory limit or statutory air quality objective the Secretary of State should refuse consent'. This ensures that other emissions such as PM 10 and 2.5 are taken into consideration.</p>	<p>The NNNPS could include a commitment that all new rail development will be electric, prioritising electrifying the network around new SFRIs.</p> <p>The NNNPS could include a consideration of mitigation measures for non-exhaust emissions via train management measures including speed control, minimising braking, etc.</p>

Effect description	Direct / indirect	Time scale	Permanence	Significance score			Explanation of Assessment	Recommended Mitigation/ Enhancement
				Draft NNNPS	Alt 1	Alt 2		
							<p>Whilst the draft NNNPS does include measures to minimise breaches of standards and air quality objectives, uncertainty over the rate of change of electrification of the network and train fleet means that it is considered that the overall effect on emissions is uncertain.</p> <p>Alternative 1: Similar effects as Draft NNNPS, although under alternative 1, investment will only be permitted where these avoid significant negative impacts on air quality and negative effects could be lesser than the Draft NNNPS.</p> <p>Alternative 2: Similar effects as the Draft NNNPS but effects will be more focused in areas which require Levelling Up.</p>	
Changes in emissions due to new SRFIs	Indirect	Medium / Long	Irreversible	-	-	-	<p>Draft NNNPS: The Draft NNNPS facilitates the development of new SRFIs, which has the potential to impact air quality which may extend beyond the immediate vicinity of the SFRI (affecting communities, ecosystems and users of the network).</p> <p>The NNNPS provides some protection to ensure those areas of the country which are the worst affected by NOX are not subject to further decline as it states 'The Secretary of State should refuse consent, where the air pollutant emissions resulting from the proposed scheme will:</p> <ul style="list-style-type: none"> • result in a zone/agglomeration which is currently reported as being compliant with the Air Quality Standards Regulations 2010 becoming non-compliant; or • affect the ability of a non-compliant area to achieve compliance within the most recent timescales reported to the Examining Authority at the time of the decision'. <p>It also states where the 'increase in air pollutant emissions resulting from the proposed scheme would significantly impact the Government's ability to comply with a statutory limit or statutory air quality objective the Secretary of State should refuse consent'. This ensures that other emissions such as PM 10 and 2.5 are taken into consideration. Whilst the draft NNNPS does include measures to minimise breaches of standards and air quality objectives, it is considered that it could result in air quality deterioration although cumulatively this is not considered to be significant.</p> <p>Alternative 1: Similar effects as Draft NNNPS, although under alternative 1, investment will only be permitted where these avoid significant negative impacts on air quality and negative effects could be lesser than the Draft NNNPS.</p> <p>Alternative 2: Similar effects as the Draft NNNPS but effects will be more focused in areas which require Levelling Up.</p>	

AOS Criteria 4: Climate Change Resilience

Effect Description	Direct/indirect	Time scale	Permanence	Significance			Explanation of Assessment	Recommended Mitigation/Enhancement
				Draft NNNPS	Alt 1	Alt 2		
Improved network resilience resulting from infrastructure upgrades (construction and operation)	Indirect	Medium/Long	Reversible	+	+	+	<p>Draft NNNPS: The Draft NNNPS supports a significant programme of improvements and enhancements to road and rail networks. These could improve the networks' resilience, due to new and enhanced infrastructure being designed in accordance with modern standards, which incorporate climate change projections. The Draft NNNPS requires that applicants must consider the effects of climate change including consideration of high emissions scenarios (although only refers to flood related climate impacts) and refers to considering the use of nature-based solutions. Overall, it is considered that the NNNPS could support improved network resilience, but this will not be substantial because improvement schemes will cover only a relatively small proportion of the networks.</p> <p>Alternative 1: Similar effects as Draft NNNPS, although because this alternative places an emphasis on improvements to the environment and community wellbeing, the positive effects could be greater than the Draft NNNPS.</p> <p>Alternative 2: Similar effects as the Draft NNNPS but effects will be more focused in areas which require Levelling Up.</p>	<p>Include explicit requirements to consider other climate related issues such as extreme temperatures.</p> <p>Strengthen wording to require use of the mitigation hierarchy to ensure all reasonable mitigation has been identified and implemented on schemes, e.g., nature-based solutions, permeable surfaces.</p>
Changes in community and wider environment climate resilience	Indirect	Medium/Long	Reversible	0	+	0	<p>Draft NNNPS: The Draft NNNPS supports a significant programme of improvements and enhancements to road and rail networks. These could impact on flood risk in wider catchments or other wider environment and community resilience effects. However, the Draft NNNPS reaffirms policy and other legal requirements relating to climate resilience, which ensures that new development would not have significant negative effect on catchments.</p> <p>Alternative 1: As this alternative places an emphasis on improvements to the environment and community wellbeing, it could positively impact flood risk in the wider catchment.</p> <p>Alternative 2: Similar effects as the Draft NNNPS but effects will be more focused in areas which require Levelling Up.</p>	<p>Strengthen wording to require use of the mitigation hierarchy to ensure all reasonable mitigation has been identified and implemented on schemes, e.g., nature-based solutions, permeable surfaces.</p>

AOS Criteria 5: Community Impacts and Accessibility

Effect description	Direct / indirect	Time scale	Permanence	Significance score			Explanation of Assessment	Recommended Mitigation/ Enhancement
				Draft NNNPS	Alt 1	Alt 2		
Access to national networks by different groups (by income / deprivation, rural / urban plus vulnerable / disabled users)	Indirect	Long	Reversible	0	+	0	<p>Draft NNNPS: The Draft NNNPS reiterates the requirement to comply with the Equalities Act and states all reasonable opportunities to deliver improvements in accessibility on and to the existing national road network should also be taken wherever appropriate. It also states where appropriate, applicants should seek to deliver improvements that reduce community severance and improve accessibility. Overall, it is considered that the NNNPS will have a neutral effect.</p> <p>Alternative 1: As this alternative places an emphasis on environmental and community wellbeing and on delivering improvements to the environment and community wellbeing, it is considered that cumulatively this alternative could result in a positive contribution to access to national networks.</p> <p>Alternative 2: Similar effects as the Draft NNNPS but effects will be more focused in areas which require Levelling Up.</p>	Include a requirement for applicants to demonstrate how access to national networks has been considered by different groups.
Severance of communities	Direct	Short/ Medium/ Long/ Longer	Reversible	0	+	0	<p>Draft NNNPS: The Draft NNNPS supports a significant programme of improvements and enhancements to road and rail networks, which could introduce new sources of severance to communities. However, the Draft NNNPS states that, where appropriate, applicants should seek to deliver improvements that reduce community severance and improve accessibility, and that the applicant should provide evidence that as part of the project they have addressed any new or existing severance issues and / or safety concerns that act as a barrier to non-motorised users, unless it was unsafe or unviable to do so. Overall, it is considered that the Draft NNNPS could result in a neutral effect on severance.</p> <p>Alternative 1: As this alternative places an emphasis on delivering improvements to the environment and community wellbeing, it is considered that cumulatively this alternative could result in a positive contribution to reducing community severance.</p> <p>Alternative 2: Similar effects as the Draft NNNPS but effects will be more focused in areas which require Levelling Up.</p>	
Health inequalities, access to active travel opportunities	Indirect	Short/ Medium	Reversible	0	+	0	<p>Draft NNNPS: The Draft NNNPS states that all reasonable opportunities to deliver improvements in accessibility on and to the existing national road network should also be taken wherever appropriate, including improvements for non-motorised users. Overall, it is considered that the NNNPS will have a neutral effect.</p> <p>Alternative 1: As this alternative places an emphasis on avoiding significant effects on community wellbeing and on delivering improvements to community wellbeing, it is considered that cumulatively this alternative could result in a positive contribution to access to active travel, by more actively promoting cycle paths, and other non-motorised travel.</p> <p>Alternative 2: Similar effects as the Draft NNNPS but effects will be more focused in areas which require Levelling Up.</p>	

Effect description	Direct / indirect	Time scale	Permanence	Significance score			Explanation of Assessment	Recommended Mitigation/ Enhancement
				Draft NNNPS	Alt 1	Alt 2		
Connectivity/ access to greenspaces and leisure activities	Indirect	Short/ Medium	Irreversible	0	+	0	<p>Draft NNNPS: The Draft NNNPS states that Applicants should seek opportunities to use open space for multiple purposes such as amenity, wildlife habitat and flood storage uses. The Draft NNNPS also states the existing open space, sports and recreational buildings and land should not be developed unless the land is surplus to requirements or the loss would be replaced by equivalent or better provision in terms of quantity and quality and functionality in a suitable and accessible location. Overall, it is considered that the effect on connectivity to open space is neutral, because whilst schemes may deliver benefits, there is potential for some loss of open space.</p> <p>Alternative 1: As this alternative places an emphasis on avoiding significant effects on community wellbeing and on delivering improvements to community wellbeing, it is considered that cumulatively this alternative could result in a positive contribution to access to greenspace and leisure activities.</p> <p>Alternative 2: Similar effects as the Draft NNNPS but effects will be more focused in areas which require Levelling Up.</p>	

AOS Criteria 6: Heritage

Effect description	Direct / indirect	Time scale	Permanence	Significance score			Explanation	Recommended Mitigation/ enhancement
				Draft NNNPS	Alt 1	Alt 2		
Loss or disturbance on heritage from development of road, rail and SFRI (construction)	Direct	Short/ Medium	Irreversible	-	0	-	<p>Draft NNNPS: The Draft NNNPS supports a significant programme of improvements and enhancements to road and rail networks which could lead to effects on heritage during the construction phase.</p> <p>The Draft NNNPS provides protection to heritage assets as it states that the Secretary of State should refuse consent where the proposed development will lead to substantial harm or total loss of the heritage asset. Further it states given that heritage assets are irreplaceable, harm or loss affecting any designated heritage asset should require clear and convincing justification. However, the level of protection provided in the Draft NNNPS does permit loss and harm in several scenarios. This could result in the loss and harm of assets which would have a negative effect and accelerating a decline trend. Taking account of the protection that is provided, overall this is not considered to be significant.</p> <p>Alternative 1: As this alternative places an emphasis on avoiding significant effects on heritage, it is considered that cumulatively this alternative could result in neutral effect to cultural heritage.</p> <p>Alternative 2: Similar effects as the Draft NNNPS but effects will be more focused in areas which require Levelling Up.</p>	Strengthen polices to reduce potential situations where harm could occur.
Effects on setting	Indirect	Medium/ Long	Irreversible	-	0	-	<p>Draft NNNPS: The Draft NNNPS supports a significant programme of improvements and enhancements to road and rail networks, which has the potential to result in negative impacts on the setting of heritage features.</p> <p>The Draft NNNPS sets out a process by which the SoS should consider enhancement of existing assets, thereby facilitating potential opportunities for a positive effect on the setting of assets.</p> <p>The NNNPS includes the consideration on non-designated heritage assets and sets out details regarding the required assessment for applications, thereby ensuring consistency of approach which would ensure the setting of all assets are appropriately assessed.</p> <p>It states where the proposed development will lead to less than substantial harm to the significance of a designated heritage asset, this harm should be weighed against the public benefits of the proposal, including securing its optimum viable use.</p> <p>The NNNPS does not provide specific guidance on refusal of applications relating to setting. It is acknowledged that the construction and operation of national networks infrastructure has the potential to result in negative impacts on the historic environment</p>	Include policy stating the SoS should refuse permission unless appropriate mitigation measures are in place to protect the setting of designated heritage assets.

Effect description	Direct / indirect	Time scale	Permanence	Significance score			Explanation	Recommended Mitigation/ enhancement
				Draft NNNPS	Alt 1	Alt 2		
							<p>and as such there is the potential for cumulative negative effects on the setting of heritage assets, although overall this is not considered significant.</p> <p>Alternative 1: As this alternative places an emphasis on avoiding significant effects on heritage, the effect of this alternative is considered neutral.</p> <p>Alternative 2: Similar effects as the Draft NNNPS but effects will be more focused in areas which require Levelling Up.</p>	

AOS Criteria 7: Landscape and Townscape

Effect description	Direct / indirect	Time scale	Permanence	Significance score			Explanation of assessment	Recommended Mitigation/ Enhancement
				Draft NNNPS	Alt 1	Alt 2		
Changes to landscape, townscape, or visual intrusion from development of road, rail and SFRI during construction	Direct	Short/ Medium	Reversible	-	-	-	<p>Draft NNNPS: The Draft NNNPS supports a significant programme of improvements and enhancements to road and rail networks, which could lead to effects on landscape and townscape during the construction phase. Whilst the Draft NNNPS requires applicants to undertake a landscape assessment, which considers construction impacts and how these could be minimised, residual impacts are expected due to their temporary nature, although these are not considered to be significant.</p> <p>Alternative 1: Similar effects to as Draft NNNPS, although as this alternative places an emphasis on avoiding significant effects on the environment and community wellbeing, negative effects may be lesser.</p> <p>Alternative 2: Similar effects as the Draft NNNPS but effects will be more focused in areas which require Levelling Up.</p>	
Changes to landscape or visual intrusion from development of road, rail and SFRI during operation	Direct	Medium/ Long	Irreversible	-	-	-	<p>Draft NNNPS: The Draft NNNPS supports a significant programme of improvements and enhancements to road and rail networks, which could lead to effects on landscape and townscape during the operational phase. The Draft NNNPS requires effects on landscape and townscape to be considered through design (e.g., siting, orientation), and for opportunities for enhancement to be considered.</p> <p>The Draft NNNPS states that the consent should be refused within National Parks, the Broads and AONBs, except in exceptional circumstances, where the benefits outweigh the harm and where it can be demonstrated that it is in the public interest. It states that the fact that a proposed project will be visible from within a designated area should not in itself be a reason for refusing consent.</p> <p>Overall, it is considered that cumulatively the effects on landscape and townscape will be negative, but these will not be significant.</p> <p>Alternative 1: Similar effects to as Draft NNNPS, although as this alternative places an emphasis on avoiding significant effects on the environment and community wellbeing, negative effects may be lesser.</p> <p>Alternative 2: Similar effects as the Draft NNNPS but effects will be more focused in areas which require Levelling Up.</p>	

AOS Criteria 8: Noise and Vibration

Effect description	Direct / indirect	Time scale	Permanence	Significance score			Explanation of assessment	Recommended Mitigation/ Enhancement
				Draft NNNPS	Alt 1	Alt 2		
Construction and maintenance emissions	Direct	Short/ Medium	Reversible	-	-	-	<p>Draft NNNPS: The Draft NNNPS supports a significant package of improvements and enhancements across the road and rail networks and the development of SRFIs, and construction of this infrastructure will result in noise and vibration impacts. The Draft NNNPS does include some measures to consider reducing noise impacts. Although mitigation measures can avoid significant construction noise effects for schemes, this is not always the case, and residual noise effects, even if not significant, are considered likely on schemes. Therefore, overall, it is considered that the effect of construction noise is negative, although not significant.</p> <p>Alternative 1: Similar effects as Draft NNNPS, although could be lesser as this alternative places an emphasis on avoiding significant environment and community effects.</p> <p>Alternative 2: Similar effects as the Draft NNNPS but effects will be more focused in areas which require Levelling Up.</p>	Include a requirement to ensure that best available techniques are always employed to avoid and minimise effects to air quality during the construction process.
Effect on noise and vibration through operation	Indirect	Short/ Medium/ Long	Reversible	-/+	-/+	-/+	<p>Draft NNNPS: The Draft NNNPS supports a significant package of improvements and enhancements across the road and rail networks and the development of SRFIs. Operation of this infrastructure could result in negative noise and vibration effects in some locations, including introducing new noise sources in some locations, whilst in others there could be positive effects. For example, National Highways' Evaluation Insight Paper (2019) which analyses 85 scheme evaluations, relating to all major schemes opening between 2002-2014, reports adverse noise effects for 16% of schemes and benefits for 53% of schemes. Benefits can result from delivery of schemes in Noise Important Areas and the Draft NNNPS does require applicants to consider opportunities to address noise issues associated with these areas.</p> <p>Overall, it is considered that the Draft NNNPS could lead to partly negative and partly positive effects. and this is likely to be location specific, dependent on the location of schemes.</p> <p>Alternative 1: Similar effects as Draft NNNPS, although could be fewer negative effects and more positive effects as this alternative places an emphasis on avoiding significant environment and community effects and delivering environmental improvements.</p> <p>Alternative 2: Similar effects as Draft NNNPS.</p>	
Changes in noise and vibration from road users due to modal shift to rail	Indirect	N/A	N/A	0	0	0	<p>Draft NNNPS: Whilst the NNNPS supports rail improvements and enhancements, which may in the longer-term result in a modal shift of some passengers (work and leisure) from road to rail, the NNNPS does not include specific targets for this modal shift and relies on improvements/ enhancement largely relating to reliability and punctuality to the rail network to facilitate this shift. Overall, this effect of the Draft NNNPS on noise emissions is considered negligible.</p>	N/A

Effect description	Direct / indirect	Time scale	Permanence	Significance score			Explanation of assessment	Recommended Mitigation/ Enhancement
				Draft NNNPS	Alt 1	Alt 2		
or active travel							<p>Alternative 1: Similar effects as Draft NNNPS.</p> <p>Alternative 2: Similar effects as Draft NNNPS.</p>	

AOS Criteria 9: Critical Infrastructure and Security

Impact description	Direct / indirect	Time scale	Permanence	Significance score			Explanation of Assessment	Recommended Mitigation/ Enhancement
				Draft NNNPS	Alt 1	Alt 2		
Effect of new schemes on resilience to accidents and incidents of the network.	Indirect	Medium/ Long	Reversible	+	+	+	<p>Draft NNNPS: The Draft NNNPS supports a significant package of improvements and enhancements across the road and rail networks and the development of SRFIs, which will have a positive impact on network reliability and indirectly will have a positive impact on resilience of the network. The Draft NNNPS also refers to ensuring that, where possible, proportionate protective security measures are designed into new infrastructure projects at an early stage in the project development</p> <p>It is considered that the Draft NNNPS will have a positive effect on the resilience of the networks to accidents and incidents.</p> <p>Alternative 1: Similar effects as Draft NNNPS.</p> <p>Alternative 2: Similar effects as Draft NNNPS.</p>	N/A

AOS Criteria 10: Macro-Economic Impacts

Effect description	Direct / indirect	Time scale	Permanence	Significance score			Explanation of Assessment	Recommended Mitigation/ Enhancement
				Draft NNNPS	Alt 1	Alt 2		
Economic contribution of road investment	Indirect	Medium/longer	Reversible	++	+	++	<p>Draft NNNPS: The NNNPS supports a significant package of improvements across the SRN which will have economic benefits, through increased capacity, improved journey times and reduced congestion. This will be achieved through rail and road network interventions and improved maintenance and renewals. It is considered that overall, these effects will be significantly positive.</p> <p>For example, National Highways' Evaluation Insight Paper (2019), which analysed 85 scheme evaluations, relating to all major schemes opening between 2002-2014 identified substantial journey time benefits: "Journey time benefits were the biggest contributor to generating a positive benefit cost ratio (BCR), with journey time benefits equating to around 2.3 times the cost".</p> <p>Alternative 1: Similar effects as Draft NNNPS, although fewer improvements would be delivered on the road network under this alternative, therefore it is not considered that this alternative could potentially result in significantly positive effects (although the levels of investment proposed will lead to benefits).</p> <p>Alternative 2: Similar effects as Draft NNNPS.</p>	
Economic contribution of rail and SRFI investment	Indirect	Medium/longer	Reversible	++	+	++	<p>Draft NNNPS: The Draft NNNPS supports a significant package of improvements across the rail network and the development of SRFIs, which will have economic benefits, such as through increased capacity, improved journey times and support to rail freight growth. It is considered that overall, these effects will be significantly positive.</p> <p>For example, a Note prepared by Oxera for the Rail Delivery Group¹, estimates that £50bn+ of planned investments in building new lines, upgrading existing track and manufacturing new trains in Great Britain, will deliver £82bn-£84bn (2016 prices) of extra economic benefits. The Note estimates that Network Rail's renewals investment will help the rail network to continue delivering economic benefits of up to £31bn per year, over and above the £82bn-£84bn. These will take the form of benefits to users, reductions in congestion on the road network and wider effects on the economy. It is anticipated that these benefits could amount to around £21 per passenger journey.</p> <p>Alternative 1: Similar effects as Draft NNNPS, although fewer improvements would be delivered on the SRN under this alternative, therefore less uncertainty, i.e., not considered that this alternative could potentially result in significantly positive effects.</p> <p>Alternative 2: Similar effects as Draft NNNPS</p>	

¹ Oxera (2017) Investment in Rail: the economic benefits - A note prepared for Rail Delivery Group. Available from: https://www.raildeliverygroup.com/files/Publications/2017-10_benefits_of_investment_in_rail.pdf

AOS Criteria 11: Levelling Up

Effect description	Direct / indirect	Time scale	Permanence	Significance score			Explanation of Assessment	Recommended Mitigation/ Enhancement
				Draft NNNPS	Alt 1	Alt 2		
Effects on regional inequalities, including between urban and rural, e.g., access to jobs and social infrastructure access to suppliers and markets, social mobility	Indirect	Medium/ Long/ Longer	Reversible	0	0	+	<p>Draft NNNPS: The Draft NNNPS supports a significant package of improvements and enhancements across the road and rail networks and the development of SRFIs. This infrastructure could contribute toward Levelling Up but would be dependent on delivery of infrastructure in locations requiring benefit from Levelling Up. Whilst the Draft NNNPS refers to Levelling Up, it does not include policies that would actively contribute to this. Therefore, it is considered that the Draft NNNPS will have a neutral effect on regional inequalities.</p> <p>Alternative 1: Similar effects as Draft NNNPS.</p> <p>Alternative 2: Under this alternative, investment would be prioritised in strategically important locations, such as those requiring levelling-up. Therefore, it is considered that this alternative would result in positive effects on access to jobs and social infrastructure.</p>	It would enhance the plan's effect on this issue if section on socio-economic impacts addressed levelling up considerations

AOS Criteria 12: Circular Economy

Effect description	Direct / indirect	Time scale	Permanence	Significance score			Explanation of Assessment	Recommended Mitigation/ Enhancement
				Draft NNNPS	Alt 1	Alt 2		
Use of materials, and generation of waste, in construction and maintenance	Indirect	Short/ Medium/ Long/ Longer	Irreversible	-	-	-	<p>Draft NNNPS: The Draft NNNPS supports a significant package of improvements and enhancements across the road and rail networks and the development of SRFIs. This will lead to use of materials and generation of waste during construction, maintenance, and operation of the network. However, the Draft NNNPS states that waste management beyond the waste hierarchy, such as adopting a circular approach from the offset, is encouraged, and that applicants should demonstrate that they will adhere to the waste hierarchy, minimising the volume of waste produced and maximising reuse and recycling for waste that cannot be avoided. Where possible, applicants are encouraged to use low carbon materials, sustainable sources, and local suppliers. Consideration should be given to circular economy principles wherever practicable. Overall, , it is considered that the Draft NNNPS could lead to negative effects.</p> <p>Alternative 1: Similar effects as Draft NNNPS.</p> <p>Alternative 2: Similar effects as Draft NNNPS.</p>	Requirement for all schemes to have a life cycle analysis and to provide mitigation measures which ensure maximum efficiency in the use and exploitation of materials and waste.

AOS Criteria 13: Water Resources

Impact description	Direct / indirect	Time scale	Permanence	Significance score			Explanation of assessment	Recommended Mitigation/ Enhancement
				Draft NNNPS	Alt 1	Alt 2		
Road, rail and SRFI developments: impacts on water use and quality	Indirect	Short/ Medium	Reversible	-	-	-	<p>Draft NNNPS: The Draft NNNPS supports a significant package of improvements and enhancements across the road and rail networks and the development of SRFIs. This would require use of water in construction and maintenance of infrastructure and could affect water quality via the creation of impervious surfaces which can negatively affect water quality due to faster rates of runoff, lower groundwater recharge rates, and increased erosion and via pollutants such as vehicle exhaust, oil, and dirt, being deposited to roadways and other impervious surfaces.</p> <p>The Draft NNNPS includes measures to reduce impacts on water resources, such as adhering to National Standards for SuDS and identifying and securing measures to protect and improve water quality and resources through green and blue infrastructure.</p> <p>The Draft NNNPS reiterates that applications must be in accordance with the water framework regulations but does not go further than the pollution control legislative requirements. It focuses on the control of processes rather than avoidance. It states that the SoS should not refuse consent on the basis of pollution impacts unless there is good reason to believe that any relevant necessary operational pollution control permits or licences, or other consents will not subsequently be granted.</p> <p>Overall, the Draft NNNPS is considered to have a negative effect on water quality and resources during the construction and operation of the network.</p> <p>Alternative 1: Similar effects as Draft NNNPS, although could be fewer negative effects as this alternative places an emphasis on avoiding significant environmental and delivering environmental improvements.</p> <p>Alternative 2: Similar effects as the Draft NNNPS but effects will be more focused in areas which require Levelling Up.</p>	<p>Include a policy which ensures BAT is employed throughout the construction process to ensure residual impact to water are minimised wherever possible. This may be secured via a construction management plan.</p> <p>Include a stronger statement project regarding the applicant to provide mitigation measures which ensure maximum efficiency in the use and exploitation of material (including water) via life cycle analysis.</p>

AOS Criteria 14: Soil, Land, Minerals and Agriculture

Effect description	Direct / indirect	Time scale	Permanence	Significance score			Explanation of Assessment	Recommended Mitigation/ Enhancement
				Draft NNNPS	Alt 1	Alt 2		
New road, rail and SRFI developments: effects on soil and land resources (including minerals) - construction and maintenance	Indirect	Short/ Medium	Irreversible	-	-	-	<p>Draft NNNPS: The Draft NNNPS supports a significant package of improvements and enhancements across the road and rail networks and the development of SRFIs which have the potential to result in loss or degradation of soils, soil sealing and / or sterilisation of minerals.</p> <p>The Draft NNNPS provides some protection to soils. Applicants are required to consider; the economic and other benefits of the best and most versatile agricultural land; seek to use areas of poorer quality land; prioritise previously developed (brownfield) land; identify any effects, and seek to minimise impacts, on soil health and protect and improve soils. The Draft NNNPS provides some protection to minerals by requiring applicants to safeguard mineral resources as far as possible and consider prior extraction.</p> <p>The nature of the package of improvements the Draft NNNPS supports could increase site sealing, which cannot be mitigated.</p> <p>Although the NNNPS seeks to take agricultural land into consideration it does permit the loss of higher value agricultural land.</p> <p>Overall, it is considered that the Draft NNNPS could result on negative effects on soils, land, and agriculture.</p> <p>Alternative 1: Similar effects as Draft NNNPS, although could be fewer negative effects as this alternative places an emphasis on avoiding significant environmental and delivering environmental improvements.</p> <p>Alternative 2: Similar effects as the Draft NNNPS but effects will be more focused in areas which require Levelling Up.</p>	

AOS Criteria 15: User Experience

Effect description	Direct / indirect	Time scale	Permanence	Significance Score			Explanation of Assessment	Recommended Mitigation/ Enhancement
				Draft NNNPS	Alt 1	Alt 2		
Disruption during construction period of new infrastructure causing congestion and effects on journey times and journey time reliability (road and rail)	Direct	Short /Medium	Reversible	-	-	-	<p>Draft NNNPS: The Draft NNNPS supports a significant package of improvements and enhancements across the road and rail networks and the development of SRFIs. Construction of this infrastructure will lead to disruption on transport networks, although the Draft NNNPS does state that the Examining Authority and the Secretary of State should give due consideration to impacts on local transport networks and policies set out in existing and emerging local plans and Local Transport Plans, during both construction and operation. The overall effect is considered negative, but temporary and not substantial.</p> <p>Alternative 1: Similar effects as Draft NNNPS.</p> <p>Alternative 2: Similar effects as Draft NNNPS but effects may be focused in areas which require Levelling Up</p>	
Improved user experience (including congestion) on the SRN and Rail Network (operation)	Indirect	Medium /Long	Reversible	++	++	++	<p>Draft NNNPS: The Draft NNNPS supports a significant package of improvements and enhancements across the road and rail networks and the development of SRFIs. This could lead to improved user experience, particularly through reducing congestion, improving journey times and journey time reliability through packages of improvement and improved maintenance and renewal of both the road and rail system</p> <p>It is considered that the Draft NNNPS could result in a significant positive effect on user experience in the medium to long term.</p> <p>Alternative 1: Similar effects as Draft NNNPS.</p> <p>Alternative 2: Similar effects as the Draft NNNPS but effects will be more focused in areas which require Levelling Up.</p>	
Cost for users and costs for delivering infrastructure	Indirect	Short/ Medium/ Long	Reversible	0	0	0	<p>Draft NNNPS: The effects on costs are outside of the scope of the Draft NNNPS and the policies within the Draft NNNPS are not considered to affect costs for users.</p>	

AOS Criteria 16: Safety

Effect description	Direct / indirect	Time scale	Permanence	Significance Score			Explanation of Assessment	Recommended Mitigation/ Enhancement
				Draft NNNPS	Alt 1	Alt 2		
Construction and maintenance of road, rail and SRFI infrastructure : disruption during the construction period likely to cause congestion which may lead to additional accidents and incidents.	Indirect	Short/ Medium /Long	Irreversible	0	0	0	<p>Draft NNNPS: The Draft NNNPS supports a significant package of improvements and enhancements across the road and rail networks and the development of SRFIs which could cause disruption during the construction period.</p> <p>The Draft NNNPS states that safety is paramount and ensuring the safety of users on the SRN is critical. The NNNPS outlines procedures which should be followed, including road safety audits at the design and construction stages.</p> <p>The potential effect of the NNNPS on user safety is currently considered to be neutral. The NNNPS addresses construction safety through discussion of safety audits, although a clearer consideration could be included.</p> <p>Alternative 1: Similar effects as Draft NNNPS.</p> <p>Alternative 2: Similar effects as the Draft NNNPS but effects will be more focused in areas which require Levelling Up.</p>	Include a clearer requirement that consideration should also be given to whether the applicant has mitigated safety risk associated with construction period because of congestion etc. A similar phrase to the rail safety section is recommended. This section states “The applicant should be able to demonstrate that their scheme has considered the safety implications during the construction, commissioning, and operational phases of the development. “
Operational road, rail SRFI safety improvements delivered through new schemes upgrades. Effects on users, communities and transport operatives.	Indirect	Medium /Long/ Longer	Irreversible	++	++	++	<p>Draft NNNPS: The Draft NNNPS supports a significant investment in the SRN and rail network some of which will target specific safety improvements. Specifically new highways developments provide an opportunity to make significant safety improvements.</p> <p>The Draft NNNPS reiterates that safety is of paramount importance and that the safety of users on the SRN is critical. The Draft NNNPS states that it is a long-term vision that the UK remains a world leader in road safety and that it remains essential that the safety of the rail network is maintained and improved. The Draft NNNPS acknowledges that technological advances have the potential to have increased safety improvements. The Draft NNNPS states that opportunities should be taken to improve safety, including introducing the most modern and effective safety measures where proportionate and considering wider transport objectives.</p> <p>Overall, it is considered that the Draft NNNPS could result in significant positive effects on safety during the operational phase of scheme upgrades.</p> <p>Alternative 1: Similar effects as Draft NNNPS.</p> <p>Alternative 2: Similar effects as the Draft NNNPS but effects will be more focused in areas which require Levelling Up.</p>	Require applicants to have included consideration of how technology can improve the safety of network users.