A9 Dualling Programme

Strategic Environmental Assessment (SEA)

Post Adoption SEA Statement

September 2014

A9 Dualling Programme

Strategic Environmental Assessment

SEA Statement

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Transport Scotland

September 2014

TRANSPORT SCOTLAND

A9 DUALLING PERTH TO INVERNESS

Halcrow
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Document history

A9 Dualling Programme

Strategic Environmental Assessment (SEA)

SEA Statement

Transport Scotland

This document has been issued and amended as follows:

Version	Date	Description	Created by	Verified by	Approved by
1.0	June 2014	Preliminary Draft	J Fox	J Fox	
1.1	July 2014	Discussion Draft	J Fox	J Fox	
1.2	September 2014	Final	J Fox	J Fox	L Hill

Limitations

Halcrow Group Ltd has been instructed to provide a Strategic Environmental Assessment (SEA) of the A9 Dualling Programme on behalf of Transport Scotland.

The assessment is based on the information that has been made available at the time of publication and this SEA Statement is presented as the final output of the SEA process. Any subsequent additional information arising during A9 dualling public consultations may require revision or refinement of the conclusions.

It should be noted that:

- The findings within this report represent the professional opinion of experienced environmental scientists, sustainability consultants and other specialists. Halcrow does not provide legal advice and the advice of lawyers may also be required.

- All work carried out in preparing this report has utilised and is based upon Halcrow's professional knowledge and understanding of current relevant European Union, UK and Scottish standards and codes, technology and legislation. Changes in this legislation and guidance may occur at any time in the future and may cause any conclusions to become inappropriate or incorrect. Halcrow does not accept responsibility for advising of the facts or implications of any such changes.

- This report has been prepared using factual information contained in maps, documents and data prepared by others. No responsibility can be accepted by Halcrow for the accuracy of such information. All maps, illustrations and other sources of data are credited where appropriate.

- Every endeavour has been made to identify data sources, where appropriate.

- This report represents the independent views and recommendations of the consultants conducting the analysis, and may not necessarily reflect the opinions held by Transport Scotland.

SEA Statement – Cover Note

PART 1	
To:	**SEA.gateway@scotland.gsi.gov.uk**
PART 2	
This document (referred to here as the SEA statement) has been prepared in accordance with Section 18 of the Environmental Assessment (Scotland) Act 2005.	
An SEA statement is attached for the PPS entitled:	**A9 Dualling Programme**
The Responsible Authority is:	**Transport Scotland**
Adopted:	**March 2014**
PART 3	
Contact Name:	**Yvette Sheppard**
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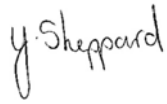
Signature:	
Date:	**September 2014**
AVAILABILITY OF DOCUMENTS	
WEBSITE The full range of A9 Dualling Programme documents, including the Environmental Report and SEA Statement are available on Transport Scotland's website at:	
http://www.transportscotland.gov.uk/road/a9-dualling/a9-dualling-document-library	
OFFICE ADDRESS The full range of A9 Dualling Programme Strategic Environmental Assessment documents may also be inspected free of charge (or a copy obtained for a reasonable charge) at the principal office of the Responsible Authority:	**Transport Scotland Buchanan House 58 Port Dundas Road Glasgow G4 0HF**
Contact name and telephone number:	**Yvette Sheppard 0141 272 7954**
Times at which the documents may be inspected or a copy obtained:	**Tuesday – Thursday, 10am – 4pm**

A9 Dualling Programme SEA Statement – Key Facts

Responsible Authority	Transport Scotland – MTRIPS Directorate
PPS Title	A9 Dualling Programme
What prompted the PPS	Commitment to complete A9 dualling by 2025 made through the Government's Infrastructure Investment Plan, December 2011
PPS Subject	Transport Infrastructure
Period covered by PPS	Delivery programme to target completion by 2025
Frequency of updates	Live programme – ongoing review
Area covered by PPS	The A9 corridor between Perth and Inverness
Purpose and/ or objectives of PPS	The A9 Dualling Programme aims to: 1. Improve the operational performance of the A9 by: – Reducing journey times – Improving journey time reliability 2. Improve safety for motorised and non-motorised users by: – Reducing accident severity – Reducing driver stress 3. Facilitate active travel in the corridor 4. Improve integration with Public Transport Facilities 5. Deliver completion by 2025
Contact points	Yvette Sheppard Transport Scotland, Environment & Sustainability Manager Tel: 0141 272 7956 Email: A9dualling@transportscotland.gsi.gov.uk John Fox, Halcrow (CH2M HILL), SEA Technical Lead Tel: 0141 404 2090 Email: john.fox@ch2m.com

A9 Dualling Programme
Strategic Environmental Assessment Statement

This Strategic Environmental Assessment (SEA) Statement sets out how the findings of the SEA of the A9 Dualling Programme have been considered, and how views expressed during the consultation period have been taken into account in the consideration of route-wide, strategic issues to inform the selection of a preferred corridor for dualling.

The SEA Statement is a statutory requirement under the Environmental Assessment (Scotland) Act 2005.

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1 Introduction

The A9 is the main north-south trunk road between Perth and Inverness (and beyond), vital to the economy and communities of the north of Scotland. In December 2011, the Cabinet Secretary for Infrastructure and Capital Investment launched the Scottish Government's Infrastructure Investment Plan (IIP) which included a commitment to complete A9 dualling, between Perth and Inverness, by 2025. Transport Scotland has begun the public engagement, consultation and design work required to ensure that the relevant statutory processes and permissions are completed, to enable delivery of design and construction projects within a 2025 programme timeframe.

The A9 Dualling Programme (Perth to Inverness) has therefore been subject to a process of Strategic Environmental Assessment (SEA), as required under the Environmental Assessment (Scotland) Act 2005, including the following activities:

- SEA Scoping – taking into account the views of the Scottish Environment Protection Agency, Scottish Natural Heritage, Scottish Ministers (Historic Scotland), the Cairngorms National Park Authority, Forestry Commission Scotland, Perth and Kinross Council, The Highland Council (and others) regarding the scope and level of detail that was appropriate for the SEA Environmental Report;
    - established that SEA would provide the environmental component of a Design Manual for Roads and Bridges (DMRB) Stage 1 dualling corridor options assessment and selection process;
    - developed a route-wide 2D/ 3D GIS Viewer to enable the effective collation of a wide range of baseline datasets and analysis of alternative corridor options;
- Preparing an Environmental Report which considered the likely significant environmental effects of each alternative A9 dualling corridor option through:
    - identification, collation and GIS extract analyses of baseline constraints data relating to the current state of the environment in the area between Perth and Inverness;
    - consideration of links between the A9 dualling programme and other relevant plans, programmes and strategies (PPS) and environmental protection objectives;
    - effective consultation and workshops with stakeholders;
    - identifying where A9 dualling could provide positive environmental outcomes;
    - identification of key themes for the development of strategic principles for adoption through later A9 dualling design phases for the prevention, reduction and offsetting of significant adverse effects;
    - predicting likely environmental issues affecting each dualling corridor option and documenting reasons for selecting or removing each alternative.
- Consulting on the Environmental Report, followed by the production of an Environmental Report Addendum which included:
    - parallel strategic study reports including Habitats Regulations Appraisal and Programme Level Appropriate Assessment, Strategic Flood Risk Assessment, Strategic Landscape Review and View from the Road studies;
    - summaries of developing route strategies/ decision support hierarchies on junctions and layby positioning and non-motorised user issues;
    - corrections, clarifications and additions to the Environmental Report.

- Taking into account the results of SEA, and wider public consultations, in making final decisions regarding the preferred corridor for A9 Dualling.
- Committing to further detailed consideration of significant environmental effects through the next DMRB design and environmental assessment stages (DMRB Stage 2, route alignment options and Stage 3, preferred alignment design), associated with the implementation of the A9 Dualling Programme.

Once a plan/ programme/ strategy (PPS) has been adopted, the Responsible Authority has to prepare a SEA Statement (often referred to as a 'Post Adoption Statement'). The SEA Statement is designed to improve the transparency of the decision making processes within PPS.

1.1 Approach to the A9 Dualling Programme SEA

The A9 Dualling Programme SEA was designed to inform comparisons between alternative route-wide dualling corridor options. An innovative 'constraints-led' approach was introduced, using a wide range of Geographical Information Systems (GIS) datasets obtained from a number of organisations holding relevant information.

This SEA did not follow the more typical 'objectives-led' approach as, given the length of the route and the wide range of environmental constraints in the area, it was determined that a comparison of spatially referenced constraints within each alternative option boundary would be more useful and relevant to decision making.

The SEA work was carried out in parallel with the Preliminary Engineering Services (PES) work, which considered engineering, access and design standard requirements, whilst the SEA work considered environmental constraint issues within each alternative dualling corridor option.

The combined outputs are considered equivalent to the first stage of assessment required by the Design Manual for Roads and Bridges (DMRB), which is the UK standard for road design/ options development and assessment.

DMRB promotes three distinct levels of development and assessment, which in the context of the A9 Dualling are:

Stage 1 – development and consideration of alternative corridor options, resulting in the selection of a preferred corridor;

Stage 2 – development and consideration of alternative route alignment options within the preferred corridor, resulting in the selection of a preferred alignment;

Stage 3 – design and environmental assessment of the preferred alignment and other required features (eg. junctions, structures, etc.) to a level of detail suitable for statutory processes.

SEA and PES assessments met the DMRB Stage 1 requirements, supporting the formal selection of a 200 metre wide online dualling corridor (i.e. 100m either side of the existing A9 trunk road carriageway). This online corridor should be understood as a 'soft' boundary for further more detailed study and DMRB Stage 2 dualling alignment options development.

The SEA and PES assessments also helped identify those sections of the route which are less constrained than others and could therefore potentially be brought to construction earlier, compared with those sections which are more constrained and may require longer assessment and consultation timescales through the DMRB Stage 2 and Stage 3 processes.

1.2 Purpose of the SEA Statement

This Statement is the last formal output of the A9 Dualling Programme SEA process. It outlines how the assessment findings and the comments received through consultation, on the dualling programme and the Environmental Report (and Addendum), have been taken into account.

The SEA Statement is an important public document, demonstrating transparency on the iterative and coordinated development of the dualling programme and the SEA, and drawing the strategic process to a close. The Environmental Assessment (Scotland) Act 2005 requires that the SEA Statement contains the principal elements shown in Table 1.1.

Table 1.1 Requirements for the SEA Statement

Requirements of the Act	Where addressed in this statement?
Describe how environmental considerations have been integrated into the PPS	Section 2, Table 2.1
Describe how the Environmental Report has been taken into account	Section 2, Table 2.1
Describe how the opinions expressed on the Environmental Report during consultation have been taken into account	Section 3
Set out the reasons for choosing the PPS as adopted in the light of other reasonable alternatives considered	Section 4
The measures that are to be taken to monitor the significant environmental effects of implementing the PPS	Section 6
Describe how the results of any transboundary consultations have been taken into account	Not applicable

2 How environmental considerations were integrated into the SEA and the A9 Dualling Programme

This section of the SEA Statement provides an overview on where the SEA process has addressed and documented the range of environmental issues considered as appropriate at the strategic programme level. A range of formal SEA and supporting strategic study outputs have been produced, including:

- SEA Scoping Report;
- SEA Environmental Report (ER);
- Preliminary Engineering Services (PES) Broad Alternative Options Sifting Report;
- SEA Environmental Report Addendum (ER Add);
- Habitats Regulations Appraisal (HRA) Screening Report and Programme level Appropriate Assessment (AA) Report;
- Strategic Landscape Review Report and View from the Road Appendix;
- Strategic Flood Risk Assessment (SFRA) Scoping Report and SFRA Report;
- PES Corridor Options Assessment Report; and
- this SEA Statement.

Each of these reporting documents, and their associated appendices, are briefly described in Table 2.1 below. They can be accessed online from Transport Scotland's A9 Dualling Programme website at: http://www.transportscotland.gov.uk/road/a9-dualling/a9-dualling-document-library

In addition to the SEA outputs, the Preliminary Engineering Services (PES) 'DMRB Stage 1 Report' is also available to download from the same Weblink.

The overarching outcome of the strategic work noted is a fully documented evidence base to inform the selection of a preferred corridor for A9 dualling. Table 2.1 lists the various stages and outputs of the SEA process, including the supporting strategic studies undertaken, identifying where particular issues have been considered.

This summary supports transparency in decision making by documenting where further, more detailed information can be found. It is also expected to act as a quick reference source for future DMRB design and environmental assessment teams.

Table 2.1 How environmental considerations have been integrated into the SEA and the A9 Dualling Programme

Environmental issues considered through the A9 Dualling Programme SEA	Which SEA stage/ output?	How SEA outputs have been/ will be integrated into the A9 Dualling Programme?
SEA Scoping Stage		
Review of wide range of other PPS to identify key environmental protection/ policy themes for A9 Dualling, against each SEA topic.	Scoping Report Appendix A	Demonstrates the policy context for A9 dualling, including a review of the Strategic Transport Projects Review (2008) and it's SEA, as well as the Scottish Government's Infrastructure Investment Plan (2011) and other relevant PPS. Initially informed a range of SEA topic related questions for a preliminary scoping stage assessment of 3x theoretical dualling options (1. Full online dualling, 2. Online with flexibility to deviate around constraints (i.e. online with near offline flexibility) and 3. Alternative route/ full offline dualling).
GIS constraint mapping – baseline constraints data collation within 1km either side of the existing A9 trunk road. Baseline summary tables – grouping constraints against seven distinct sections along the route and each SEA topic.	Scoping Report Appendix B Appendix C	Number of baseline study sections changed to six in the Environmental Report to match study section boundaries for broad alternative corridor options developed by the PES team. Resulted in ongoing collation of an environmental constraints 'databank' for future use across later A9 Dualling DMRB design and assessment stages.
Workshop with SEPA, SNH, Historic Scotland, Cairngorms National Park Authority, Local Authorities and Forestry Commission Scotland.	During Scoping stage	Early engagement with key consultees to help inform the development of an initial 'long list' of issues for SEA consideration.
Long list of road construction related issues developed, grouped and considered against each SEA topic.	Scoping Report Appendix D	List reviewed to determine which issues were strategic (eg. applied at a route-wide level) and those that were more project related/ applicable at the local level. Strategic issues identified at Scoping stage were carried through to the next stage for more detailed assessment.
Preliminary strategic options assessment – high level assessment of 3x theoretical options: 1. Full online dualling, 2. Online with flexibility to deviate around constraints (i.e. online with near offline flexibility), 3. Alternative route/ full offline dualling.	Scoping Report Appendix E	Preliminary assessment against a Business as Usual scenario and 45 questions/ strategic themes developed following PPS review, GIS constraints mapping and issues identification. Early indication that Strategic Option 2 (Online with near offline flexibility) would be likely to perform most favourably in an environmental context.
Habitats Regulations Appraisal (HRA) Screening Report Identified Natura and Ramsar sites within 5km either side of the existing A9 trunk road, as well as additional sites identified by SNH for consideration, due to potential hydrological or ecological connectivity.	Submitted to SNH with SEA Scoping Report	Considered potential pressures associated with A9 dualling to assess the risk of Likely Significant Effects (LSE) on each qualifying interest feature of each Natura/ Ramsar site to seek SNH's advice on whether an Appropriate Assessment (AA) was required at the strategic, Programme level, or whether such further consideration would be more appropriate at later DMRB design and assessment stages. A strategic, Programme level AA was recommended and undertaken.

Environmental issues considered through the A9 Dualling Programme SEA	Which SEA stage/ output?	How SEA outputs have been/ will be integrated into the A9 Dualling Programme?
Development of a 2D/ 3D GIS viewer tool. Tool developed to support desk based analyses of constraints within alternative corridor option boundaries.	Developed post-Scoping to inform the range of Environmental Report option sifting analyses, constraints analyses and stakeholder workshops	Enabled visual representation of alternative corridor options and constraint issues at any point along the route, as well as data extracts on the range of GIS datasets, providing high level quantification of the surface area of any feature potentially at risk within any particular corridor option. Also used at public exhibitions to support local community consultation.
Environmental Report Stage		
Updates and revisions to PPS review.	Environmental Report Appendix A	Additional range of PPS were considered and documented in the Environmental Report following Consultation Authority feedback on the SEA Scoping Report.
Responses to Consultation Authority feedback on SEA Scoping Report.	Environmental Report Appendix B	Provides a full record on how the Environmental Report addressed specific comments, or provides a justification as to why particular issues were not addressed.
Technical paper on assigning significance for each SEA topic assessment – Scoping feedback requested more detail on how the SEA would assign significance in assessments to ensure compliance with the Environmental Assessment (Scotland) Act 2005.	Prepared in response to Consultation Authority request	Technical paper outlined the approach to the assessment of significance through the Environmental Report and Detailed Assessment Matrices (DAMs); the paper content was included as the introduction to the DAMs (Appendix C) to the Environmental Report.
Updated and additional GIS constraints mapping – revised to match the six PES study sections A-F.	Environmental Report Section 3 Environmental Report Appendix D	Ensured consistency in spatial referencing between the SEA environmental and PES engineering assessments of each alternative corridor option.
Preliminary sifting of broad alternative corridor options. SEA input to sifting assessment for online and offline options across each of the six PES study sections (labelled A-F). GIS constraints based assessment, comparing relative levels of constraint within each alternative corridor boundary.	Environmental Report Section 4 PES Broad Alternative Options Sifting Report provided as Environmental Report Appendix E	All offline options removed from further consideration in Sections A, C, D, E and F due to a range of environmental/ engineering constraint issues – included consideration and removal of tunnel options in Sections D and E – resulting in online corridor selection for those sections. 3x offline options retained for further consideration in Section B (Tay Crossing to Pitagowan area), as well as the online option – retained options labelled as B1 (online) and offline options as B2, B4 and B5.
SEA constraints assessment for online options across sections A-F, as well as offline options B2, B4 and B5. Assessment for online options and offline option B4 recorded via Detailed Assessment Matrices. Offline options B2 and B5 discussed in detail through the Environmental Report.	Environmental Report Sections 4 and 5 Detailed Assessment Matrices Environmental Report Appendix C	Each retained option considered as 200m-wide corridors, with SEA constraints assessment using GIS data extracts to quantify and compare the relative levels of environmental constraint and to highlight key environmental issues and risks within option boundaries. Resulted in SEA recommendations to remove offline options B2 and B4 from further consideration – offline option B5 was recommended for further PES consideration as a potentially viable local alternative to the online option.

Environmental issues considered through the A9 Dualling Programme SEA	Which SEA stage/ output?	How SEA outputs have been/ will be integrated into the A9 Dualling Programme?
Detailed discussion of environmental constraints and issues, grouped by 'scoped in' SEA topic headings:	Environmental Report Section 5	Discussion of each SEA topic highlighted a range of potential issues, benefits, tensions and opportunities associated with A9 dualling. SEA recommended that future DMRB design stages secure early consultation with the relevant parties required to address conflicting issues and secure agreement on the most pragmatic solutions. Transport Scotland have initiated an A9 Dualling Environmental Steering Group to provide a mechanism for cross-party discussion of such issues.
– Material Assets Discussed the physical infrastructure issues associated with A9 dualling, such as junctions, accesses, structures, cuttings, laybys, lighting, walls/ fencing/ barriers, signage, drainage, material resources, carbon and climate change resilience, highlighting the cross-cutting linkages with other SEA topics.	Environmental Report Section 5.2	Recognised potential tensions between issues such as fencing and barriers as benefitting human safety but potentially impacting species mobility, or where SuDS provision benefits water quality and species mobility but requires additional land take. Made recommendations for the development of a range of strategic principles for later DMRB design and assessment stages, such that the development of design options embedded the environmental principles of avoidance and minimisation of environmental impacts as the primary approach to mitigation.
– Population & Human Health Discussed the range of potential benefits and issues related to improving road safety, access to the A9 for local residents and communities, access to public transport, recreation, DDA compliance and non-motorised user (NMU) routes.	Environmental Report Section 5.3	Made recommendations for the development of a range of strategic principles for later DMRB design and assessment stages, such that the development of design options embedded the environmental principles of avoidance and minimisation of environmental impacts when considering the rationalisation of direct accesses and NMU routes and the related provision of alternative/ collector routes to direct users to new junctions or crossing locations.
– Landscape Discussed strategic landscape issues associated with dualling within the Cairngorms National Park, three National Scenic Areas and a variety of landscape character types. Presented discussion on the interim findings of a related route-wide strategic study – Strategic Landscape Review (SLR) and View from the Road Report – which was under development at the time, including the early identification of potential opportunity sites to improve the view from the road, or provide better stopping facilities for tourists/ recreational users.	Environmental Report Section 5.4	Made recommendations for the development of a range of strategic principles for later DMRB design and assessment stages, such that the development of design options embedded landscape considerations and opportunities at the earliest possible stages. Highlighted that the SLR work was being developed in consultation with SNH and the Cairngorms National Park Authority to provide a more detailed review of landscape issues and provide further recommendations.
– Historic Environment Used GIS analyses to identify historic environment features within the range of option boundaries, including Scheduled Monuments, Listed Buildings, Gardens and Designed Landscapes, Battlefields and Conservation Areas.	Environmental Report Section 5.5	Highlighted that unscheduled archaeology was not considered at the SEA level and should be included at later DMRB design stages in consultation with Local Authority archaeologists. Made recommendations for the development of a range of strategic principles for later DMRB design and assessment stages, such that the development of design options includes effective consideration of historic environment features/ issues at the earliest possible stages.

Environmental issues considered through the A9 Dualling Programme SEA	Which SEA stage/ output?	How SEA outputs have been/ will be integrated into the A9 Dualling Programme?
– Biodiversity, Flora & Fauna Used GIS analyses to identify where option boundaries crossed, or were in proximity to, designated nature conservation sites including Ramsar, Natura, SSSIs, National Nature Reserves and Ancient Woodland Inventory sites. Presented discussion on the interim findings of a related route-wide strategic study – Habitats Regulations Appraisal (HRA) and Appropriate Assessment (AA) – which was under development at the time. Also included discussion of species mobility/ barrier effect issues and opportunities for improving permeability across the dualled route.	Environmental Report Section 5.6	Recognised that future DMRB design and assessment stages will require and be informed by local ecological surveys and more detailed ecological impact assessment and project level HRA/ AA. Recognised that dualling could incrementally affect a range of Ancient Woodland areas along the route, which could present a cumulatively significant impact. Recognised that dualling could present incremental benefits for species permeability and surface water discharge quality, associated with new drainage provisions and structures under the dualled route. Made recommendations for the development of a range of strategic principles for later DMRB design and assessment stages, such that the development of design options embedded the environmental principles of avoidance and minimisation of impacts as the primary approach to mitigation.
– Soil Used GIS analyses to identify areas of peat and productive agricultural soils within option boundaries, as well as important geodiversity sites including Geological SSSIs and Geological Conservation Review (GCR) sites.	Environmental Report Section 5.7	Made recommendations for the development of a range of strategic principles for later DMRB design and assessment stages, such that the development of design options includes effective consideration of sustainable soil management and protected geodiversity site issues at the earliest possible stages.
– Water Used GIS analyses to identify watercourse crossings, areas within SEPA 1:200 year flood risk zones and areas identified as wetland habitat on SEPA's wetland inventory within option boundaries. Presented discussion on the interim findings of a related route-wide strategic study – Strategic Flood Risk Assessment (SFRA) – which was under development at the time.	Environmental Report Section 5.8	Made recommendations for the development of a range of strategic principles for later DMRB design and assessment stages, such that the development of design options includes early and effective consideration of sustainable flood risk management, water quality wetland habitat and sustainable drainage issues. Highlighted that the SFRA work was being developed in consultation with SEPA to provide a more detailed review of flood risk issues along the route and provide further recommendations.
Summary of key findings, presented by SEA topic.	Environmental Report Section 6.1	Key findings from SEA analyses, in terms of significant environmental effects and any potential benefits associated with A9 dualling, discussed under previous ER sections, collated and presented together. Also signposted more detailed local surveys, studies and consultation required to inform later DMRB design and assessment stages.
SEA recommendations for the A9 Dualling Programme. Potential early implementation scheme options. SEA identified the areas of least constraint along the route, which therefore have potential to be developed in a shorter timescale and, as a consequence, might be brought to construction earlier in the dualling programme. SEA noted that these sections are not constraint free, but are considered likely to present fewer environmental issues in terms of Natura sites, SSSI and flooding.	Environmental Report Section 6.3	– SEA Section D, from Dalwhinnie north to Crubenmore dual carriageway outwith Drumochter Hills designations, River Spey SAC runs generally outwith the 200m corridor, potentially significant peat issues. – SEA Section C, from Pitagowan to Glen Garry dual carriageway no international designations, some woodland and minor flood plain in Glen Garry, some historic environment features, key issue is geological SSSI and GCR designations. – SEA Section F, connecting the dual carriageways from Tomatin north past Moy no statutory or international designations, potentially significant wetland and peat issues. Other less constrained sections were identified; however, the three noted above are now being considered as potential early implementation schemes.

Environmental issues considered through the A9 Dualling Programme SEA	Which SEA stage/ output?	How SEA outputs have been/ will be integrated into the A9 Dualling Programme?
SEA recommendations for the A9 Dualling Programme. Areas of higher constraint. SEA identified a number of sections which will need detailed iterative discussions with SNH, SEPA, CNPA and Historic Scotland to determine the most acceptable alignment and engineering solutions. Care will need to be taken to ensure designated site boundaries are included within single construction schemes. These sections should be considered for early design scheduling to enable iterative review, consultations, supporting studies and approvals by relevant bodies, with construction considered later in the delivery programme.	Environmental Report Section 6.3	– SEA Section C, from Glen Garry dual carriageway through Drumochter and onto Dalwhinnie multiple SAC, SPA, SSSI, restricted corridor through the Pass of Drumochter, multiple peat, wetland, protected habitat and species issues. – SEA Section E, from Ruthven past Kingussie to Kincraig heavily designated, multiple SAC, SPA, Ramsar, Nature Reserve, SSSI, flood plain, etc. – SEA Section B around Pitlochry and through Killiecrankie Battlefield SAC, SSSI, woodland and significant historic environment features. – SEA Section E from Dalraddy past Aviemore and Kinveachy to Carrbridge multiple woodland, SAC, SPA, SSSI, Nature Reserve, etc.
Environmental Report Addendum Stage		
An Environmental Report Addendum was produced to address consultation comments received on the ER and to provide a further opportunity for consultation on progress, including: • Clarifying the linkage between route-wide SEA, project-level EIA and the stages of assessment required by the Design Manual for Roads and Bridges (DMRB); • Emerging approach to Junction issues; • Emerging approach to Layby issues; • Emerging approach to NMU issues; • Consideration of cumulative effects (in-combination with Highland Mainline and Beauly-Denny Line projects); • Developing Strategic Environmental Design Principles.	ER Addendum Report and Appendices	This ER Addendum was supported by a number of supplementary documents as Appendices. Each of the appended reports included their own appendices, and each was reviewed by the relevant statutory consultees before finalisation and submission with the ER Addendum, including: • Habitats Regulations Appraisal (HRA)/ Programme-level Appropriate Assessment (AA); • Strategic Landscape Review (SLR); • Strategic Flood Risk Assessment (SFRA); • Preliminary Engineering Services (PES) Corridor Options Assessment Report. Each document helps provide a full audit trail of assessment at the strategic level and transparency in decision making.
Overview of DMRB (Volumes and Stages) Some responses to the ER raised concerns about a perceived gap between the SEA and project level EIA, in terms of how a finalised route alignment is determined, noting that the SEA frequently referred to 'more detailed route alignment studies' when discussing potential mitigation of risks to the environmental constraints identified. The ER Addendum clarified how the findings of the SEA will be taken forward to the next stages of the road design and environmental assessment process, in line with the Design Manual for Roads and Bridges (DMRB).	ER Addendum Section 2	Clarified that the aim of the SEA was to consider the broad corridor options available for dualling the A9 and to identify and collate the range of environmental constraints, issues and opportunities in order to provide strategic design guidance for the later, more detailed DMRB design and environmental assessment stages. The SEA provides the desktop environmental constraint studies required at DMRB Stage 1. Later DMRB Stages 2 and 3 provide further opportunities for consultation with local and statutory stakeholders, to ensure that locally important issues, which may not have been considered at the route-wide SEA scale, can be identified and effectively assessed. In any instance where the local level EIA survey and assessment determines a more significant effect than the corridor level/ route-wide SEA assessment, the EIA will take precedence in informing the detailed design and local mitigation at DMRB Stage 3.

Environmental issues considered through the A9 Dualling Programme SEA	Which SEA stage/ output?	How SEA outputs have been/ will be integrated into the A9 Dualling Programme?
Updates to the Environmental Report (ER) Consultation Feedback – Corrections to the ER Appendix A to the ER Addendum provided a table which addressed each consultee comment individually. Section 3.1 addressed the specific feedback that suggested where corrections to the original Environmental Report may have been required.	ER Addendum Section 3.1 ER Addendum Appendix A	Table 3.1 in Section 3.1 addressed five potential corrections to the Environmental Report and, instead of re-issuing the ER, makes note of which corrections should be applied stating that the ER should be read in the context of/ with reference to the correction noted.
Detailed Assessment Matrices A number of consultation comments referred to the Detailed Assessment Matrices (DAMs), including a request by SNH for DAMS to be completed for offline Options B2 and B5. Other comments on the DAMs focused on the level of significance attributed to certain constraint impacts and residual effects after mitigation.	ER Addendum Section 3.2 ER Addendum Appendix A Appendix B	In response to SNH's request, DAMs were prepared for Options B2 and B5 to provide a complete audit trail. The specific comments on DAMS are noted in ER Addendum Appendix A. The original DAMs were revised to ensure consultation comments were taken on board and the complete set of revised DAMs were provided as ER Addendum Appendix B.
Removal of Offline Corridor Options (in SEA Section B) The SEA ER recommended that offline Options B2 and B4 should be removed from further consideration. However, the ER also noted that Preliminary Engineering work had highlighted that there were a range of engineering constraints along the comparative online (B1) sections, and that further work was required to test whether the online option could be developed, to provide a solution that met standards in terms of safety, before the offline options could be discounted. Preliminary design development work therefore considered the implications of delivering a dualled route, to current design standards on geometric alignment (eg. curve radii/ safe sight distances) within the 200m-wide online corridor.	ER Addendum Section 3.3 ER Addendum Appendix H	The ER Addendum noted that the outcome of preliminary design development work is that viable solutions are available to address the engineering constraint issues within the online corridor option (B1) and that offline Options B2 and B4 could be formally removed from further consideration in the A9 Dualling Programme. Offline Option B5 was also formally removed due to the potential requirement for a new crossing of the River Tay SAC in a presently unaffected location, and likely impacts on Ancient Woodland. A summary report providing detail on the PES assessment of the online/ offline corridors was attached as Appendix H to the ER Addendum.
Updates by SEA Topic This section of the ER Addendum addressed consultation feedback on the individual SEA Topics. For consistency, the Topics were presented in the same order as used in Section 5 of the Environmental Report.	ER Addendum Section 3.4 (subsections 3.4.1 – 3.4.7)	This section of the ER Addendum should be read in conjunction with Sections 5.2 – 5.8 of the Environmental Report by way of providing relevant updates/ clarifications/ context.
Update on PES Studies The Environmental Report (ER) discussed the principles being developed for emerging PES strategic studies on Junctions, Laybys and Non-Motorised User (NMU) issues.	ER Addendum Section 4.1	SNH consultation feedback requested further information on this developing work, particularly with respect to how the SEA would consider the environmental constraints associated with potential junction and layby locations. The Cairngorms National Park Authority wanted more information on how the data they had provided on NMU routes and crossings was going to be used, as they were concerned about rationalisation leading to a reduction in crossing points and the potential for reduced access.

Environmental issues considered through the A9 Dualling Programme SEA	Which SEA stage/ output?	How SEA outputs have been/ will be integrated into the A9 Dualling Programme?
Junction Issues A decision support hierarchy for locating junctions in later stages of A9 design and route option selection was shown in Figure 4.1. PES testing of the hierarchy identified 24 broadly indicative locations where grade separated junctions might be required to connect to A and B class roads. SEA completed an environmental constraints review within a 2km diameter zone around each indicative junction location.	ER Addendum Section 4.1 Figure 4.1 ER Addendum Appendix D	The constraints review tables contain a 'Programme-level Mitigation' column which highlights the type of work required through DMRB Stage 2 and Stage 3 to avoid and minimise any potential adverse effects associated with junction positioning. SNH noted in their ER response that landscape and visual issues would be important considerations for junctions; however, the SEA review could not consider these issues in any detail given that the actual locations are not yet determined. Junction positioning will be examined in detail during the DMRB Stage 2 and Stage3 assessments, when additional information becomes available.
Layby Issues The target A9 dualling design standards will require Type A laybys (with merge tapers) to provide separation from the main carriageway and a decision support hierarchy, developed by the PES team, was shown in Figure 4.5.	ER Addendum Section 4.2 Figure 4.5	Layby positioning at DMRB Stage 2 and Stage 3 will be informed by the Strategic Landscape Review and Habitats Regulations Appraisal, in consultation with SNH, the Cairngorms National Park Authority and Historic Scotland (wherever heritage features are also relevant). Each layby location will be assessed against the decision support hierarchy, on a case-by-case basis, to determine the suitability of any particular location.
Non-Motorised User (NMU) Issues Table 4.4 provided a summary of the NMU crossing provisions (baseline) on the current A9, comprising Core Paths, National Cycle Network routes, and informal routes identified by the PES team in consultation with CNPA, Local Authorities, the British Horse Society and others.	ER Addendum Section 4.3 Table 4.4	NMU crossing principles have been updated since the ER: • There will be no surface crossings of the dualled A9; • At crossings of the dualled A9, NMU routes will be combined where possible; • Junctions and accommodation works underpasses will be utilised, where possible, to provide crossing points; • Over or under road (grade separated) crossing points solely for NMU's will be explored further at DMRB Stage 2. DMRB Stages 2 and 3 will assess these aspects further, in conjunction with environmental constraints, layby and junction provisions, to determine locally appropriate NMU crossing provisions.
Cumulative Effects (A9 – HML – BDL) Highland Mainline (HML) SEA considered that the risk of in-combination/ cumulative effects between A9 dualling and HML improvements is very low, and most likely to be managed via local level best practice construction control measures. Beauly Denny Power Line (BDL) At the strategic programme level, SEA considered that even though the two schemes cross through the Drumochter Hills area, the risk of in-combination/ cumulative effects between BDL and A9 dualling is very low due to the different construction/ completion timescales.	ER Addendum Section 5	The strategic mitigation recommendations were for Transport Scotland to: • ensure that HML and A9 project design teams communicate effectively to inform each other's' design and environmental impact assessments, to minimise any risks; • consult with the BDL team, SNH and SEPA and specifically consider Allt Dubhaig GCR risks/ impacts in the DMRB Stage 3 EIA, with mitigation recommendations on construction level pollution controls in the Drumochter Hills area; • consult with SNH in terms of managing disturbance risks to habitats/ species through the Drumochter Hills area via project level HRA (and SSSI consenting).

Environmental issues considered through the A9 Dualling Programme SEA	Which SEA stage/ output?	How SEA outputs have been/ will be integrated into the A9 Dualling Programme?
Draft Strategic Environmental Design Principles ER discussions on each SEA topic included a list of '*Strategic Considerations*' and Table 6.1 in the ER Addendum developed these further to present a range of draft Strategic Environmental Design Principles, presented under each SEA topic heading.	ER Addendum Section 6 Table 6.1	The draft Principles were developed in discussion with the Consultation Authorities and feedback will be used to refine the Principles further. Strategic Environmental Design Principles will be used to ensure that SEA consideration of strategic issues cascades through to design guidance for later DMRB design stages, EIA, HRA, flood risk and other assessments.
Consultation Responses to the Environmental Report Provides a full record of responses to consultee feedback on the ER, recording where comments have been addressed in the ER Addendum.	ER Addendum Appendix A	Forms a key part of the audit trail on consultation and how feedback on the Environmental Report has been taken into account through the SEA and A9 Dualling Programme.
Detailed Assessment Matrices (Revised) As noted above, the full set of DAMs was revised and completed to include offline options B2 and B5, and to update the assessment of significance and residual environmental effects in accordance with consultee feedback.	ER Addendum Appendix B	Should be read as a reference source for the route-wide assessment of impacts on national/ international level designations/ constraint features. Project/ scheme related environmental assessments should determine and assign their own assessment of impact significance as required at the local level. Additional local level constraints and issues should be identified and assessed separately with reference to DMRB guidance and relevant local consultation.
Revised GIS Mapping (Ancient Woodland Inventory) In their response to the ER, SNH noted some conflict between the datasets defined as '*ancient woodland*' and '*semi-natural ancient woodland*' and they requested clarification on the datasets used. Further discussion with SNH confirmed that two separate datasets had been used, and that the single '*Scottish Ancient Woodland Inventory*' dataset should be used in preference.	ER Addendum Appendix C	The second dataset used was the '*Semi-Natural Woodlands*' dataset also available on the SNH Natural Spaces website. This dataset was inaccurately labelled as 'Semi-Natural *Ancient* Woodland' by the SEA team. This error was corrected, and the relevant GIS constraint maps were updated and provided as Appendix C to the ER Addendum.
Indicative Junction Locations Constraints Review Tables Provides a detailed review of environmental constraints within a 2km diameter study area around each of the 24 indicative junction locations discussed earlier.	ER Addendum Appendix D	The constraints review tables contain a '*Programme-level Mitigation*' column which highlights the type of work required through DMRB Stage 2 and Stage 3 to minimise any potential adverse effects associated with junction positioning. The exercise provides a preliminary environmental constraints checklist, which can be used to inform future DMRB design stages and environmental assessment work.

Environmental issues considered through the A9 Dualling Programme SEA	Which SEA stage/ output?	How SEA outputs have been/ will be integrated into the A9 Dualling Programme?
HRA and Programme-level Appropriate Assessment (AA) Report The HRA Screening Report was provided in conjunction with the SEA Scoping Report (noted above), and SNH feedback confirmed a requirement for a Programme-level Appropriate Assessment (AA) due to the potential for A9 dualling to present Likely Significant Effects (LSE) on a range of Natura/ Ramsar site qualifying interest features. The AA report documented the assessment of each qualifying interest feature for each site, identifying a range of measures including detailed ecological survey requirements, potential exclusion periods, engineering solution options and a commitment to further HRA at the project level that satisfied SNH that, at the strategic programme level, A9 dualling could deliver effective mitigation to avoid Adverse Effects on Site Integrity (AESI).	ER Addendum Appendix E	Shall be used as a key reference source for future DMRB design stage and environmental assessment work, particularly related to project level requirements for more detailed Habitats Regulations Appraisal and related ecological survey requirements. The Appendices to the AA report consider each qualifying interest feature for each individual Natura and Ramsar site along the route, and provide additional checklist/ reference columns to record how each qualifying interest feature/ impact risk has been considered and addressed via DMRB Stage 2 and Stage 3 studies.
Strategic Landscape Review and View from the Road Report A route-wide Landscape Review considering the range of landscape designations and character area types along the A9 corridor, and identifying potential opportunities in terms of key views from the road, the development of strategic landscape principles and landscape and visual design guidance for the A9.	ER Addendum Appendix F	Shall be used as a key reference source for future DMRB design stage and environmental assessment work, particularly related to project level requirements for more detailed Landscape and Visual Impact Assessment and layby positioning to provide access to viewpoints/ interest features/ NMU routes along the route.
Strategic Flood Risk Assessment (SFRA) Report Produced to meet SEPA requirements, the SFRA collates and considers route-wide flood history, identifies key areas of flooding risk to A9 dualling and areas where dualling may have an impact on flooding in other areas. Provides a series of recommendations in terms of designing to meet a 1:200 year (medium flood risk) design standard, and the consideration of sustainable drainage systems (SuDS), watercourse crossings and river geomorphology issues.	ER Addendum Appendix G	Shall be used as a key reference source for future DMRB design stage and environmental assessment work, particularly related to project level requirements for more detailed flood risk assessment/ modelling and drainage considerations, including Sustainable Drainage Systems (SuDS) and consideration of watercourse crossings and geomorphological issues.
PES Corridor Options Assessment Report Report documenting the preliminary engineering design development work undertaken to enable further assessment of the online and offline options in SEA Section B.	ER Addendum Appendix H	Provided to support a clear audit trail on the additional preliminary engineering design work undertaken to inform the decision to formally remove offline corridor options B2, B4 and B5.

3 Taking account of consultation opinions expressed

Throughout each stage of the SEA process, all consultation opinions and comments received have been recorded, and individually addressed, via Appendices to the relevant reporting outputs. Responses to comments on the Environmental Report Addendum are addressed in Appendix A to this Statement. Each consultation response appendix helps provide a fully documented audit trail on how comments have been taken into account throughout the SEA.

Table 3.1 provides an overview on how the SEA engaged the range of statutory and non-statutory consultees who have been involved to date. Readers who require further detail on the opinions expressed/ comments provided should refer to the relevant Appendices (see Table 2.1 above).

Table 3.1 Summary on how consultation opinions were taken into account

Consultee/ respondent	General summary of engagement and comments	How comments were taken into account in PPS adoption
Historic Scotland	Engaged via a number of workshops and meetings throughout each stage of the SEA process. Provided written responses to the SEA Scoping Report, Environmental Report and Environmental Report Addendum. Historic Scotland feedback pertained to the specific areas within their remit as a statutory SEA consultee, including advice on national datasets, risks to heritage assets along the route, and the need for detailed consultation with Local Authority archaeology teams at the next stages of DMRB design and assessment.	Advised and reviewed the SEA and GIS constraints assessments for each alternative dualling corridor option, informing the selection of the preferred online corridor adopted for A9 dualling.
Scottish Environment Protection Agency (SEPA)	Engaged via a number of workshops and meetings throughout each stage of the SEA process. Provided written responses to the SEA Scoping Report, Environmental Report, Environmental Report Addendum and the Strategic Flood Risk Assessment (produced at SEPA's request). SEPA feedback pertained to the specific areas within their remit as a statutory SEA consultee, including advice on national datasets, water quality, drainage and the levels of SuDS treatment required, sustainable flood risk management, application of Controlled Activity Regulations (CAR) and Water Framework Directive (WFD) requirements on watercourse crossings and culverts, river geomorphology and ecological improvement, groundwater dependent terrestrial ecosystems, peat soil management and waste management.	Advised and reviewed the SEA and GIS constraints assessments for each alternative dualling corridor option, informing the selection of the preferred online corridor adopted for A9 dualling.
Scottish Natural Heritage (SNH)	Engaged via a number of workshops and meetings throughout each stage of the SEA process. Provided written responses to the SEA Scoping Report, Environmental Report, Environmental Report Addendum, the Habitats Regulations Appraisal Screening Report and the Programme-level Appropriate Assessment Report. Also engaged through the development and revision of the Strategic Landscape Review Report. SNH feedback pertained to the specific areas within their remit as a statutory SEA consultee, including advice on national datasets, landscape, wildness and wild land, national and internationally designated biodiversity conservation sites, key species issues including wildcat, deer and otter (amongst others), Habitats Regulations Appraisal and Appropriate Assessment requirements, Ancient Woodland, soils, geodiversity and geomorphology, aquatic, wetland and peat ecological issues, as well as issues related to access and recreation.	Advised and reviewed the SEA and GIS constraints assessments for each alternative dualling corridor option, informing the selection of the preferred online corridor adopted for A9 dualling.

Consultee/ respondent	General summary of engagement and comments	How comments were taken into account in PPS adoption
Cairngorms National Park Authority (CNPA)	Engaged via a number of workshops and meetings throughout each stage of the SEA process. Provided written responses to the SEA Environmental Report, Environmental Report Addendum, including feedback on the Programme-level Appropriate Assessment Report. Also engaged through the development and revision of the Strategic Landscape Review Report. CNPA feedback pertained to a range of areas related to their interests for the National Park, including advice on useful datasets held, their policies and concerns on landscape, wildness and wild land, dark skies and lighting, national and internationally designated biodiversity conservation sites and key species issues including wildcat, deer and otter (amongst others) and heritage assets within the Park, as well as stressing the National Park aims, special qualities and duties to support local communities, access and recreation.	No specific advice on the selection of the preferred dualling corridor; however, advice on the range of CNPA issues and duties has been noted and CNPA will remain a principal consultee for future DMRB design and assessment stages.
Forestry Commission Scotland (FCS)	Engaged via a number of workshops and meetings throughout each stage of the SEA process. Provided written response to the SEA Environmental Report. FCS feedback pertained to a range of woodland related issues along the route, including the availability of datasets, national policy on the control of woodland removal, the Scottish Forestry Strategy, landscape aspects, ancient woodland, native woodland, woodland functionality, fragmentation mitigation, compensation, regeneration and management.	No specific advice on the selection of a preferred dualling corridor; however, advice on woodland and landscape issues has been noted and FCS will remain a principal consultee for future DMRB design and assessment stages.
Royal Society for the Protection of Birds (RSPB)	RSPB engaged via A9 dualling public exhibitions and provided written response to the SEA Environmental Report. Advice related to datasets held and offer of support for A9 dualling design and assessment, and a particular request for further detailed engagement on dualling options around the Insh Marshes area where RSPB manage and operate a National Nature Reserve.	No specific advice on the selection of a preferred dualling corridor; however, did express a preference for dualling to the south side of the Spey Crossing at Kingussie. Request for further engagement at the project level has been noted for future DMRB design and assessment stages.
Spey Fisheries Board	Engaged via A9 dualling public exhibitions and provided written response to the SEA Environmental Report. Advice related to issues of protected sites and species issues of concern, including fish survey requirements, avoidance of in-river works during spawning periods and consideration of fish passage in culvert design.	No specific advice on the selection of a preferred dualling corridor; however, fisheries advice has been noted and the Spey Fisheries Board will be consulted further through future DMRB design and assessment stages.
Tayside Geodiversity	Engaged via workshops with SNH to consider geodiversity sites and issues along the route. Advice related to the conservation of, and providing opportunities for safe access to, geodiversity exposures/ features of interest. Provided written response to the ER Addendum and the Strategic Landscape Review – comments noted and addressed in Appendix A to this SEA Statement.	No specific advice on the selection of a preferred dualling corridor, however, advice on geodiversity issues has been noted for future DMRB design and assessment stages.
Local Authorities: Perth & Kinross Council The Highland Council	Engaged via a number of workshops and meetings throughout each stage of the SEA process. No written responses received on SEA documents.	No specific advice to the SEA on the selection of a preferred dualling corridor; however, workshop engagement discussed the range of dualling corridor options being considered and supported the strategic landscape review work on viewpoints, laybys and providing better facilities for route users and visitors.
Regional Transport Partnerships	Engaged via a number of workshops and meetings throughout each stage of the SEA process. No written responses received on SEA documents.	

Consultee/ respondent	General summary of engagement and comments	How comments were taken into account in PPS adoption
General Public	Engaged via a series of A9 dualling public exhibitions and opportunities to respond to the statutory consultations on the SEA Environmental Report and Environmental Report Addendum. Written responses to the Environmental Report were collated and addressed via the ER Addendum Appendix A. No written responses received on the ER Addendum.	Particular feedback informed the collation of flood history evidence which supported the decision to remove offline option B2.
EU Member States	Not applicable	Not applicable

3.1 Specific Comments on the ER Addendum

As noted above, Appendix A to this Statement addresses each of the consultation feedback comments received on the Environmental Report Addendum.

Table 3.2 makes specific note of those comments which highlight potential corrections to the ER Addendum, or which require a response to be recorded through the main body of this Statement.

Table 3.2 Extracts from Appendix A – Consultation Feedback on the ER Addendum

Consultee Feedback on the A9 Dualling SEA Environmental Report Addendum	SEA Comment
SNH	
Applying the SEA findings at later stages SEA checklist for use on design contract sections: It is very important that the SEA findings are fully used by consultants at design stages and we support the use of checklists in principle to help with this. However, we recommend these sign-post the SEA findings, rather than attempt to summarise these where there is a risk information may be missed. Locating the information in the SEA is especially important given that the route sections assessed in the SEA are not consistent with those proposed for later sections of the route. We would appreciate the opportunity to comment on the checklists and recommend they are included in the A9 Design Guide. This Guide will be key in gathering the SEA information collected at this strategic level.	SNH will be provided with opportunity to comment on the A9 Design Guide. The SEA monitoring framework refers users to the SEA and the other related strategic study documents. Monitoring framework tables are attached as Appendix B to this Statement.
DMRB2: We generally feel that there is a need to address some key issues at DMRB2 where there is more route alignment flexibility rather than at EIA stage. We recommend junctions, access roads, laybys, important non-motorised users routes/crossings, river crossings, geodiversity features, ancient semi-natural woodland, protected species and groundwater dependent ecosystems should be considered at DMRB2, and that the PAS records the commitment to this.	It is important to recognise that whilst DMRB2 considers alternative route alignment options, and that the selection of a preferred option will be informed by consideration of a range of the issues noted, locations for junctions, access roads and laybys cannot be determined until the preferred alignment is identified – although they remain key issues that inform the assessment of alternative alignments.
3.1 Consultation feedback **Allt Dubhaig GCR site (Page 7, Table 3.1): a notified feature of the Drumochter Hills SSSI:** We note the response to our comments at ER stage, but consider the site is a potential environmental constraint as it is a sensitive and dynamic fluvial area which can respond to changes in runoff and sediment supply. The Allt Dubhaig GCR is an excellent natural example of the changes in shape and form of a watercourse along its length from its steep mountain torrent to its sluggish sinuous stream on the nearby floodplain. The site management statement states that the conservation objective for this part of the SSSI is to maintain the geomorphological interest of the site. Any un-natural changes in the magnitude and frequency of runoff and sediment discharge could potentially lead to a change in the range in nature and rates of fluvial geomorphological processes operating at this site. There is a close hydrological connection between the site and the road via the burns that pass through the road and rail culverts, draining both the road and the steep hillsides on the far side (East) of the road. It will be important during construction and after completion that runoff and sediment management copes with potentially flashy runoff capable of transporting gravel and cobbles into the fluvial system on the site. This risk could be managed through mitigation methods in a construction method statement.	Comments noted and this information will be passed to the Design Consultant appointed for the section of the route covering the Drumochter Hills SSSI and Allt Dubhaig GCR. SNH will be consulted on these issues through the more detailed local design and environmental assessments during DMRB Stages 2 and 3.

Consultee Feedback on the A9 Dualling SEA Environmental Report Addendum	SEA Comment
3.4.5 Woodland The SEA has identified the potential for significant adverse impacts on ancient semi-natural woodland from the dualling programme. We have carried out some initial GIS based mapping work which has indicated that across the whole project, ~150ha of ancient semi-natural woodlands could be affected by the dualling project, based on an on-line route. It has become clear that this is one of the most challenging and nationally important natural heritage issues for the Programme and as such we would like to engage early with TS and other key partners to find the best solutions.	Transport Scotland confirms its commitment to further route-wide engagement with SNH through the upcoming DMRB Stage 2 and 3 assessments. The over-riding principle in the development of DMRB Stage 2 route alignment options and comparison will be to avoid as many adverse impacts/ risks as possible, including the avoidance of semi-natural ancient woodland sites in conjunction with other constraint features. Where avoidance is not possible, SNH will be consulted on options to minimise adverse impacts.
Given that categories 1a, 2a and 3 of the Ancient Woodland Inventory are irreplaceable, the starting point for route alignment options should be to avoid loss, damage or fragmentation of ancient semi-natural woodland. We therefore welcome TS's re-assurance that the primary consideration is avoidance of AWI sites in the route alignment studies and recommend that the SEA Statement clarifies that the first approach is to avoid ancient semi-natural woodland.	
We would welcome early DMRB2 discussion on sites where it is considered that avoidance of ancient semi-natural woodland is not achievable. We also seek a commitment to this mitigation in the PAS.	Transport Scotland confirms its commitment to further engagement with SNH through the upcoming DMRB Stage 2 and 3 assessments.
Clarification of Ancient Woodland Inventory (AWI) dataset Thank you for amending the GIS baseline data. The mapping of the (AWI) data is clearly presented (pages 7 and 16 of the Addendum and Appendix C). To clarify, the AWI categories which are of primary conservation importance are: 1a (ancient semi-natural), 2a (long-established semi-natural) and 3 (other woods on Roy). 1a and 2a have been amalgamated in the Inventory, and together they are understood to comprise "ancient woodland" in Scotland. Plantations on ancient woodland sites (PAWS) are also important as they have restoration potential. Category (3) "Other woods on Roy sites" have probably had a fairly continuous history of woodland cover and are therefore comparable with ancient woods. Class 2b – Long established of plantation origin sites (LEPOs) are plantation woodlands that date from the 1800s and are not considered to have the same conservation value. It is important that any future analysis clearly differentiates between these different classes.	Advice on AWI categories, and their relative conservation value, is noted and will be passed to Transport Scotland's appointed Design Consultants. It is recognised that the AWI GIS dataset enables representation against the categories noted, and the design consultants will be advised to distinguish between the categories on future constraint mapping tools.
The statement below Table 3.5 should therefore be amended in the PAS to exclude LEPO sites and reflect that "ancient semi-natural woodland covers 14.5% of the total surface area of the 200m wide online corridor." We also recommend checking/ amending the statement that "cumulatively, 10% of the total area of all the Ancient Woodland sites, which cross the 200m corridor boundary, could be at some risk of impact..." (final para, page 17). Para 3: first sentence: Likewise, amend to clarify the need to avoid 'ancient semi-natural woodland' sites.	It is considered sufficient to note this point in the SEA Statement as the ER Addendum will not be updated/ reissued. The statement about "cumulatively 10% of the total area" simply highlights that when the full area of each of the Ancient Woodland sites that cross the 200m boundary are totalled (including the area outwith the corridor), then the proportion of those sites that fall within the corridor boundary totals 10%. This does not mean that 10% will be affected, as not all woodland within the corridor boundary will be impacted.

Consultee Feedback on the A9 Dualling SEA Environmental Report Addendum	SEA Comment
3.4.6 Soil and geodiversity We welcome consideration of sustainable soil management and geodiversity in the ERA (page 20-22 and in Table 3.8) which shows sites with potential for new exposures, or threats to geodiversity interests. There is a risk of losing important geological structures currently visible in the SSSI through cutting/ widening further into the hillside. Particular areas of concern are the fold structures on the north sides of the Allt Crom and Black Tank road cuts. The risks may be lower for some potentially more extensive features. We would be pleased to discuss this further with you at DMRB2.	SNH comment does not specify the particular SSSI; however, assumed as the Glen Garry SSSI. This information will be passed to the Design Consultant appointed for the section of the route covering the single carriageway through the Glen Garry SSSI area. SNH will be consulted on these issues through the more detailed local environmental assessments during DMRB Stages 2 and 3.
Comments on Table 3.8: Slochd (GCR) site (Dalradian) NH 836 257: The Slochd exposures could be improved. However, netting and walling of new and re-profiled rock faces, and natural exposures, would threaten the scientific interest.	This information will be passed to the Design Consultant appointed for the section of the route covering the single carriageway through the Slochd GCR area. SNH will be consulted on these issues through the more detailed local environmental assessments during DMRB Stages 2 and 3.
River Garry GCR site (Dalradian) protected geodiversity interest in the Glen Garry SSSI: The current text does not sufficiently recognise potential losses and we recommend the section Potential for new exposures' is replaced with: "Widening of cuttings could threaten interest by removing important features exposed in existing road cuts. New cuttings may compensate for much of exposure lost from existing cuttings, providing they are not obscured by mesh or walling. However, some features are unlikely to be re-produced in new cuttings and should be avoided in road alignment. Vegetation clearance associated with the development will improve visibility and access in the easternmost sections of the site." This is an example of a place where we would prefer to see sediment traps used to catch new rock fall hazard, rather than cover up exposed rock faces, or have the new exposed rock faces obscured by concrete retaining walls, gabion baskets and mesh. This could be accommodated in a construction method statement.	It is considered sufficient to note this point in the SEA Statement as the ER Addendum will not be updated/ reissued. This information will be passed to the Design Consultants appointed for the section of the route covering the single carriageway through the Glen Garry SSSI area. SNH will be consulted on these issues through the more detailed local environmental assessments during DMRB Stages 2 and 3.
3.4.7.1 Drainage and SUDS We note the statement that three levels of SUDS may be required for SACs or for sensitive habitat/ aquatic species. However, SUDS treatment for Natura sites and their interests would need to satisfy that there is no adverse effect on site integrity.	This information will be passed onto all three Design Consultants to ensure it is included in relevant project level HRA and EIA.
4.3 Non-motorised users (NMU) issues The summary of NMU baseline and crossing provisions is supported (Table 4.4). The table shows a total of 143 NMU crossings, however, the text of this section cites a total of 135 NMU crossing points over the 177km route length.	Error noted – 143 NMU crossings noted in the table includes all existing dual carriageway sections along the route length. As the error has been noted in this Statement, the ER Addendum will not be updated/ reissued.

Consultee Feedback on the A9 Dualling SEA Environmental Report Addendum	SEA Comment
Historic Scotland	
We welcome further explanation of the rationale behind the use of percentages to indicate the area affected by the proposed dualling of the A9. For the reasons stated in our response to the ER, we remain concerned that this is not necessarily an appropriate measure of likely significant impacts on the historic environment.	GIS constraint analysis tools used to calculate the area of other features within corridor option boundaries (eg. SSSI site/ Ancient Woodland site layers) provided percentage outputs for all assessed data layers, including historic environment layers. The percentages noted were not intended to provide a measure of the significance of impacts on the historic environment and can be discounted as such; what was assessed as more relevant was the relative concentration of historic environment features within alternative corridor boundaries.
DMRB stages and timing We welcome the clarification in the SEA ER Addendum of the links between the design and environmental assessment process. We note that there remains some flexibility over alternatives and alignment of routes at DMRB stage 2. On this basis, it would appear that this will be a key stage for Transport Scotland (TS) to engage with Historic Scotland to ensure that impacts on the historic environment are avoided as far as possible. TS should also ensure that the Local Authority Archaeologist is included in discussions at this early stage to ensure that their views on unscheduled archaeology are also captured.	Transport Scotland and the appointed Design Consultants will continue to work with Historic Scotland throughout DMRB Stages 2 and 3. Advice on the inclusion of Local Authority Archaeologists is also noted.
ER updates I note the corrections following HS comments provided in table 3.1. We note and welcome clarification over the intention to give precedence to EIA findings (page 13) if it is becomes apparent that impacts are likely to be more significant than they have been considered during the SEA. We recommend that this stated intention is included in the Post Adoption Statement.	See SEA Statement Section 2, Table 2.1, page 10 (Overview of DMRB)
Update on preliminary engineering studies We welcome the information provided on the approach to the identification of junction locations and understand that they are currently only broadly indicative is noted i.e. they are not fixed locations. We note the extent of study areas for each junction. However, Appendix D indicates that there are a large number of nationally important heritage assets which are likely to be affected, potentially directly, by proposed junctions. We advise that it will be essential for discussions on the location of junctions to form part of TS's ongoing engagement with Historic Scotland as part of the DMRB stage 2 work which is taking place. For the sake of clarity, where impacts cannot be avoided there will be a requirement for TS to apply for prior consent in addition to any other consents or approvals which would be required. As part of that process, TS will need to demonstrate why avoidance is not possible.	Historic Scotland advice is noted and will be passed to each of the three appointed Design Consultants. It is an important point to note that junction requirements will be key considerations throughout DMRB Stage 2, necessarily informing the refinement of alternative route options and the selection of a preferred alignment. However, it must be stated that whilst DMRB Stage 2 could work up example junction designs, to inform alignment options assessment, locations would be indicative only at DMRB Stage 2. Transport Scotland and each of the three appointed Design Consultants will continue to work with Historic Scotland throughout DMRB Stages 2 and 3.
We note the assessment of the red option between Pitlochry to Glen Garry in relation to potential impacts on the Inventory battlefield at Killiecrankie. We welcome the statement that there are potential engineering solutions to keep impacts on this nationally important asset to a minimum. However, we do have concerns in relation to this impact of potentially major significance and it will be essential that a clear understanding of impacts on both archaeological remains and landscape features associated with the battlefield is developed to inform the route alignment process. We would be happy to work with you on these matters. You should also seek advice at the earliest possible stage from the Local Authority Archaeologist.	Historic Scotland advice is noted. This information will be passed to the Design Consultants appointed on the section of the route covering the single carriageway through the Killiecrankie Battlefield area. Historic Scotland, and the Local Authority Archaeologist will be consulted on these issues through DMRB Stages 2 and 3.

Consultee Feedback on the A9 Dualling SEA Environmental Report Addendum	SEA Comment
SEPA	
1.4 We understand that it is Transport Scotland's intention for Consultation Authorities to be consulted at Stage 2. For the avoidance of doubt we request that the A9 Design Guide contains a section on the importance of consulting Consultation Authorities at Stage 2 and perhaps setting out a formal process that has to be undertaken. For example, this could set out either a formal consultation period on the DMRB Stage 2 Report or the use of a one day workshop with all Consultation Authorities round the table.	DMRB Stage 2 consultations will be managed by Transport Scotland and it is not expected that the Design Guide will lay out a formal consultation process, given the number of design sections/ schemes envisaged across three design contracts. It is envisaged that the A9 Environment Steering Group will consider the requirements for consultation periods/ workshops in line with developing issues/ detail.
2.2 We welcome the proposals in Section 3.4.6. to consider avoidance of excavating rare and important soil resources, appropriate re-use of peat and soils and control of non-native invasive species. Page 21 seems to suggest this is only required for certain sections however we understand Transport Scotland are proposing to consider these issues for the whole route. For the avoidance of doubt we would expect appropriate re-use of peat and soils and control of non-native invasive species along the whole route and this should be detailed in the A9 Design Guide. We would defer to Scottish Natural Heritage for advice on rare and important soil resources.	SEPA feedback is noted and will be detailed through the Design Guide. Transport Scotland and each of the three appointed Design Consultants will continue to work with SEPA on these issues throughout DMRB Stages 2 and 3.
2.3 In terms of Section 3.4.7.1 to reiterate, we have no preference as to what type of surface water drainage devices are used. There are many types of devices and we do not expect basins and ponds to be used in every case. For example in sensitive landscape areas the creation of new wetland areas could be an option. We are open to many types of surface water drainage devices so long as they provide the appropriate level of water quality treatment, prevent any adverse impacts upon the receiving waterbodies and are the most sustainable option.	SEPA feedback is noted and will be detailed through the Design Guide. Transport Scotland and each of the three appointed Design Consultants will continue to work with SEPA on these issues throughout DMRB Stages 2 and 3.
2.4 Section 3.4.7.4 Strategic Flood Risk Assessment (SFRA) We welcome the revised SFRA and consider this provides a good basis for considering flood risk within the A9 Design Guide. We have made a number of suggestions which could be incorporated within an updated SFRA as part of the A9 Design Guide or within the A9 Design Guide itself.	The SFRA and SEPA's comments will be referenced in the Design Guide; however, it is not intended to rework/ update the SFRA itself.
3. Section 4 Update on PES Studies We welcome the further assessment of junctions, laybys and non-motorised user issues. The proposed decision support hierarchies will be key in identifying the appropriate location for these and minimising the subsequent land take and possible environmental impacts. It is not clear from the ER Addendum how these decision support hierarchies will be communicated to the design consultants. We therefore request that these are included within the A9 Design Guide.	The decision support hierarchies form a key part of the PES DMRB Stage 1 Report and will be referenced via the Design Guide.
6. Section 7 Signposting to Post Adoption Statement 6.1 We welcome the idea of post adoption checklist to provide an audit trail through the design and environmental assessment process. We consider it would be useful to integrate these into the A9 Design Guide so that consultants understand the key issues on each section and to ensure the SEA process is not forgotten about. We would like to be consulted on these checklists to ensure all our issues are covered. Perhaps the SEA Post Adoption Statement could be an Appendix to the A9 Design Guide or simply just include the checklists to provide an overview of the key issues on each section.	The SEA Monitoring Framework tables are attached as Appendix B to this Statement. The current intention is to also append the tables to the Design Guide.

Consultee Feedback on the A9 Dualling SEA Environmental Report Addendum	SEA Comment
Cairngorms National Park Authority	
In general terms we are content that our previous points have been sufficiently covered. We welcome the greater level of detail that is now provided within the addendum, Strategic Landscape Review and the Habitats Regulations Assessment. We note that the response to many of our previous points is to refer these to the DMRB Stages 2 and 3 for resolution. We are content with this approach provided that the necessary management arrangements are made to ensure this happens. This is perhaps a matter the steering group should discuss. We are glad to see the incorporation of the design principles in to the addendum and we feel it is important to carry these forward into the design guide for consultants. This too could be discussed within the steering group.	CNPA and other Consultation Authorities will continue to be engaged via mechanisms managed by Transport Scotland, such as the A9 Environmental Steering Group or via direct communication on particular issues in particular locations.
Habitats Regulations Assessment The HRA is welcome as it highlights many of the issues that have concerned this authority on other sites. Though this is formally a matter for SNH we do have an issue regarding the HRA that we feel, from the experience here in the National Park, we can offer some guidance.	CNPA feedback has been noted and will be used to update the HRA documents in consultation with SNH.
There is discussion of underpasses in several places within the SEA matrices and the HRA. However the potential for green bridges does not seem to be considered. It would seem likely that these structures offer many of the same and in some places more, advantages as underpasses. We would encourage their inclusion. We anticipate their use to be discussed more fully at DMRB stage 2 however their inclusion at this stage would provide the necessary 'hooks' for consistency of approach from strategic down to design level.	CNPA feedback is noted and welcomed; however, as the SEA was developed within the context of a preliminary preference for the avoidance of overbridges for other reasons, green bridges were not discussed. This does not prevent their consideration at more detailed, local levels of design and environmental assessment, where ecological survey and other data support an evidence base for their inclusion as part of the assessment of the range of potential mitigation options.
We note that there are several areas where there is a moderate adverse effect identified within the SEA. For example the impact on the battlefield site at Killiecrankie and lighting at junctions in remoter areas. We have concern over these levels of impact however we are content that these details issues can be addressed at later stages of design. This can be done through the steering and stakeholders groups and the commitment to consultation at DMRB stage 2.	Transport Scotland and each of the three appointed Design Consultants will continue to work with CNPA on these issues throughout DMRB Stages 2 and 3.
Access We are content that we will need to collectively consider the NMU crossing points in more detail at the DRMB stage 2. We are still concerned that the need to improve the quality and connectivity of the NCN through the provision of cycle paths alongside the A9 has not been fully acknowledged. We would like to see cycle paths considered along the whole route especially when the current NCN is outwith the 200 metre road corridor. To use a section as an illustration the current cycle path provision between Aviemore and Carrbridge takes a long detour through Boat of Garten. Clearly if we are to support active travel between the two communities there should be a more direct cycle path alongside the A9. In its current state the SEA would suggest this would not be considered at the DMRB stage.	Transport Scotland and each of the three appointed Design Consultants will continue to work with CNPA on these issues throughout DMRB Stages 2 and 3.

4 Reasons for choosing the PPS, as adopted, in light of other reasonable alternatives

The SEA of the A9 Dualling Programme aimed to objectively assess and compare a range of online and offline corridor options for dualling between Perth and Inverness. Various stages of assessment have been documented through the range of SEA and supporting strategic study reports.

Each stage of assessment worked to progressively sift through the options, resulting in detailed comparative assessments for a range of 200m-wide corridor options, defined across the six SEA study sections along the route.

Some sections of the A9 route are restricted in terms of the space available between a range of physical and topographical constraints, including the Highland Mainline railway, towns, large rivers and protected sites. The options sifting process was informed by GIS analyses of the range of environmental constraints within the boundaries of each 200m-wide corridor option, which enabled an objective assessment of the relative levels of environmental risk/ impact associated with each option.

The transparent assessment methods applied, the detailed level of engagement with the Statutory SEA Consultees and other stakeholders, and the supporting assessments provided by the A9 Preliminary Engineering Services (PES) team, has enabled the SEA process to recommend the 200m-wide online corridor as the preferred option for dualling.

The online corridor option consistently performed better than all other options, in terms of the potential for avoidance and minimisation of additional environmental impacts.

5 Strategic Environmental Design Principles

One of the key outputs of the A9 Dualling Programme Strategic Environmental Assessment is the range of Strategic Environmental Principles outlined below.

These Principles are intended to represent the aims of the A9 Dualling Programme, with respect to the commitment to the delivery of an environmentally-led design process, and to highlight the issues that are of particular relevance to the A9 dualling programme.

They have been developed in collaboration with SEPA, SNH, Historic Scotland and the Cairngorms National Park Authority and will be considered on all A9 Dualling projects and through all stages of the design process.

They are not intended as a replacement for existing requirements or standards; instead, they should be considered as a set of aims that all A9 Dualling projects will seek to meet.

It is accepted that not all Principles will be applicable or achievable in all situations and that situations will arise where the aims of individual Principles will conflict. In instances where conflicts between Principles are identified, consideration should be given to the local context and the issue discussed with the relevant stakeholders.

It is recognised that the Principles will always require to be applied within the context of safety considerations and the development of design solutions which are appropriate to the full range of issues relevant to road projects.

The Principles will be applied within the context of the environmental impact mitigation hierarchy, with the primary approach being to use the flexibility available within early design stages to *avoid* an adverse impact before considering mechanisms available to reduce, offset or, as a last resort, provide compensation for adverse impacts.

Where it is identified that any of the key Principles on avoidance are not achievable at any particular location, the relevant design and environmental assessment documents will provide clear explanations which detail:

1. how the Principles were considered in the design process;
2. why the Principles could not be met; and
3. what the design solution proposed has delivered in terms of appropriate mitigation to minimise adverse effects.

Similarly, for situations where design solutions offer opportunities to deliver environmental benefit (eg. improved drainage, ecological connectivity, improved access to and interpretation of natural and built heritage, etc.), this will be clearly recorded and highlighted within design and environmental assessment documents.

This will help enable route-wide collation and demonstration of environmental best practice through design.

Table 5.1 Strategic Environmental Design Principles – Landscape

	Landscape
L1	Respect for the distinctive local landscape character and qualities of the A9 corridor shall inform all aspects of the dualling process
L2	Ensure road alignment and design responds to the qualities and key characteristics of each landscape character area through which the route passes
L3	Whilst respecting the distinctive character and qualities of the landscape and places along the route, ensure a consistency of approach to design to reinforce the overall identity of the A9 between Perth and Inverness
L4	Enhance the views from the road to maximise the positive traveller experience Key views shall inform the siting of laybys, around appropriate opportunities to showcase natural and built heritage along the route
L5	Ensure potential construction and long term [25 years plus] landscape effects both inform the landscape design of the road
L6	Secure adequate land for integrated landscape solutions
L7	Design for low maintenance and to accommodate future change
L8	Use natural characteristics in design and encourage the use of sensitive and innovative methods to mitigate adverse environmental and visual effects to deliver appropriately balanced solutions
L9	Minimise the effect of the road on the experience of the wider landscape, including lighting and noise
L10	Minimise the landscape impacts of verge and boundary treatments, within the context of safety standard requirements
L11	Avoid, or reduce effects on, landscape features, retain and make best use of existing vegetation and re-use site won materials wherever possible
L12	Maintain and where possible enhance ecological and landscape connectivity and minimise fragmentation
L13	Protect species and habitats to support biodiversity, natural processes and LBAP targets
L14	Use locally native and characteristic plant species and species mixes
L15	Aim to ensure the enhanced reputation of the A9 as one of the world's great tourist routes, through landscapes of national and international importance

Table 5.2 Strategic Environmental Design Principles – Biodiversity, Flora and Fauna

	Biodiversity, Flora and Fauna
B1	Avoid adverse effects on protected sites, habitats, species and sensitive areas of conservation importance
B2	Avoid land take from designated sites
B3	Embed the concept of no net loss of biodiversity Offset any reduction in high value habitat (temporary or permanent) by providing for the creation of an equal or greater amount of high value habitat
B4	Embed the design concept of 'multi-species benefits through route permeability' to reduce barrier effects and collision risks for wildlife
B5	Incorporate verge treatments that use unpalatable seed mixes to reduce the attractiveness of roadside vegetation to mobile species
B6	Avoid the use of deer fencing unless currently provided for land management or to reduce collision risk
B7	Where deer fencing is required, use appropriate design of fence marking to minimise impacts on sensitive species e.g. birds
B8	Minimise light spillage
B10	Prevent the introduction or spread of Invasive Non-Native Species

Table 5.3 Strategic Environmental Design Principles – Woodland

	Woodland
Wd1	Avoid loss of woodland functionality (connectivity) at a landscape scale
Wd2	Avoid loss, damage, or fragmentation of ancient woodland inventory (AWI) sites
Wd3	Restrict woodland edge clearance and include woodland edge effects in the calculation of compensatory habitat requirements
Wd4	Compensation for ancient woodland losses should be of a scale, nature and location which is capable of delivering the woodland functionality being lost
Wd5	Veteran trees and significant landscape trees should be identified and safeguarded, where possible
Wd6	Avoid tree planting on road side verges to limit opportunities for shelter

Table 5.4 Strategic Environmental Design Principles – Soils and Geodiversity

	Soils and Geodiversity
S1	Avoid sites designated for their geological or geomorphological interest. Where unavoidable, ensure sympathetic design results in exposures of equal or better quality
S2	Avoid obscuring rock formations and exposures
S3	Avoid the use of mesh and vegetation on rock exposures
S4	Avoid disturbance of rare soils, high carbon, peat and wetland soils and productive agricultural land Where unavoidable, maintain on-site and off-site natural hydrological processes and ecological regimes within the soil
S5	Maximise re-use of appropriate soils (type/ pH/ location) through sustainable soil management in cut and fill balancing and landscaping to maintain soil biodiversity
S6	Ensure soils are appropriately considered in site/ habitat restoration plans – avoid transfers of inappropriate soil types and non-native invasive species

Table 5.5 Strategic Environmental Design Principles – Historic Environment

	Historic Environment
H1	Avoid impacts on the site and setting of heritage assets including scheduled monuments, historic buildings, designed landscapes and unscheduled archaeological features
H2	Ensure effective consideration of battlefield sites, including their archaeological potential and landscape contexts Avoid and minimise effects which may impact archaeological potential, landscape context or interpretation
H3	Seek opportunities to improve access to the historic environment, including signage and interpretation
H4	Ensure appropriate use of materials that reflect local historic character Ensure boundary treatments in Gardens & Designed Landscapes are of high quality materials, applied appropriately and consistently

Table 5.6 Strategic Environmental Design Principles – Water, Flooding and SuDS

	Water, Flooding and SuDS
W1	Avoid locating the A9 and any associated works within the functional floodplain. Where this is not possible, the A9 should: • remain operational and safe for users during times of flood; • result in no loss of floodplain storage; and • the movement of water should not be impeded and flood risk should not be increased elsewhere.
W2	Avoid developing SUDs in the functional floodplain. Where this is unavoidable they should not be inundated up to the 1 in 30 year event and compensatory storage should be provided for all loss of capacity up to the 1 in 200 year event
W3	Ensure a minimum of two levels of road surface runoff treatment during construction and operation of the road via SUDs appropriate to the local landscape. Water discharged from SUDs should not result in the deterioration of water quality or hydrogeomorphological effects in the receiving watercourse.
W4	Avoid works within watercourses and lochs. Where such works are unavoidable then these should minimise impacts upon hydrogeomorphology, fish and mammal passage and flood risk. Extensions or replacements to existing watercourse crossings should seek opportunities for ecological enhancement. Watercourse diversion should be a last resort
W5	Avoid Groundwater Dependant Terrestrial Ecosystems Where these are unavoidable suitable mitigation should be implemented in consultation with SEPA and SNH
W6	Avoid cuttings that would result in dewatering and abstractions from watercourses, lochs or groundwater
W7	Ensure an effective buffer between the route alignment and river corridors to allow space for natural river processes, including consideration of climate change

Table 5.7 Strategic Environmental Design Principles – Material Assets

	Material Assets
M1	Ensure final designs minimise land take
M2	Maximise the use of existing route infrastructure with suitable residual performance life
M3	Minimise use of raw materials, through use of appropriate recycled materials that meet safety and durability performance requirements
M4	Minimise waste generation through re-use of excavated materials locally, or between A9 dualling schemes (subject to agreement with SEPA)
M5	Use long-life performance materials to improve durability and reduce whole life cost and carbon
M6	Use locally sourced materials and suppliers, to reduce material transport emissions and to support local businesses
M7	Assess the effect of recycled material specifications to determine the associated carbon impact and maintain flexibility to select the option that provides the optimal balance between embodied and transportation carbon effects

Table 5.8 Strategic Environmental Design Principles – Population and Human Health

	Population and Human Health
P1	Continue to facilitate opportunities to access visitor attractions and recreational opportunities throughout the corridor
P2	Retain, and where possible enhance, overall connectivity between non-motorised user (NMU) routes along and across the corridor
P3	Incorporate effective rationalisation between NMU routes, safe crossing points and provisions for access to public transport
P4	Ensure rationalisation of NMU routes and safe crossing points minimises the distance between crossings
P5	Design any permanent diversions in NMU routes to provide the same, or improved, standard of pathway
P6	Employ a preference for underpass crossings, where feasible, to minimise landscape and visual impacts
P7	Consider the safety and quality of experience for non-motorised users of local roads when vehicle access to the A9 is being rationalised (e.g. the potential for traffic increases on the cycle route network)

Table 5.9 Strategic Environmental Design Principles – Cycling Principles

	Cycling Principles
C1	No particular requirement for National Cycle Network (NCN) route to run alongside the A9 mainline
C2	Cycle facilities to continue to pass through the centres of populated areas, where practical
C3	Cycle provisions, to relevant standards, to be considered in the design of grade separated junctions, side road and access diversions
C4	Extent of diversions to be minimised where cyclist crossing points are rationalised Any permanent diversions should be designed to provide the same, or improved, standard of cycle facility
C5	Cycle connections to public transport facilities to be maintained and improved, to relevant standards
C6	Provide vehicular access for maintenance of cycle facilities
C7	Consider opportunities to widen narrow sections of NCN, adjacent to the A9 mainline, in accordance with relevant standards
C8	Should A9 dualling propose local offline solutions, use of the existing A9 carriageway as a cycle route is to be assessed
C9	NCN route signage to be improved and rationalised where practical, to encourage users away from the A9, e.g. at House of Bruar and Wades Bridge, Dalwhinnie
C10	Level of usage of existing cycle facilities to be considered, in addition to desire lines
C11	Proposed NCN facilities to be assessed for their environmental, engineering and economic advantages and disadvantages
C12	Proposed NCN facilities to be assessed for their compliancy with the relevant Disability Discrimination Act (DDA) guidelines
C13	Opportunities to provide access to/ from existing cycle routes and identified viewpoint locations and layby(s) should be assessed
C14	Potential increases in side road traffic to be addressed in the Construction Contract Documents

5.1 A9 Design Guide

The Strategic Environmental Design Principles noted above will be embedded within an 'A9 Design Guide' which will be produced to help ensure that the lessons learned through the SEA and PES processes are captured and disseminated to the Design Consultants for each A9 Dualling project.

The A9 Design Guide will include individual chapters on key environmental topics including:

- Landscape
  Will build on the Strategic Landscape Review, making reference to Landscape Character, Designations, Views, Layby Strategy, Visual Impact and Design Detailing;
- Water Environment
  Will build on the Strategic Flood Risk Assessment, making reference to Hydrology, Geomorphology, Flooding, Drainage and SuDS;
- Soils and Geodiversity
  Will build on the SEA, making reference to Geodiversity Designations, Rock Cuttings, Peat and Sustainable Soil Management;
- Historic Environment
  Will build on the SEA, making reference to Heritage Designations, Battlefields, Monuments, Listed Buildings and Unscheduled Archaeology;
- Biodiversity, Flora and Fauna
  Will build on the SEA and HRA, making reference to Woodland, Wildlife Crossings, Designated Sites, Habitats and Species.

Each Design Guide chapter will make reference to directly relevant Principles, as well as signposting linkages via cross-referencing to related issues covered in other topic chapters, e.g. where drainage considerations might relate to biodiversity and landscape issues. Each chapter will provide strategic guidance to address route-wide issues, as well as section-specific issues, where relevant.

6 SEA Monitoring Framework

Part 3, Section 18(3)(f), and Section 19, of the Environmental Assessment (Scotland) Act 2005 requires the Responsible Authority to identify the measures to be taken to monitor the significant environmental effects of the implementation of the Plan or Programme. SEA monitoring should enable the identification of unforeseen adverse effects at an early stage, as well as enable appropriate remedial action.

Throughout the A9 Dualling Programme SEA process, a wide range of national and international datasets were used to identify key constraint features and locations. The SEA and DMRB Stage 1 engineering assessments originally split the route into six study areas (labelled A-F); however, as the Programme moves forward into the next DMRB design and assessment stages, the route has been split into three sections for design procurement purposes (South, Central and North).A total of 12 projects will be taken forward as part of the overarching A9 Dualling Programme:

Southern section – This section includes five design schemes (projects). It extends from the northern end of the early implementation scheme at Luncarty to Pass of Birnam, past Birnam and Dunkeld, Ballinluig, Pitlochry, Killiecrankie, Pitagowan and Calvine to tie in with the southern end of the existing dual carriageway at Glen Garry.
Luncarty to Pass of Birnam has already completed the DMRB Stage 3 design and Environmental Statement process stage and will continue forward as a separate project contract within the overarching A9 Dualling Programme (i.e. there are a total of six A9 Dualling Programme projects between Luncarty and Glen Garry). The Luncarty to Pass of Birnam designed scheme is not included in the SEA Monitoring Framework.
The Birnam to Tay Crossing scheme is currently coming towards the close of DMRB Stage 2. DMRB Stage 3 and the accompanying Environmental Statement will be completed under the Southern section design contract; however, as this scheme was initiated before the route-wide SEA and has already completed a range of local surveys and studies, it is not included in the SEA Monitoring Framework.
The Southern section SEA Monitoring Framework therefore commences north of the Tay Crossing and the existing dual carriageway sections at Pass of Birnam, Ballinluig and Glen Garry are also excluded.

Central section – This section includes three design schemes (projects). It extends from the northern end of the Glen Garry dual carriageway at Dalnaspidal, through the Drumochter Hills, past Dalwhinnie, Crubenmore, Newtonmore and Kingussie to tie in with the southern end of the early implementation scheme at Kincraig to Dalraddy.
Kincraig to Dalraddy has already completed the DMRB Stage 3 and Environmental Statement process stage and will continue forward as a separate project contract within the overarching A9 Dualling Programme (i.e. there are a total of four A9 Dualling Programme projects between Glen Garry and Dalraddy). The Kincraig to Dalraddy scheme is not included in the SEA Monitoring Framework. The existing dual carriageway section at Crubenmore is also excluded.

Northern section – This section includes two design schemes (projects). It extends from the northern end of the early implementation scheme at Kincraig to Dalraddy, past Aviemore, Carrbridge, Tomatin and Moy to tie in with the existing dual carriageway into Inverness.
The existing dual carriageway sections from Sloch'd summit to Tomatin, and into Inverness from Moy are excluded from the SEA Monitoring Framework.

Appendix B to this Statement provides a series of nine monitoring framework tables, one for each single carriageway (dualling project), within each of the three design sections, that have yet to progress to a further stage within the DMRB design and environmental assessment process.

To aid cross-referencing, Table 6.1 below maps each dualling project to the appropriate SEA study/ GIS constraints mapping areas used in previous SEA Reports. Each design section is colour coded (yellow/ green/ blue) in Table 6.1, and the same colour coding is used in Appendix B. The Table lists all 12 projects within the overarching A9 Dualling Programme, including those which are excluded from the SEA Monitoring Framework.

Table 6.1 Dualling Projects within (Southern–Central–Northern) Design Sections

A9 Dualling Project	Design Section	SEA Study Area	Approx. Length	Approx. Total Length
Luncarty to Pass of Birnam	Excluded from SEA Monitoring Framework as DMRB3 stage complete			
Birnam to Tay Crossing	Excluded from SEA Monitoring Framework as DMRB2 stage surveys and option assessments coming to a close			
Tay Crossing to Ballinluig	South	B	9.0km	36.5km
Pitlochry to Killiecrankie		B	6.0km	
Killiecrankie to Pitagowan		B	10.5km	
Pitagowan to Glen Garry		B/ C	11.0km	
Glen Garry to Dalwhinnie	Central	C/ D	10.5km	35.5km
Dalwhinnie to Crubenmore		D	9.5km	
Crubenmore to Kincraig		D/ E	16.0km	
Kincraig to Dalraddy	Excluded from SEA Monitoring Framework as DMRB3 stage complete			
Dalraddy to Slochd	North	E/ F	25.0km	34.0km
Tomatin to Moy		F	9.0km	

As noted in Section 1.1 of this Statement, and Section 2 of the ER Addendum, each A9 Dualling design project is required to complete two further stages of design and environmental assessment, referred to as DMRB Stage 2 (preliminary alignment options design, comparative assessments and selection of a preferred alignment) and DMRB Stage 3 (preferred alignment design, environmental impact assessment (EIA) and Environmental Statement).

Each A9 Dualling project will therefore be subject to two progressively more detailed stages of assessment and refinement, culminating in a local level EIA and production of an Environmental Statement for each.

Given that the final positioning of A9 Dualling alignments, junctions, laybys and other associated infrastructure is not known at the current time, it is not possible to define appropriate local level environmental indicators or monitoring requirements.

A 'traditional' SEA monitoring framework would aim to identify environmental indicators in use to monitor other plans; however, this type of approach is not considered appropriate for the A9 Dualling Programme given its targeted delivery timescale, and the further checks and balances provided by the more detailed EIAs which will be required to develop tailored mitigation and monitoring schedules for each project.

The A9 Dualling SEA Monitoring Framework, provided via Appendix B, therefore presents an approach which requires each design and environmental assessment team to specifically document how the range of headline constraints, identified through the SEA process, have been considered at

each of the next DMRB design stages. The aim is to secure a clearly documented audit trail of assessment from the SEA, through DMRB Stage 2 and onto Stage 3 and the EIA and Environmental Statement, which can be monitored and confirmed.

Table 6.2 below provides a very simple overview of the SEA Monitoring Framework layout, where text presented in red explains the content/ intention of each cell or column.

It must be noted that, whilst the SEA Monitoring Framework provides a mechanism to ensure that the issues considered at the SEA level cascade through to the EIA level, it **does not** include the full range of additional local issues and constraints that must be identified and considered at the EIA level. Any previous SEA findings or assessment results should be reconsidered at the local level, within the context of additional information developed through DMRB Stage 2 and Stage 3, and more detailed local understanding and consultation.

Table 6.2 Example of the A9 Dualling SEA Monitoring Framework layout in Appendix B

A9 Dualling Programme – SEA Monitoring Framework – Design Section Constraints						
A9 Design Section – South **Colour coded to match Table 6.1**			**Design Project – Tay Crossing to Ballinluig (approx. 9km)**			
SEA References: - provides signpost to previous SEA outputs SEA Environmental Report – Section 5 Environmental Report Addendum – Section 3, Section 4 and: Appendix B (Detailed Assessment Matrices, Section B1) – Appendix C (Revised GIS Mapping – Ancient Woodland Inventory) – Appendix D (Indicative Junction Locations Constraints Review Tables) – Appendix E (HRA and Programme-level Appropriate Assessment (AA) Report) – Appendix F (Strategic Landscape Review) – Appendix G (Strategic Flood Risk Assessment)						
SEA Identified Constraints	**Description of Constraint**	**SEA Comment**	**Recommendations for later DMRB Stages**		**Record how addressed at:**	
			DMRB Stage 2	**DMRB Stage 3**	**DMRB Stage 2**	**DMRB Stage 3**
Groups the range of constraints noted by the SEA in each design section	Headline note on constraint name/ type/ location	Short note from SEA on constraint issue(s)/ comments from SEA consultees	Headline requirements for further studies/ consideration/ consultation/ assessment and documentation through DMRB Stage 2	Headline requirements for documented assessment through DMRB Stage 3 and the accompanying Environmental Statement	Columns to be completed by relevant Design/ Environmental Assessment teams for inclusion with DMRB Stage 2 and DMRB Stage 3 reports	
Ancient Woodland (of semi-natural origin)	3 x AWI (SNO) (Category 1a & 2a)	A mixture of AWI woodlands lie to both sides of the existing A9 in this section Embed strategic principles on biodiversity, woodland and avoidance wherever possible However, as much of this section is bordered by AWI woodlands on both sides, secondary aim must be to minimise losses and fragmentation where woodlands are unavoidable SNH advise that categories 1a, 2a and 3 of Ancient Woodland (AW) are irreplaceable; however, category 2b may be of lower conservation value	Secure early consultation with SNH and other relevant stakeholders (as agreed with Transport Scotland and the A9 Dualling Environmental Steering Group) to determine alternative alignment option impacts on all AWI woodlands, to inform selection of the preferred dualling alignment Determine potential requirements for additional surveys and studies where AWI woodlands are unavoidable and where compensation may be required Consider mechanisms to provide compensatory habitat solutions that will deliver an equal or greater amount of habitat to the standard of that which is lost Ancient Woodland Inventory mapping should be supplemented with Native Woodland Survey of Scotland (NWSS) data	Preferred alignment design and Environmental Statement to include appropriate record of consultation, all further studies undertaken and any mitigation or compensatory works required Where AWI woods are unavoidable, aim to minimise fragmentation and maintain woodland integrity Cumulative woodland impact to include woodland edge effects Where habitat compensation is not achievable in situ, Environmental Statement should identify where compensation will be delivered		
Ancient Woodland (Long established of plantation origin)	4 x AWI (LEPO) (Category 2b)					

See Appendix B for the full range of A9 Dualling Programme SEA Monitoring Framework tables.

7 Concluding Statements

Scottish Government guidance highlights that the SEA Statement should consider how the process has benefitted the development of the plan/ programme. SG guidance states that the success of SEA can be measured in a number of ways, including the extent to which it has influenced the plan or programme, and avoided or reduced potentially adverse environmental effects.

Therefore, by way of providing some concluding commentary on the successes of the A9 Dualling Programme SEA, this section is presented using a question and answer type approach.

7.1 How did the SEA make a difference to the A9 Dualling Programme?

The SEA made a difference to the A9 Dualling Programme via a number of key elements:

- Early and on-going engagement with the statutory SEA consultees and others including Cairngorms National Park Authority, Local Authorities and Forestry Commission Scotland. Included workshops on SEA process and approach, as well as topic specific workshops on, for example, designated sites and features, woodland, landscape and flooding issues.
- Route wide Habitats Regulations Appraisal and Appropriate Assessment at the Programme Level, supported early identification of Natura (SAC, SPA and Ramsar) site issues, and options available to ensure avoidance of adverse effects on site integrity.
- The Strategic Landscape Review ensured that landscape issues were considered from the outset; identifying risks and opportunities that will better enable later design teams to deliver a more consistent approach.
- The Strategic Flood Risk Assessment considered the types of flood risk likely to be applicable across the route; delivering guidance on the key issues that later design teams must consider and clearly document.
- Innovative delivery of spatial analyses using a GIS constraints based approach. The SEA team developed a 2D/3D GIS viewer tool which was used to collate layers of spatial and environmental constraint information and to analyse the range of potentially affected constraints within each of a range of dualling corridor options. The viewer also enabled clear visual representation of issues and pinch points across the route, supported by OS mapping and aerial photography, which was used to inform workshops with consultees and public exhibitions.
- The SEA and supporting strategic studies therefore delivered robust, section-by-section assessments of key environmental constraints, issues and opportunities, along the full length of A9 single carriageway sections and within alternative offline option boundaries.
- SEA delivered a fully documented, route-wide, Corridor Options Assessment which informed the formal selection of the 200m-wide online corridor as the preferred dualling corridor.
- The SEA worked to de-risk the A9 Dualling Programme by ensuring early and effective identification of the key environmental issues along the route. The SEA signposts where further studies and consultations are required to inform the later stages of the DMRB Stage 2 alignment options design, assessment and preferred alignment selection, and Stage 3 alignment design and Environmental Impact Assessment processes.
- The full suite of SEA documents, including Consultation Authority feedback, will be passed to the A9 Dualling design teams, and the SEA team will remain available to support each design team as the Dualling Programme moves forward.

7.2 Did the SEA secure effective stakeholder consultation?

Yes. Throughout the various stages of the SEA process, Transport Scotland used a variety of mechanisms to secure effective stakeholder consultation. Regular meetings and workshops were held with the principal group of statutory and invited consultees, including SEPA, SNH, Historic Scotland, Cairngorms National Park Authority (CNPA), Local Authorities, Forestry Commission Scotland and Regional Transport Partnerships. Where identified as useful to the particular meeting subject matter, additional bodies were invited through the principal group.

As a direct result of the successful level of engagement with the principal group, and to maintain the momentum moving forward into three design sections, Transport Scotland has initiated a monthly Environmental Steering Group with the principal group of statutory and invited consultees and a quarterly Environmental Forum which will be open to other stakeholder bodies including local conservation groups. Transport Scotland have also initiated separate Forums specifically for access and non-motorised user issues.

Transport Scotland also held a series of public exhibition events in communities along the A9, where SEA staff were actively involved in presenting corridor constraint issues and options to public stakeholders, using the 2D/3D GIS Viewer tool developed for the project. When used in conjunction with more traditional road design plans and maps, the GIS Viewer tool improved direct visual access to complex information and added value to the public engagement exercise. SEA reports and constraint plans were also made available at the public exhibitions, as well as information panels, brochures, leaflets and feedback forms with full details on how to respond either in writing or online.

7.3 Were environmental issues highlighted early and avoided?

Yes. The very early stages of the SEA identified a suite of national and international constraints and datasets. These were collated via a GIS system and applied consistently to identify the constraints within each alternative dualling corridor option boundary, and to objectively assess the relative levels of environmental risk presented or avoided by each corridor option. The resulting output was a recommendation to focus future design attention on a 200m-wide online dualling corridor as this consistently performed better, in terms of the potential to avoid constraints, than other options.

It must be recognised that there are constraints within the 200m-wide online corridor, and some will prove to be unavoidable; however, the SEA Monitoring Framework provides details on further local level consultation and assessments required through the later DMRB design stages. Similarly, the range of Strategic Environmental Design Principles, presented in Section 5, stress that the primary principle for the next DMRB stages is avoidance through alignment options design.

7.4 Did the SEA stimulate new ways of thinking, or promote alternative solutions?

Yes. This was the first SEA for a road infrastructure proposal at the scale and ambition of the A9 Dualling Programme. It required a departure from the 'traditional' DMRB Stage 1 corridor assessment approach, which does not require SEA as it is not usually applied at such a scale.

The introduction and use of innovative GIS tools to present and extract multiple layers of environmental data, across the entire route from Perth to Inverness, ensured consistency in corridor options assessments. It also enabled clear and effective presentation through the range of SEA and supporting strategic study and assessment reports, including the Programme-level Habitats Regulations Appraisal and Appropriate Assessment, the Strategic Flood Risk Assessment and the Strategic Landscape Review.

Each of these strategic studies provided additional, route-wide, information that will continue to inform the A9 Dualling Programme design projects.

A9 Dualling Programme

Strategic Environmental Assessment

SEA Statement

Transport Scotland

September 2014

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