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Department for Transport

Project

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NATIONAL NETWORKS NATIONAL POLICY STATEMENT

APPRAISAL OF SUSTAINABILITY – NON- TECHNICAL SUMMARY

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1. INTRODUCTION

1.1 This report

This non-technical summary summarises the key findings of the Appraisal of Sustainability (AoS) for the National Networks National Policy Statement (hereafter referred to as the NNNPS). It provides information on the potential significant sustainability effects of the NNNPS. The NNNPS is produced by the Department for Transport (DfT).

The original AoS findings went out to public consultation alongside the draft NNNPS in March 2023. A revised version of the NNNPS has been produced which takes into account the responses received during consultation, where appropriate. A review of the changes made to the NNNPS has been completed and it is considered that these do not change the findings of the AoS. As such, the AoS findings presented in this non-technical summary remain unchanged from the original version published in March 2023.

An AoS adoption statement will be produced at the end of the process. This will set out how consultation comments have been taken into account within the AoS and will also report on the review of changes made to the NNNPS. Further details of what the AoS adoption statement will cover are included in Section 7.

1.2 Background

National Policy Statements (NPSs) provide policy to help decision-makers determine consent for major infrastructure (so called Nationally Significant Infrastructure Projects or NSIPs). The NNNPS addresses NSIPs on the national road and rail networks. The current NNNPS is being reviewed to ensure it remains consistent with Government policy.

2. INTRODUCTION TO THE NNNPS AND AOS

2.1 Purpose and content of the NNNPS

The NNNPS:

- Sets out government policy;
- Outlines the need for development on the national networks;
- Outlines assessment principles; and
- Provides guidance on generic impacts of national networks.

2.2 Purpose and content of the AoS

To conform to Government regulations, an AoS is required before an NPS can be designated. The purpose of the AoS is to:

- Examine the likely social, economic and environmental effects of the NPS (and reasonable alternatives to the NPS);
- Describe actions that could be taken to reduce effects; and
- Help inform the preparation of the NPS to promote sustainable development.

2.3 Links to Habitats Regulations Assessment

A Habitats Regulations Assessment (HRA) report has been produced separately which assesses the effects of the NNNPS on nature conservation sites of European value.

The HRA is produced under a separate report (National Networks National Policy Statement Habitats Regulations Assessment¹).

3. METHODOLOGY OF THE AOS

3.1 Introduction

This section outlines the AoS stages. These are presented in Figure 3.1.

¹ National Networks, National Policy Statement Habitats Regulations Assessment, January 2023 WSP and Ramboll

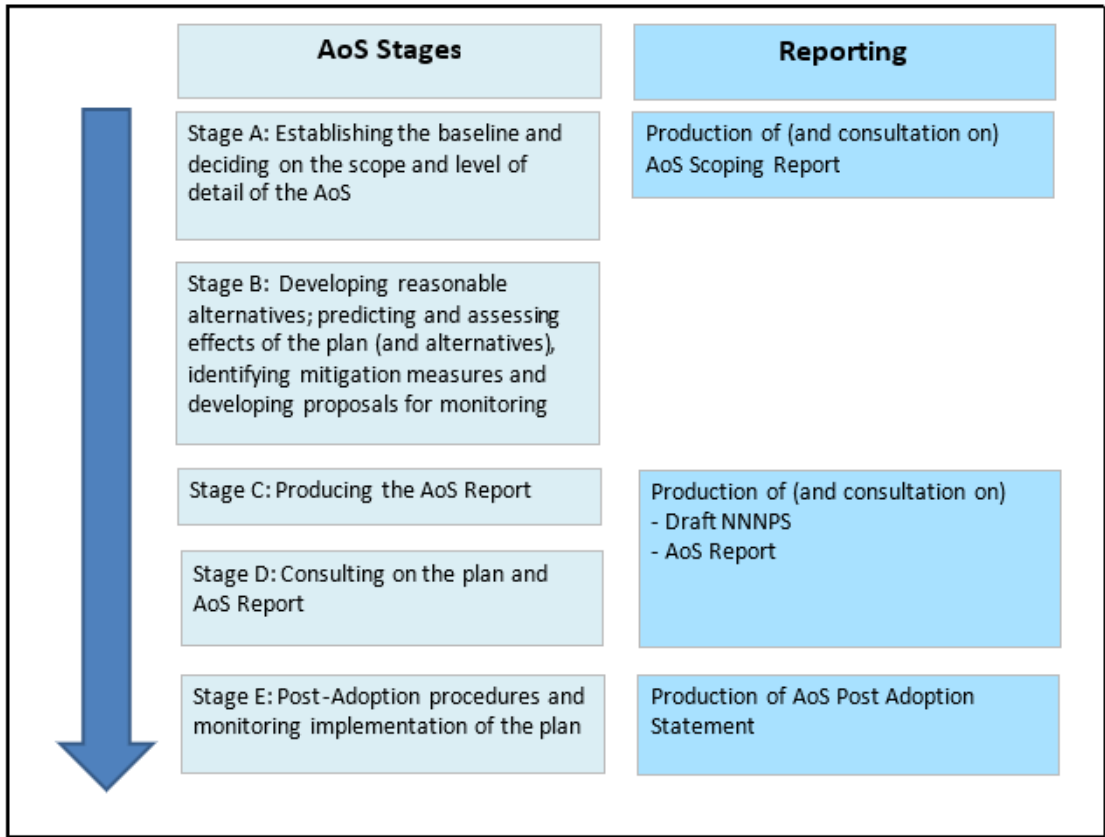


Figure 3.1: AoS stages

Figure 3.1 outlines the stages of the AoS and the associated reporting requirements. These stages are described in textual form in the remaining parts of this section.

3.2 Stage A: Scoping

The scoping stage sets the context, establishes the sustainability baseline, and defines how the assessment will be carried out. At the end of the scoping stage an AoS framework is set out. The AoS framework sets out which sustainability topics will be addressed in the assessment.

3.3 Stage B (i): Developing alternatives

The DfT consider that there are three reasonable approaches to delivering the NNNPS:

- An approach which delivers balanced national priorities (the NNNPS);
- An approach which prioritises environmental sustainability benefits (Alternative 1); and
- An approach which priorities wider economic and levelling up benefits (Alternative 2).

A ‘do nothing’ scenario was not included as the NNNPS has an important role in helping the Government to deliver net zero, the carbon budget² and the Transport Decarbonisation Plan (DfT, 2021)³.

3.4 Stage B (ii): Assessment of the effects

The stages of the assessment comprised:

- Identifying potential effects of the NNNPS and alternatives;
- Assessment/scoring of effects; and
- Identifying potential mitigation.

Identification of the potential effects of the NNNPS and alternatives

This involved identifying changes to conditions in the baseline predicted to arise from implementation of the NNNPS. These were identified against the topics covered in the AoS framework.

A qualitative assessment was created through expert judgement and discussion. This was supported by analysis of baseline data and trends.

Assessment / scoring of the effects

Table 3.1 illustrates the significance criteria developed to score the effects.

Table 3-1: AOS scoring

Effect	Description	Score
Significant positive	Major positive effect on receptors.	++
Minor positive	Minor positive effect on receptors.	+
Neutral	No change.	0
Uncertain	Potential for effect unclear. <i>Treated as significant negative. Monitoring recommended.</i>	?
Minor Negative	Minor negative effect on receptors.	-
Significant negative	Major negative effect on receptors.	--

² <https://www.theccc.org.uk/publication/sixth-carbon-budget/>

³ Transport decarbonisation plan - GOV.UK (www.gov.uk)

Table 3.2 summarises the terminology applied during the assessment.

Table 3-2: Effects terminology

Effect	A change resultant of an action.
Direct	Effects which arise as a direct consequence of an action.
Indirect (secondary)	For example, the effect of increased traffic on air quality.
Cumulative	Combined effects on a receptor.
Trans-boundary effects	Effects which are outside of the jurisdiction of the plan.
Longer term	20+ years
Long term	10-20 years
Medium term	5-10 years
Short Term	Up to 5 years
Reversible	Can be reversed to the previous state.
Irreversible	Permanent
Receptor	A component that is affected by an effect.

Identification of potential mitigation

Mitigation measures were considered where potential negative effects or further potential for benefits are identified.

3.5 Stage C: Preparation of the AoS Report

An AoS report has been produced which will be consulted on at the same time as the Draft NNNPS. Table 3.3 sets out how the AoS report meets regulatory requirements.

Table 3-3: AoS requirements

Task	Where covered in the main AoS report
Outline the contents, plan objectives, and relationship with other relevant plans	Section 2.1 Appendix 2 (scoping report)

Task	Where covered in the main AoS report
Relevant aspects of the current environmental state and the likely evolution without plan implementation	Appendix 2 (scoping report)
Environmental characteristics of areas likely to be significantly affected	Appendix 2 (scoping report)
Existing environmental problems relevant to the plan	Appendix 2 (scoping report)
Environmental protection objectives relevant to the plan and how they have been considered during preparation	Appendix 2 (scoping report)
Likely significant effects on the environment	Appendix 3 and Section 5
Measures to prevent, reduce, and offset adverse environmental effects from plan implementation	Appendix 3 and Section 5
Outline of the reasons for selecting the alternatives	Appendix 1
Description of how the assessment was undertaken including any difficulties encountered	Section 3
Description of measures envisaged concerning monitoring	Section 6
Non-technical summary (NTS) of the information	This report is the NTS
Include the information reasonably required	Whole AoS Report
Consultation to decide the scope and level of detail to be included (Art. 5.4)	Consultation undertaken at the scoping and issues and options stages
Environmental authorities and the public given an opportunity to express opinions on the draft plan and environmental report before plan adoption	Consultation on this AoS Report
Other EU Member States, where plan implementation is likely to have significant environmental effects	Not applicable
Taking the environmental report and results of consultations into account in decision-making (Art. 8)	Outlined in the AoS adoption statement (not yet produced)
After plan adoption, the public and any countries consulted under Art.7 must have the following made available to them: <ul style="list-style-type: none"> - The plan adopted - A statement summarising how environmental considerations have been integrated - Relations to Article 5, 6, 7 and 8 - Reasons for choosing the plan - The measures decided concerning monitoring 	Outlined in the AoS adoption statement (not yet produced)

Task	Where covered in the main AoS report
Monitoring of significant environmental effects from plan implementation	AoS adoption statement (not yet produced)

3.6 Stage D: Consultation

The AoS scoping report underwent consultation with formal responses from:

- Environment Agency;
- Natural England;
- Forestry Commission; and
- Historic England.

Other consultee responses were received from:

- An independent consultant/campaigner;
- Sustrans;
- Representative from Climate Emergency Policy and Planning; and
- Transport Action Network.

Consultation will now be undertaken on the AoS report.

3.7 Stage E: Monitoring

This will involve monitoring potential significant effects and uncertainties to identify negative effects early and undertake remedial action. Monitoring measures have been outlined below.

3.8 Assumptions made and difficulties encountered

A strategic level assessment was undertaken using a judgement-led qualitative assessment. Where information was readily available on the likelihood of different types of effects, this was included in the results.

The NNNPS is a non-spatial plan, thus the AoS does not include the assessment of individual projects or schemes. However, to aid the identification and assessment of effects, some assumptions relating to different types of infrastructure and policy interventions are provided in Appendix 1.

4. RESULTS OF THE AOS: SCOPING

Relevant legislation, plans and policies were reviewed to identify how the NNNPS could be affected, or how the NNNPS could affect other policies and environmental objectives. The review also supported the completion of the social, economic, and environmental baseline and identification of key issues for sustainable development.

An integral part of the AoS process is to indicate the current baseline sustainability conditions and their likely evolution following a ‘business as usual’ scenario. This identifies key sustainability issues and establishes the current baseline against which likely significance can be judged.

The key sustainability issues are presented in the updated scoping report in Appendix 2. These key issues have been represented in the AoS framework which is shown in Table 4.1.

Table 4-1: AoS framework and baseline issues

Criteria	Sub criteria. What is the likely effect (positive and negative) on...	Evolution of the baseline in the absence of the plan (do nothing)
GREENHOUSE GAS EMISSIONS		
Greenhouse gas emissions	<ul style="list-style-type: none"> • Construction emissions • Transport user emissions • Operational emissions • Carbon sinks⁴ 	<p>In recent years, the UK has been significantly reducing its GHG emissions, but the transport sector remains one of the highest emitting sectors. The future baseline is dependent on how fast emissions can be decoupled from traffic growth. Although the cost of fuel is increasing, the overall cost of motoring has increased far less than public transport, and this trend would accelerate with electrification unless fuel duty is replaced.</p>
NATURAL ENVIRONMENT		
Biodiversity and geodiversity	<ul style="list-style-type: none"> • Protected sites and species (including locally important) • Biodiversity Net Gain and nature-based solutions • Strategic/landscape scale habitats / green infrastructure and connectivity • Direct and indirect (i.e., air quality) effects on habitats and species • Enforcement of the mitigation hierarchy • Long term enhancement and management especially for wider 	<p>Biodiversity has been in decline since the 1970s with the fastest decline in the last decade. The Environment Act will mandate biodiversity net gain and a statutory nature recovery target. The future baseline will be dependent on how effectively (and quickly) these actions are implemented. However, protecting biodiversity is about more than biodiversity net gain.</p>

⁴ an element of the natural environment viewed in terms of its ability to absorb carbon dioxide from the atmosphere (tree planting or wetland creation for example)

Criteria	Sub criteria. What is the likely effect (positive and negative) on...	Evolution of the baseline in the absence of the plan (do nothing)
	<p>ecosystems services and nature recovery (in both rural and urban areas)</p> <ul style="list-style-type: none"> • Climate change resilience of the natural environment. • Woodland and forestry (including ancient woodlands) 	
NEIGHBOURING COMMUNITIES		
Air quality	<ul style="list-style-type: none"> • Emission levels • Air quality in communities living in close proximity to the road and rail network (particularly deprived communities) • Users of the network 	<p>Poor air quality still poses the greatest environmental risk to public health and there are large inequalities in exposure (particularly related to the road network). Exhaust emissions have declined and will continue to decline with the electrification of the fleet. However, there is uncertainty around possible future levels of non-exhaust emissions (which will not decline with the electrification of the fleet). They could remain high and increase in line with traffic demand.</p>
Climate change resilience (including flooding)	<ul style="list-style-type: none"> • Climate change resilience of national networks • Climate change resilience of neighbouring communities 	<p>The UK is anticipated to experience hotter, drier summers; warmer, wetter winters; and rising sea levels. Current and new infrastructure will be under threat from these (and other) climate risks.</p>
Community impacts and accessibility	<ul style="list-style-type: none"> • Access to NN by different groups (by income / deprivation, rural / urban plus vulnerable / disabled users) 	<p>It is difficult to predict what is likely to happen in the future in relation to accessibility, health inequalities, active travel and severance. Without concerted action on a number of fronts barriers to accessibility will remain, particularly for certain groups.</p>

Criteria	Sub criteria. What is the likely effect (positive and negative) on...	Evolution of the baseline in the absence of the plan (do nothing)
	<ul style="list-style-type: none"> • Severance of communities • Health inequalities, access to public transport and active travel • Active travel and connectivity to greenspaces. 	
Heritage	<ul style="list-style-type: none"> • Direct effects on heritage assets • Indirect effects on setting • Reducing Assets at Risk 	Designated heritage assets benefit from protection that will continue without the NNNPS.
Landscape and townscape	<ul style="list-style-type: none"> • Protected landscapes (and their settings) • Landscape and townscape quality • Visual amenity (including effects of lighting) and tranquillity 	Designated landscapes benefit from protection that will continue without the NNNPS, and the Government has ambitions to increase the proportion of the country that is protected.
Noise & vibration	<ul style="list-style-type: none"> • Noise and vibration from operation and use of the national networks • Noise and vibration from construction activities 	The amount of people affected by transport (especially road) noise has increased in recent years. Electrification of the vehicle fleet may have a positive impact on vehicle noise. Electric vehicles have quieter propulsion systems, although contact with the road surface will always cause some level of noise that may need to be mitigated. Noise also has impacts upon wildlife.

ECONOMICS		
Critical infrastructure and security	<ul style="list-style-type: none"> • Resilience of the national networks to current and future threats 	The world is facing a number of security threats ranging from climate change, international terrorism and action from hostile states. These threats are only going to increase (and evolve) in the future.
Macro-economic impact	<ul style="list-style-type: none"> • Contribution of national networks to macro-economic performance • Economic costs of delivering infrastructure • Congestion and reliability 	Economic forecasts are uncertain as the country emerges from the COVID-19 pandemic. However, national networks will continue to play a critical role in national and local economic prosperity by connecting businesses and people and enabling employment and productivity growth.
Levelling up (regional inequalities)	<ul style="list-style-type: none"> • Access to jobs and social infrastructure • Access to suppliers and markets • Social mobility 	Access to opportunities could improve as the Government implements its levelling up agenda. Investment in transport will be a key pillar for delivering this.
RESOURCES		
Circular economy	<ul style="list-style-type: none"> • Use of natural resources (including for maintenance) • Waste generation and disposal/management 	Good design should ensure that circular economy principles are embedded into design, construction and maintenance of national networks in the future.
Water resources	<ul style="list-style-type: none"> • Surface and groundwater quality • Water use 	The negative impact of transport networks on water quality has been increasing.
Soil, land, minerals & agriculture	<ul style="list-style-type: none"> • Quality of agricultural land • Quality of quantity of topsoil • Development on brownfield and greenfield sites • Effects on mineral sites 	Soils, minerals and land resources in England are likely to continue facing similar threats in the past (and these will be magnified by climate change).

TRANSPORT USERS		
User experience	<ul style="list-style-type: none"> • Journey time reliability • Journey times • User experience • Cost of travel 	<p>Prior to the pandemic, the average delay on the SRN was increasing year on year and this is likely to continue and will have a negative effect on road user experience.</p> <p>There is a trend of increasing cost to users of road (through fuel prices) and rail networks, and this is likely to continue. However, although the cost of fuel is increasing, the overall cost of motoring has increased far less than public transport, and this trend would accelerate with electrification unless fuel duty is replaced. Cuts in funding for public transport are reducing services and leading to a modal shift towards driving, with this trend expected to accelerate if funding is further cut.</p>
Safety	<ul style="list-style-type: none"> • Safety of NN users • Safety of members of public crossing NN/neighbouring communities • Safety of transport operatives 	<p>Trends in safety have fluctuated but remain consistent without any significant improvement in safety since 2012.</p>

5. RESULTS OF THE AOS: ASSESSMENT

5.1 How the AoS has influenced the NNNPS

The AoS was undertaken alongside development of the Draft NNNPS. The AoS, HRA and DfT team responsible for the development of the NNNPS held regular meetings.

Assessment work included reviews of Draft NNNPSs against the AoS framework. Key amendments included:

- Stronger references to future species or habitat targets;
- Reframing the biodiversity mitigation section;
- Strengthened requirements for air quality assessments, and a requirement for refusal of consent 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;
- Strengthened requirements for applicants to work with relevant authorities to avoid breach of air quality limits or objectives;
- Stronger requirements for applicants to provide evidence that new severance issues (relating to non-motorised users) have been addressed;
- Strengthened requirements for applicants to consider whether prior extraction of minerals would be appropriate; and
- A recognition that soils are important carbon sinks.

5.2 Reasons for the selection of the preferred approach

The Governments vision on transport development moves towards using investment to tackle specific issues. As such, the alternative scenarios are not vastly different in their approach to how issues and investment are prioritised.

Different issues need to be balanced at different locations on the National Networks; an approach which supports this flexibility will help promote sustainable growth.

5.3 Results of the assessment

Appendix 3 presents results of the consultation draft NNNPS and reasonable alternatives. Table 5.1 presents a summary on the significant and uncertain effects identified, along with recommended mitigation measures.

Uncertain effects have mitigation recommended to reduce uncertainty and the potential to produce a significant negative effect.

Table 5-1: AoS assessment results

Potential effects	Mitigation measures recommended
<p>Greenhouse Gas Emissions</p> <p>Uncertain effect on greenhouse gas emissions from construction and maintenance activities (Road, Rail and SFRIs) – this relates to Draft NNNPS / Alternative 1 / Alternative 2.</p>	<p>All new SRN, rail and SFRIs could be required to ensure they can be delivered without impacting on ability to meet net zero GHG emissions at a network/investment programme level.</p>
<p>Greenhouse Gas Emissions</p> <p>Uncertain effect on greenhouse gas emissions from road users due to investment in road infrastructure (Operation) – this relates to Draft NNNPS / Alternative 1 / Alternative 2.</p>	<p>All new SRN, rail and SFRIs could be required to ensure they can be delivered without impacting on ability to meet net zero GHG emissions at a network/investment programme level.</p>
<p>Greenhouse Gas Emissions</p> <p>Uncertain effect on greenhouse gas emissions from railways – this relates to Draft NNNPS / Alternative 1 / Alternative 2.</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>
<p>Air Emissions</p> <p>Uncertain effect on direct emissions to air from railways – this relates to Draft NNNPS / Alternative 1 / Alternative 2.</p>	<p>The NNNPS could include a commitment that all new rail development will be electric, prioritising electrifying the network around new SFRIs.</p>

Potential effects	Mitigation measures recommended
	The NNNPS could include a consideration of mitigation measures for non-exhaust emissions via train management measures including speed control, minimising breaking, etc.
<p>Macro – Economic Impacts Significant positive effect on economic contribution of road investment – this relates to Draft NNNPS / Alternative 2.</p>	Not applicable
<p>Macro – Economic Impacts Significant positive effect on economic contribution of rail and SRFI investment – this relates to Draft NNNPS / Alternative 2.</p>	Not applicable
<p>User Experience Significant positive effect on improved user experience (including congestion) on the SRN and Rail Network (operation) – this relates to Draft NNNPS / Alternative 1 / Alternative 2.</p>	Not applicable
<p>Safety Significant positive effect on operational road, rail SRFI safety improvements delivered through new schemes upgrades. Effects on users, communities and transport operatives – this relates to Draft NNNPS / Alternative 1 / Alternative 2.</p>	Require applicants to have included consideration of how technology can improve the safety of network users (enhancement measure)

6. MONITORING

Significant environmental effects of plans require monitoring to:

- Monitor the significant effects of the NNNPS;
- Track whether the NNNPS has had any unforeseen effects; and
- Ensure action can be taken to reduce/offset the significant effects of the NNNPS.

Draft monitoring requirements for uncertain and significant effects are outlined in Table 6.1. Monitoring should include predicted effects and monitoring of effects during construction and operation of NSIPs. It should also provide monitoring of the overall effects of NSIPs delivered under the NNNPS.

Table 6.1: Monitoring of the significant and uncertain effects of the NNNPS

Significant negative and uncertain effects identified	Monitoring required
<p>Greenhouse Gas Emissions Uncertain effect on greenhouse gas emissions from construction and maintenance activities (Road, Rail and SFRIs) – this relates to Draft NNNPS / Alternative 1 / Alternative 2.</p>	<p>Emissions associated with construction phases on individual NSIPs, and over the network.</p>
<p>Greenhouse Gas Emissions Uncertain effect on greenhouse gas emissions from road users due to investment in road infrastructure (Operation) – this relates to Draft NNNPS / Alternative 1 / Alternative 2.</p>	<p>Emissions associated with operational phases on individual NSIPs, and over the network.</p>
<p>Greenhouse Gas Emissions Uncertain effect on greenhouse gas emissions from railways – this relates to Draft NNNPS / Alternative 1 / Alternative 2.</p>	<p>Emissions associated with operational phases on individual NSIPs, and over the network.</p>

Significant negative and uncertain effects identified	Monitoring required
<p>Air Emissions Uncertain effect on direct emissions to air from railways – this relates to Draft NNNPS / Alternative 1 / Alternative 2.</p>	<p>Emissions associated with operational phases on individual NSIPs</p>
<p>Macro – Economic Impacts Significant positive effect on economic contribution of road investment – this relates to Draft NNNPS / Alternative 2.</p>	<p>Macro level impacts of road investment delivered under the NNNPS</p>
<p>Macro – Economic Impacts Significant positive effect on economic contribution of rail and SRFI investment – this relates to Draft NNNPS / Alternative 2.</p>	<p>Macro level impacts of road investment delivered under the NNNPS</p>
<p>User Experience Significant positive effect on improved user experience (including congestion) on the SRN and Rail Network (operation) – this relates to Draft NNNPS / Alternative 1 / Alternative 2.</p>	<p>Monitoring of user experience/satisfaction before and after implementation of NSIPs</p>

7. NEXT STEPS

After the NNNPS is designated, an AoS adoption statement will be published. Soon after adoption, a statement will be published outlining the following:

- How environmental considerations have been integrated into the planning;
- How the AoS report has been taken into account;
- How opinions expressed in response to consultation have been accounted for;
- Rationale for choosing the NNNPS adopted; and
- Measures undertaken to monitor the significant environmental effects of the implementation of the NNNPS.