

## **A9 Dualling Programme**

**Strategic Environmental Assessment (SEA)** 

**Environmental Report** 

**Non Technical Summary** 

**June 2013** 



# A9 Dualling Programme

# Strategic Environmental Assessment

Non-Technical Summary

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Version: 1.1

# **Transport Scotland**

June 2013







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## Strategic Environmental Assessment

Non-Technical Summary

# **Transport Scotland**

June 2013

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## **Document history**

## **A9 Dualling Programme**

## Strategic Environmental Assessment (SEA)

Non-Technical Summary

## **Transport Scotland**

This document has been issued and amended as follows:

| Version | Date      | Description      | Created by | Verified by | Approved by |
|---------|-----------|------------------|------------|-------------|-------------|
| 1.0     | May 2013  | Discussion Draft | J Fox      | A Collin    |             |
| 1.1     | June 2013 | Final            | J Fox      | D Bell      | J Fox       |
|         |           |                  |            |             |             |
|         |           |                  |            |             |             |
|         |           |                  |            |             |             |





#### **Limitations**

Halcrow Group Ltd has been instructed to provide a Strategic Environmental Assessment 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 Environmental Report is presented as a consultation document. Any subsequent additional information arising during the public consultation period 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
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- 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. Additional data sources are listed in the baseline for reference.
- 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.



## A9 Dualling Programme SEA - 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 | <ol> <li>Improve the operational performance of the A9 by:         <ul> <li>Reducing journey times</li> <li>Improving journey time reliability</li> </ul> </li> <li>Improve safety for motorised and non-motorised users by:         <ul> <li>Reducing accident severity</li> <li>Reducing driver stress</li> </ul> </li> <li>Facilitate active travel in the corridor</li> <li>Improve integration with Public Transport Facilities</li> <li>Deliver completion by 2025</li> </ol> |  |
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## A9 Dualling Programme - SEA Environmental Report - Non Technical Summary

#### 1. Introduction

In December 2011, the Cabinet Secretary for Infrastructure and Capital Investment launched the Government's Infrastructure Investment Plan (IIP) which includes a commitment to complete A9 dualling, between Perth and Inverness, by 2025.

Dualling the A9 represents one of the largest infrastructure projects in Scotland's history; it is the longest trunk road in Scotland with the Perth to Inverness section forming 177 kilometres (~110 miles) of the total. The combined total for existing dual carriageway sections between Perth and Inverness is approximately 48 kilometres (~30 miles), and the sections to be dualled total around 129 kilometres (~80 miles).

The A9 passes through areas which are outstanding in wildlife and landscape terms, in particular, the Cairngorms National Park and a number of national and internationally protected sites. A9 dualling-related effects in such areas must be carefully considered through early design phases, and sensitively managed through construction phases.

In Scotland, Strategic Environmental Assessment (SEA) is legislated through the Environmental Assessment (Scotland) Act 2005, which requires SEA for all public sector plans, programmes and strategies with the potential to present significant effects on the environment.

As the A9 dualling programme will manage the process of route alignment selection, design, local level environmental impact assessment and the progress of construction activities along the route between Perth and Inverness, SEA Screening determined that the programme has the potential to present significant environmental effects on the environment, and that SEA is therefore required.

This document provides a non-technical summary of the SEA process to date, to accompany the more detailed SEA Environmental Report.

#### 2. Key Stages in SEA

There are a number of stages in the SEA process. Screening and Scoping were completed by February 2013 and were followed by environmental assessment stage. The process is now at the stage of public consultation on the Environmental Report (June 2013).

#### Screening

- Preliminary consideration of environmental issues
- Confirm the need for SEA

#### **Scoping & Scoping Report**

- Baseline data collation
- Review of other Policies, Plans and Strategies
- Establish SEA approach and methodology
- · Statutory consultation on Scoping Report

#### **Environmental Assessment & Report**

- · Consider feedback on Scoping Report
- Develop and consider strategic alternatives
- Assess significant environmental effects
- Identify options for mitigation/ enhancement opportunities
- · Assess potential cumulative effects
- Draft SEA monitoring framework
- Publish Environmental Report (ER)
   & Non-Technical Summary (NTS)

#### **Public Consultation**

#### **CURRENT STAGE IN A9 DUALLING SEA PROCESS**

#### **Post Adoption**

- Consider consultation responses
- Update ER findings and recommendations if necessary
- Finalise SEA monitoring framework
- Document how the SEA has influenced the A9 dualling programme
- Publish SEA Post Adoption Statement

#### **Monitoring**

Monitor programme implementation against the SEA monitoring framework recommendations



#### 3. Context for this SEA

In terms of the strategic transport infrastructure policy context, SEA was conducted for the National Transport Strategy (NTS, 2006) and the national Strategic Transport Projects Review (STPR, 2008).

The STPR recommended that the A9 should be dualled to deliver a combination of road safety, reliability and strategic economic objectives. The Government accepted these recommendations and made a commitment to A9 dualling in the 2011 Infrastructure Investment Plan.

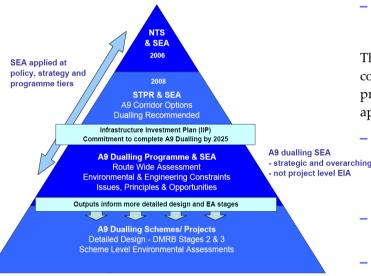


Figure 1 SEA cascade from the National Transport Strategy (2006) to A9 Dualling Programme and Projects

The high level aspiration for full dualling of the A9 is that it should be designed to deliver an All Purpose Dual Carriageway with the following general features:

- Full grade separation of junctions to remove atgrade junctions and provide links for nonmotorised user crossings/ accesses;
- No gaps in the central reserve, to prevent rightturns across carriageways;
- Route, signage and lighting design to minimise overall visual impact.

There are a number of challenges to be addressed:

- Reducing accident severity;
- New bridges and/ or bridge widening;
- Proximity of the Highland Mainline Railway and public utilities in constrained areas;
- Lay-by provisions;
- Accessibility for non-motorised users (NMU), including pedestrians, cyclists and equestrians, links to public transport;
- Access to recreation, including the Cairngorms National Park; and
- Rock cuttings, high carbon soils and minimising the impacts of construction.

This SEA aims to integrate environmental considerations into the very early stages of programme development, delivering a route-wide approach which:

- is roughly equivalent to a Stage 1
   environmental assessment, as required by the
   Design Manual for Roads and Bridges
   (DMRB);
- provides a link between STPR work and later
   DMRB route alignment selection and design;
- identifies and collates the range of environmental constraints around the A9 between Perth and Inverness;
- assesses significant issues and risks;
- considers whether a particular issue would affect where the route goes;
- consults the public and statutory authorities with environmental responsibilities;
- with the A9 Preliminary Engineering Services work (A9 PES) helps to identify the most constrained sections of the route. This will inform the overarching programme, in terms of identifying which sections could potentially be brought forward in the design and construction programme and which should be considered for later delivery to allow time for additional studies and design consultations.



## 4. Using GIS to inform the SEA

In order to effectively identify, collate and assess key environmental issues and constraints along the route, the SEA has adopted a GIS (Geographical Information Systems) mapping approach.

SEA Scoping identified the locations of features and constraints within 1km of the current A9, to provide a baseline dataset. Using GIS meant that a range of indicative corridor options could be compared, in terms of the relative levels of environmental risk/ issues within each proposed corridor option footprint.

As alternative corridor options were eliminated via the sifting process described below, the GIS dataset was further refined to focus in on identifying the key issues within 200m of shortlisted options.

### 5. Alternative Options Sifting

The A9 route was split into 6 online corridor sections and GIS was used to plot 7 indicative alternative broad corridors (labelled A-G in Fig.2) which were considered as potential alternatives to dualling the current route. 20 near offline options around the existing A9 were also identified as alternatives to short sections of the online corridor.

The GIS databank was then used to extract information on the features and constraints within each online section, indicative alternative, and near offline corridor option footprint.

These analyses informed an Options Sifting Workshop, which resulted in a shortlist for further consideration, including the 6 online sections and 4 near-offline options (see Fig. 3).

A full description of the alternative broad corridors, the online and near offline options and a record of the constraints assessment, with reasons for elimination of options, is provided in the Options Sifting Report, attached as Appendix E to the Environmental Report.

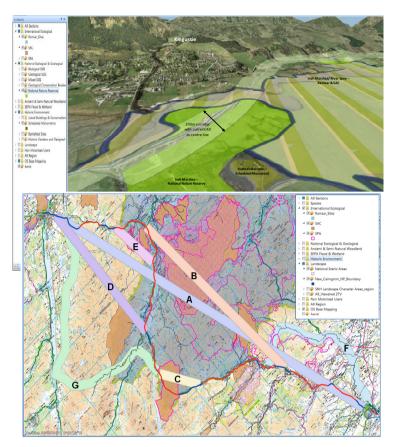


Figure 2 Example GIS Overlay Analyses

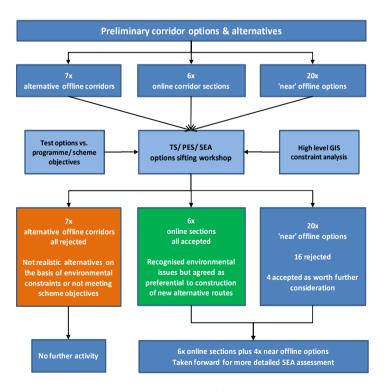


Figure 3 Corridor options sifting process



## 6. Shortlisted Options

Each of the shortlisted corridor options lie within the original 1km area for which GIS data was mapped. An overview of the six A9 corridor sections (labelled A-F), identifying the relevant stretches of the route within each, is provided below and in Figure 4.

| Section | Description  | Km   |
|---------|--|------|
| A       | Perth (Inveralmond) to south of<br>Tay Crossing (north of Dunkeld) | ~ 22 |
| В       | Tay Crossing to Bruar  | ~ 35 |
| С       | Bruar to Dalwhinnie  | ~ 29 |
| D       | Dalwhinnie to Newtonmore   | ~ 14 |
| E       | Newtonmore to Kinveachy (south of Carrbridge)                      | ~ 34 |
| F       | Kinveachy to Inverness   | ~ 39 |

Within each section, the online corridor is referred to as Option 1 (i.e. online in section B is described as Option B1).

The options that were selected for further consideration through SEA included:

- The online corridor option, divided into six sections (Options A1, B1, C1...F1);
- Near offline Option A6 in Section A;
- Near offline Options B2, B4 and B5 in Section

Figures 5 and 6 provide example GIS screenshot images, outlining the online and near offline options to be considered in Sections A and B.

Each option is presented as a corridor through a range of environmental constraints.

Appendix D to the Environmental Report provides a full range of GIS constraint maps for each corridor section, including the near offline options in Sections A and B.

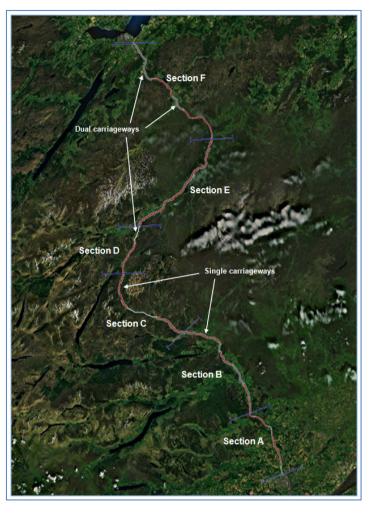


Figure 4 Overview of six Corridor Sections A-F

The detailed assessments presented in the Environmental Report focus on identifying the issues/ features, across a range of SEA topics, within a nominal 200m boundary around each corridor option.

The following sections of this document provide an overview of the considerations and findings under each SEA topic included in the assessment.



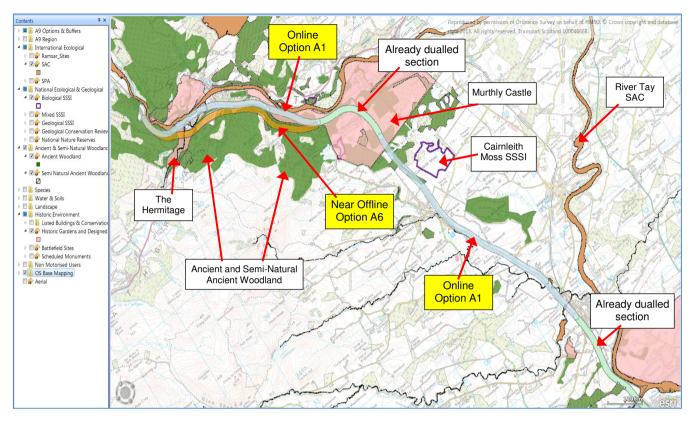


Figure 5 Overview of Online and Near Offline Corridor Options (A9 Section A)

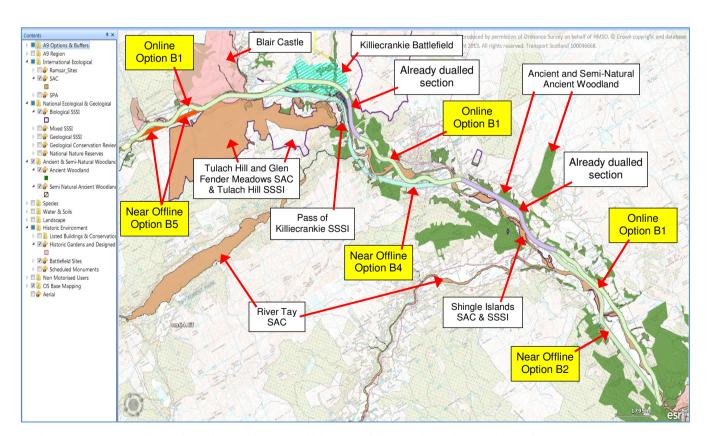


Figure 6 Overview of Online and Near Offline Corridor Options (A9 Section B)



#### 7. Material Assets

#### **SEA Challenges/Opportunities**

A9 dualling presents a significant opportunity for the improvement of a regional (and national) material asset; however, the challenge is the consideration of dualling effects on material resources, other corridor infrastructure and the other SEA topics (inter-relationships).

SEA considers that *online* dualling will minimise material consumption through retained use of existing infrastructure; leading to potentially **moderate adverse effects** in terms of consumption of local material resources and the associated embodied carbon footprint. Alternative routes and offline dualling would increase consumption and carbon effects.

Use of local material suppliers would likely provide local population benefits and help to minimise the overall footprint in terms emissions associated with material transportation.

A9 dualling infrastructure will be designed to comply with the Design Manual for Roads and Bridges (DMRB) standards and revised to reflect relevant DMRB updates between outline/ detailed design and construction stages.

DMRB requires a phased design process with progressively more detailed environmental assessment to inform:

- DMRB 1 broad corridor selection, generally informed by desk based identification of constraints and issues (SEA is collating this information);
- DMRB 2 comparison of a range of alternative route alignments within the preferred corridor, informed by local environmental surveys;
- DMRB 3 detailed design of a preferred route, with more detailed site level survey and environmental assessment to inform design level mitigation and enhancement measures.

The SEA assumes compliance with DMRB standards across all A9 dualling route alignment studies and detailed design delivery stages.

#### 200m wide Online Corridor Baseline

#### Infrastructure features in the A9 dualling corridor

Highland mainline railway between Perth and Inverness

Existing power supply lines

Sections of the proposed route and some tower locations for the Beauly-Denny Line grid infrastructure project

3 wind farms (2 planned, 1 operational) within 1km of the current A9 route

Local planning authority Development Plan allocations

A project to consider improvements to the Highland Mainline railway is in development. SEA recommends that the A9 dualling programme tracks the development of this project to ensure any cumulative issues are identified and managed.

The Beauly-Denny line crosses the A9 around the Glen Garry, Drumochter Hills and Glen Truim areas. SEA recommends a more detailed assessment around the Drumochter Hills area as part of an Appropriate Assessment to consider the potential cumulative issues.

Online dualling is not expected to significantly affect current development plans, as these have been developed with consideration to the current A9. A9 dualling is also not expected to present significant cumulative issues with wind farm proposals, although SEA recommends further assessment at the local design level.

SEA recommends further work, during the Environmental Report consultation period, to review the emerging A9 dualling Junction Strategy, Lay By Strategy and Non-Motorised Users Strategy and to develop strategic principles on lighting and signage, cuttings, barriers and structures.

Further consideration of these elements will inform a set of strategic environmental and design principles, for inclusion with the SEA Post Adoption Statement.

The ultimate aim is for the SEA and Preliminary Engineering work to inform an overarching A9 Design Guide to support route wide consistency.



#### 8. Population and Human Health

#### SEA Challenges/ Opportunities

A9 dualling represents a key opportunity in terms of improving road safety, reduction in accident severity and improving connectivity between Inverness, Perth, local communities and the central belt. Key challenges relate to access to/ from the route, particularly with respect to the Cairngorms National Park and other recreational facilities.

#### **SEA Consideration of Accidents**

Currently, the A9 between Perth and Inverness is 27% dualled (48km) and 73% single carriageway (129km) and the total number of accidents is spilt along roughly equal proportions to the respective route lengths (~75% on single carriageways).

|                               | Ac    | Total         |     |       |  |
|-------------------------------|-------|---------------|-----|-------|--|
| # of Accidents<br>(2001–2010) | Fatal | Fatal Serious |     | Total |  |
| (2001 2010)                   | 53    | 115           | 356 | 524   |  |
|                               |       |               |     |       |  |
| Dual                          | 8     | 18            | 100 | 126   |  |
| Carriageway<br>Sections       | 15    | 16% 28%       |     | 24%   |  |
|                               |       |               |     |       |  |
| Single                        | 44    | 97            | 251 | 392   |  |
| Carriageway<br>Sections       | 83%   | 84% 70%       |     | 75%   |  |
|                               |       |               |     |       |  |
| Slip Roads                    | 1     | 0             | 5   | 6     |  |
| Slip nodus                    | 2%    | 0%            | 1%  | 1%    |  |

The severity of accidents is significantly reduced on dual carriageway sections, with lower percentages of fatal and serious accidents and a higher percentage of slight accidents, when compared with the single carriageway statistics.

SEA considers that full dualling may not reduce the overall number of accidents; however, removing at-grade junctions and transitions between single and dualled carriageways are highly likely to reduce the severity of accidents.

SEA found this aspect of A9 dualling is likely to present major positive effects with significant long term benefits.

#### **SEA Consideration of Access Issues**

## Non-Motorised Users (NMU) Cycling/ Equestrians/ Walkers/ Recreation/ Crossings

The A9 provides access either directly, or in close proximity to, a wide range of recreational routes. Many lay-bys are used as informal parking bays for walkers and mountain bikers, and atgrade junctions currently provide crossing points.

Full dualling will present issues in terms of removing at grade junctions and rationalising connectivity between recreational routes and safe crossing points. Access for public transport, including intercity, local and school bus services will be considered through an emerging Non Motorised Users (NMU) Strategy, and will inform an emerging Lay By Strategy.

#### Cairngorms National Park/ other tourism sites

The Cairngorms National Park Authority (CNPA) advise that A9 dualling should be seeking enhancement to maximise opportunities to stop in the Park, where possible. This also relates to other interest features/ tourism attractions including historic, ecological and geological sites.

#### **Community and Private Access**

The A9 currently has a range of junction types with A, B, C and unclassified roads, providing access for local communities, private properties and businesses. SEA considered that as full dualling will rationalise access provisions to deliver grade separated junctions, this would be a key issue for those who currently have direct accesses to the existing A9.

There will be short term effects in terms of journey times and local emissions associated with construction stage route diversions and long term permanent effects for users of those direct accesses that are closed.

However, SEA considers that long term regional level safety benefits are also expected in terms of rationalising junctions and accesses on a dualled A9.

Some link roads and paths will be rerouted to new junction locations and/ or safe crossing points, with the potential for **minor localised adverse effects** in terms of longer connecting routes, rather than a loss of access or connectivity, and NMU rationalisation should work to minimise the distance between crossings.

Emerging Lay By, NMU and Junction Strategies, coupled with considerations on public buses and DDA compliance, are assessed as likely to provide minor beneficial effects at the local level and, cumulatively, as moderate beneficial effects at the route wide scale. SEA recommends that where NMU routes require permanent diversions to safer crossings, these should be designed to provide the same, or improved, standard of pathway.



### 9. Landscape

#### **SEA Challenges/Opportunities**

A9 dualling presents a number of landscape challenges and opportunities. Challenges include avoiding and minimising adverse effects on the special qualities of important landscape designations (including the Cairngorms National Park and National Scenic Areas) whilst at the same time enhancing the experience for drivers, visitors and tourists.

In terms of local landscape variety and a changing visual narrative, the A9 could be described as a world class tourist route where the road sits within, and is a recognised feature of, the changing landscapes along the route.

A9 dualling will inevitably have an effect on the landscape. For example, in areas where a second carriageway is introduced at a higher elevation than the existing carriageway, the change will potentially be more visible than in areas where the road is widened at the same elevation.

In areas where the road is screened from view, the effects of change will generally be less pronounced; however, in upland areas with little screening cover, change may be more visible.

The SEA does not provide a Landscape and Visual Impact Assessment, as these more detailed studies will be undertaken at later route alignment and detailed design stages.

However, a route-wide Landscape Review is underway to identify the range of landscape character areas along the corridor, consider potential opportunities in terms of key views from the road, and to inform the development of strategic landscape principles and landscape and visual design guidance for the A9.

#### **Landscape Character**

The A9 passes through some of most beautiful scenery in Scotland, including a number of distinct landscape character types from agricultural lowland landscapes north of Perth, through the wild moorlands of Drumochter, to the beauties of the Spey valley.

The Landscape Review has identified a range of 23 distinct landscape character areas along the route (Fig. 5), each with distinct features that give a unique character to the surrounding area.

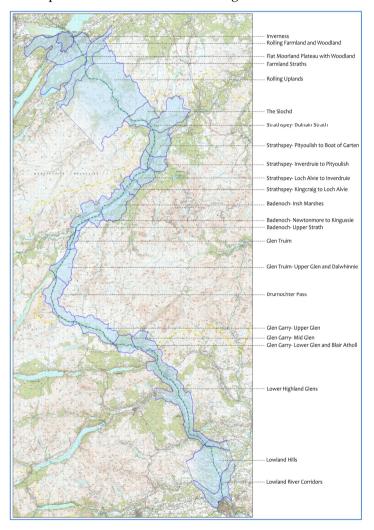


Figure 7 A9 Landscape character range

The Landscape Review aims to define indicative sensitivities to dualling for each character area and to provide design guidance to work with the local character and to minimise adverse effects.



#### Views from the Road

The Landscape Review is working with Scottish Natural Heritage and the Cairngorms National Park Authority to identify a range of particularly impressive views along the A9. These will be considered in later route alignment studies as opportunity views, to inform the emerging Lay By and NMU Strategies.

The aim is to incorporate opportunity view locations into ongoing studies, such that the experience of travellers using the A9 is enhanced with improved opportunities to stop near these key views.

These opportunity view locations will inform the emerging Lay By Strategy, where the position and size of a lay-by site is considered in the context of providing facilities close to great views, linkages to nearby NMU routes and local consideration of pedestrian subway crossings to connect both sides of the road to the viewpoint, where appropriate.

SEA considers that the early incorporation of opportunity views, supported with guidance on enhanced lay bys, is a key enhancement measure, likely to present **locally minor benefits**, aggregating to a **cumulatively moderate benefit** at the route wide scale.

| La cardia a                         | V Vi  |
|-------------------------------------|---|
| Location                            | Key View  |
| Bogbain                             | North over the Moray<br>Firth                           |
| River Findhorn                      | West along the river                                    |
| Sloch                               | South through the pass at the distant Cairngorm summits |
| Lay-by 149<br>west of<br>Carrbridge | Panoramic views south towards the Cairngorms            |
| View of Cairngorms                  | View ahead for southbound travellers                    |
| Loch Alvie                          | South east over the Spey to the Cairngorm peaks         |
| Dalraddy                            | View over strath Spey to the Cairngorms                 |
| Loch Insh                           | Insh Marshes and the hills beyond                       |
| Ruthven                             | Spectacular view of<br>Ruthven Barracks                 |
| Dalwhinnie                          | Attractive views of the distillery                      |
| Drumochter                          | Dramatic views north and south through the pass         |
| Loch Garry                          | South west from<br>Dalnaspidal                          |
| Clunes/ Bruar                       | Glen Errochty and Glen<br>Garry                         |
| Blair Atholl                        | Picture perfect view of the castle and policy woodlands |
| Killiecrankie                       | West along Glen Garry                                   |
| Faskally                            | River Tummel at crossing                                |
| Pitlochry                           | North over the town to                                  |
| 1 Itiochi y                         | Ben Vrackie   |
| River Tay                           |   |

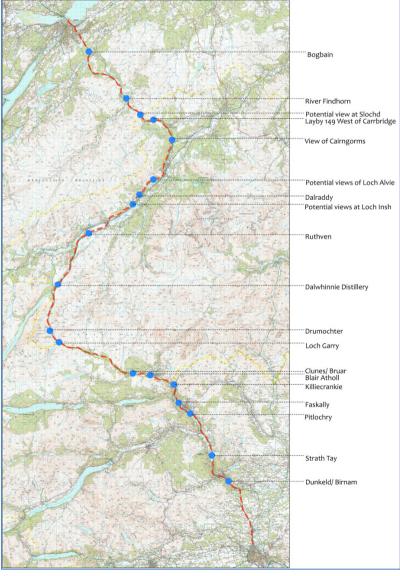


Figure 8 'Primary' views from the Road



### Cairngorms National Park

The A9 runs within the Cairngorms National Park, close to the south and western boundaries, and the National Parks (Scotland) Act 2000 outlines the following key aims:

- 1. To conserve and enhance the natural and cultural heritage of the area;
- 2. To promote sustainable use of the natural resources of the area;
- To promote understanding and enjoyment (including enjoyment in the form of recreation) of the special qualities of the area by the public;
- 4. To promote sustainable economic and social development of the area's communities.

The Cairngorms National Park Authority (CNPA) have defined a series of 'special qualities' for the Park and it is important that they are respected by, and used to inform, A9 dualling designs and route alignment studies at the local level.

The National Parks Act also contains a requirement for public bodies to look for enhancement when carrying out activities in the Park, and CNPA advise that enhancement should be considered over the long term, not necessarily as an immediate benefit.

SEA considers that A9 dualling will help provide a range of enhancements for the local population, communities and businesses within the Park, in terms of road safety, operational flexibility and journey reliability. There will also be long-term improvements to road discharge water quality, and improvements in route permeability for mobile species. Recreational access and NMU crossing points will be made safer, all of which will be likely to have **incremental enhancement benefits** for the National Park.

The key issue is sympathetic design of the dualled route that works with immediate landscape features, reflects the changing landscape character within the Park, and provides additional opportunities to stop en-route and take advantage of key views.

#### Wildness and Dark Skies

CNPA Supplementary Planning Guidance describes the concept of Wildness as:

Wildness – The experience felt when in a wild landscape... ...derived from the combination of four specific attributes – naturalness, ruggedness, remoteness and the lack of modern human artefacts.

CNPA describe the current A9 transport corridor as band C (low value) with respect to wildness, where the priority is to reduce or limit the impacts upon band A and B (higher value) areas.

In terms of noise and tranquillity, SEA recognises that traffic on the A9 does play a part in the experience of wildness (particularly with respect to the remoteness from roads aspect); however, any increase in traffic via A9 dualling is not expected to be sufficient enough to present a noticeable change over existing conditions.

Construction noise may be noticeable in some areas, depending on local conditions; however, SEA considers this a relatively short term issue, with temporary and reversible effects.

Much of the A9 is currently unlit and, in areas where dark skies are considered a valued feature of the landscape, additional lighting might impact upon areas valued as wild land (i.e. the introduction of lighting could impact upon perceived wildness).

SEA considers that, with respect to Wildness and Dark Skies, the route-wide cumulative effect of online dualling will be minimal; however, due to the potential for permanent lighting change, which may be associated with junction safety requirements in some areas, the cumulative effect is assessed as **minor adverse**.

An overarching principle of avoidance of lighting on the A9 mainline is expected to restrict lighting to areas where safety standards dictate.



#### National Scenic Areas (NSA)

Route-wide, just over 9% of the total online corridor, from Perth to Inverness, crosses NSA designations. The important factors to be considered are the potential effects on the Special Landscape Qualities of the National Scenic Areas. In their Commissioned Report No. 374, SNH define 'special qualities' as:

'...the characteristics that, individually or combined, give rise to an area's outstanding scenery'.

The special qualities of the NSAs should be recognised as key landscape and visual receptors for local dualling, and there is potential for adverse effects where dualling designs are not sympathetic to the NSA qualities and features.

However, where designs take cognisance of and respect the special qualities, there are also opportunities to manage the views from the road to improve the experience for road travellers to better appreciate these qualities.

SEA considers that *online* dualling will minimise the potential for adverse effects on the special qualities of the River Tay (Dunkeld) and Loch Tummel NSAs, presenting relatively **minor** adverse effects associated with road widening.

SEA considers that the near *offline* options (identified in the Environmental Report as options A6, B2 and B4) will present higher risk of **moderate to major adverse effects** on the special qualities of the NSAs, due to swathe cuts through woodland, new routes between woodland and river and more significant change through the Pass of Killiecrankie.

More detailed Landscape and Visual Impact Assessments will be required through later detailed design stages for A9 dualling, at the local level; informed by the strategic level work being undertaken via the Landscape Review.

Work will continue on the Landscape Review to inform the development of an A9 Design Guide, in consultation with key stakeholders.

#### 10. Historic Environment

#### SEA Challenges/ Opportunities

A9 dualling presents a number of challenges with respect to the surrounding historic environment, such as avoiding adverse impacts on heritage assets, including effects on historic setting, whilst at the same time providing access to the assets within the corridor for visitors and tourists.

Scheduled monuments, listed buildings, an important battlefield site and other historic environment designations have been identified as key constraints within the A9 corridor.

#### 200m wide Online Corridor Baseline

| Feature Type                              | No. | No. at single carriageway sections No. at already dualled section |                               |  |
|---|-----|---|-------------------------------|--|
| Scheduled Monuments                       | 14  | 7   | 7                             |  |
| Listed Buildings                          | 51  | 41<br>1x A<br>19x B<br>21x C(S)                                   | 10<br>1x A<br>5x B<br>4x C(S) |  |
| Battlefields                              | 1   | Killiecrankie   |                               |  |
| Historic Gardens &<br>Designed Landscapes | 3   | Murthly Castle<br>The Hermitage<br>Blair Castle                   |                               |  |
| Conservation Areas                        | 1   | Birnam n/a  |                               |  |

#### Scheduled Monuments

Route wide analysis identified 14 Scheduled Monuments within the 200m online corridor, seven of which are not likely to be further affected, as they are located around sections which are already dualled.

SEA considers that only Section B presents risks of direct adverse effects, given the proximity of some Scheduled Monuments to the current route.

Any physical loss would be a **major adverse effect**; however, where dualling designs avoid direct impacts, SEA considers that effects on setting will be minimal, again given their current proximity to the existing road.



At the route wide scale, there are likely to be a number of monuments outwith the 200m corridor that have visibility to / from the road. There are, therefore, likely to be some risks of **locally minor adverse effects** on the setting of such monument but online dualling is expected to minimise such risks.

#### **Listed Buildings**

Fifty one Listed Buildings (LB) were identified within the 200m corridor along the route, with 12 located around already dualled sections and considered unlikely to be affected by A9 dualling.

Of the 39 remaining LB, 12 were identified within 50m of single carriageway sections and may be at higher risk of direct and/ or indirect effects.

Dualling issues and alignment options around these buildings will need to be considered in much more detail at the local level, informed by consultations with the Local Authority, Historic Scotland and other relevant stakeholders.

SEA considers that the buildings at distances greater than 50m should be avoidable via selection of route alignment, within the context of other constraints; however, studies should similarly be informed by local level survey and consultation to avoid direct effects wherever possible.

Avoidance will mean that online dualling has the potential to present locally **minor adverse effects** on setting at the site level.

Where avoidance is not possible via route alignment studies, risk of loss is considered low; however, dualling has the potential for **moderate** to major adverse effects at the site level.

#### **Battlefields**

Battlefields are a relatively new statutory designation, created by the Historic Environment (Amendment) (Scotland) Act 2011, Section 11. The existing A9 passes through the designated Killiecrankie battlefield site; beginning with a dual carriageway section at the entrance to the Pass of Killiecrankie, transitioning to single carriageway through the remainder of the site.

This stretch through the battlefield represents around 12% of the online corridor in Section B and the 200m wide corridor covers just over 18% of the total battlefield site area; however, the real area at risk of change would be much lower than 18% when the actual width of the widened road is taken into consideration.

Option B4, via the opposite side of the Pass of Killiecrankie, was developed as an alternative. Option B4 would still be visible on the opposite side of the gorge, and when considered in the context of other constraints, it presents more issues for Ancient and Semi-Natural Woodland, SSSI and SAC designations and is to present major adverse impacts on other constraints.

On balance, SEA considers Option B4 to be less favourable and recommends the online corridor option at this location (with mitigation).

SEA considers that the online corridor option has the potential to present **major adverse effects** at the site level, associated with some permanent loss of land to road surfacing, and associated permanent visual change over current conditions.

SEA has not conducted surveys of the battlefield; therefore the strategic mitigation recommendation is to work with Historic Scotland and other key stakeholders to inform detailed design and to manage change in a sympathetic manner.

With strategic mitigation recommendations in place, SEA considers that residual impacts on the battlefield would be low in magnitude, resulting in a moderate adverse effect.



#### Historic Gardens & Designed Landscapes (GDL)

There are three GDL designations crossed by the 200m corridor; Murthly Castle, The Hermitage and Blair Castle.

SEA considers that the online corridor option has the potential to present locally **minor adverse effects** at the site level.

Effects are considered to be related to visual change associated with widening as opposed to physical losses.

Near offline Option A6 is likely to present **major adverse impacts** on The Hermitage GDL, as it would lead to physical loss of features within the site boundary. On this basis, SEA considers the online option more favourable in this area.

Near offline Option B5 could potentially reduce effects around the Blair Castle GDL, depending on the consideration of other constraints and local topography.

There are other GDLs in the area, including Scone Palace (already dualled section), Dunkeld House (opposite side of the River Tay), Falls of Bruar (opposite side of the Highland Mainline), Kinrara (opposite side of Loch Alvie and the Highland Mainline), and Doune of Rothiemurchus (opposite side of the Highland Mainline and River Spey).

Each of these GDL lie outwith the 200m corridor and are separated by the physical features noted, so are not considered at risk of direct impacts. There will likely remain some risk of indirect visual effects on these GDL, depending on the level of screening from the dualled A9.

Given their proximity to the current route, effects on setting are expected to be minimal; however, detailed designs will need to be informed by local visual impact assessment to include effects on the setting of these designed landscapes.

In all cases, local level consultation with Historic Scotland on alignment and detailed design will be required to ensure that the road is integrated with its surroundings and minimises the effects of road furniture, including signs, lighting and structures.

#### **Conservation Areas**

Birnam is the only Conservation Area (CA) in the study area crossed by the 200m online corridor.

Both the online corridor and near offline Option A6 run through the Birnam CA and, as trees within CAs are protected, Option A6 would present greater risks of **major adverse effects** due to the need to cut a swathe through well established woodlands within the CA boundaries.

Online dualling will likely require some tree removal/edge clearance, but not to the same extent as Option A6. SEA determines that Option A6 is less favourable in this area.

There are other conservation areas near the A9, including at Dunkeld, Pitlochry and Inverness; however, these are all outwith the 200m corridor and both Dunkeld (Tay) and Pitlochry (Tummel) are on the opposite of the river from the current carriageway and corridor options. They are therefore not considered subject to direct impacts.



#### 11. Biodiversity, Flora and Fauna

#### SEA Challenges/ Opportunities

A9 dualling presents a number of challenges and opportunities with respect to biodiversity and avoiding effects on protected sites and species.

The current route is considered to act as a barrier to some species movement, and dualling presents an opportunity to improve permeability across the route for mobile species, in terms of crossings, underpasses and culvert works, or specific species crossings where required.

SEA considers that the key issues relate to:

- limiting land take and habitat fragmentation;
- avoidance of designated sites and important/ sensitive habitats where possible;
- identifying opportunities to enhance links between habitats to minimise fragmentation and barriers to species movement.

SEA collated and considered a wide range of data on UK and internationally designated sites, ancient and semi-natural ancient woodland, national nature reserves and key species along the route.

The summary baseline table lists the number of sites, the area that they cover as a percentage of the full 200m online corridor and a percentage of the total feature area (i.e. where a recognised site/feature is crossed by the corridor, the percentage of that site/ feature in the corridor).

The percentages are only used to provide an indication of the scale, but not the significance of the features along the corridor.

The wider area around the A9 and the National Park is particularly valuable for a wide range of flora and fauna species with some species either near the extent of their range, or limited to, the upland areas. However, only the key species noted were considered through the SEA in terms of identifying potential hotspots and issues for future design guidance. It should be noted that other species will also be considered through local level survey to inform later design stages.

#### 200m wide Online Corridor Baseline

| Feature type                                   | No. of sites | % corridor | % feature |
|--|--------------|------------|-----------|
| Ancient Woodland                               | 142          | 20%        | 10%       |
| Sites of Special<br>Scientific Interest (SSSI) | 8            | 7%         | 2%        |
| Special Area of Conservation (SAC)             | 7            | 5%         | 1%        |
| Special Protection Area (SPA)                  | 2            | 2%         | 0.5%      |
| National Nature Reserve                        | 2            | 1%         | 6%        |
| Ramsar   | 1            | 1%         | 2%        |

| Key Species  |  |
|--------------|--|
| Capercaillie | Qualifying interests for Kinveachy Forest SPA west of the A9, and Craigmore Wood, Anagach Woods, Abernethy Forest and Cairngorms SPAs east of the A9.                      |
| Capercamic   | Both Abernethy Forest and Cairngorms SPAs are, in places, less than 5km from Kinveachy Forest SPA and capercaillie may travel across the A9.                               |
| Deer         | Found route wide with associated risk of accidents with vehicles, accident hotspots reported around Dunkeld-Birnam, Moy-Tomatin-Craggie sections                           |
| Otter        | Found route wide with hotspots recorded around Bankfoot, Kindallachan, Dalnaspidal, Drumochter, Glen Garry, Kincraig, Insh Marshes, Kingussie, Dalmagarry, Daviot, Tomatin |
| Red Squirrel | Found route wide but with less activity recorded around Glen Garry, Pass of Drumochter, Glen Truim and Slochd-Tomatin  |
| Wildcat      | Areas of activity recorded around Carrbridge, east of Aviemore and around Newtonmore   |

In terms of features with defined site boundaries, the SEA considers the site level issues within the online corridor and compares the online corridor option with the four near offline options in Sections A and B (discussed as A6, B2, B4, B5).



#### Ancient and Semi Natural Ancient Woodland

Route wide analysis shows that Ancient Woodland (AW) covers 20% of the total surface area of the 200m wide online corridor, with higher individual levels of cover in Sections A, B, E and F.

Semi-Natural Ancient Woodland (SNAW) covers 8% of the total 200m wide online corridor, with higher levels of cover in Sections B and E. In most cases, SNAW sites along the route are combined within AW sites.

SEA cannot determine the final route alignment within the 200m wide corridor, therefore it highlights that, cumulatively, 10% of the total area of the AW sites, and 27% of the total area of the SNAW sites, which cross the 200m corridor boundary, could be at risk of some impact.

The real area at risk will be much lower, as the majority of AW/ SNAW within a 200m corridor will be avoided, with works mainly restricted to edge clearance to enable widening around the existing route.

SNH advice is that edge effects (higher light intensity, reduced shelter and humidity) can extend up to 30m into a wood, effectively representing an increased loss of internal woodland habitat along a widened corridor. SNH advise that this is particularly significant in SNAW, where the severity of potential impacts should not be under-estimated.

Widening along the existing route is likely to present lower levels of risk to AW and SNAW, than near offline options. Online widening will increase the distance across the road between woodlands, with subsequent edge effects; however, near offline options could introduce additional fragmentation within woodlands.

When a wood is divided by a corridor, the effect is to create two smaller and generally isolated blocks of woodland. Such fragmentation will already have occurred along the length of the existing route and would be exacerbated by construction of new corridors through woodland.

SEA considers that online A9 dualling will likely result in **minor losses at local levels** around widened road boundaries. Taking into account the additional edge effects on internal woodland habitat, SEA finds that online dualling is likely to present, cumulatively, a **moderate adverse effect** on AW and SNAW.

Each of the near offline routes A6, B2, B4 are assessed as presenting **major adverse effects**, in terms of additional habitat fragmentation.

In terms of the avoidance and/ or minimisation of AW and SNAW habitat fragmentation, SEA assesses all near offline options, other than Option B5, as less favourable than the online corridor.

Similarly, **local minor adverse secondary effects** are likely for species, in terms of a widening of the current infrastructure barrier between woodlands, raised to **locally major adverse effects** should any new routes be cut through woodlands.

SEA considers that local level mitigation in terms of pipes, tunnels, culverts, rope bridges between higher trees, and pedestrian subway crossings will improve permeability and connectivity across the road structure, reducing the severity of secondary adverse barrier effects.

More detailed route alignment studies will be supported by local habitat surveys which should identify and consider the ecological value of the particular AW and SNAW site areas at risk.

In areas where AW and SNAW are unavoidable via route alignment studies, potential impacts should be minimised by limiting the widened footprint of the road as far as possible, and considering the flexibility to locate lay bys (and other footprint widening features) outwith designated woodland boundaries.

Where land take from woodland is unavoidable appropriate mitigation and restoration plans will be required.



#### Natura 2000 (SAC/SPA) & Ramsar Sites

Special Areas of Conservation (SAC) are designated under the European Habitats Directive, Special Protection Areas (SPA) are designated under the European Birds Directive and Ramsar sites are internationally important wetland areas, designated under the Ramsar Convention.

In order to ensure effective assessment of potential effects on Natura and Ramsar sites, a Habitats Regulations Appraisal (HRA) Screening is running in parallel with the SEA. HRA Screening aims to identify internationally designated sites where A9 dualling could present *likely significant effects* (LSE) on qualifying interest features or the conservation objectives of the site.

Where the potential for LSE is identified, then a programme level Appropriate Assessment needs to be undertaken for each site. The HRA Screening Report has been submitted for consultation with SNH; however, at this point the Screening exercise found that A9 dualling has the **potential to present Likely Significant Effects (LSE)** on the:

- River Tay SAC;
- Tulach Hill and Glen Fender Meadows SAC;
- River Spey SAC;
- River Spey Insh Marshes SPA/ Ramsar site;
- Insh Marshes SAC; and
- Drumochter Hills SPA and SAC.

Each of these sites will be examined further through strategic programme level Appropriate Assessment (AA) to consider a range of dualling related issues, and determine effective strategic mitigation recommendations, which will be captured and incorporated via the SEA Post Adoption Statement.

SNH feedback may recommend the inclusion of additional sites.

Online Corridor vs. Near Offline Options

Option A6 would require at least two additional crossings of the River Tay SAC in new areas. The potential impact of works in new, presently less disturbed/ engineered areas, has the potential to present greater risks of LSE than the online corridor, making Option A6 less favourable.

Option B2 lies fully within the Tay flood plain (a wider area than the SAC boundary) and would require a large crossing in the vicinity of the Shingle Islands SAC. In the context of other constraints, SEA considers this option less favourable than the online corridor.

Option B4 provides an alternative route around Pitlochry and the Killiecrankie Battlefield site; however, this Option is likely to present higher risk of LSE in terms of the River Tay and Tullach Hill and Glen Fender Meadows SACs. SEA considers that Option B4 is therefore less favourable than the online corridor.

Option B5 straightens some bends in the current route at the northern end of the Tulach Hill site, creating additional distance between the road and the River Tay SAC for the majority of the Option length. SEA considers that, in terms of the River Tay SAC only, this Option might be favourable when compared with the online corridor.

SEA considers that dualling has the potential for major adverse effects on the Drumochter Hills and Insh Marshes sites, and minor adverse effects on the other noted designated sites.

SEA recommends a workshop with SNH, SEPA and the Cairngorms National Park Authority (CNPA), during the SEA Environmental Report consultation period, to inform a strategic level Appropriate Assessment (AA) and the development of suitable guidance for later design stages around the Tay, Spey, Tulach Hill and Glen Fender Meadows, Drumochter Hills and Insh Marshes designated Natura and Ramsar sites.



#### Sites of Special Scientific Interest (SSSI)

There are no biological or mixed SSSI identified within the 200m corridor in Sections A or F. In the other sections, the 200m wide online corridor crosses the boundaries of eight SSSI sites designated for biological features.

The online corridor option in Section B presents the potential for **major adverse effects at the site level** on the Aldclune and Inverack Meadows SSSI, should the preferred route alignment encroach upon, and require land take from within the site.

Near offline Option B2 would be likely to present greater risks to the Shingle Islands SSSI, as a crossing would be required around one of the island locations. SEA considers Option B2 as less favourable than the online corridor.

Option B4 presents significantly higher risk to the Pass of Killiecrankie SSSI, designated for upland oak woodland, as this Option would cut directly through the site. Option B4 would also likely present a higher level of risk to the Tulach Hill SSSI. SEA considers Option B4 as less favourable than the online corridor.

However, Option B5 actually presents lower risks to the Aldclune and Inverack Meadows SSSI, as it straightens the bends on the A9 that border the site boundaries. SEA considers that, in terms of the Aldclune and Inverack Meadows SSSI only, this Option might be favourable when compared with the online corridor.

SEA considers that the majority of SSSI sites within the 200m online corridor are avoidable via route alignment studies, either by widening to the opposite side of the carriageway, or minimising the dualling footprint in the narrower area around Craigellachie, which would result in **no significant adverse effects**.

Should route alignment studies prove unable to avoid encroaching on the Craigellachie site, in Section E, any land take should be minimised and would require consultation with SNH to determine appropriate mitigation measures.

Land take from the SSSI would be minimal; however, as it would represent permanent loss within a national site, it could present potentially major adverse effects at the site level, depending on the sensitivity of the habitats/species affected.

Strategic mitigation measures developed under the strategic Appropriate Assessment for the Tulach Hill, Drumochter Hills and Insh Marshes Natura and Ramsar designations will be designed to result in no LSE for the qualifying interest features of the Natura designations.

SEA will ensure that corresponding features of the SSSI designations on these sites are equally considered.

Given that the Drumochter Hills SSSI has different boundaries than the SAC/ SPA designations, there remains some risk of potentially **major adverse effects at the site level.** 

Detailed local environmental survey and assessment will be required to inform A9 dualling route alignment studies through the Drumochter Hills SSSI site, to ensure that the overall footprint width is minimised, that SSSI features are identified and avoided wherever possible, and that effective site level mitigation is agreed with SNH.

This would likely reduce the risk of residual environmental effects to **moderate or minor adverse effects** at the site level.



#### **National Nature Reserves (NNR)**

The A9 runs alongside two NNR sites in Section E; Insh Marshes and Craigellachie.

With respect to the Craigellachie NNR, the site is at a higher elevation than the A9, as the road wraps around the hillside. The area between the NNR site and built features on the opposite side of the A9 is narrow, closing to 40-50m at some points.

SEA recognises this potential pinch point in Section E; however, SEA considers that there is sufficient clearance around the current single carriageway to avoid encroaching on the site, which would result in **no significant adverse effects**.

Should route alignment studies prove unable to avoid encroaching on this site, any land take should be minimised and would require consultation with SNH to determine appropriate mitigation measures.

Land take from the NNR would be minimal; however, as it would represent permanent loss within a national site, it could present potentially major adverse effects at the site level, depending on the sensitivity of the habitat/ species affected.

Detailed route alignment studies should seek to avoid encroaching upon the NNR site boundary; however, in the event that does not prove feasible, the supporting local level EA should consider appropriate mitigation measures in consultation with SNH.

Strategic mitigation measures developed under the strategic AA for the Insh Marshes Natura and Ramsar designations will be designed to result in no LSE for the Natura designations.

SEA will ensure that these equally result in guidance to avoid significant adverse effects to the Insh Marshes NNR.

#### **Consideration of Key Species**

The general consideration for key species is the likely effect A9 dualling could have on habitat loss or fragmentation, and species movement across the road, i.e. whether dualling will present additional barrier effects and mortality risks.

The SEA discusses the potential issues around dualling on woodland habitat, barrier effects of road widening, opportunities around drainage, SUDS and culverts improving connectivity, as well as issues around grade separated junctions, pedestrian subways and deer fencing.

SEA considers that online dualling will present minor adverse effects at the local level, in terms of the potential for woodland edge clearance and associated habitat loss and barrier effects.

Dualling could equally provide **locally minor beneficial effects** by improving permeability through the route for species.

SEA considers that local level ecological surveys, environmental and geotechnical assessment, undertaken in accordance with DRMB and best practice, will inform route alignment studies to avoid and minimise potential adverse effects.

Further survey will be required at the preferred route alignment detailed design stage; and detailed management plans including appropriate mitigation measures, working method statements, and achievable restoration plans will be required for approval by SNH at the project level.



#### 12. Soil and Water

#### SEA Challenges/ Opportunities

A9 dualling presents a number of challenges and opportunities with respect to soil and water considerations.

Challenges for soil include delivering a safe, dualled route with appropriately sited junctions, lay-bys and SUDS whilst minimising overall land-take, soil sealing and construction or excavation in peat and wetland areas, as well as protecting designated geological sites and habitats.

Challenges for water include delivering infrastructure with improved drainage that maintains hydrological regimes for peat and wetland areas, avoids increasing flood risks along the entire route and delivers construction of watercourse crossings that minimises impacts on designated water and ecological features.

The summary baseline table highlights the areas covered by peat and wetland as a percentage of the full 200m online corridor and a percentage of the total feature area (i.e. where a specific area of peat/ wetland is crossed by the corridor, the percentage of that area in the corridor).

The percentages are only used to provide an indication of the scale, but not the significance of the features along the corridor.

#### Soil Sealing

Route wide, the area covered by hard standing, in terms of road surfacing for online dualling, could potentially be in the order of 2sqkm (this is an extreme estimate). To provide some context, London's Olympic Park is approximately 2.4sqkm.

Route wide, a 2sqkm linear development over varied topography and soils is assessed as having **minor adverse impacts** on regional soil resources.

As hard standing effectively sterilises the area underneath in terms of soil biodiversity, SEA considers that A9 dualling will present **minor to moderate adverse effects at the local level**, depending on the habitat or ecological value of local soils affected within each section.

#### 200m wide Online Corridor Baseline

| Feature Type                                  | % corridor area   | % feature area |  |  |
|---|---|----------------|--|--|
| Peat  | 16% 6%  |                |  |  |
| Peaty soils (podzols/ gleys)                  | 24% 5%  |                |  |  |
| Wetland                                       | 2% 9%   |                |  |  |
| Other Features                                |   |                |  |  |
| Main watercourses (rivers)                    | Tay, Spey, Tummel, Garry,<br>Dulnain, Findhorn            |                |  |  |
| Watercourse crossings                         | At least 300 in the 200m corridor                         |                |  |  |
| 200 year indicative flood zone                | At least 40 areas in 200m corridor 9% total corridor area |                |  |  |
| Site of Special Scientific<br>Interest (SSSI) | 4 geological & mixed sites                                |                |  |  |
| Geological Conservation<br>Review (GCR) Sites | 4 sites   |                |  |  |

Soil losses to hard standing would be even greater under alternative or near offline routes that require full dual carriageway construction, rather than widening the existing route.

Detailed route alignment studies and environmental assessment should work to minimise the overall area of land take required for dualling, focusing particularly on avoiding and limiting effects on higher value soils such as peat and productive agricultural land.

#### **Agricultural Land**

Prime quality agricultural land is considered a finite resource, and general guidance would be to avoid losses wherever possible. GIS analysis shows that prime quality, arable land (Grade 2-3.1) is found in the 200m corridor in Sections A and F.

In Section F, this prime quality land is around an already dualled section and is unlikely to be affected. In Section A, dualling has the potential to result in some, but anticipated to be minimal, loss.

Slightly lower quality (not prime) Grade 3.2-4.2, mixed agricultural land is found bordering the A9 in all sections except Section D. There are likely to be minor losses in Sections A, B, C, E and F; however overall losses associated with boundary widening for online dualling are likely to be minimal at the route wide scale.



SEA considers that online dualling will result in minor adverse effects on prime quality land (Grade 2-3.1) in Section A, and minor adverse effects on mixed agricultural land (Grade 3.2-4.2) across all sections, other than Section D where no such land is identified.

At the route wide level, potential losses of productive agricultural land are considered to present a **cumulative minor adverse effect** as the overall scale of losses is expected to be low.

#### Peat

The key areas of peat and peaty soils that will be affected by A9 dualling are:

- Section C Drumochter Pass;
- Section D Glen Truim;
- Section E just past the Crubenmore dual carriageway (relatively small area); and
- Section F remaining length of the route north of Carrbridge.

SEA considers that online dualling presents the potential for **major adverse effects** in Sections C, D and F, and **minor adverse effects** in Section E.

Online dualling would be expected to present lower risks to peat soils than alternative or near offline routes as these would be more likely to affect previously undisturbed areas of peat.

The area through the Drumochter Pass will be particularly challenging given the constrained nature of the valley floor and, should dualling impact areas of active blanket bog, then a **major** adverse effect at the site level would be determined as it is a priority habitat.

Local level peat ecology, hydrology and geotechnical survey will be required to determine locally appropriate solutions which minimise the potential effects of drainage and desiccation, and inform suitable restoration and management plans.

#### **Wetland Areas**

No wetland feature areas were identified in Section A; however, there are areas of wetland to be considered in all other Sections of the route.

SEA considers that A9 dualling presents the risk of losses at local levels resulting in **minor to major adverse effects**, depending on the sensitivity and value of the wetland habitat affected.

Wetland areas will require detailed consideration during route alignment studies to avoid, where possible, or to minimise the footprint where avoidance is not possible. Route alignment studies may have to consider alternatives outwith the 200m corridor to avoid wetland sites (within the context of other constraints).

Local level ecology and hydrology survey should determine the feeding water source for groundwater dependent wetlands, to inform measures to maintain the integrity of hydrological regimes, and the residual cumulative effect is assessed as **minor adverse**.

#### Geological SSSI and GCR Sites

There are only three key sites around single carriageway sections; Drumochter Hills SSSI, the Slochd GCR, and the Glen Garry area which has both GCR and SSSI designations (A9 Cuttings and River Garry GCR and the Glen Garry SSSI).

Other sites were identified in the A9 corridor area; however, they are around already dualled sections and not considered further in the SEA.

In Section C, the Glen Garry SSSI is designated for structural and metamorphic Dalradian geology, preserving evidence of the shallow water environment in which they were deposited as sediments over 600 million years ago.

This site creates a specific tension between general SSSI requirements to avoid impacts wherever possible, and the fact that the A9 dissects the site, exposing some of the features.



The general position that partial or full removal of any rock outcrop would present adverse impacts on the site's qualifying features is accepted; however, dualling may equally open up other features of geological interest, and there may be opportunities for enhancement in the area, via lay by positioning and providing safe pedestrian subway access to both sides of the road.

SEA recommends discussion and agreement with SNH, on a preferred approach to this particular SSSI site, to inform strategic design guidance. Should the decision be that no construction takes place within the site boundary, route alignment studies will have to consider alternative alignments outwith the 200m corridor in this area.

The Drumochter Hills Mixed SSSI is designated for fluvial (river) geomorphology. This is one of the many issues facing dualling through the Drumochter Hills site.

SEA recommends discussion and agreement with SNH, on a preferred approach to this particular SSSI site, to inform strategic design guidance. It is likely that this issue could be discussed under the workshop previously recommended to inform a strategic Appropriate Assessment for the Drumochter Hills SAC/SPA designations.

SEA considers that A9 dualling presents potentially **mixed effects**, with risks of adverse impacts and opportunities for local enhancement.

Potential enhancement benefits could be realised around Glen Garry and Slochd; however, early agreement is required with SNH on the preferred approach to provide strategic guidance.

#### **Watercourse Crossings**

The main rivers along the A9 corridor include the Tay, Tummel and Garry to the south of the Drumochter Pass, and the Spey, Findhorn and Dulnain to the north of Drumochter.

Each has numerous tributaries, and GIS analysis indicates that there are at least 300 instances where the 200m wide online corridor crosses a watercourse, although around 75 are at already dualled sections.

The analysis showed that the number of crossings required in each A9 Section, typically doubles between 15m and 100m from the current route.

SEA considers that, in all cases, online dualling will minimise the number of watercourse crossings, culverts and engineering works.

SEA considers that A9 dualling presents potentially **minor to moderate adverse effects** at the local/site level, depending on the sensitivity of the local watercourse, habitat and species.

Due to the number of crossings and culverts required, **moderate adverse effects** are anticipated, cumulatively, at the route wide scale.

Effective design advice from river geomorphology and ecology specialists, and consultation with SNH and SEPA, will minimise local and cumulative risks, and the residual cumulative effect is assessed as **minor adverse**.

#### Drainage and SUDS

Upgraded sections of the A9 will be designed and constructed to meet current drainage standards, including SUDS provisions.

Incorporating SUDS along the length of the newly dualled sections will help ensure effective retention and settlement of surface water runoff before discharge, with a likely reduction in pollutant levels in the discharge.

Considered cumulatively over the 129km to be dualled, SEA assesses this as a potentially significant improvement over current conditions, especially over the long term.

Given that the A9 is a rural trunk road, there is a need to incorporate high quality, landscape driven design when considering any large, visible SUDS features such as retention ponds/ detention basins.

SEA considers that this approach will be more likely to minimise the visual effect of SUDS features and deliver greater potential for secondary benefits in terms of ecological enhancement and habitat creation.



SEA also considers that the improvement of drainage provisions along the route will provide additional/ enhanced opportunities for mobile species to cross the road, thereby reducing the potential barrier effects of a widened road.

In areas where later design stage surveys identify mobile species activity, or around areas designated for relevant species such as otter, then enhancement measures should be incorporated into drainage designs including larger pipes/culverts and mammal ledges. Such requirements should be defined by ecology specialists.

SEA considers that the improvement of A9 drainage, with incorporation of SUDS, will present:

- Minor local benefits, aggregating up to a moderate regional benefit, with respect to long term improvements to discharge water quality
- Minor local benefits, potentially aggregating up to a moderate regional benefit, with respect to provision of crossing opportunities, habitat connectivity, limiting barrier effects and potential habitat creation for biodiversity
- Mixed effects in terms of landscape and visual issues, where sympathetic design of individual SUDS features could be an enhancement/ present minimal issues locally, but where a large number of SUDS features could have a noticeable effect on regional character.

### **Flooding**

A route-wide A9 dualling Strategic Flood Risk Assessment (SFRA) is underway and will continue through the SEA Environmental Report public consultation period.

The route crosses some of the largest rivers in Scotland, including the three main river catchments of the Tay, Spey and Findhorn. It also crosses areas with known flood history and it is recognised that 'medium to high' flood risk areas are unlikely to be completely avoided under the dualling programme.

The SFRA will carefully consider A9 dualling in areas sensitive to flooding; primarily to avoid increasing flood risk and areas of flood hazard.

Preliminary SFRA Scoping considered that A9 flooding from groundwater, coastal, sewer and infrastructure failure is unlikely. The SFRA will focus on flooding from rivers and surface water.

Initial review has identified that the key risks associated with dualling include:

- New or widened embankments within the functional floodplain, potentially resulting in reduction of flood storage and increase in flood level;
- New watercourse crossings potentially limiting flow conveyance and resulting in flow backup, increase in flood level and wider flooding.

Preliminary consultation with SEPA agreed the following:

- Dualling will be designed in consideration of the 1 in 200 year return period flood event;
- Consideration to be given to flood risk during construction phases, including temporary works and storage of materials outwith the functional floodplain;
- Alignment options that locate SUDS features within the functional floodplain will be required to demonstrate there is no change in flood risk, and no impact to water quality.

SEA considers that A9 dualling could potentially present **major adverse effects** at the local and route wide scales. However, SFRA followed by more detailed Flood Risk Assessment where required at the local level, will work to ensure that A9 dualling results in no net increase in flood risk.

Therefore SEA determines that A9 dualling will have **no significant effect** on flooding risks.

SFRA findings and recommendations will be incorporated into the SEA Post Adoption Statement and finalised monitoring framework.



#### 13. Near Offline Options Summary

#### Section A - Option A6

Discussion through the SEA demonstrates that Option A6 presents no significant advantages over the corresponding online corridor. In fact, there are a number of significant disadvantages including:

- Significant swathe cut required through Ancient and Semi Natural Ancient Woodland;
- Greater risk to local woodland species associated with increased fragmentation through the woodland areas;
- Potential for more significant impact on the River Tay (Dunkeld) NSA, associated with cutting through the woodland area;
- Significant impact through The Hermitage National Trust property and GDL; and
- Additional crossings required over the River Tay SAC in areas currently unaffected around The Hermitage GDL.

Therefore SEA recommends that Option A6 is not taken forward for further consideration as a viable alternative to the online corridor option.

#### **Section B – Option B2**

Discussion through the SEA demonstrates that Option B2 presents no significant advantages over the corresponding online corridor. In fact, there are a number of significant disadvantages including:

- Greater risks to Ancient and Semi Natural Ancient Woodland, in terms of introducing new edge clearance to woodland areas not affected by the current A9;
- Greater risk to local woodland species associated with impacts on woodland areas not affected by the current A9;
- Runs to the opposite side of the River Tay through the Tay floodplain; and
- Additional large crossing of the River Tay SAC required that would also present increased risks for the Shingle Islands SAC and SSSI.

Therefore SEA recommends that Option B2 is not taken forward for further consideration as a viable alternative to the online corridor option.

#### Section B - Option B4

Discussion through the SEA demonstrates that Option B4 presents only one potential advantage over the corresponding online corridor:

 Avoids dualling within the Killiecrankie Battlefield site.

SEA discussion demonstrates a number of significant disadvantages including:

- Swathe cuts required through Ancient and Semi Natural Ancient Woodland, including the Pass of Killiecrankie SSSI (which also includes wetland habitat);
- Greater risk to local woodland species associated with impacts on woodland areas not affected by the current A9;
- Potential for more significant impact on the Loch Tummel NSA, associated with cutting through the woodland areas, and more significant change through the Pass of Killiecrankie, specifically identified in the description of the Special Qualities of the NSA. Online dualling will also have some effect; however, as the road is already dualled on the entrance to the Pass, effects are considered less significant; and
- Introduces greater risks to the Tulach Hill and Glen Fender Meadows SAC, the Tulach Hill SSSI and requires additional crossings of the River Tay SAC through areas not affected by the current A9.

Following discussion with the A9 PES team, it is understood that the road geometry around Pitlochry is particularly challenging and that elements of Option B4 around Pitlochry may actually be more favourable than the online corridor in engineering terms.

Where this is the case, SEA recommends a modification to this alternative such that Option B4 ties back into the A9 before the existing dual carriageway on the approach to Killiecrankie.



This would avoid potential impacts on the Tulach Hill sites and the Pass of Killiecrankie SSSI; therefore, reducing the amount of important woodland and wetland potentially affected. Depending on the final alignment, there may still be a need to cross the River Tay SAC.

Therefore SEA recommends that, in its current form, Option B4 is not taken forward for further consideration as a viable alternative to the online corridor option; however, with suitable modifications in place, where Option B4 is significantly shortened and ties back into the A9 dual carriageway before Killiecrankie, it could provide a viable alternative to accommodate a solution around Pitlochry.

#### Section B - Option B5

Discussion through the SEA demonstrates that Option B5 presents some potential advantages over the corresponding online corridor:

- Potentially avoids effects on the Aldclune and Inverack Meadows SSSI, with corresponding benefits for the wetland habitat within;
- Potentially reduces local risks to the River Tay SAC;
- Increases the distance between the dualled A9 and the Blair Castle GDL boundary;
- Affects the same area of woodland as the online corridor (no significant advantage, but also no significant disadvantage); and
- Straightens 'events' (bends) in the road which may improve sight lines and safety.

SEA found no significant disadvantages when comparing Option B5 with the online corridor; therefore SEA recommends that Option B5 is taken forward for further consideration as a viable alternative to the online corridor option.

#### 14. Programme Recommendations

With respect to identifying areas where the A9 dualling programme could potentially realise quick wins, in terms of bringing schemes forward for construction programming, SEA considers that the programme should prioritise the least environmentally constrained areas to enable additional time for iterative design and approvals on the more constrained areas.

SEA considers that the areas of least constraint, which therefore have potential to be developed in a shorter time-scale and be brought to construction earlier in the programme, include:

- Section F, connecting the dual carriageways from Tomatin north past Moy.
- Section D, from Dalwhinnie north to Crubenmore dual carriageway.
- Section E, from Crubenmore dual carriageway past Ralia towards Ruthven.
- Section C, Struan/ Pitagowan to Glen Garry dual carriageway.
- Section F, from Carrbridge to the dual carriageway at Slochd.
- Section A from Luncarty to Pass of Birnam dual carriageway.
- Section B from Tay Crossing to the dual carriageway south of Ballinluig.

These sections are not constraint free, but are considered likely to present fewer environmental issues in terms of Natura sites, SSSI and flooding.

SEA considers that the areas of greatest constraint include:

 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.



- Section E, from Ruthven past Kingussie to Kincraig heavily designated, multiple SAC, SPA, Ramsar, Nature Reserve, SSSI, flood plain, etc.
- Section E from Dalraddy past Aviemore and Kinveachy to Carrbridge multiple woodland, SAC, SPA, SSSI, Nature Reserve, etc.
- Section B around Pitlochry and through Killiecrankie battlefield.

These sections 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 fully considered within single schemes.

The areas noted in Section C and Section E are the key areas recommended for discussion with stakeholders at a Natura/ Appropriate Assessment workshop during the SEA ER Consultation period.

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 programme.

#### 15. SEA Monitoring

Given the nature of an infrastructure delivery programme, there is unlikely to be a revision of the SEA; therefore a typical SEA monitoring framework, which considers change and progress on issues between plan review periods, is not considered appropriate.

The intention is to develop an A9 project level assessment framework and checklist, to support an overarching A9 design guide, and to ensure that strategic environmental principles are embedded and tested across each scheme design and carried through to construction stages.

Further work on A9 dualling strategic environmental principles will continue through the SEA public consultation period, for inclusion with the monitoring framework in the SEA Post Adoption Statement.

The Environmental Report provides a preliminary draft framework, based on the recommendations from the SEA discussion sections, and the tables are repeated below for reference.

Recommendations may be subject to review following feedback from the public consultation process and the framework will be updated to include strategic environmental principles and any additional recommendations from the supporting strategic studies that are currently underway, including the Landscape Review, the Strategic Flood Risk Assessment and the Habitats Regulations Appraisal/ Appropriate Assessment process.



**Draft SEA Monitoring Framework - SEA Procedural Aspects** 

| SEA Recommendation  | Comment   | Lead<br>Responsibility | Key<br>Stakeholders   | Target<br>Timescale &<br>Outputs  | Include in<br>A9 Design Guide<br>(Y/N/ Comment)                         | Progress |
|---|---|------------------------|---|---|---|----------|
| SEA Procedural  |   |                        |   |   |   |          |
| SEA to oversee the production of<br>a strategic programme level<br>Appropriate Assessment for<br>Natura sites identified via HRA<br>Screening as having the potential<br>to experience Likely Significant<br>Effects (LSE). | SEA recommends a workshop with SNH, SEPA and CNPA, during the SEA ER consultation period, to discuss a range of issues around key Natura sites in order to inform the AA. | A9 SEA team            | Transport<br>Scotland<br>SNH<br>SEPA<br>CNPA<br>A9 PES team                   | July-Sept 2013 Report findings and recommendations in SEA Post Adoption Statement   | Y Recommendations are expected to inform an A9 Design Guide             |          |
| SEA to assess the outcomes of<br>the emerging Junction Strategy in<br>terms of broadly indicative areas<br>for junction locations.  | Key aspects to be considered include the potential direct and indirect impacts from potential land take required for grade separated junctions.                           | A9 SEA team            | A9 PES team<br>Transport<br>Scotland  | July-Sept 2013 Report findings and recommendations in SEA Post Adoption Statement   | Y<br>Recommendations<br>are expected to<br>inform an A9<br>Design Guide |          |
| SEA to review the outcomes of<br>the emerging Lay-By Strategy, in<br>terms of the strategic principles<br>and guidance for later design<br>stages.  | SEA cannot provide any detailed<br>assessment on the potential<br>siting/ location of lay-bys along<br>an as yet undetermined route<br>alignment.                         | A9 SEA team            | A9 PES team<br>Transport<br>Scotland  | July-Sept 2013 Report findings and recommendations in SEA Post Adoption Statement   | Y Recommendations are expected to inform an A9 Design Guide             |          |
| SEA to review the outcomes of<br>the emerging Non Motorised User<br>(NMU) Strategy, in terms of the<br>strategic principles and guidance<br>for later design stages.  |   | A9 SEA team            | A9 PES team<br>Transport<br>Scotland  | July-Sept 2013  Report findings and recommendations in SEA Post  Adoption Statement | Y Recommendations are expected to inform an A9 Design Guide             |          |
| SEA to contact the Highland Mainline Improvements Project team, to determine whether option sites for HML passing loops have been identified in the interim period.   | If so, option sites to be considered in a more detailed cumulative effects assessment.  | A9 SEA team            | Transport<br>Scotland<br>Highland<br>Mainline<br>Improvements<br>Project team | July-Sept 2013 Report findings and recommendations in SEA Post Adoption Statement   | Y Recommendations are expected to inform an A9 Design Guide             |          |



**Draft SEA Monitoring Framework – SEA Recommendations** 

| SEA Recommendation  | Comment  | Lead<br>Responsibility            | Key<br>Stakeholders  | Target<br>Timescale & Outputs                                   | Include in<br>A9 Design Guide<br>(Y/N/ Comment)          | Progress |
|---|--|-----------------------------------|--|---|--|----------|
| Material Assets   |  |                                   |  |   |  |          |
| <b>SEA recommends</b> that, wherever possible, A9 dualling uses locally sourced materials and suppliers.  | To reduce material transport emissions and to support local businesses.  | Transport Scotland                | Construction<br>Contractors                                | Sustainability requirement in construction contracts            | N<br>Contract issue                                      |          |
| SEA recommends strategic programme level discussions with SEPA to investigate potential mechanisms to support material resource efficiency along the route.   | For example, temporary depots for excavated material, etc.   | Transport Scotland                | SEPA DMRB 3 designers Construction Contractors             | Construction stage<br>guidance on transfers<br>between A9 sites | N<br>Construction issue                                  |          |
| SEA recommends that Site Waste Management Plans are adopted as best practice across all A9 dualling schemes.  |  | Transport Scotland                | Construction<br>Contractors                                | Requirement for SWMP in construction contracts                  | N<br>Contractual and<br>construction<br>management issue |          |
| Population & Human Health   |  |                                   |  |   |  |          |
| SEA recommends that consultations take place with the relevant Local Authorities and Cairngorms National Park Authority (CNPA) to determine where any planned non-trunk road projects and development plan land allocations need to be taken into account, in DMRB Stage 2 route alignment studies, to inform final decisions on junction locations and connecting roads. | Generally completed as standard under DMRB Stage2 at individual scheme level, but worth considering at route wide strategic level. | Transport Scotland<br>A9 PES team | Local Authorities<br>Cairngorms National<br>Park Authority | End Dec 2013  | Y  |          |
| SEA recommends that where NMU routes require combination and/ or diversions to safer crossing points, any permanent diversions should be designed to provide the same, or improved, standard of pathway.  |  | Transport Scotland<br>A9 PES team | DMRB Stage 3<br>designers                                  | End Dec 2013<br>Include in emerging<br>NMU Strategy             | Y  |          |



| SEA Recommendation   | Comment   | Lead<br>Responsibility            | Key<br>Stakeholders   | Target<br>Timescale & Outputs | Include in<br>A9 Design Guide<br>(Y/N/ Comment) | Progress |
|--|---|-----------------------------------|---|-------------------------------|---|----------|
| Landscape & Visual   |   |                                   |   |                               |   |          |
| SEA recommends that early consultations take place with key stakeholders to determine strategic landscape design principles and guidance.  | To minimise visual impacts and ensure high quality design of structures, which respect and reflect the locally changing character of the A9 route.  | Transport Scotland<br>A9 PES Team | Landscape Review<br>team<br>Architecture &<br>Design Scotland<br>(A&DS) | End Q2 2014                   | Y   |          |
| <b>SEA recommends</b> a preference for underpass crossings, rather than overbridges, wherever possible   | To minimise visual intrusion to the surrounding landscape and to provide safer crossing opportunities for both humans and local mobile species.   | Transport Scotland                | DMRB 2/3 Design<br>teams  | n/a                           | Y   |          |
| SEA recommends that a general strategic principle on the avoidance of lighting on the A9 mainline be adopted, except where absolutely required by safety standards.  | This principle should also apply to the consideration of signage requirements, with a preference for unlit signs wherever possible.   | Transport Scotland                | DMRB 2/3 Design<br>teams  | n/a                           | Y   |          |
| SEA recommends that detailed consideration be given to the viability and reliability, in terms of safety requirements, of automatic lighting controls on the A9, such that in the absence of vehicle movements, junction lighting is dimmed or switched off. | Requires consultation with key stakeholders to determine whether automatic switching on/ off could be considered a nuisance in some locations; however, it could also provide long term benefits in terms of limiting energy consumption. | Transport Scotland                | Local Authorities<br>Cairngorms National<br>Park Authority              | End Q2 2014                   | Y   |          |
| SEA recommends that a general strategic principle on the avoidance of overhead signage and gantry structures be adopted, except where absolutely required by safety standards.   |   | Transport Scotland                | DMRB 2/3 Design<br>teams  | n/a                           | Y   |          |



| SEA Recommendation  | Comment  | Lead<br>Responsibility                          | Key<br>Stakeholders   | Target<br>Timescale & Outputs | Include in<br>A9 Design Guide<br>(Y/N/ Comment) | Progress |
|---|--|---|---|-------------------------------|---|----------|
| SEA recommends that a signage strategy should be considered to develop strategic guidance on sign placement; in order to avoid placing signs in locations that would present detrimental visual intrusion on important views from the road. |  | Transport Scotland<br>Landscape Review<br>team  | SNH<br>Cairngorms National<br>Park Authority                                    | End Q1 2014                   | Y   |          |
| SEA recommends that consultations take place with the Cairngorms National Park Authority (CNPA) and SNH to determine a range of acceptable barrier options, to provide guidance for later design and construction stages.                   | European public procurement requirements may prevent the specification of particular products.   | Transport Scotland<br>Landscape Review<br>team  | A9 PES team<br>SNH<br>Cairngorms National<br>Park Authority                     | End Q1 2014                   | Y   |          |
| Historic Environment  |  |   |   |                               |   |          |
| SEA recommends that early consultations take place with Historic Scotland and other key stakeholders to inform design guidance around Killiecrankie Battlefield   | To manage change in a sympathetic manner and to minimise potential adverse effects on battlefield setting, context and interpretation  | Transport Scotland                              | Historic Scotland<br>Cairngorms National<br>Park Authority                      | End Q1 2014                   | Y   |          |
| SEA recommends that route alignment studies consider the potential for effects on unscheduled archaeology in route selection  | Historic Scotland advised that<br>this bank of information will help<br>advise route alignment studies<br>and local survey work at more<br>detailed design stages.   | Transport Scotland<br>DMRB 2/ 3 design<br>teams | Historic Scotland<br>Local Authorities<br>Cairngorms National<br>Park Authority | n/a                           | Y   |          |
| SEA recommends that A9 dualling tracks the progress of the historic environment policy review as it may have implications for more detailed design stages and project level environmental assessments.                                      | Historic Scotland advise that historic environment policy in Scotland is currently under review, and that the findings of the review will be implemented during the lifetime of the A9 dualling programme. | Transport Scotland                              | Historic Scotland   | n/a                           | Y   |          |



| SEA Recommendation   | Comment  | Lead<br>Responsibility  | Key<br>Stakeholders                          | Target<br>Timescale & Outputs | Include in<br>A9 Design Guide<br>(Y/N/ Comment)          | Progress |
|--|--|---|--|-------------------------------|--|----------|
| Biodiversity   |  |   |  |                               |  |          |
| SEA recommends a workshop with SNH, SEPA and the Cairngorms National Park Authority (CNPA), to inform a strategic level Appropriate Assessment and the development of suitable guidance for later design stages around the Tay, Spey, Tulach Hill and Glen Fender Meadows, Drumochter Hills and Insh Marshes designated Natura and Ramsar sites. | Any updated findings and recommendations of the strategic level AA will be incorporated into the SEA Post Adoption Statement and Monitoring Framework. | A9 SEA team<br>(also noted in<br>procedural<br>recommendations) | SNH<br>CNPA                                  | July-Sept 2013                | Y<br>Outputs will inform<br>strategic design<br>guidance |          |
| SEA recommends that outline Strategic Principles for Biodiversity include a presumption in favour of: (1) avoiding land take from AW and SNAW wherever possible, (2) minimising the dualled route width through AW and SNAW areas  | To limit additional barrier effects; for example, considering the viability of locating lay bys outwith high value woodland boundaries.                | Transport Scotland  | A9 PES team<br>SNH                           | n/a                           | Υ  |          |
| SEA recommends that deer crossings and fencing should be considered further at the more detailed design and local environmental assessment level.  | Locally balanced solutions should be informed by best practice guidance and consultation with key stakeholders and specialists.                        | Transport Scotland<br>DMRB 2/ 3 design<br>teams                 | SNH<br>Deer Commission                       | n/a                           | Y  |          |
| Soils & Geological   |  |   |  |                               |  |          |
| SEA recommends that strategic design guidance includes principles on aesthetic quality requirements for cuttings, to minimise the residual visual effects of cutting activity.   | Where possible, cuttings should look more 'natural' with less obvious visual imprint of cutting activity in the rock face.                             | Landscape Review team   | SNH<br>Cairngorms National<br>Park Authority | n/a                           | Y  |          |



| SEA Recommendation   | Comment   | Lead<br>Responsibility                          | Key<br>Stakeholders                                       | Target<br>Timescale & Outputs   | Include in<br>A9 Design Guide<br>(Y/N/ Comment) | Progress |
|--|---|---|---|---|---|----------|
| SEA recommends that detailed design and local environmental assessment consults with SNH and other key stakeholders on the potential opportunities for cutting activity to expose features of geodiversity interest.   | There may be opportunities<br>around Glen Garry and The<br>Slochd GCR site.   | Transport Scotland<br>DMRB 2/ 3 design<br>teams | Landscape Review team SNH JNCC Local RIGS representatives | n/a   | Y   |          |
| SEA recommends early discussion and agreement with SNH, on a preferred approach to the Glen Garry SSSI site, to inform strategic design guidance.  | Should the decision be that no construction takes place within the site boundary, route alignment studies will have to consider alternative alignments outwith the 200m corridor. | Transport Scotland                              | Landscape Review<br>team<br>SNH                           | End Q1 2014   | Y   |          |
| Water & Flooding   |   |   |   |   |   |          |
| <b>SEA recommends</b> that a strategic principle on the avoidance of increased flood risk is adopted.  | To avoid flood risk and consider mitigation where unavoidable.  | Transport Scotland<br>SFRA team                 | SEPA<br>DMRB 2/3 design<br>teams                          | n/a   | Y   |          |
| SEA recommends that a general strategic principle on the separation of road surface runoff from surrounding environmental surface water runoff is adopted.   | Inter-related with Biodiversity<br>Generally adopted within best<br>practice road drainage design   | Transport Scotland                              | SEPA<br>SNH   | n/a   | Y   |          |
| SEA recommends detailed consultation with SEPA specifically to provide strategic design guidance on SUDS in the flood zone.  | To enable strategic guidance on what is/ is not acceptable in key flood risk areas  | Transport Scotland<br>SFRA team                 | SEPA  | July-Sept 2013 Report findings and recommendations in SFRA Report and SEA Post Adoption Statement | Y   |          |
| SEA recommends detailed consultation with SEPA, SNH and other key stakeholders to specifically consider the issues and risks around SUDS, to provide strategic design guidance on the levels of treatment required before discharge to SAC designated areas. | To enable strategic guidance on 2 or 3 levels of treatment where necessary  | Transport Scotland<br>A9 SEA Team               | SEPA<br>SNH<br>A9 PES team                                | July-Sept 2013<br>Value in including<br>issue in recommended<br>Natura/ AA workshop               | Y   |          |



| SEA Recommendation   | Comment   | Lead<br>Responsibility                         | Key<br>Stakeholders                                  | Target<br>Timescale & Outputs | Include in<br>A9 Design Guide<br>(Y/N/ Comment) | Progress |
|--|---|--|--|-------------------------------|---|----------|
| SEA recommends that A9 SUDS design is informed by landscape and ecological specialists to secure maximum additional benefits in terms of integration within the surrounding landscape, minimising visual impact and delivering ecological enhancement. | A specific strategic study to provide A9 SUDS design guidance would support a consistent approach along the route.  Inter-related with Landscape and Biodiversity | Transport Scotland<br>Landscape Review<br>team | SEPA<br>SNH<br>Cairngorms National<br>Park Authority | End Dec 2013                  | Y   |          |



#### 16. Next Steps

#### **Environmental Report Consultation Period**

To help maintain progress on the wider A9 dualling delivery programme, an 8-week consultation period has been agreed for this Environmental Report.

The consultation period will therefore close on Friday 26th July 2013.

Key aspects for feedback should relate to the findings and recommendations of the SEA assessment, particularly any areas where respondents feel that the SEA may have omitted important factors.

Written feedback is welcomed and should be addressed to:

Yvette Sheppard Environment and Sustainability Manager

Transport Scotland Buchanan House 58 Port Dundas Road Glasgow G4 0HF

#### Email:

Yvette.Sheppard@transportscotland.gsi.gov.uk

Statutory consultees should respond via the Scottish Government SEA Gateway.

#### **Public Consultation Events**

A series of A9 dualling public consultation events are planned between Monday 3rd June and Friday 14th June, where representatives of the A9 dualling programme SEA team will be available to discuss the issues covered by this Environmental Report.

#### **Consultation Feedback Review**

Following the closing date of the Environmental Report consultation period, all written feedback will be collated to inform a final review of the SEA findings and recommendations.

A record of feedback and how it has been taken into consideration will be documented in the SEA Post Adoption Statement.

## Post Adoption Statement & Finalised Monitoring Framework

SEA legislation requires the publication of a SEA Post Adoption Statement (PAS) which must include any revised recommendations and a finalised SEA monitoring framework.

The PAS document must also include a record of consultation and a description of how the SEA process has improved the final plan or programme.

The current target for delivery of the Post Adoption Statement is October 2013.









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