

A9 Dualling: Tomatin to Moy **Environmental Statement**

NON-TECHNICAL SUMMARY

April 2018



Preface

This document is the Non-Technical Summary (NTS) of the Environmental Statement (ES) for the A9 Dualling: Tomatin to Moy project. The project is proposed by Transport Scotland, an agency of the Scottish Government.

Copies of the ES and the draft Road Orders are available to view during normal office hours at the following locations:

The Offices of Transport Scotland

Reception, 9th Floor
Buchanan House
58 Port Dundas Road
Glasgow
G4 0HF

Tel. 0141 272 7100

08.30 to 17.00 (Mon-Thu)
08.30 to 16.30 (Fri)

Tomatin Community Shop

Old Mill Road
Tomatin
Inverness
IV13 7YW

Tel. 01808 511283

7.30am – 6.00pm (Mon-Fri)
8.30am – 5.30pm (Sat)

High Life Highland

Aviemore Community Centre
Muirton
Aviemore
PH22 1SF

Tel. 01479 813140

8am-10pm (Mon, Wed, Fri)
7am-10pm (Tue, Thurs)
10am-4pm (Sat)
10am-3pm (Sun)

The Highland Council (Service Point)

Castle St
Inverness
IV1 1JJ

Tel. 01397 707213

9am-5pm (Mon-Fri)

The ES (including the NTS) and draft Road Orders may also be viewed online at: www.transport.gov.scot/projects/a9-dualling-perth-to-inverness/a9-tomatin-to-moy

Printed copies of the ES may be obtained at a charge of £150 or a CD version for £10 by writing to Transport Scotland. Copies of the NTS are available free of charge from the same address or by email to: info@transport.gov.scot.

Any person wishing to express an opinion on the ES should write to Transport Scotland at the address above. Formal representations are invited until six weeks after the advertised date of the publication of the ES.

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SECTION

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Introduction



Introduction

The A9 Trunk Road forms a strategic link between Central Scotland and the Scottish Highlands and is vital to the growth and development of northern Scotland. The A9 serves settlements along the corridor, providing access to local services, employment and tourism.

The Strategic Transport Projects Review (STPR) in 2008 identified dualling of the A9 as a priority Trunk Road intervention. Following this, the Scottish Government's Infrastructure Investment Plan (IIP) in 2011 and 2015 confirmed the commitment to upgrading the A9 to dual carriageway standard between Perth and Inverness by 2025. The programme of individual projects required to achieve this was subject to a Strategic Environmental Assessment (SEA) to consider the overall constraints, environmental sensitivities and opportunities for enhancement.

The Tomatin to Moy project (referred to in this NTS and in the ES as the Proposed Scheme) comprises dualling of approximately 9.6km of the existing A9 and will involve widening and upgrades to the existing carriageway with some new side roads/local access arrangements. The Proposed Scheme incorporates road drainage, provision of crossings over watercourses, crossings over and under the Highland Main Line railway, improvements to the footway and cycleway network, and amendments to local access. It also includes the provision of one Grade Separated Junction (a new junction where the conflicting traffic flows are kept apart by means of an underpass beneath the A9) and four new left-in/left-out only junctions (turning movements between a local road and the dualled A9 are restricted to left only turns).

The Proposed Scheme will be submitted for authorisation through the Roads (Scotland) Act 1984. If approved, it is expected that, once a contractor is appointed, construction would be approximately 2.5 years.

Environmental Impact Assessment

An Environmental Impact Assessment (EIA) of the Proposed Scheme is required under European and UK legislation. The ES reports the findings of the EIA. The EIA has been undertaken in line with relevant guidance including the Design Manual for Roads and Bridges (DMRB), Volume 11, 'Environmental Assessment'.

The purpose of the EIA is to examine the likely significant effects of the Proposed Scheme on the biological, physical and historical environment, as well as on members of the public and on current or planned future use of the environment.

This NTS presents a summary of the ES, including key aspects of the Proposed Scheme and the associated beneficial and adverse impacts considered to be of particular importance.

Further details about the likely significant impacts of the Proposed Scheme can be found within the ES.

The EIA process provides an opportunity to reduce potential adverse environmental impacts through design refinement. Environmental constraints and issues were identified through consultation, surveys and technical assessments. The information gathered has helped the design of the Proposed Scheme, providing opportunities to address potentially significant impacts where practicable, for example by including measures to avoid or reduce potential adverse impacts.

Impacts have been assessed by comparing the existing situation (the baseline) to the conditions that would occur with the Proposed Scheme implemented.

SECTION 02

The Proposed Scheme



The Proposed Scheme

Need for the Scheme

The A9 is a strategic route that links Central Scotland with the north of Scotland. It is a vital link used by local and long distance traffic. It is a major bus route and is used by freight traffic supporting key industries. The route is used by tourists travelling to a range of locations. Dualling the A9 will assist economic growth in the north of Scotland; improving journey times and realising cost efficiencies for businesses, reducing driver frustration and increasing safety.

The need for the A9 dualling has been identified across a number of studies:

Study	Purpose
The A9 Route Action Plan and Route Strategy (1995-1997)	Encouraged improvements such as carriageway dualling, junction improvements and overtaking lanes to improve safety and relieve driver stress.
The Strategic Transport Projects Review (STPR) (2009)	Undertaken to define the most appropriate strategic investments in Scotland's national transport network between 2012 and 2022. A number of targeted improvements were identified including full dualling of the A9 between Perth and Inverness to reduce accidents and improve journey time reliability.
Infrastructure Investment Plan (IIP) (2011)	Commits to upgrading the A9 between Perth and Inverness by 2025.
A9 Dualling: Case for Investment (2016)	The Case for Investment outlines strong road user, community, business and planning authority support for the A9 dualling programme. In particular, the commercial businesses along the A9 corridor are strongly in favour of the A9 dualling programme and the economic benefits it will bring. The report identifies five key sectors most likely to benefit from the Proposed Scheme; food and drink, tourism, energy, life sciences and forestry.

The Scottish Government has endorsed the A9 dualling through the National Planning Framework 3 (NPF3) (2014). The Framework is a long term strategy for Scotland, which identifies national developments and other strategically important development opportunities to support and help deliver sustainable economic growth. NPF3 states: 'The dualling of the A9 between Perth and Inverness and improvements to the Highland Main Line railway will provide a step change in accessibility across the rural north, increase business confidence and support investment throughout the region'.

Concerns regarding safety and existing traffic conditions have contributed to the need for the Proposed Scheme. These considerations have arisen as a result of driver frustration, a lack of safe overtaking opportunities and a high proportion of severe accidents. The A9 Dualling Case for Investment (2016) highlights that the A9 Dualling Programme will positively contribute to alleviating these concerns, such as reducing traffic congestion and reducing deaths on Scotland's roads. From a local perspective, the Proposed Scheme will also remove the need for potentially dangerous right turns across the path of traffic travelling in the opposite direction, through the inclusion of a new grade separated junction at Tomatin, as well as left-in/left out only junctions at Tomatin South, Moy, Lynebeg and the forestry access at the north end of the Scheme. This will improve safety for road users.

Scheme Objectives

The aim of dualling the A9 between Tomatin and Moy is to improve the operational performance and level of service of this section of the A9, building on the objectives set for the A9 dualling as a whole. The STPR assessment of problems and opportunities along the existing A9 has led to the development of the A9 Dualling Programme objectives set by Transport Scotland, as follows:

To improve the operational performance of the A9 by:

- Reducing journey times; and
- Improving journey time reliability.

To improve safety for motorised and non-motorised users by:

- Reducing accident severity; and
- Reducing drivers stress.

To facilitate active travel within the corridor.

To improve integration with Public Transport facilities.

The EIA process facilitates these objectives whilst avoiding and/or reducing environmental impacts, enhancing the environment and improving sustainability where possible. This is done through the inclusion of appropriate environmental measures, adherence to best practice during construction and measures 'embedded' into the design such as new footways and cycleways to improve existing facilities and connectivity.

Alternatives Considered

A SEA of the A9 Dualling Programme was carried out from 2012 to 2014, comprising a route-wide assessment that considered environmental constraints, risks and opportunities. The SEA was completed in parallel with a similar consideration of the engineering aspects.

Three high-level, strategic alternative dualling options were considered within the SEA including: online widening; online widening together with offline dualling where constraints dictated; and dualling via alternative routes to the existing A9. The studies identified that online widening, generally following the route of the existing A9, was the most suitable option.

The Proposed Scheme was subject to a range of sifting exercises and option assessments including:

- **Sifting of preliminary mainline alignments** – three route options were considered; widening to the northbound side of the existing A9; widening on both sides of the existing A9; and widening on the southbound side of the existing A9.
- **Sifting of preliminary junction locations and layouts** – six combinations of junction options at Tomatin and Moy were considered;
- **DMRB Stage 2 assessment of route options** – twelve route options were considered.

Iterative Design Development

The DMRB Stage 3 design for the Proposed Scheme as assessed and reported in the ES is the result of approximately 18 months of design development of the preferred route option that was identified at DMRB Stage 2.

The project environmental team has influenced the design based on knowledge gained through the EIA process working closely with the engineering teams, consultees and Transport Scotland. Through this process, the design has been developed and refined to reach the final DMRB Stage 3 design.

Some of the key considerations during DMRB Stage 3 that avoided or reduced potential impacts included avoiding the loss of ancient woodland, new and realigned access tracks and non-motorised user routes and provision of new underpasses of the A9.

Other measures embedded in the Proposed Scheme include noise attenuation through the use of low noise road surfacing. The Proposed Scheme also includes woodland planting along the route in order to integrate the Proposed Scheme into the landscape and help to compensate for woodland loss as a result of the Proposed Scheme. Where planting is specified, native plant species will be used so as to re-establish or reinforce the character of the landscape.

Engineering, environmental, traffic and economic assessments were used to assess the options being considered in line with the relevant standards and guidance as set out in the DMRB. Feedback following public exhibitions held in October 2015 and from other consultation undertaken between 2015 and 2017 was also considered during the route option assessment process.

From DMRB Stage 2, a preferred route option was selected from the 12 assessed. This option was considered as achieving the best balance of environmental, engineering, traffic and economic impacts. The preferred option comprised primarily northbound widening, with a Grade Separated Junction in the vicinity of Tomatin.

The design of the preferred route has since been subject to ongoing refinement informed by a range of inputs and considerations, including landowner and other stakeholder consultation, as well as the EIA.

The Proposed Scheme

An outline road design and alignment have been developed for the Proposed Scheme, which is referred to as the 'Stage 3 design'. This design would be used to prepare a detailed design for construction of the Proposed Scheme.

The Proposed Scheme is located south of Inverness and will involve upgrading the existing A9 single carriageway road between Tomatin and Moy (a length of approximately 9.6km) to dual carriageway standard.

An overview of the Proposed Scheme is shown in Figure 1 of this NTS. More detailed plans are provided in Section 4 at the end of this NTS.

The Proposed Scheme includes one Grade Separated Junction providing access to Tomatin village (northern end) both to and from the A9 for northbound and southbound traffic.

The Proposed Scheme will involve upgrading local access to the existing road network and will require closure of a number of direct accesses to the A9 to improve safety. To enable local access to be facilitated, new infrastructure will be included that will provide left-in/left-out out access to/from the A9 to communities at Moy and Lynebeg and to an existing forestry access. A new side road adjacent to the southbound carriageway of the dualled A9 will run from the new Tomatin grade-separated junction to connect into the existing B9154 where the new Moy left-in/left-out is located. This road will provide a link to the existing Ruthven Road.

The existing A9 junction approximately 5km to the south of Tomatin village (on the existing dual carriageway) will be modified to allow left-in/left-out movements only to/from the northbound carriageway to the minor road that runs to the village.

Pedestrian, cyclists and equestrian facilities will be improved to facilitate enhanced access and safety for those wishing to travel in the area surrounding the Proposed Scheme. A number of underpasses and provision for footways/cycleways are included within the design.

The Proposed Scheme incorporates the provision of two new bridges and two new underpasses to replace existing structures at the A9 Dalmagarry Burn crossing, the A9 Moy railway crossing, the A9 underpass at Lynebeg and the railway underpass at Lynebeg.

A section of the Dalmagarry Burn will be realigned to facilitate widening of the A9 and the addition of a new adjacent side road.

In addition a number of existing structures will also be replaced and/or upgraded as part of the Proposed Scheme, including several watercourse crossings via culverts. A new road drainage system will also be incorporated.

Two new laybys are proposed on the dualled A9, one northbound and one southbound to the north of Moy village.

Delivering the Proposals

The ES presents the results of the EIA of the Proposed Scheme. The design of the project may be refined further to complete the detailed design and construction by a contractor that will be selected by Transport Scotland. The contractor that delivers the Proposed Scheme must meet the requirements of the EIA documented in the ES. Should the contractor refine the design that has been assessed by this EIA, then an environmental review of these refinements will be undertaken to assess whether the impacts (including mitigation) of the refinement could be greater than those reported in the ES, and as such if additional mitigation is required.

Construction is subject to completion of the statutory process, however for the purposes of the EIA it has been assumed that 2019 would be the earliest that construction would commence with construction taking 2.5 years.

Consultation and Scoping

As part of the design development and assessment process, a comprehensive consultation exercise has been carried out with numerous organisations (consultees) and stakeholders including The Highland Council, Historic Environment Scotland, Scottish Environment Protection Agency and Scottish Natural Heritage. In addition, potentially affected landowners have also been consulted. Public consultation has been undertaken at key stages of design development. Public exhibitions were held in November 2016 to present preferred options from the DMRB Stage 2 assessment. During DMRB Stage 3 drop-in sessions were held in May 2017 as part of a programme of ongoing public engagement and consultation for the Proposed Scheme.

The project team has worked closely with stakeholders to develop a Proposed Scheme that aims to reduce the overall environmental impact, for example by avoiding sensitive features and through careful design. Stakeholder feedback was reviewed by the project team and incorporated into the assessment and design process where appropriate.

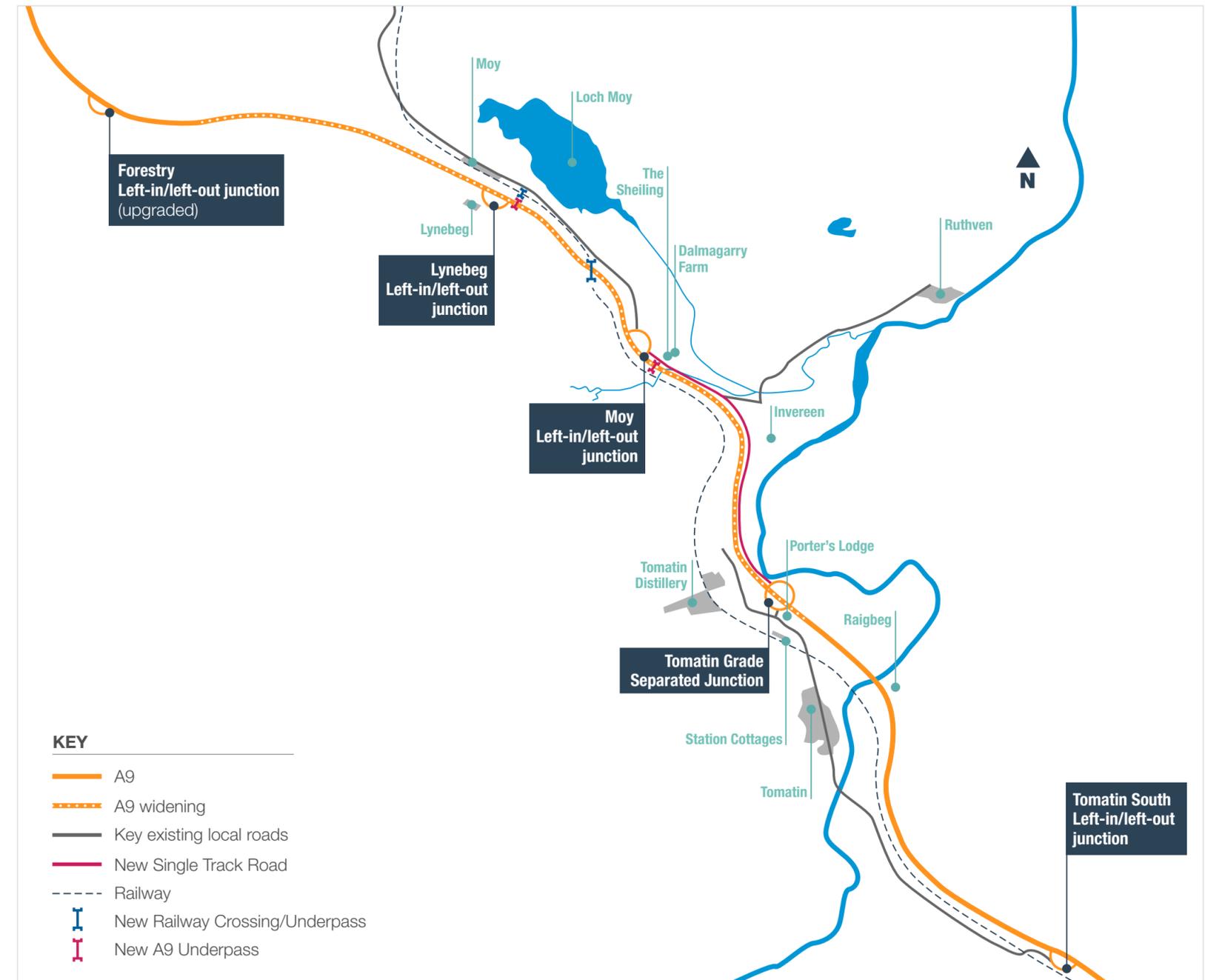


Figure 1

SECTION
03

Environmental
Impacts and
Mitigation



The following sections summarise the likely significant impacts of the Proposed Scheme on the environment and also indicates relevant mitigation measures. Full details of each assessment and associated findings of the EIA are presented in the full ES.

People and Communities – Community and Private Assets

This chapter of the ES considers the potential impacts of the Proposed Scheme on community and private assets, including land and property. Current land uses in the area of the Proposed Scheme include residential and commercial, and areas supporting agriculture, forestry and sporting activity. There are some areas of land that have planning consent for potential future development.

The main settlements are Tomatin in the south and Moy towards the north.

The development of the Proposed Scheme has sought to avoid impacts on community and private assets where possible. Additional mitigation measures to reduce impacts have been developed, including alternative accesses and screening proposals.

There are no residential buildings that will be directly affected by the Proposed Scheme. Two residential land holdings (Tigh-An-Allt (land required for the main A9 works) and The Sheiling (a small area of land required for a new access to Dalmagarry Farm)) will be significantly affected by permanent land-take. One non-residential building, formerly used as a telephone exchange, will be demolished. Redundant Tomatin Distillery pump house infrastructure will also be removed. A significant impact is anticipated at one commercial property (Dalmagarry Quarry) resulting from permanent land take, however, there will be no significant impact to the operational viability of the quarry.

The majority of residents at Tomatin village will experience a beneficial effect of a reduced journey distance to the A9 via the proposed new grade-separated junction when compared to the distance travelled to the existing Tomatin North junction. Residential properties at Raigbeg will have longer journey times, if heading south, as they will access the A9 at the new grade separated junction rather than the existing Tomatin South junction that will be closed for southbound traffic for road safety reasons. New access provisions for Farr Wind Farm and also Dalmagarry Quarry will result in longer journey distances and significant adverse impacts. This applies to access heading south and arriving from the north for the wind farm and access heading north for the quarry.

There are three agricultural/sporting land holdings (Dalmagarry Farm, Tomatin Estate and Moy Estate) with a significant land take or access change impact.

There are four forestry land holdings (Dalmagarry Farm, Invereen, Tigh An Allt and Tucker's Wood) with a significant access change or land take impact with regard to potentially productive woodland.

People and Communities – Effects on all Travellers

This chapter of the ES considers the potential impacts of the Proposed Scheme on pedestrians, cyclists, equestrians (referred to as Non-Motorised Users or NMUs), and also on vehicle travellers in terms of changes in views from the road and driver stress.

The assessment identified outdoor areas and paths including core paths, rights of way, National Cycle Network Route 7 (NCN7) and local/informal paths within 500m of the Proposed Scheme. A total of 17 current paths were identified as well as four crossing points of the existing A9. Changes to NMU journey lengths and amenity value were assessed. The assessment took into account mitigation embedded into the Proposed Scheme such as underpasses and new multi-user routes.

A number of public bus services connect the communities at Tomatin and Moy, both locally and further afield. There are eight existing laybys along the A9 within the Proposed Scheme study area, four of which include dedicated bus stops.

The Proposed Scheme maintains NMU access whilst providing safer passage across the A9 with no at-grade NMU crossings on the A9. During construction, significant impacts have been identified for users of NCN7, a right of way and seven other NMU routes because of potential temporary diversion distances and impacts on amenity value. The Contractor will be required to produce and maintain a Construction Environmental Management Plan (CEMP) as part of the contract for the Proposed Scheme. The CEMP will outline the proposed measures to minimise impacts caused by temporary closures and diversions of NMU routes and will identify alternative routes where this is feasible.

With the Proposed Scheme in place there will be no significant adverse impacts to NCN7, however impacts have been identified for NMUs using two other routes (a right of way at Ruthven Road and a track at Invereen) because of an increase in journey length.

Residents of Ruthven Road, Invereen and Dalmagarry Farm will not be able to access bus services on the A9 directly as existing bus stops will be closed as part of the Proposed Scheme. Access to bus services will be via new bus stops on the local roads adjacent to the A9 in Tomatin and Moy.

With regards to rail users, there will be a temporary closure of the Highland Main Line railway during works at the A9 Moy railway bridge and for a new structure at Lynebeg rail underpass.

With regard to impacts on vehicle travellers, views from the road were assessed for the existing A9 and for the Proposed Scheme during winter in the year of scheme opening and during summer 15 years after scheme completion. Existing views from the road are generally restricted by landform and roadside vegetation whether travelling north or south. No significant impacts on views from the road are anticipated.

Driver stress can be caused by frustration, fear of accidents and uncertainty of the route being followed. Current levels of driver stress for the A9 between Perth and Inverness during peak hours are assessed as moderate. Traffic levels are forecast to increase over time, and in the absence of the Proposed Scheme it is anticipated that higher levels of driver stress during peak hours would be experienced. However, with the Proposed Scheme in place driver stress would decrease when compared to the future scenario without the Proposed Scheme in place.

Geology, Soils and Groundwater

This chapter of the ES identifies and describes the existing geology, contaminated land and hydrogeology within the study area. It assesses the potential impacts of the Proposed Scheme on these features and outlines measures for avoiding or mitigating these impacts where possible.

The geology of the study area will not be significantly affected with mitigation in place. Areas of priority peatland, peat and peaty soils are present within the study area. Although peat will be disturbed during construction, the affected areas form a small proportion of peat within the entire study area and, with mitigation in place, no significant impacts on these areas have been identified.

High productivity aquifers are present within the study area and several habitats dependent on groundwater flows were also identified. Although there may be a localised significant impact on a number of individual groundwater dependent locations, taking into account the scale of the Proposed Scheme and mitigation/monitoring measures, the overall effect is not considered to be significant. A groundwater source private water supply was identified as being potentially impacted by the Proposed Scheme, although this will not be a significant impact, taking account of proposed mitigation measures during construction and operation that will protect private water supplies.

Potential impacts on groundwater quality during construction relate to excavation of cuttings. Spillages in these areas could introduce pollutants directly into the aquifers potentially affecting water quality. Cuttings excavated to below the groundwater table have the potential to permanently lower groundwater levels and alter groundwater flow. This in turn could affect nearby features such as wetlands, surface water bodies or groundwater abstractions. With mitigation in place, no potentially significant construction related pollution impacts are anticipated.

Several potential sources of contamination have been identified within the study area (including made ground, infilled quarries/pits, railway, former fuel station, former timber treatment yard). No significant risks to potential receptors (such as local residents, livestock, crops and surface water) are anticipated with contaminated land mitigation in place.

Road Drainage and the Water Environment

This chapter of the ES assesses the impact of the Proposed Scheme on the surface water environment, particularly considering hydrology and flood risk and water quality.

The Proposed Scheme lies entirely within the catchment of the River Findhorn and interacts with 40 watercourses that are generally typical of a rural upland environment, exhibiting fast, shallow flow, moderate to steep gradients and a rapid response to rainfall events. Under the Water Framework Directive, the Funtack Burn and Moy Burn, and the River Findhorn upstream of Tomatin, are considered to have 'Good' status; while the River Findhorn downstream of Tomatin has a 'Moderate' status, due to barriers to fish migration. Water bodies within the study area comprise Loch Moy and numerous small ponds.

Of the 25 existing A9 watercourse crossings there are nine structures where the current capacity restricts flow upstream of the crossing posing a flood risk.

There is a requirement for 42 watercourse crossing features, including bridge structures and drainage culverts, and 26 watercourse realignments for the Proposed Scheme. This will involve excavation of the channel bed and banks during construction.

Four surface water fed private water abstractions were identified as having the potential to be impacted by the scheme and there are six licensed discharges in the vicinity of the Proposed Scheme.

A potentially significant impact on a surface water pond associated with construction of the Lynebeg underpass has been identified. Further ground investigations, groundwater monitoring and assessment will be carried out pre-construction for those cuttings assessed as having a significant impact on groundwater levels and flows. If the impacts are confirmed as significant additional mitigation measures may be required, such as containing, channelling and directing groundwater to allow the discharge to be directed back to ground.

The Proposed Scheme includes embedded mitigation as part of the design, such as provision of at least two levels of treatment for the A9 road drainage to remove pollutants and good practice principles applied to the design and construction of watercourse realignments to maintain flows and sediment processes within watercourses. Compensation flood storage is proposed at the Allt Creag Bheithin watercourse to mitigate a flooding risk on the downstream railway crossing.

Other measures also include temporary construction drainage and sediment control measures to avoid deterioration in water quality and measures to protect private water supplies.

With the implementation of mitigation, no significant impacts have been identified for almost all potential receptors, the exception being an adverse impact (in terms of water quality and dilution capacity) from routine run-off on a tributary of the Funtack Burn.

Ecology and Nature Conservation

This chapter of the ES considers the potential impacts of the Proposed Scheme on species, habitats and ecosystems. The approach to this assessment is based on the guidance provided by the DMRB and the Chartered Institute for Ecology and Environmental Management (CIEEM) 'Guidelines for Ecological Impact Assessment in the UK and Ireland'.

Baseline conditions for ecological features were established through desk-based assessment, consultation and site surveys.

Designated ecological sites within the study area include Slochd Special Area of Conservation (SAC), Carn nan Tri-tighearnan SAC and Site of Special Scientific Interest (SSSI) and Loch Ashie Special Protection Area. However, no construction or operational impacts will occur within the boundaries of any of these sites.

Areas of woodland listed on the Ancient Woodland Inventory (AWI) fall within the Proposed Scheme. Other common habitats within the study area include grassland and heathland, as well as river and pond habitats.

A number of protected and notable species were recorded during surveys including aquatic macroinvertebrates (including the highland great diving beetle and the whirligig beetle), bats, 52 bird species, fish including salmonids, fungi, invertebrates (including saproxylic hoverflies), red squirrel, reptiles (including slow worm), otter, water vole and pine marten. No significant impacts (with mitigation implemented) on these species have been identified.

Areas of woodland listed on the AWI will be lost, although these areas have been modified and do not contain mature trees. With respect to notable habitat, areas of dry dwarf shrub heath, wet heath, blanket bog and wet modified bog habitats will be lost. Significant impacts have been identified on both ancient woodland and notable habitats occurring at the construction phase.

Compensatory woodland planting is proposed, however this will not mitigate for the permanent loss of the biodiversity and intrinsic value of AWI Woodland and as such the loss of these areas has been identified as a significant impact. However, it is possible that the ancient woodland seedbank is still present, and in these locations the soil will be removed and re-used within areas of proposed woodland planting. At areas of compensatory planting, mature woodland corridors will grow and provide habitat and species connectivity. Over time, significant impacts are therefore predicted to reduce.

A potential beneficial impact is anticipated as a result of the Proposed Scheme through increased permeability of the A9 for species such as otter, through the provision of structures allowing safe crossing of the A9, compared with that of the existing A9.

Landscape

This chapter of the ES assesses the potential impacts on the landscape resulting from the Proposed Scheme. The approach to this assessment is based on the guidance provided by the DMRB Interim Advice Note 135/10 and the Landscape Institute Guidelines for Landscape and Visual Impact Assessment (3rd edition).

The study area covers the landscape immediately north of the Cairngorms National Park boundary, descending from the Slochd Summit to the broad strath of the River Findhorn before rising again to the northern extents of the Monadhliath mountains.

Forestry plantations play an important role in defining the character of the wider landscape, and they extend along the lower slopes of the straths and glens. There are a number of long established plantations that extend along the corridor associated with the A9, some of which are included within the AWI.

The study area encompasses the northern edge of the Drynachan, Lochindorb and Dava Moor Special Landscape Area (SLA).

The design of the Proposed Scheme included developing landscape proposals to blend earthworks with existing landforms and new planting to screen the Proposed Scheme and help further integrate it with the surrounding landscape.

Landscape impacts during construction, although temporary, have the potential to result in changes in the perception of landscape character, notably in terms of Local Landscape Character Areas - Moy Estate and Strathdearn/Tomatin.

Landscape impacts associated with the Proposed Scheme during operation include: alteration of the local landscape character due to loss of established woodland, heathland and drystone walls along the A9 corridor; introduction of new infrastructure elements such as new structures; and modified appearance of landform due to new earthworks.

Mitigation during the construction phase will include: keeping the construction programme duration to the minimum practicable time; appropriate storage of plant and materials with screening where required; avoidance of night time working where possible to reduce the requirement for artificial lighting; protection of trees in line with best practice standards; avoidance of the loss of existing woodland and habitats not affected by the permanent works as far as practicable; and replacement of any affected vegetation as necessary.

In addition to landscape mitigation measures incorporated into the design that have been applied across the scheme, specific mitigation is proposed in the form of tailored planting strategies to integrate the Proposed Scheme into the landscape, for example in the vicinity of the new Tomatin Grade Separated Junction, Dalmagarry Quarry and the realigned section of Dalmagarry Burn. Where planting is specified, native plant species will be used.

The assessment of impacts on landscape character has found that significant impacts would occur during and in the period immediately after construction. However, as proposed mitigation measures mature, predicted impacts are anticipated to reduce in magnitude and consequently result in non-significant impacts.

Visual

This chapter of the ES assesses the potential change resulting from the Proposed Scheme on views from the nearby vicinity of buildings, outdoor public areas, local roads and routes used by pedestrians, cyclists and equestrians (collectively referred to as receptors).

The number of visual receptors within the study area is limited by the terrain and vegetation between the A9 and the receptors. Visual receptors primarily consist of residents on the edge of settlements at Tomatin and Moy, or in residential clusters along the existing A9, and recreational receptors using paths, cycle routes, the railway, and local roads.

Construction impacts will include vegetation clearance resulting in newly exposed views of the wider landscape and the construction activity. Plant, machinery and traffic management will be noticeable in views of the existing A9 corridor and temporary realignments and diversions will result in a broader visual extent of the corridor.

Operational impacts will include: removal or reduction of existing vegetation providing screening; changed landform appearance due to the formation of cuttings, embankments and introduction of structures; modification to landscape patterns as a result of mitigation planting; increased extents of road infrastructure and visibility of traffic movement until planting matures; and new signage.

Mitigation during construction will include keeping the construction programme to the minimum practicable time and commencing reinstatement activities as soon as possible. Plant and machinery will also be stored appropriately on site and lighting during hours of darkness will be kept to a minimum. Loss of woodland and other habitats not affected by the permanent works will be limited as far as practicable.

Operational phase landscape mitigation measures will include: new planting on embankments including those most perceptible to visual receptors; softening of the appearance of drainage features with appropriate planting; creation of a wet woodland area associated with the realignment of Dalmagarry Burn; and specific requirements in the form of stone cladding for the Lynebeg Rail Bridge.

Only a small proportion of receptors are considered to experience a significant adverse impact (with mitigation in place), including Tigh an Allt where views to the A9 and the Ruthven Link Road will be curtailed by direct impact on the access track to the property.

Mitigation planting will, at maturity, reduce the visual impact at Dalmagarry, however, Dalmagarry Underpass will be a distinctive element in the view, and the impact is anticipated to remain significant adverse. Furthermore, Lynebeg Rail structure will result in a significant adverse impact in terms of views from the road and nearby residential properties.

Cultural Heritage

This chapter of the ES assesses the potential impacts of the Proposed Scheme on cultural heritage, which includes archaeological remains, historic buildings and the historic landscape.

A total of 96 cultural heritage assets have been identified within the study area, including five Scheduled Monuments, 14 Listed Buildings and seven historic landscape types.

Construction of the Proposed Scheme will have an impact on nine sites which represent archaeological remains (both designated and undesignated). Of these, four are considered to be significant impacts on undesignated sites (Dunkeld- Inverness Military Road, Allt Na Frithe Bridge, Perth – Inverness Military Road and Hut Circle, Dalmagarry).

Construction of the Proposed Scheme will have an impact upon nine historic buildings both designated (listed buildings) and undesignated. Of these, two are considered to be significant impacts. Tomatin Observation Post (undesignated) will be removed by the Proposed Scheme and the setting of Aultnaslanach Viaduct (Listed Building Category A) will be affected.

Construction of the Proposed Scheme will have an impact upon six historic landscape Types, however, none are considered to be significant impacts.

No operational impacts have been identified for designated or undesignated archaeological remains, historic buildings or historic landscapes.

Significant potential impacts during construction would be mitigated through a programme of archaeological investigation, recording and monitoring implemented in advance of and during construction. The preferred option for the mitigation of archaeological remains is preservation in situ. However, this is not always possible, and in these instances preservation by record will allow the remains to be fully investigated and recorded prior to construction.

Landscaping, including screening measures, implemented during the construction phase, once mature, will aid in reducing the impacts upon all elements of the historic environment.

With mitigation in place, no significant impacts are predicted on designated or undesignated archaeological remains or the historic landscape heritage assets. A significant impact on setting is predicted during construction for one historic building, the Listed Aultnaslanach Viaduct. This is because the land in between the A9 and the viaduct is flat and open with no natural visual barriers and therefore the Proposed Scheme will be prominent.

Air Quality

This chapter of the ES considers the potential impacts of the Proposed Scheme on air quality during construction and operation. The existing air quality throughout the area is characterised by the existing emissions from road traffic. Air quality monitoring and modelling was undertaken to determine the potential for changes to air quality as a result of the Proposed Scheme, and any related impacts on local communities and ecological sites.

The assessment considered the following pollutants emitted from vehicles: nitrogen oxides, nitrogen dioxide and fine particulate matter (PM). The potential effect of construction on ambient PM concentrations was also considered and carbon dioxide was considered in the regional emissions assessment.

To establish local background air quality conditions, an air quality monitoring survey was undertaken over a 6 month period. Air quality was found to be very good with low concentrations of the main pollutants emitted by traffic.

Impacts of the Proposed Scheme were assessed for the year of opening and the assessment concluded that there are no significant local air quality impacts with the potential to impact human health or ecosystems/designated sites. There will be an increase in regional emissions due to an increase in vehicle kilometres travelled. The changes in regional emissions of nitrogen dioxide, carbon dioxide and fine particulate matter are not considered to be significant when viewed in the context of regional or national emissions.

With the implementation of appropriate dust control measures, the construction phase of the Proposed Scheme is predicted to have no significant impacts.

Noise and Vibration

This chapter of the ES considers the potential noise and vibration impacts of the Proposed Scheme on noise sensitive receptors (NSR), e.g. residential properties and schools.

The noise assessment for the Proposed Scheme used noise monitoring and modelling to identify potential noise and vibration impacts associated with the Proposed Scheme during construction and operation. Noise modelling was undertaken for all NSR within 600m from the Proposed Scheme.

As part of the assessment a background noise survey was undertaken to inform an understanding of the existing noise levels within the vicinity of the Proposed Scheme.

Mitigation measures embedded in the Proposed Scheme to reduce traffic noise include the use of low noise road surfacing.

The assessment findings indicate that there are potentially significant noise impacts at two NSR (The Bellhouse and Woodland House) from the construction of the A9 carriageway. In addition, the construction of structures and new accesses has the potential to give rise to significant localised impacts in a number of NSR along the Scheme.

The mitigation of temporary impacts during construction includes appropriate scheduling of noisy activities, use of plant and equipment and methods of working to ensure that significant noise impacts are minimised, and the deployment of specific mitigation (such as site hoardings) where potentially significant impacts may arise (depending on the type of plant and equipment deployed by the contractor). Depending on the scheduling of works, there may be a need to consider rehousing residents at properties close to Lynebeg Rail Underpass where works take place at night.

The operation of the Proposed Scheme will not give rise to any permanent significant long term noise or vibration impacts. A section of noise barrier is to be included along the A9 immediately south of the new Tomatin grade separated junction to mitigate a predicted increase in traffic noise (exceeding the noise threshold level used in the assessment) for Porters Lodge.

Materials

This chapter of the ES assesses the potential impacts associated with the use and consumption of material resources such as rock, sand, gravel and soils, and the production and management of waste during construction of the Proposed Scheme.

The use and consumption of material resources has been estimated based on the likely requirements of the design of the Proposed Scheme. By applying key material and waste management principles, the impacts on natural resources and the need for permanent disposal of wastes will be minimised. In particular this will be achieved by re-using existing soils and road surface material, taking into account the environmental impacts of products during their procurement.

Proposed mitigation measures will aim to minimise use, maximise re-use and recycling of wastes and ensure materials and waste are handled according to regulatory requirements. These measures will be implemented through several plans addressing different aspects of construction site management, such as a Site Waste Management Plan and a Construction Environmental Management Plan.

The assessment uses Transport Scotland's Carbon Management System (CMS) to estimate the total embodied carbon emissions, measured as carbon dioxide equivalent (CO₂e) associated with material resources used for construction of the Proposed Scheme. The CMS estimated carbon emissions of between 48,000 - 55,300 tonnes of CO₂e (including 15% contingency).

The assessment undertaken indicates that approximately 94% of all predicted waste arisings could be reused onsite, with the remainder dealt with either by recycling/ composting or disposal at an appropriately licensed facility.

Policies and Plans

This chapter of the ES considers compliance of the Proposed Scheme with national, regional and local planning policy.

The principle of development of the Proposed Scheme is supported in planning policy, with the Scottish Government's commitment to the Proposed Scheme and wider improvements to the A9 outlined in the National Planning Framework 3 and various other national policy guidance documents.

The Proposed Scheme also supports regional transport policy objectives as part of a wider strategy to assist in providing enhanced connectivity to deliver prosperity and connect communities across the region.

Although the assessment finds the Proposed Scheme to be compliant with the majority of relevant planning policies, it has identified areas of potential non-compliance with some aspects of planning policy. This is largely because of the scale and nature of the Proposed Scheme, as well as the wording of policies not being directly relevant to large-scale roads projects.

The potential level of non-compliance with planning policies would not be significant. This is with the exception of planning policy relating to the loss of important habitat. Although there would be loss of Ancient Woodland Inventory trees as a result of the Proposed Scheme, non-compliance with the objectives of planning policy would be outweighed by the significant public benefits that would be delivered. Such loss is inevitable for delivery of the dualling and the project complies with current policy regarding compensation for removal of woodland (i.e. through new tree planting).

Land-take required for the new Tomatin Grade Separated Junction is likely to prevent a specific land allocation, relating to the development of sports pitches, from being delivered. Nevertheless, it is considered that the significant economic benefits arising from delivery of the Proposed Scheme would outweigh the residual conflict with this allocation.

Cumulative Effects

This chapter of the ES considers the potential for cumulative effects of the Proposed Scheme, and those of the Proposed Scheme in combination with committed developments and other major proposed development projects, including other projects forming part of the A9 Dualling Programme.

The potential for cumulative effects due to the combined effect of a number of different environmental impacts of the Proposed Scheme on a single receptor/resource was assessed, based on the findings of the topic chapters in the ES. No significant residual cumulative impacts were identified.

In terms of potentially significant 'in combination' cumulative impacts with other projects, the loss of Ancient Woodland Inventory trees was identified. This is because it is accepted that it is not possible to fully compensate for the loss of ancient woodland. However, proposed landscape mitigation does include for the planting of new trees.

SECTION
04

Environmental
Plans



