

## **13 Landscape**

This chapter considers the potential impacts on the landscape resource resulting from the proposed scheme. The assessment has been undertaken following DMRB guidance and the Guidelines for Landscape and Visual Impact Assessment 3<sup>rd</sup> Edition (GLVIA3), taking account of the results of scoping and consultation.

The assessment confirmed baseline conditions for a study area comprising the proposed scheme and an area extending up to 5km from it. The extent of the study area was established through desk-based survey and site survey. Designated landscape receptors located within the study area include the Cairngorms National Park, Loch Tummel National Scenic Area (NSA), Ben Vrackie Special Landscape Area (SLA) and Cairngorms Wild Land Area (WLA). In addition, three Landscape Character Areas (LCAs) and seven Local Landscape Character Areas (LLCAs) have been identified. Potential impacts of the proposed scheme on landscape receptors would arise from construction activities such as the removal of roadside vegetation, loss of existing embankments and rock outcrops, in addition to the construction of structures and earthworks (for example the Pitlochry North and South grade separated junctions and Tummel Underbridge). Potential impacts would also arise from the operation of the additional carriageway and associated route infrastructure in addition to the changed appearance of the landscape and the associated change in the perception of the Loch Tummel NSA.

To mitigate potential impacts, embedded, standard and project specific mitigation measures have been developed through an iterative design process. Embedded mitigation measures adopted include the careful alignment of the proposed scheme to avoid or reduce potential impacts on landscape features, particularly those which contribute to Special Qualities (SQs) of the NSA. This has primarily been achieved through online widening of the existing A9 and also the grading out of cuttings and embankments to reflect the local topography, as well as the careful siting of SuDS features.

Specific mitigation measures include woodland planting to integrate the proposed scheme into the landscape. Where planting is specified, native plant species will be used to re-establish or reinforce landscape character. Whilst there is a focus on planting, mitigation measures will also influence the design of structures such as Clunie Road and Tummel Underbridges, and SuDS features. Where exposure of rock cuttings is anticipated, mitigation includes creating a rugged, naturalistic appearance to reflect the character of the rock and fit with the surrounding landscape.

The assessment of impacts on landscape receptors took into account proposed mitigation, considering the proposed scheme in the winter of the year of opening (when planting has been implemented but has not established) and in the summer, 15 years after opening (when the proposed planting would be reasonably established). Impacts from the construction and operation of the proposed scheme are predicted to occur on Strath Tummel LLCA, Pass of Killiecrankie LLCA and Strath Tummel: Pitlochry (Settlement) LLCA. The proposed scheme would also affect landscape features within the Loch Tummel NSA and Ben Vrackie SLA, as a result of carriageway widening and construction of earthworks and structures (particularly those associated with proposed grade separated junctions) which would result in a change in landcover and landform in addition to the loss of woodland along the route.

In the winter of the year of opening (2026) it is predicted that significant direct impacts would occur on the Strath Tummel LLCA (Moderate impact) and Pass of Killiecrankie LLCA (Moderate/Substantial impact). The impacts would be due largely to formation of embankments and cuttings, road widening, associated structures and other infrastructure, including new junctions. These will result in the loss of natural topographic features, mature and established woodland and farmland in the vicinity of the existing A9. Indirect impacts as a result of the changes in the landscape and loss of landscape features in adjoining landscape character units are predicted on the Glen Garry: Lower Glen and Strath Tay: Upper Glen LLCAs in addition to the Highland Glens with Lochs and Highland Summits and Plateaux LCAs. These impacts are, however, not predicted to be significant.

As planting establishes and the proposed scheme becomes more integrated into the landscape it is predicted that residual impacts would reduce. As such, for the Strath Tummel LLCA, residual impact is predicted to reduce to Slight/Moderate in summer after 15 years, which is not significant. However, whilst the impact on the Pass of Killiecrankie LLCA would have reduced to some extent after establishment of proposed woodland planting, it is predicted to remain significant (Moderate/Substantial) in summer after 15 years.

## **13.1 Introduction**

- 13.1.1 This chapter presents the DMRB Stage 3 assessment of the potential impacts of the proposed scheme on the landscape resource. The assessment of impacts on the landscape resource is primarily concerned with changes to:
- specific landscape features and elements;
  - the overall pattern of the elements, which together define the landscape character and local regional distinctiveness;
  - areas of particular interest and/or value, such as designated landscapes, conservation sites and cultural associations; and
  - perceived characteristics of the landscape, such as tranquillity and remoteness.
- 13.1.2 The chapter is supported by the following figures:
- Figure 13.1: Landscape Designations and other associated Designations;
  - Figure 13.2: Landscape Character Plan;
  - Figure 13.3: Landscape Features Plan;
  - Figure 13.4: Landscape Character Plan with Zone of Theoretical Visibility (ZTV);
  - Figure 13.5: Landscape and Ecological Mitigation;
  - Figure 13.6: Cross-sections; and
  - Figure 13.7: Typical Planting Structure.
- 13.1.3 This chapter is supported by the following appendices:
- A13.1: Landscape Character Areas;
  - A13.2: Special Qualities of the Loch Tummel NSA;
  - A13.3: Assessment of Residual Indirect Impacts on Landscape Character Areas;
  - A13.4: Strategic Environmental Design Principles: Landscape;
  - A13.5: Landscape Design Objectives; and
  - A13.6: SuDS Design Principles.
- 13.1.4 Further considerations that specifically inter-relate with this landscape assessment are addressed separately as follows:
- Chapter 9 (People and Communities: All Travellers) - assessment of the views from the proposed scheme, as they would be experienced by vehicle travellers.
  - Chapter 14 (Visual) - assessment of impacts on the visual amenity and views experienced by people from publicly accessible viewpoints and nearby buildings, including residential properties.
- 13.1.5 In addition, Chapters 12 (Ecology and Nature Conservation) and 15 (Cultural Heritage) also inform this chapter, due to influences of vegetation and wildlife in relation to the proposed mitigation measures, particularly planting, and cultural designations such as Conservation Areas which also relate to landscape/townscape character.

## **13.2 Approach and Methods**

### **General**

- 13.2.1 The landscape assessment was undertaken based on the guidance provided by DMRB Interim Advice Note 135/10 (IAN 135/10) Landscape and Visual Effects Assessment (The Highways Agency et al, 2010), updated to incorporate current best practice methodology included in Guidelines for Landscape and Visual Impact Assessment 3rd Edition (GLVIA3) (Landscape Institute and IEMA, 2013).

- 13.2.2 The approach to the assessment has also been informed by Fitting Landscapes: Securing more Sustainable Landscapes (Transport Scotland, 2014) and Planning Advice Note (PAN) 1/2013: Environmental Impact Assessment (Scottish Government, 2013).
- 13.2.3 A staged approach to the assessment has been adopted comprising:
- scoping and consultation, including agreement of the approach to the assessment as noted above;
  - baseline assessment – a description of the landscape resource within the study area following desk study and site surveys;
  - assessment of the value, susceptibility and sensitivity of the landscape resource;
  - assessment and description of potential impacts arising from the proposed scheme, and their likely impacts upon the landscape resource;
  - development of proposed mitigation measures (which are additional to the embedded mitigation measures which have been developed at DMRB Stage 2); and
  - assessment and description of residual impacts (i.e. those that would remain after mitigation) during the construction phase and the operational phase.
- 13.2.4 In accordance with IAN135/10 separate assessments were undertaken for the following scenarios:
- in the first full year of operation, taking account of the completed project (including embedded mitigation measures such as the route alignment and formation of earthworks) in addition to the traffic using it; which represents a maximum-impact situation, before any planted mitigation can take effect; and
  - in the summer of the 15<sup>th</sup> year after the proposed year of opening, in 2041, taking account of the completed project (including embedded mitigation) in addition to the traffic using it, which represents a reduced-impact scenario, where any planted mitigation measures can be expected to be reasonably effective.
- 13.2.5 In addition, qualitative commentary has been provided on the likely longer-term reductions in impacts beyond 15 years, in recognition that in many areas the proposed planting is expected to take considerably longer to reach a level of maturity equivalent to that of existing areas of established woodland affected by the proposed scheme.
- 13.2.6 The approach and methods have also been informed by the recommendations made in the A9 Dualling Programme Strategic Environmental Assessment (SEA) Report and Appendix F (Strategic Landscape Review) of the SEA Addendum (Transport Scotland, 2013 and 2014). In regard to the landscape assessment, the SEA recommended that early consultation with Scottish Natural Heritage (SNH) and Historic Environment Scotland (HES) be undertaken and the results of this consultation considered within the DMRB Stage 3 assessment process. More detailed information on the recommendations made in the SEA is presented in Appendix B of the Addendum (Strategic Environmental Assessment (SEA) Monitoring Framework).
- 13.2.7 It should be noted that a detailed pre-mitigation landscape impact assessment has not been undertaken, since the landscape mitigation is largely an intrinsic part of the proposed scheme design, and therefore not separable from it. Residual impacts, which take into account this mitigation, are described in relation to the winter of the year of opening and summer after 15 years' scenarios. These are reported as such in Section 13.6, along with an indication on the degree to which mitigation planting has reduced impacts between these two scenarios.

### **Scoping and Consultation**

- 13.2.8 Through the Environmental Steering Group (ESG), SNH, Perth & Kinross Council (PKC), The Highland Council (THC) and the Cairngorms National Park Authority (CNPA) have been consulted on the approach to the DMRB Stage 3 assessment in order to identify the key issues to be addressed and establish appropriate landscape mitigation measures. Additional detail on scoping and consultation is provided in Chapter 7 (Consultation and Scoping).

### **Study Area**

- 13.2.9 A study area extending to 5km from the proposed scheme has been adopted for this assessment (please refer to Figure 13.1). The size of study area was based on professional experience and judgement. Whilst it is possible that there may be some impacts on perceptual qualities of the landscape beyond 5km such as the sense of remoteness and tranquillity due to changes in views beyond this study area, these are likely to be not significant due to distance and intervening topography and/or vegetation.
- 13.2.10 Within this 5km study area, Zones of Theoretical Visibility (ZTVs) have been prepared for the existing A9 (Figure 14.1), for the proposed scheme (Figure 14.2) and for the Tummel Underbridge (Figure 14.2b). The ZTVs have been produced using a 'bare-earth' digital terrain model (DTM) and do not take into account screening or filtering of visibility by existing built features or vegetation, which were identified during subsequent site survey work and are taken account of in the assessment.
- 13.2.11 Further information regarding the production of the ZTVs is provided in Chapter 14 (Visual).

### **Baseline Assessment**

- 13.2.12 Baseline conditions for the study area have been established through desk-based and site surveys, details of which are presented in Section 13.3 (Baseline Conditions).
- 13.2.13 Baseline landscape conditions are those that exist at the time of desk and site surveys, but also take into account future changes that are assumed certain, as well as considering likely future changes to the landscape (e.g. harvesting and re-stocking of commercial forestry plantations).

### Desk-based Assessment

- 13.2.14 Baseline information was collected through a desk-based assessment (including review of the previous DMRB Stage 2 landscape assessment (Part 3: Environmental Assessment, DMRB Stage 2 Scheme Assessment Report (Jacobs 2016)), in addition to review of the following information sources:
- 1:5,000, 1:10,000, 1:25,000 and 1:50,000 Ordnance Survey mapping;
  - Google Earth web-based photography;
  - Inventory of Gardens and Designed Landscapes;
  - aerial photography provided by Transport Scotland (BLOM Survey, 2014);
  - Jacobs' GIS environmental constraints datasets (obtained through stakeholder consultation);
  - A9 Dualling Programme. Strategic Environmental Assessment (SEA) Environmental Report (Transport Scotland, 2013);
  - A9 Dualling Programme. Strategic Environmental Assessment (SEA). Environmental Report Addendum. Appendix F - Strategic Landscape Review Report (Transport Scotland, 2014a);
  - Cairngorms Landscape Assessment: Scottish Natural Heritage Review 75 (Turnbull Jeffrey Partnership, 1996);
  - Cairngorms National Park Local Development Plan (CNPA, 2015a);
  - Cairngorms National Park, Landscape Character Assessment (CNPA, 2009);
  - Landscape Study to Inform Planning for Wind Energy Final Report (David Tyldesley and Associates/Perth & Kinross Council, 2010);
  - Landscape Supplementary Guidance (PKC, 2015);
  - Highland Area Local Plan (PKC, 2000);
  - Perth & Kinross Council Local Development Plan (PKC, 2014);
  - Wild Land Areas (SNH, 2014);
  - Tayside Landscape Character Assessment: Scottish Natural Heritage Review 122 (SNH, 1999);

- TAYplan: Strategic Development Plan (2016 – 2036) (TAYplan, 2017);
- The Special Qualities of the National Scenic Areas, SNH Commissioned Report No.374 (SNH, 2010); and
- The Special Landscape Qualities of the Cairngorms National Park, SNH Commissioned Report No. 375 (SNH, 2010).

Site Surveys

- 13.2.15 Site surveys were carried out to include both winter and summer scenarios. The surveys were carried out by a team of landscape architects on foot and by car. Data was collected on landscape features and characteristics, as well as photographs of landscape features likely to be physically affected and photographs to/from key viewpoints within landscapes from which views of the proposed scheme would be likely.

**Impact Assessment**

- 13.2.16 As detailed below, significance of impact has been assessed based on the sensitivity to change of the landscape value, elements and character, and the magnitude of change that would result from the construction and operation of the proposed scheme.
- 13.2.17 GLVIA3 is a more recently published guidance document than IAN 135/10 (which refers to the earlier 2002 GLVIA2), and was taken into account in assigning significance as it provides greater clarity with regard to:
- the interrelationship between susceptibility and value in determining sensitivity to the proposed scheme; and
  - the interrelationship between size or scale, geographical extent of influence, duration and reversibility in determining magnitude of change.

Sensitivity to Change

- 13.2.18 In accordance with GLVIA3, the assessment of sensitivity combines judgements on the susceptibility of the landscape receptor to the specific type of development proposed, and the value attributed to that receptor.

*Landscape Susceptibility*

- 13.2.19 Susceptibility is defined in GLVIA3 as *‘the ability of the landscape receptor ... to accommodate the proposed development without undue consequences for the maintenance of the baseline situation...’* The susceptibility of landscape receptors to change was assessed using the criteria detailed in Table 13.1 below, along with professional judgement (where applicable, intermediate levels of medium-to-high or low-to-medium may be used).

**Table 13.1: Landscape Susceptibility Criteria**

Susceptibility	Criteria
High	The landscape is unlikely to accommodate the proposed change without undue consequences.
Medium	The landscape is likely to be able to accommodate the proposed change albeit with some consequences.
Low	The landscape will be able to accommodate the proposed change with little or no consequences.

*Landscape Value*

- 13.2.20 GLVIA3 defines landscape value as *‘the relative value that is attached to different landscapes by society...’*. *‘Value can apply to areas of landscape as a whole, or to the individual elements, features and aesthetic or perceptual dimensions which contribute to the character of the landscape’*. A review of existing designations (e.g. National Scenic Area (NSA), Special Landscape Area (SLA) etc.) is usually the starting point in understanding value, although it should be noted that value and/or associated susceptibility may not necessarily be uniform across a designated area. Other designations

such as those aimed at aspects of the historic environment (Conservation Areas, Listed Buildings/Structures) and non-statutory recognition of particular types of environment (such as Gardens and Designed Landscapes) may also influence landscape value. There may also be situations where an undesignated landscape is of value and/or has susceptibility in local terms. Table 13.2 sets out the relative importance of generic landscape designations and descriptions.

**Table 13.2: Criteria for Assessing Value of Designated Landscapes**

Designation	Description	Value
World Heritage Sites	Unique sites, features or areas identified as being of international importance according to UNESCO criteria. Consideration should be given to their settings, especially where these contribute to the special qualities for which the landscape is valued.	International/ national
National Parks, National Scenic Areas	Areas of landscape identified as being of national importance for their Natural Beauty (and in the case of National Parks the opportunities they offer for outdoor recreation).	
Historic Environment Scotland Inventory of Gardens and Designed Landscapes	Gardens and designed landscapes included in the Inventory.	
Local Landscape Designations identified in local planning documents (such as Special or Local Landscape Areas, Areas of Great Landscape Value and similar), Conservation Areas.	Areas of landscape identified as having importance at the local authority level.	Local

13.2.21 Establishing the value of undesignated areas requires examination of individual elements of the landscape. A number of criteria were considered to help determine value as detailed in Table 13.3 and an overall assessment was made for each receptor in terms of high, medium and low value.

**Table 13.3: Criteria for Assessing Value of Non-Designated Landscapes**

Attribute	Description
Landscape Quality (Condition)	A measure of the physical state of the landscape; its intactness and the condition of individual elements.
Scenic Quality	General appeal of the landscape to the senses.
Rarity	The presence of rare elements, features or landscape types.
Representativeness	Characteristic/feature/element considered a particularly important example.
Conservation/ Cultural Interest	The presence of wildlife, earth science or cultural heritage interest which contributes positively to the landscape.
Recreation Value	Evidence that the landscape is valued for recreational activities where experience of the landscape is important.
Perceptual Aspects	Evidence that a landscape is valued for its wildness/tranquillity.
Associations	Relevant associations with notable figures, such as writers or artists, or events in history that contribute to landscape value.

Source: Landscape Institute and the Institute for Environmental Management and Assessment, (2013).

*Evaluation of Landscape Sensitivity*

13.2.22 The sensitivity to change of the landscape was assessed on a scale of high, medium or low (or, where applicable, intermediate levels of medium-to-high or low-to-medium sensitivity). Table 13.4 presents the criteria used together with professional judgement in the evaluation of landscape sensitivity, based on consideration of both susceptibility and value.

**Table 13.4: Landscape Sensitivity Criteria**

Sensitivity	Criteria
High	Landscape elements of particularly distinctive character, which are highly valued and considered susceptible to relatively small changes. Landscapes which by nature of their character and value would have very limited capacity to accommodate change of the type proposed.
Medium	Landscape of moderately valued characteristics considered reasonably tolerant of change. Some ability to accommodate the proposed change without undue detriment. Landscapes which by nature of their character and value would be able to partly accommodate change of the type proposed.

Sensitivity	Criteria
Low	Landscape of generally low-valued characteristics considered potentially tolerant of substantial change. Landscapes which by nature of their character and value would be able to accommodate change of the type proposed.

Magnitude

13.2.23 As noted in GLVIA3, the magnitude of landscape impacts was considered in terms of size or scale, the geographical extent of the area influenced, duration and reversibility.

*Size or Scale*

13.2.24 The size and/or scale of change in the landscape takes into consideration the following factors:

- the extent/proportion of landscape elements lost or added;
- the contribution of that element to landscape character and the degree to which aesthetic/perceptual aspects are altered; and
- whether the change is likely to alter the key characteristics of the landscape, which are critical to its distinctive character.

*Geographical Extent*

13.2.25 The geographical area that may experience landscape impacts can generally be considered at the following scales:

- proposed scheme level;
- the immediate setting of the proposed scheme;
- the landscape character area that the proposed scheme would lie within; or
- across several landscape character areas where influences occur on a larger scale.

*Duration and Reversibility*

13.2.26 In accordance with GLVIA3, consideration is also given to the duration and reversibility of landscape impacts in the evaluation of magnitude. The duration of impacts is assessed on the following scale:

- short-term: under 1 year;
- medium-term: 1-15 years; and
- long-term: over 15 years.

*Evaluation of Magnitude*

13.2.27 Magnitude of change was assessed on a scale of high, medium or low, (or where applicable, intermediate levels of medium to high or low to medium magnitude), taking account of the degree of landscape change that would occur as a result of the proposed scheme, as described in Table 13.5.

**Table 13.5: Landscape Impact Magnitude**

Magnitude	Criteria
High	Notable change in landscape characteristics over an extensive area, ranging to very intensive change over a more limited area.
Medium	Minor changes in landscape characteristics over a wide area, ranging to notable changes in a more limited area.
Low	Minor or virtually imperceptible change in any area, or to any components of the landscape.
None	No perceptible change to the landscape resource.

13.2.28 The permanent impacts of the proposed scheme are considered to be of long-term duration and largely irreversible, thus increasing magnitude. However, temporary construction-phase impacts, for

example those arising from haul roads, are often short-term and reversible and thus likely to have a lower magnitude of change.

Impact Significance

- 13.2.29 The degree of significance of landscape impacts has been determined through professional judgement including consideration of both the sensitivity of the landscape receptors and the predicted magnitude of change as a result of the proposed scheme, and defined as being Negligible, Slight, Moderate or Substantial as shown in Table 13.6 below.
- 13.2.30 Impacts assessed as being of **Moderate** significance or greater are considered to constitute significant changes to the fabric, character and/or quality of the landscape, and mitigation would generally be required to reduce these where practicable. Impacts of **Moderate** significance or greater are also considered as being significant in the context of the EIA Regulations.

**Table 13.6: Significance of Landscape Impacts**

Level of Effect	Criteria
Substantial	Adverse: The proposed scheme would be at considerable variance with the character (including quality and value) of the landscape, degrade or diminish the integrity of a range of characteristic features or elements or damage a sense of place. Beneficial: The project would enhance the character (including quality and value) of the landscape, create an iconic high-quality feature and/or series of elements, or enable a sense of place to be created or enhanced.
Moderate	Adverse: The proposed scheme would conflict with character (including quality and value) of the landscape, have an adverse effect on characteristic features or elements or diminish a sense of place. Beneficial: The proposed scheme would improve the character (including quality and value) of the landscape, enable the restoration or characteristic features and elements partially lost or diminished by inappropriate management or development or enable retention/creation of some sense of place.
Slight	Adverse: The proposed scheme would not quite fit the character (including quality and value) of the landscape, be at variance with characteristic features and elements, or detract from a sense of place. Beneficial: The proposed scheme would complement the character (including quality and value) of the landscape, maintain or enhance characteristic features and elements, and enable some sense of place to be restored.
Negligible	The proposed scheme would maintain the character of the landscape, blend in with characteristic features and elements, and enable a sense of place to be retained.

**Limitations to Assessment**

- 13.2.31 The field assessment was undertaken during the summer and autumn months with the trees generally in leaf, so professional judgement was required to anticipate the changes within the landscape in the winter months with the trees not in leaf.
- 13.2.32 Uncertainty regarding the details of the construction process and phasing is a limitation of the DMRB Stage 3 Landscape Assessment, however, professional judgement and experience, in addition to the constructability review undertaken by the engineering team has been used to inform the assessment of impacts.

**13.3 Baseline Conditions**

**Landscape Receptors**

- 13.3.1 This section identifies the landscape receptors of the study area, taking account of the geological, cultural and historical influences and identifies any designated or protected areas. The baseline assessment focuses on the following receptors:
  - landscape and other designations;
  - landscape character;
  - landscape elements and features; and
  - settlement and built elements.



- 13.3.2 Landscape receptors identified within the study area are shown on Figures 13.1 to 13.3 and a general overview of the existing landscape and the existing A9 is provided in Image 13.1 and Photographs 13.2 and 13.3 below.

**Image 13.1: View overlooking the existing A9, Dunmore Hill and Loch Faskally**



Source: Getmapping plc, Data SIO, NOAA, US Navy, NGA, GEBCO, Google Earth

### Landscape and Landscape Related Designations

#### *Cairngorms National Park*

- 13.3.3 The northernmost end of the study area falls within the Blair Atholl to Glenshee region of the Cairngorms National Park between Allt Essan steading and Killiecrankie, approximately 1.7km beyond the northern extent of the proposed scheme.
- 13.3.4 The Blair Atholl to Glenshee region is characterised by its deeply cut, flat and fertile glens with dense forests and agriculture. The forests form part of the Perthshire 'Big Tree Country'<sup>1</sup> and include some of the largest trees in the UK. The area is popular with tourists and offers a range of outdoor activities, allowing views of the surrounding landscape, diverse wildlife and attractions including the Pitlochry Dam and Fish Ladder.
- 13.3.5 The special landscape qualities (SLQs) of the Cairngorms National Park are provided in The Special Landscape Qualities of the Cairngorms National Park, Scottish Natural Heritage Commissioned Report No. 375 (2010). Given the separation distance from the Park boundary to the proposed scheme and the very limited visibility of the proposed scheme from within (as exhibited in Figure 13.4 Visibility Analysis); the National Park has been excluded from further consideration in this assessment.

#### *Loch Tummel National Scenic Area (NSA)*

- 13.3.6 The study area and the northern end of the scheme fall within the eastern extents of the Loch Tummel NSA between ch5300 to ch6400 for a distance of approximately 1.1km as shown in Figure 13.1.
- 13.3.7 The special qualities (SQs) of the NSA as defined by SNH comprise:
- a breathtakingly beautiful landscape, both lowland and highland;

<sup>1</sup> Perthshire is known as 'Big Tree Country' by virtue of 'boasting some of Europe's most remarkable trees and woodlands' and having some of the largest trees in Britain (<http://www.perthshirebigtreecountry.co.uk/> accessed 23/07/15).

- Loch Tummel, the heart of the NSA;
- rich and varied woodlands;
- peacefulness and tranquillity;
- the celebrated Queen's view;
- spectacular and famous mountain gorge – the Pass of Killiecrankie; and
- the picturesque Linn of Tummel.

13.3.8 The NSA is dominated by hills and woodland, which reduce the visual intrusion of roads, rail and hydro-electric infrastructure within the designation. These key features are generally contained within the NSA by the surrounding rugged hills, which restrict visibility south and north to the existing A9, and from Loch Tummel there is a strong sense of enclosure and seclusion. The primary views from the loch, particularly from the elevated viewpoint of the Queen's View, are along the strath to the west and south-west to more distant dramatic hills and mountains as illustrated in Photograph 13.1 below. These long views along Loch Tummel contrast with the intimacy of the landscape created by the areas of woodland cover.

**Photograph 13.1: Queen's View, Loch Tummel NSA**



*Ben Vrackie Special Landscape Area (SLA)*

- 13.3.9 The Ben Vrackie SLA partially falls within the north-eastern extents of the study area, in line with Loch Dunmore and the end of the proposed scheme at Killiecrankie. The SLA comprises rugged moorland hills centred on the Corbett of Ben Vrackie. The special qualities of the designation include:
- the iconic Perthshire mountain of Ben Vrackie;
  - panoramic views across Strath Tay, Strath Tummel and Highland Perthshire;
  - backdrop to settlements including Pitlochry when viewed from Strath Tay;
  - important link to the hills of the Cairngorms National Park to the north; and
  - sparsely inhabited area with upland archaeology hinting to historic settlement.
- 13.3.10 The SLA contributes to the quality of the landscape character and in this regard has been considered in the determination of the value and the sensitivity of change of the Pass of Killiecrankie LLCA (assessed in Section 13.7). Although located within the SLA, the existing A9 has no or very limited bearing on the special qualities of the designation, and in views from elevated locations (such as hill tops which are typically more open in nature) the existing A9 appears as a minor element in views which are dominated by the dramatic surrounding and distant landscape.

- 13.3.11 The SLA is popular with walkers and viewpoints are located at Craigower and Ben Vrackie, enabling views along Loch Tummel, across highland scenery of upland glens, rugged outcrops and open moorland. Receptor locations on Ben Vrackie within the SLA include Ben Vrackie path from Pitlochry Old Faskally Farm, Core Path PLRY/2 and several core paths on the southern and western slopes such as Receptors O21 and O22. A separate assessment of the impacts on the views experienced by people within the SLA is provided in Chapter 14 (Visual) Appendix A14.2 (Outdoor Receptor Assessment).

*Wild Land Areas (WLAs)*

- 13.3.12 Wild Land Areas (WLAs) are considered to be nationally important in Scottish Planning Policy (SPP), but are not a statutory designation. SNH identifies WLAs as areas with a high degree of perceived naturalness in the setting, with little evidence of contemporary land use and are generally remote and/or inaccessible with rugged landforms. The Cairngorms Wild Land Area (referenced as WLA 15 as shown on Figure 13.1) covers much of the Cairngorms National Park and is located within the study area, to the north-east of the existing A9 and at a distance of approximately 3.5km from the proposed scheme.
- 13.3.13 The existing A9 features in views from the Wild Land Area and presently exerts a minor perceptual influence its wild land qualities. The proposed scheme would involve the widening of the existing road corridor within the valley area, which would result in a minor increase in visibility from land within the WLA and a limited, indirect impact on its perceptual qualities over and above those currently resulting from the existing A9. There would however be no direct impacts on landscape elements and features within the WLA boundary. Given the limited impact that the proposed scheme would have on the Cairngorms Wild Land Area the WLA has not been considered further as part of this assessment.

Landscape Character

- 13.3.14 Three Landscape Character Areas and seven Local Landscape Character Areas have been identified within the study area. There are elements of the proposed scheme in the following three LLCAs:
- Strath Tummel LLCA;
  - Pass of Killiecrankie LLCA; and
  - Strath Tummel: Pitlochry LLCA (Settlement).
- 13.3.15 A summary of the key features of the baseline conditions of these character areas is provided below and an assessment of the impacts is provided in Section 13.6.
- 13.3.16 The proposed scheme would potentially indirectly impact upon the seven remaining character areas comprising:
- Glen Garry: Blair Atholl LLCA (Settlement);
  - Glen Garry: Lower Glen LLCA;
  - Strath Tay: Mid Glen LLCA;
  - Strath Tay: Upper Glen LLCA;
  - Glen Fender LCA;
  - Highland Glens with Lochs LCA; and
  - Highland Summits and Plateaux LCA.
- 13.3.17 Detailed descriptions of the LCAs and LLCAs within the study area and details of the data sources used to define them are provided in Appendix A13.1 (Landscape Character Areas) and their extents are shown on Figure 13.2.
- 13.3.18 An assessment of impacts on these character areas is provided in Appendix A13.3 (Assessment of Residual Indirect Impacts on Landscape Character Areas).

*Strath Tummel LLCA*

- 13.3.19 The Strath Tummel LLCA comprises the flat-bottomed meandering River Tummel valley to the south of the town of Pitlochry. The essential qualities are those of traditional highland straths, a flat-bottomed valley with steeply sloping sides. The Tummel is a large river which gently meanders across a broad, often level floodplain.
- 13.3.20 The key features of the LLCA can be summarised as being:
- A traditional highland strath with a flat-bottomed valley and steeply sloping sides which lack many of the classic glacial features.
  - The open strath of the Tummel has a combination of farmland, forestry and estate woodland. Much of the woodland is AWI designated.
  - There is agricultural use for much of the strath floor which includes large areas of relatively fertile farmland. It is most productive on the floodplain alluvium but also extends much further up the valley slopes.
- 13.3.21 The LLCA is characterised by a wide valley floor which is covered by large areas of relatively fertile arable and pasture farmland. The farm land is most productive on the floodplain alluvium but also extends much further up the valley slopes. The influence of large estates is often visible giving the valley a well-wooded and structured appearance whilst there are large areas of coniferous forestry on upper slopes.
- 13.3.22 Settlement in the LLCA is scattered, with individual properties and farmsteads generally located above the floodplain. Views are open but the landform restricts long distance views of the strath with limited views out. An illustrative view of the character of the landscape is provided in Photograph 13.2 below.

**Photograph 13.2: View looking south from the slopes of Ben Vrackie illustrating the character of the Strath Tummel LLCA**



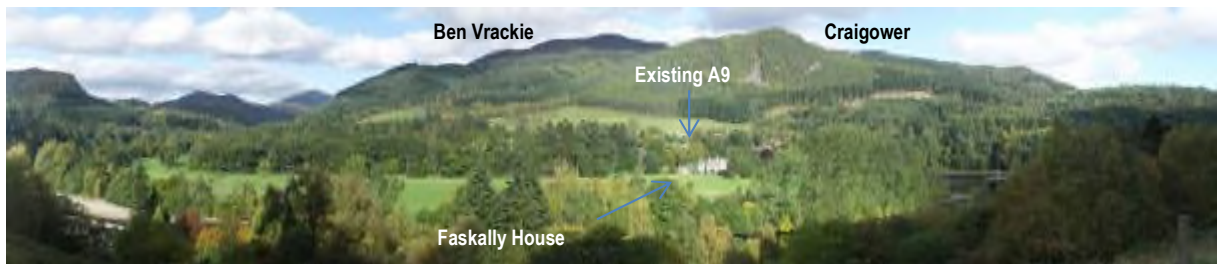
*Pass of Killiecrankie LLCA*

- 13.3.23 Pass of Killiecrankie LLCA incorporates a section of Glen Garry where the River Garry flows through the narrow, incised Pass of Killiecrankie and a section of Strath Tummel where the River Garry joins the River Tummel and then broadens out to Loch Faskally.
- 13.3.24 The key features of the LLCA can be summarised as being:
- The Pass of Killiecrankie is a “pinch-point”, separating Glen Garry from Strath Tummel, and is an important communication route through which the existing A9 (upon a viaduct) and the Highland Main Line Railway pass.
  - The River Garry flows through a narrow, incised valley at the Pass of Killiecrankie and then meets the River Tummel, broadening out to Loch Faskally.

- The LLCA is heavily wooded with a large proportion of ancient deciduous woodland surrounding the Pass of Killiecrankie and mixed woodland of plantation origin surrounding Craigower and Dunmore Hill.

13.3.25 The LLCA is heavily wooded and this combined with the landform of the steep sided hills bordering the river corridors, results in an enclosed character. Settlement is sparse comprising of farmsteads on the western slopes of the glen and some individual properties centred around Killiecrankie, Garry Bridge and Faskally House. An illustrative view of the character of the landscape is provided in Photograph 13.3.

**Photograph 13.3: View looking north-east from minor road above Clunie Power Station illustrating the character of the Pass of Killiecrankie LLCA**



*Strath Tummel: Pitlochry LLCA (Settlement)*

- 13.3.26 The Strath Tummel: Pitlochry LLCA (Settlement) comprises the town of Pitlochry, a good example of a Victorian Highland holiday resort. The LLCA also includes the adjacent villages of Port-na-craig on the southern bank of the River Tummel and Moulin which lies to the north at a higher elevation. The LLCA is located between the Pass of Killiecrankie LLCA and Strath Tummel LLCA and the spectacular setting adds to the distinctive character of the town.
- 13.3.27 The key features of the LLCA can be summarised as being:
- The town of Pitlochry is set between the Pass of Killiecrankie LLCA and Strath Tummel LLCA and the spectacular setting adds to the distinctive character of the town.
  - Set on the banks of the River Tummel and the river reservoir Loch Faskally and surrounded by high quality woodland.
  - The core of the village lies on the northern bank of the river and is set across south facing slopes.
  - The stone built, Victorian townscape of Pitlochry is relatively unaltered since it was developed as a Highland holiday resort during the last half of the nineteenth century.
  - The railway line runs through the centre of the town but the main road transport corridor, the A9, by passes the town, following the southern bank of the River Tummel.
- 13.3.28 The LLCA is characterised by built development and encompasses two Conservation Areas, the town being a popular holiday resort in Victorian times. An illustrative view of the character of the landscape is provided in Photograph 13.4.

**Photograph 13.4: View from the Pitlochry Youth Hostel illustrating the character of the Strath Tummel: Pitlochry (Settlement) LLCA**



### Landscape Elements and Features

#### *Landform and Drainage*

- 13.3.29 The study area along the A9 corridor is largely enclosed by densely wooded slopes adjacent to the existing A9, rising to steeper slopes and rugged topography either side of Loch Faskally. Travelling through the Pass of Killiecrankie, there is a steep wooded slope to the east of the existing A9 that falls away on the west side of the road as it descends towards the flat valley bottom where the River Garry lies.

**Photograph 13.5: View looking north-west across Loch Faskally from Pitlochry Power Station Dam**



- 13.3.30 The River Garry flows in a southerly direction from Killiecrankie, and widens considerably at Garry Bridge (at the southern end of the Pass of Killiecrankie). The river flows into Loch Faskally (Photograph 13.5), where it is joined by the River Tummel to form a reservoir. Numerous small tributaries flow into the man-made loch from the slopes on the south-west side of the reservoir. The dam, power station and fish ladder at the south-east end of the loch are immediately south-west of Pitlochry at the southern end of the study area.

#### *Landcover and Vegetation*

- 13.3.31 The existing A9 runs along the eastern edge of Tay Forest Park between Faskally Wood and Faskally Caravan Park. It consists of an extensive area of woodland covering slopes on the north-east shore of Loch Faskally. The Forest Park includes a variety of broadleaved and coniferous tree species that provide seasonal interest within the study area. Slopes on the south-western banks of the loch are

also densely wooded as illustrated in Photograph 13.6, as is the Pass of Killiecrankie. There is a short break from the dense roadside vegetation adjacent to the existing A9 at Faskally Caravan Park, where an open field permits views of the forested hilltops on either side of the valley.

- 13.3.32 A mixture of broadleaved and coniferous roadside vegetation restricts visibility beyond the existing A9 in the south-eastern end of the study area, directing views along the road corridor to the hill summits either side of Loch Faskally. Driving across the Clunie Road Bridge offers views down the loch, the densely wooded shorelines and surrounding slopes.

**Photograph 13.6: View looking south-west from the north-east shore of Loch Faskally**



**Photograph 13.7: View looking south towards Loch Faskally and the existing A9 road corridor from Craigower Hill viewpoint illustrating woodland typical of AWI designation in this region**



- 13.3.33 Woodland designated in the Ancient Woodland Inventory (AWI) is widespread across the study area, typically being found along watercourses (such as the River Tummel and Loch Faskally, as shown in Photograph 13.6) as well as on hillsides such as Craigower (illustrated in Photograph 13.7). From Port-na-Craig Dam at the south-eastern end of Loch Faskally to Faskally Caravan Park, the existing A9 passes through ancient woodland designated as long-established of plantation origin.
- 13.3.34 In addition to AWI, woodland identified in the Forestry Commission's Native Woodland Survey of Scotland (NWSS) is also widespread within the study area and along parts of the existing A9 corridor, overlapping in a number of areas with AWI woodland close to the A9, including around Littleton of Fonab, Pitlochry Estate and Craiglunie.

#### Settlement and Built Elements

- 13.3.35 The study area along the A9 corridor consists of clusters of houses, farmsteads and the main settlements of Pitlochry and Moulin. Pitlochry is visible from the existing A9 heading northbound at the south-east edge of the study area. The Port-na-Craig Dam and Power Station at the south-east end of Loch Faskally are significant built elements, as are the golf course and fish ladder, which are also popular places to visit in Pitlochry. The study area is a popular destination for tourists and visitors with caravan parks at Milton of Fonab and Faskally.
- 13.3.36 The existing A9, B-roads and the Highland Main Line Railway cut into lower hill slopes and run within the valley of the study area. The existing A9 crosses Loch Faskally as a single-carriageway via the Clunie Road Bridge, running parallel to Clunie Footbridge, a pedestrian footbridge, which also crosses the loch (Photograph 13.8).

Photograph 13.8: View of the Clunie Road Bridge and Footbridge from the shore of Loch Faskally.



## 13.4 Potential Impacts

### General

- 13.4.1 This section provides a brief summary of the types of landscape impacts that would occur during the construction of the proposed scheme and those that would occur in the absence of mitigation during operation. It should be noted that the general alignment of the proposed scheme would in itself limit potential impacts; the widening to the southbound side avoiding impacts on existing woodland and landform around Clunimore House and the crossing of Loch Faskally to the southbound side and Pitlochry North Junction arrangement limiting impact on Faskally Wood.
- 13.4.2 Mitigation of impacts on the landscape is predominantly achieved through alignment, earthworks, planting and seeding which are incorporated into the design as assessed and reported in this Environmental Statement (ES) and described in detail in Chapter 4 (Iterative Design Development) and Chapter 5 (The Proposed Scheme). Key mitigation measures, such as limiting the extent of the cutting slopes, minimising loss of woodland, and the screening it provides, or the selection of the bridge structures are all embedded in the design. It is therefore not practicable to undertake an assessment of the potential landscape impacts of construction and the operational scheme in the absence of mitigation.
- 13.4.3 This section therefore provides a brief summary of the types of impacts that could occur in the absence of mitigation during operation, and sets out potential temporary impacts during construction. Impacts that occur during construction associated with the loss of landscape elements such as woodland, but which would be permanent are also considered in the assessment of operational landscape impacts.

### Construction

- 13.4.4 Construction activities associated with road schemes would generally result in temporary adverse landscape impacts. The proposed scheme is likely to result in impacts on the landscape resource during construction as a result of:
- removal of roadside woodland and scrub vegetation;
  - loss of embankments and rock outcrops;
  - haulage routes and vehicles moving machinery and materials to and from the site;
  - machinery, potentially including heavy excavators and earth moving plant;



- exposed bare earth over the extent of the proposed works;
- exposed bare rock in areas of rock cutting;
- structures, earthworks, road surfacing and ancillary works;
- temporary soil storage heaps and stockpiles of construction materials;
- lighting associated with night-time working and site accommodation;
- temporary works associated with bridge construction operations; and
- traffic management measures.

13.4.5 In general terms the most significant adverse landscape impacts during the construction period would be likely to occur when major structures and/or junctions and the associated earthworks are being erected or carried out. These would include the following elements:

- The construction of a new bridge crossing over the River Tummel at ch1000 in addition to the improvements to the existing Pitlochry South junction arrangement and associated structures.
- The formation of the Clunie-Foss Road Retaining Wall ch3750 and ch4400.
- The construction of a new bridge (Clunie Underbridge) adjacent to the existing Clunie Road Bridge at Loch Faskally (ch4200).
- Large-scale earthworks including rock excavation and the construction of the new carriageway, slip roads and Pitlochry North Junction between ch4300 and ch6200 on the lower slopes of Creag na Ciche.

### **Operation**

- 13.4.6 Potential operational impacts on the landscape resource in the absence of mitigation may result from:
- Operation of the additional carriageways, junctions and side roads plus associated route infrastructure including structures, signage (including Variable Message Signs and CCTV cameras), barriers, mammal fencing and other road furniture.
  - The change in the perception of landscape character, or on landscape settings, following physical and/or indirect impacts such as the loss of component parts of the landscape for example established woodland, rock exposures and perceived changes to existing views as a result of the proposed scheme.
  - The loss of woodland including AWI and NWSS woodland. Implications of loss of woodland in terms of ecology are provided in Chapter 12 (Ecology and Nature Conservation).
  - The loss of farmland and alteration of vegetation patterns and field patterns as a result of tree loss, changes to field boundaries and stripping of groundcover vegetation and topsoil, followed by reinstatement and new planting. Implications of impacts in terms of agricultural use are considered in Chapter 8 (People and Communities – Community and Private Assets).
  - The changed appearance of the landform along the road corridor as a result of large-scale earthworks and/or rock cuttings and the potential requirement for reinforced slopes and/or retaining structures within the rural landscape.
  - The presence of new bridge structures across watercourses including the new bridge crossings over the River Tummel (ch1000) and Loch Faskally (ch4200), the proposed revised junction between the Pitlochry - Kirkmichael - Bridge of Cally Road (A924)/Strathtummel Road (B8019) (ch5400) and the widened A9, side roads and minor roads and access tracks.
  - Increased visual influence of traffic on the surrounding landscape due to road widening and loss of screening elements.
  - The presence of SuDS.
- 13.4.7 A detailed description of the aspects/activities and associated impacts of the proposed scheme on the landscape resource is provided in Section 13.6 (Residual Impacts).

## **13.5 Mitigation**

### **Introduction**

- 13.5.1 This chapter makes reference to overarching standard measures applicable across A9 dualling projects ('SMC' mitigation item references), and also to project-specific measures ('P04' mitigation item references). Those that specifically relate to landscape are assigned an 'LV' reference.
- 13.5.2 The landscape mitigation measures that apply to all parts of the proposed scheme are described within the following paragraphs in Section 13.5. Location-specific measures are illustrated on Figure 13.5 and described along with the impacts in Section 13.6 (Residual Impacts).
- 13.5.3 Landscape mitigation is concerned primarily with mitigation of likely significant adverse impacts.
- 13.5.4 Mitigation of these impacts falls into three categories:
- prevention: avoidance of the loss of significant landscape elements through the design of the proposed scheme to achieve sensitive horizontal and vertical alignment;
  - reduction: lessening of those adverse impacts that cannot be eliminated by prevention (e.g. roadside mounding and planting to integrate with surrounding landform and landscape); and
  - offsetting: provision of alternative or compensatory measures where appropriate and feasible (e.g. replacing woodland where appropriate).
- 13.5.5 The design of the landscape mitigation proposals has been developed in accordance with Fitting Landscapes: Securing more Sustainable Landscapes (Transport Scotland 2014), DMRB Volume 10 and Planning Advice Note (PAN) 1/2013: Environmental Impact Assessment (Scottish Government, 2013). In addition, programme-specific Strategic Environmental Design Principles contained in the A9 Dualling Programme SEA have been followed.
- 13.5.6 Fitting Landscapes requires that project specific landscape design objectives are developed to deliver the four key policy aims:
- ensure high quality of design and place;
  - enhance and protect natural heritage;
  - use resources wisely; and
  - build in adaptability to change.
- 13.5.7 The project specific landscape design objectives are detailed in Appendix A13.5 (Landscape Design Objectives). These have been developed in consultation with statutory consultees including SNH and CNPA.

### A9 Dualling Programme: Strategic Environmental Design Principles

- 13.5.8 Developed in collaboration with SEPA, SNH, Historic Environment Scotland and the Cairngorms National Park Authority, the Strategic Environmental Design Principles have been considered throughout all stages of the design process.
- 13.5.9 Details of how the design has been developed to respond to each of the Strategic Environmental Design Principles – Landscape (SEDPL) are presented in Appendix A13.4 (Strategic Environmental Design Principles: Landscape) of this chapter. The full listing of Strategic Environmental Design Principles relating to the proposed scheme is provided in Appendix A2.1 (Strategic Environmental Design Principles).
- 13.5.10 In line with SEDPLs 1 and 2 the proposed scheme and mitigation measures have been designed to respect the qualities and key characteristics of each LCA/LLCA along the route, including tying in with and reflecting existing vegetation patterns and landform and the planting of species typical of the area. In line with SEDPL 7, the landscape design as part of the proposed scheme has been developed to require low maintenance and to provide 'flexibility' to accommodate future changes in circumstances,

for example to take opportunities for wildlife habitat enhancement or management of views from the A9.

- 13.5.11 Although the landscape and visual assessments address impacts in summer after 15 years of operation, in line with DMRB guidance and SEDPL 5, the landscape mitigation has been designed to take account of the longer term (beyond 25 years) with species selected to continue to mature and provide mitigation. The planting mixes are designed to include a range of understorey and edge species to ensure a balanced woodland structure, providing lower level screening once canopy species have matured. They include long lived and native species which are expected to naturally regenerate, hence ensuring longevity of woodland and scrub planting areas.

Consideration of the Special Qualities of Loch Tummel NSA

- 13.5.12 An appraisal has been undertaken to inform the development of the mitigation proposals specifically in relation to the SQs of the Loch Tummel NSA relevant to the proposed scheme and are included in Appendix A13.2 (Special Qualities of the Loch Tummel NSA). The consideration of the SQs of the NSA has informed the development of the Landscape Objectives set out in Appendix A13.5 (Landscape Objectives).

**Embedded Mitigation**

- 13.5.13 The alignment of the proposed scheme has been developed through an iterative design process (initiated as part of the DMRB Stage 2 assessment), involving both engineering and environmental specialists. The process has comprised four design iterations, each of which has been informed and reviewed by landscape specialists in order to reduce potential landscape (and visual impacts) and integrate the road with the surrounding landscape. These inputs have derived the following embedded mitigation measures:
- the route alignment;
  - the form and extents of earthworks along the length of the route, including those associated with junctions; and
  - the location of SuDS features.
- 13.5.14 These measures have been adopted to reduce potential impacts on sensitive landscape character receptors such as landscape character units through which the proposed scheme passes in addition to the Cairngorms National Park and the Loch Tummel NSA.
- 13.5.15 Further details of embedded mitigation are provided in Chapter 4 (Iterative Design Development). Further details of the alternative options considered at DMRB Stage 2 are provided in Chapter 3 (Alternatives Considered).

**Standard Mitigation Commitments**

- 13.5.16 During the construction phase, Standard Mitigation Commitments (SMCs) will be applied to mitigate potential impacts on landscape (and visual) receptors (**Mitigation Items SMC-LV1 to SMC-LV7**). These commitments have been developed for adoption across the A9 dualling programme and will be implemented in addition to the Pitlochry to Killiecrankie project specific mitigation measures detailed below (**Mitigation Items P04-LV8 to P04-LV21**). Details of **SMC-LV1 to SMC-LV7** are provided in Table 13.8 below.

**Table 13.8: Standard Mitigation for Landscape**

Construction Phase Standard Mitigation Items	Description
<b>SMC-LV1</b>	The construction programme will be kept to the minimum practicable time to reduce the duration of any landscape and visual impacts and areas will be cleared for construction as close as possible to works commencing and topsoiling, reseeding and planting shall be undertaken as soon as practicable after sections of work are complete.

Construction Phase Standard Mitigation Items	Description
<b>SMC-LV2</b>	As far as practicable, construction plant and materials storage areas will be appropriately sited to minimise their landscape and visual impact.
<b>SMC-LV3</b>	Construction sites will be kept tidy (e.g. free of litter and debris)
<b>SMC-LV4</b>	Work during hours of darkness will be avoided as far as practicable, and where necessary, directed lighting will be used to minimise light pollution/glare. Lighting levels will be kept to the minimum necessary for security and safety.
<b>SMC-LV5</b>	To protect soil quality for the purposes of landscape planting, the following measures will be implemented: <ul style="list-style-type: none"> <li>• Uncontaminated topsoil for re-use shall be stored in un-compacted mounds no more than 2m in height, and stored separately from subsoil material. Topsoil stripped from areas designated as Ancient Woodland shall be stored separately to all other topsoil and sub-soil material, in un-compacted mounds no more than 2 m in height.</li> <li>• Stripped topsoil shall be used in areas of the same proposed vegetation type to utilise the existing natural seed bank.</li> <li>• Subsoil in planting areas shall be replaced after construction and ripped to a minimum of 450 mm prior to topsoiling and planting.</li> <li>• Proposed planting areas in existing arable and pasture land, not subject to construction activity, will be ripped to 600 mm to alleviate compaction.</li> </ul>
<b>SMC-LV6</b>	The construction will be managed such that the loss of any existing woodland, scrub, heath, mire, grassland vegetation, marshland, swamps and isolated trees and shrubs not affected by the permanent works is minimised.
<b>SMC-LV7</b>	All existing trees and shrubs not affected by the construction of the permanent works shall be fenced off with a suitable type of temporary fencing in accordance with BS5837. Fencing shall extend to the drip line of the tree canopies (unless otherwise agreed by an arboricultural advisor), and shall be erected prior to any construction activities in that area and shall remain for the entire period of construction in that area.
<i>n/a (note)</i>	<i>Further to the above, <b>Mitigation Items SMC-E7 and SMC-E8</b> (as detailed in Table 6: Ecology and Nature Conservation) will be implemented to protect vegetation which is identified to be retained.</i>

13.5.17 Whilst these commitments will help to reduce impacts during the construction phase it should be noted that construction impacts cannot be completely mitigated, due to the extensive construction works necessary.

### **Specific Mitigation**

13.5.18 The specific mitigation measures regarding prevention, reduction and offsetting approaches were applied during the planning and design of the proposed scheme. These measures are described below and illustrated on Figure 13.5.

13.5.19 The measures have evolved from an iterative process between the environmental, landscape and engineering design teams, with consideration given to design quality throughout the process.

13.5.20 Prevention measures include best fit of the proposed scheme with the existing landform, avoiding loss or damage to landscape features such as water features or field systems and avoiding loss or damage to sites of ecological or archaeological interest, as described in Chapter 4 (Iterative Design Development). Measures designed to reduce and offset adverse impacts, are summarised below.

13.5.21 Details of where the mitigation measures have been applied within each LLCA directly impacted upon by the proposed scheme are set out in Section 13.6.

### Earthworks

13.5.22 Earthworks design will aim to minimise the impact of cuttings and embankment slopes and to allow integration of the road with surrounding land (**Mitigation Item P04-LV8**) through:

- use of retaining walls or engineered slopes where appropriate to avoid extensive cuttings into hill slopes or large embankments that 'chase the slope' and increase the disturbance of the landscape (for example at Creag na Ciche, ch5300 to ch6000, Figure 13.5d);

- where rock cuttings are required, create rock formations with irregular faces of varied height, angle and form to reflect the structure of the local bedrock (anticipated between ch4850 and ch6000, mainly on the southbound side). The construction of new rock slopes is seen as an opportunity to enhance the existing landscape, providing new exposures of geological interest. Refer to Chapter 10 (Geology, Soils Contaminated Land and Groundwater) for further details;
- sensitive grading and profiling of all earthworks where possible to improve integration with the surrounding landform, modifying embankment and cutting slopes to reflect and tie smoothly into existing natural landform (for example the embankments between ch1000 and ch2200 west of the Tummel Crossing) and to allow land to be returned to its previous use where appropriate.
- softening changes in slope at junctions and overbridges by smoothing out transitions;
- rounding off top and bottom of cuttings and embankments;
- varying gradients along and across the length of slopes; and
- modification of earthworks around SuDS features in order to improve integration with the surrounding landform.

#### SuDS Features (Retention Ponds)

- 13.5.23 The initial design of the SuDS has been developed by drainage engineers in collaboration with landscape architects, ecologists, and hydrologists in order to take advantage of opportunities for improved amenity and biodiversity in addition to meeting the requirements for attenuation and treatment of runoff. The proposed SuDS include wet retention ponds (as shown indicatively on Figure 13.5). The design of the SuDS will be refined further in order to integrate them into the landscape and maximise their amenity and biodiversity value at each specific location. As necessary in order to meet runoff treatment and water quality requirements, and where SuDS features are likely to be visible at close range, for example public footpaths or roads, and where it is considered that they will fit well with the surrounding landscape and provide benefits to wildlife, retention ponds have been proposed.
- 13.5.24 SuDS features required as part of the drainage system of the proposed scheme provide the opportunity to create new beneficial features within the landscape and habitat for wildlife. Their design should comply with Appendix A13.6 (SuDS Design Principles) (**Mitigation Item P04-LV9**) and include the following:
- Where practicable SuDS features should be sited within naturally low areas and designed to look as natural as possible.
  - Their earthworks will be designed to integrate naturalistically with the surrounding landform. Abrupt changes in slope, sharp angles and steep side slopes will generally be avoided.
  - Boundary fencing, where required around SuDS features, will be designed to be as unobtrusive as possible.
  - Planting of native tree and shrub species will help screen proposed fencing, outfall and inlet structures, enhance wildlife habitat and provide visual interest.
  - Open ground in the areas around proposed SuDS features will be seeded with native grasses and wildflowers or heathland vegetation, as appropriate, to provide added wildlife habitat and visual interest.
  - The margins of SuDS features will be planted with native aquatic, emergent and marginal plant species (e.g. greater bird's-foot trefoil, yellow iris, white water-lily, purple-loosestrife and meadowsweet) to help integrate them with the surrounding landscape and enhance their visual amenity and wildlife value).
- 13.5.25 Further details of the approach to the design of the SuDS and examples are provided in Appendix A13.6 (SuDS Design Principles).

#### Noise Barriers

- 13.5.26 Noise barriers have the potential to be visually intrusive when viewed from the existing A9 and surrounding properties. Where possible earth bunding will be used to provide noise attenuation in

order to reduce potential impacts on landscape character and visual amenity. Where earth bunding is not a practical option, drystone walling is likely to be the most appropriate form of noise barrier to integrate with the local landscape character. In locations where drystone walling is not practicable and noise fencing is required careful consideration will be given to its detailed design and the use of planting will be considered in order to help screen it from the proposed scheme and nearby properties (**Mitigation Item P04-L10**).

- 13.5.27 The locations of the two proposed noise barriers (at ch120 and ch6600) are shown on Figure 13.5. Under the anticipated Design and Build type contract, the detailed design of the noise mitigation measures will be undertaken by the Contractor responsible for the works.

#### Structures

- 13.5.28 The design of structures, such as bridges and retaining walls along the length of the proposed scheme and aspects of the landscape design, will be informed by specialist aesthetic advice in order to reduce impacts on both landscape and visual receptors (**Mitigation Item P04-LV11**). While the measures to be adopted will be confirmed at the detailed design stage, mitigation could include use of natural stone-type wall finishes and stone aprons beneath underbridges and NMU underpasses, a patterned or relief finish to sections of retaining wall and for bridges, refinement of the design process in order to achieve slender, elegant and well-proportioned structures. A natural stone-type finish is proposed for the Rob Roy Way Underpass.

#### Signage

- 13.5.29 The location, size and design of variable message, advance direction and tourist information signs along the length of the proposed scheme and just beyond its extents, is largely dictated by road design standards. However, in some instances there may be scope to adjust the location to reduce their impact on the surrounding landscape. This will be undertaken at the detailed design stage and where practicable proposed new signs will be sited in areas of cutting or adjacent to woodland to screen them from the surrounding landscape.

#### Woodland Planting

- 13.5.30 A series of Strategic Environmental Design Principles for woodland planting were developed as part of the SEA process. These comprise:
- Wd1 - avoid loss of woodland functionality (connectivity) at a landscape scale;
  - Wd2 - avoid loss, damage, or fragmentation of ancient woodland inventory (AWI) sites;
  - Wd3 - restrict woodland edge clearance and include woodland edge impacts in the calculation of compensatory habitat requirements;
  - Wd4 - compensation for ancient woodland losses should be of a scale, nature and location which is capable of delivering the woodland functionality being lost;
  - Wd5 - veteran trees and significant landscape trees should be identified and safeguarded, where possible; and
  - Wd6 - avoid tree planting on road side verges to limit opportunities for shelter for fauna including deer.
- 13.5.31 Proposals relating to existing and new planting comprise the following:
- retention of existing trees and vegetation wherever possible and incorporation with new planting proposals (**Mitigation Item P04-LV12**);
  - planting to replace trees lost during construction, including in areas designated as ancient woodland (**Mitigation Item P04-LV13**);
  - enhancement of biodiversity through the use of native species, providing new wildlife habitats, connectivity with existing woodland and complementing existing adjacent habitats (**Mitigation Item P04-LV14**). Planting proposals have been developed in consultation with ecology specialists. Refer to Chapter 12 (Ecology and Nature Conservation);

- planting of woodland at junctions and bridges to help assimilate these elements into the surrounding landscape (**Mitigation Item P04-LV15**);
  - planting to provide screening to reduce visual impacts of the road, structures and vehicle headlights and noise barriers (**Mitigation Item P04-LV16**); and
  - use of severed field corners and landlocked areas as appropriate (**Mitigation Item P04-LV17**).
- 13.5.32 Proposed planting mixes will be based predominantly on native species, proven by established presence within the local area and adapted to local conditions and planting will be monitored for a minimum of five years after construction with annual replacement of any failed planting with stock of a suitable age so as to achieve full establishment and the required level of mitigation/impact reduction by summer 15 years after opening (**Mitigation Item P04-LV18**).
- 13.5.33 National Vegetation Classification (NVC), which is used to describe and categorise the vegetation covering land in Great Britain, will inform the selection of plant species. The following NVC woodland types have been identified as being appropriate to the proposed scheme:
- W4 birch woodland with purple moor-grass;
  - W6 alder woodland with common nettle;
  - W7 alder – ash woodland with yellow pimpernel;
  - W8 lowland mixed broadleaved woodland with dog's mercury;
  - W9 upland mixed broadleaved woodland with dog's mercury;
  - W11 upland oak – birch woodland with bluebell/wild hyacinth; and
  - W17 upland oak – birch woodland with blueberry. W18 Scots pine woodland with heather.
- 13.5.34 Localised variations of these communities, and appropriate sub-communities, will be required to fit with specific site conditions. Appropriate understory and ground-cover planting will be included with the woodland.
- 13.5.35 Young stock is generally easier to establish and will therefore be predominant in mixes, with a smaller proportion of woodland mixes (typically 5-10%) comprising feathered trees. An increased percentage of feathered trees will be used for initial impact in specific locations, for example in close proximity to visual receptors where early screening is required and at locations where there is a need to help integrate structures into the landscape.
- 13.5.36 Planting will assist integration with the local landscape character by using species mixes and planting patterns typical of the local landscape. It will also enhance the experience of travelling along the proposed scheme by creating views of a variety of woodland types. This takes account of aspects such as natural woodland characteristics typical in the locality, designed landscape features and other requirements such as avoiding creation of tree canopies close to the road. Details of the typical planting structure are shown on Figure 13.7. More specific details for each type of planting are specified below.
- 13.5.37 In total, it is estimated that approximately 29.42ha of woodland planting, of which 23.27ha is AWI woodland, will be lost during construction of the proposed scheme. Approximately 39.7ha of new woodland planting is proposed of which 18.55ha would be for AWI woodland compensation. Of the 23.27ha of woodland listed on the AWI which would be lost only 16.8ha has been verified as currently wooded.

#### *Deciduous Woodland Planting*

- 13.5.38 Proposed deciduous woodland planting will comprise of a mix of sizes of plants such as feathered trees, whips and transplants to create multi-layered woodland that will be dominated by native deciduous trees. Due to the current situation regarding Ash Dieback disease, ash will not be specified within the planting proposals but oak/ash is anticipated as the principal climax community. This reflects surrounding deciduous woodlands.

- 13.5.39 Deciduous woodland planting proposals are derived from canopy compositions of NVC dry-land woodlands. These woodlands are generally classified based on the acidity of the soil, with oak/birch woodland on acidic and mesotrophic soils (neither very acid nor very alkaline) and mixed deciduous woodland on more base-rich (calcium-rich) and free-draining soils. The NVC classification for these types of woodlands is often derived from differences in the ground and shrub layer rather than the canopy composition, therefore the planting proposals are designed to develop into broad types of broadleaved woodland, rather than distinct NVC communities.
- 13.5.40 A typical species mix to be used for deciduous woodland will include pedunculate and sessile oak, silver and downy birch, rowan, hazel, alder, wych elm and aspen.

*Mixed Woodland Planting*

- 13.5.41 Proposed mixed woodland planting, which requires both broadleaved and coniferous woodland for visual screening purposes, will comprise plants which range in size from feathered trees to whips and transplants. This will aim to create multi-layered woodland with a balanced mix of native deciduous and coniferous trees, including understorey. The balance between deciduous and evergreen species will be varied to achieve year-round screening and reflect existing woodland local to the various sections of the proposed scheme. The coniferous species within the mixed woodland will be predominately Scots pine reflecting surrounding woodlands and providing a strong evergreen framework and a habitat for red squirrels.
- 13.5.42 A typical species mix to be used for mixed woodland will include Scots pine, holly, aspen, silver and downy birch, grey willow, hazel, blackthorn, bird cherry, blaeberry and rowan.

*Riparian Woodland Planting*

- 13.5.43 Riparian woodland is to be planted adjacent to watercourses and proposed retention ponds and in other areas along floodplains. It will comprise a mix of sizes of plants such as feathered trees, whips and transplants using wetland species such as willow, birch and alder.
- 13.5.44 A typical species mix to be used for Riparian Woodland Planting will include alder, aspen, downy and silver birch.

Dry Scrub Planting

- 13.5.45 Proposed dry scrub planting will comprise native species of local provenance creating a dense medium height canopy. This mix will be used in areas where a lower height plant cover is more appropriate than the taller woodland mixes. Single species scrub planting will be used in gateway areas such as junctions for local impact creating a more formal design.
- 13.5.46 A typical species mix to be used for dry scrub will include hawthorn, blackthorn, juniper and dog rose.

Individual Standard Trees

- 13.5.47 Groups of individual trees and tree lines will comprise standard trees in informal or formal groupings to reflect the character of existing parkland landscapes pattern and provide screening or filtration of views of the proposed scheme. Typical species to be used for tree lines will include Scots pine, birch and oak.

Grass Seeding

- 13.5.48 For disturbed soft areas and road verges, different seed mixes will be used, dependent on location and use (**Mitigation Item P04-LV19**):
- Visibility Splay Mix: suited for use in road verges and other areas where grass needs to be kept short for forward visibility, being low-maintenance, fast-establishing and tolerant of traffic and salt spray.
  - Species-rich Grassland Mix: suited for use in all other areas disturbed by construction works, consisting of a mixture of native, non-invasive grasses and wildflower species to reflect locally



occurring semi-natural flora. As well as enhancing biodiversity and visual interest along the proposed scheme, this type of grassland will require minimal maintenance. Example wild flower species of local provenance, which will have the added benefit of being a nectar rich plant, include common bird's-foot trefoil, greater bird's-foot trefoil, devil's-bit scabious, wild thyme, meadow buttercup and oxeye daisy. Appropriate mixes could be neutral, calcareous, dry, wet, highland or lowland and should be developed further for the specific location and conditions at detailed design stage.

- Wetland Grassland Mix: suited for use in SuDS and areas around culverts that are likely to experience wet conditions. Example species of local provenance, which will have the added benefit of being an invertebrate food or structural plant, include greater bird's-foot trefoil, common knapweed, devil's-bit scabious, sneezewort, meadowsweet and lesser spearwort.

#### Proposed Planting relating to Road Users

- 13.5.49 In some instances, planting will be applied within the road corridor in order to enhance the experience of travelling along the proposed scheme by maintaining important open views and creating views of a variety of woodland types. The species composition of such planting will take account of aspects such as natural woodland characteristics typical in the locality and designed landscape features (**Mitigation Item P04-LV20**).

#### Proposed Habitat Creation for Ecological Mitigation

- 13.5.50 In addition to following the general objective of enhancing biodiversity through the landscape mitigation, more detailed habitat creation proposals are provided in Chapter 12 (Ecology and Nature Conservation). These include the provision of mixed/broadleaved woodland in order to re-instate areas of AWI woodland required to be felled e.g. in the region of Middleton of Fonab (ch2400) in addition to the proposed planting of mixed woodland between ch6000 and ch6900.

#### Deer Fencing

- 13.5.51 Any deer fencing damaged or removed during the construction of the proposed scheme will be repaired or replaced to maintain existing protection. The appointed Contractor will also be required to undertake a risk assessment, taking account of Transport Scotland's strategic deer management planning and the operating company deer management plan. The Contractor will be required to take appropriate measures so as to avoid increasing the risk of deer collisions on the road and to protect new planting areas from browsing where necessary.

#### Lighting

- 13.5.52 Refer to Chapter 14 (Visual) for details of mitigation measures to reduce potential landscape and visual impacts of the proposed lighting (**Mitigation Item P04-21**).

## **13.6 Residual Impacts**

- 13.6.1 Residual impacts are those that remain once the described mitigation measures have been implemented.
- 13.6.2 The assessment of the residual direct impacts on each LLCA resulting from the construction and operation of the proposed scheme is provided below. A separate assessment of residual, indirect impacts on landscape character areas is provided in Appendix A13.3 (Assessment of Residual Indirect Impacts on Landscape Character Areas). It should be noted that the assessment provided in Appendix A13.3 determined that the proposed scheme would not result in any significant indirect landscape impacts on any LCAs remote from the proposed scheme.

### **Assessment of Impacts on Local Landscape Character Areas (Direct Impacts)**

#### General

- 13.6.3 The following section provides an assessment of the residual impacts on the LLCAs which would experience direct, physical impacts on their defining elements and features as a result of the proposed scheme. These LLCAs comprise:
- Strath Tummel LLCA (ch0 to ch3100);
  - Pass of Killiecrankie LLCA (ch3100 to ch6800); and
  - Strath Tummel: Pitlochry (Settlement) LLCA (ch1700 to ch3000).
- 13.6.4 A detailed description of the impacts on these LLCAs is provided below. The sensitivity to change associated with the proposed scheme for each LCA/LLCA is provided in Appendix A13.1 (Landscape Character Areas).
- 13.6.5 An indication of the profile of the landform and the nature of earthworks and planting are provided in the mitigation plans in Figures 13.5 and cross-sections in Figures 13.6.
- 13.6.6 A combination of wirelines, photomontages and 'still' images extracted from the Virtual Reality Model (VRM) prepared for the proposed scheme are provided in Figures 14.6 to Figure 14.11. The photomontages provide indicative views of the proposed scheme once mitigation planting and seeding has become established.

#### Strath Tummel LLCA

- 13.6.7 The proposed scheme transects the Strath Tummel LLCA from ch0 to ch3100. A detailed description of the elements and features which define the LLCA are set out in Appendix A13.1 (Landscape Character Areas). The impacts on the defining elements and features of the LLCA would result from an increased prominence of road infrastructure in the landscape caused by the following aspects associated with the proposed scheme:
- Physical impact on the landscape, due to widening and new and revised cuttings and embankments affecting the natural landform along both sides of the A9 and along the southern edge of the Pitlochry South Junction; disruption to field patterns and loss of farmland, minor retaining wall required west of Port-na-Craig House and the loss of existing roadside trees, including category 1A AWI and NWSS woodland at Littleton of Fonab and west of Port-na-Craig House.
  - Construction of the new Tummel Underbridge alongside the existing bridge across the River Tummel (ch1000) and formation of the new Pitlochry South grade separated junction arrangement with associated large-scale earthworks and signage.
  - Introduction of two SuDS on the valley floor (at ch800 and ch1300), resulting in the loss of two small areas of open pasture and localised impact on the valley floor topography.
  - Introduction of signage along the road corridor, resulting in the loss of small areas of roadside vegetation and localised impact on the valley floor topography.
- 13.6.8 An indication of the profile of the landform and the nature of earthworks and planting is provided in Cross Sections AA (ch860), BB (ch1450), and CC (ch2500), Figures 13.6a to 13.6b.
- 13.6.9 The sensitivity of the LLCA to change associated with the proposed scheme has been determined as being Medium. The rationale to this rating is set out in Appendix A13.1 (Landscape Character Areas).
- 13.6.10 In the winter of the year of opening, the proposed scheme would result in a **Moderate** impact on the Strath Tummel LLCA. This level of impact would be incurred as a direct result of the medium magnitude of change associated with the loss of defining features of the LLCA including areas of farmland from ch0 to ch1600, in addition to areas of AWI woodland from ch1600 to ch3100. While most of the physical impacts to the features within the LLCA would be limited to a relatively narrow

corridor closely associated with the existing A9, the proposed scheme would in the winter of the year of opening constitute a prominent feature within the LLCA.

- 13.6.11 This impact on the LLCA would be mitigated by implementation of the proposed mitigation measures which include the:
- Grading out of the earthworks where possible along the length of the proposed scheme within the LLCA (**Mitigation Item P04-LV8**).
  - A 'naturalistic' design approach to the SuDS at ch800 and ch1300 in order to improve integration into the receiving landscape (**Mitigation Item P04-LV9**).
  - Retention and protection of existing woodland and other landscape features as far as practicable (**Mitigation Item P04-LV12**).
  - Particular attention to be focussed on aesthetics in the detailed design of the new Tummel Underbridge (bow-string arch design) adjacent to the existing River Tummel Bridge. (**Mitigation Item P04-LV11**).
  - Reinstatement of woodland by replacement planting, the species composition reflecting lost areas of woodland (**Mitigation Item P04-LV13**).
  - Planting at the Pitlochry South Junction in order to help assimilate the landform and structures into the surrounding landscape (**Mitigation Item P04-LV15**).
  - Planting of location-specific woodland (**Mitigation Item P04-LV18**), the species mix proposed for areas of woodland reflecting the species composition of neighbouring woodland (where relevant).
  - The use of a species-rich grassland mix consisting of a mixture of native, non-invasive grasses and wildflower species to reflect locally occurring flora along the length of the proposed scheme (**Mitigation Item P05-LV19**).
- 13.6.12 On establishment of the proposed mitigation measures by the summer 15 years after opening, particularly the maturation of the proposed woodland planting and re-establishment of the areas of farmland, it is predicted that the magnitude of change to the LLCA associated with the proposed scheme would reduce from medium to low. This reduction in the magnitude of change would result in a Slight/Moderate residual impact on the Strath Tummel LLCA which, in the context of this assessment, is not significant.

#### Pass of Killiecrankie LLCA

- 13.6.13 The proposed scheme transects the southern section of the Pass of Killiecrankie LLCA from ch3100 to ch6800. A detailed description of the elements and features which define the LLCA are set out in Appendix A13.1 (Landscape Character Areas). The impacts on the defining elements and features of the LLCA would result from an increased prominence of road infrastructure in the landscape caused by the following aspects associated with the proposed scheme:
- Proposed online widening along the southbound carriageway plus associated cutting, resulting in physical changes to the local landform and loss of woodland south of Balmore Cottages, narrow strip of AWI and NWSS woodland adjoining Foss Road and minor loss of AWI (Category 1a) woodland south of Loch Faskally.
  - Proposed C452 Clunie-Foss Road at ch3500 connecting to local road along western bank of Loch Faskally and associated reinforced earthwork slope south of Balmore, as well as a new large-scale Clunie-Foss Road Retaining Wall between the A9 and embankment adjoining the eastern shore of Loch Faskally to accommodate the level change (ch3760 to ch4200), affecting the local character and views from the side road, with those across the loch screened/ partially screened by mature trees on the loch side.
  - Proposed Clunie Underbridge at ch4200 to enable the dualling of the A9 and associated revised embankment along the southbound side north of the crossing and resultant localised change to landform and loss of existing mixed species mature woodland.
  - Proposed realignment of the dualled A9 north-east of the existing road corridor between Faskally Cottages (approx. ch4600) to Faskally Home Farm (approx. ch6200) and large-scale associated

earthworks (high embankment on the northbound side and deep cutting into the hillside, potentially including rock cutting on the southbound side) on either side of the Pitlochry North Viaduct and along the Pitlochry North Junction Underbridge and southbound and northbound merge roads, resulting in physical changes to the landform and loss of a significant number of AWI trees and NWSS woodland (part of the Tay Forest Park) at Craiglunie.

- Proposed new slip roads, underbridge and junction arrangement between the Strathtummel Road/ Pitlochry - Kirkmichael - Bridge of Cally Road plus large scale associated new retaining structures, cuttings and embankments which although graded to improve integration with the landform towards the valley, would together be visually prominent and would result in the loss of Tigh na Beithe Steading and one property at Craiglunie as well as a large number of AWI and NWSS trees (part of the Tay Forest Park) on the lower slopes of Creag na Ciche and Craigower.
- Proposed online widening of existing A9 and associated southbound roadside cutting between ch6000 and ch6700 which would impact on the natural landform, with potential exposure of rock cuttings, as well as loss of a small area of farmland.
- Introduction of SuDS at ch4700, affecting local landform and resulting in the loss of a small area of woodland including AWI and a grassed area adjacent to the existing Pitlochry - Kirkmichael - Bridge of Cally Road.
- Introduction of SuDS to the north-east of Dunmore Hill (ch5200) and to the east of Faskally Caravan Park (ch6300), affecting local landform and resulting in the loss of a small area of enclosed grassland between the existing A9 and the Highland Main Line Railway.
- Introduction of signage along the road corridor, affecting local landform and resulting in the loss of small areas of roadside vegetation, farmland north of Faskally Caravan Park and woodland including AWI east of Cluniemore House and beyond the northern extents of the proposed scheme.

- 13.6.14 An indication of the profile of the landform and the nature of earthworks and planting is provided in Cross Sections DD (ch4050), EE (ch4650), FF (ch5200), and GG (ch6400) Figures 13.6b to 13.6d.
- 13.6.15 The sensitivity of the LLCA to change associated with the proposed scheme has been determined as being High. The rationale to this rating is set out in Appendix A13.1 (Landscape Character Areas).
- 13.6.16 In the winter of the year of opening, the proposed scheme would result in a **Moderate/Substantial** impact on the southern section of the Pass of Killiecrankie LLCA. This level of impact would be incurred as a direct result of the medium magnitude of change associated with the loss of defining features of the LLCA including areas of areas of AWI woodland from ch3100 to ch6000. While most of the physical impacts to the features within the LLCA would be limited to a relatively narrow corridor closely associated with the existing A9, the proposed scheme would in the winter of the year of opening constitute a prominent feature within the LLCA.
- 13.6.17 This impact on the LLCA will be mitigated by implementation of the proposed mitigation measures which include:
- Grading out of the earthworks where possible along the length of the proposed scheme within the LLCA (**Mitigation Item P04-LV8**).
  - A 'naturalistic' design approach to SuDS in order to improve integration into the receiving landscape (**Mitigation Item P04-LV9**).
  - Particular attention to be focused on aesthetics in the detailed design of the proposed Clunie-Foss Road Retaining Wall (ch3760 to ch4200) in order to mitigate potential views from Pitlochry. Aesthetic design of the new Clunie Underbridge adjacent to the existing Clunie Road Bridge (which will be similar in design and appearance to the existing bridge). (**Mitigation Item P04-LV11**).
  - Retention and protection of existing woodland and other landscape features as far as practicable (**Mitigation Item P04-LV12**).
  - Reinstatement of woodland by replacement planting (**Mitigation Item P04-LV13**), the species composition reflecting lost areas of woodland such as the woodland that would be felled at the north end of the Clunie Road Bridge (ch4300).

- Planting of location-specific woodland (**Mitigation Item P04-LV18**), the species mix proposed for areas of woodland reflecting the species composition of neighbouring woodland (where relevant) such as the areas of mixed woodland proposed between ch6000 and ch6900.
- The use of a species-rich grassland mix consisting of a mixture of native, non-invasive grasses and wildflower species to reflect locally occurring flora along the length of the proposed scheme (**Mitigation Item P05-LV19**).

13.6.18 On establishment of the proposed mitigation measures by the summer 15 years after opening, particularly the maturation of the proposed woodland planting and re-establishment of the areas of farmland, it is predicted that the magnitude of change to the LLCA associated with the proposed scheme would reduce to some extent but would remain medium due to the scale of the change to the landscape, recognising that woodland new planting would still not be fully matured. A **Moderate/Substantial** residual impact on the Pass of Killiecrankie LLCA would remain, which, in the context of this assessment, is significant, though the impact would continue to reduce as trees mature beyond 15 years after opening.

Strath Tummel: Pitlochry (Settlement) LLCA

13.6.19 The proposed scheme passes through the south-western boundary of the Strath Tummel; Pitlochry (Settlement) LLCA from approximately ch1700 to ch3000. A detailed description of the elements and features which define the LLCA are set out in Appendix A13.1 (Landscape Character Areas). The impacts on the defining elements and features of the LLCA would result from the following aspects associated with the proposed scheme:

- Proposed online widening along the southbound carriageway plus associated earthworks, resulting in physical changes to the local landform.
- Proposed new side road junction at ch2700 (Foss Road /Port na Craig) and retaining wall to the south-east of the Pitlochry Festival Theatre.
- Proposed new access track and associated underbridge at ch2540 (Rob Roy Way Underpass).
- Introduction of signage along the road corridor, resulting in the loss of small areas of roadside vegetation including woodland north of Overton of Fonab and localised impact on the valley floor topography.

13.6.20 The sensitivity of the LLCA to change associated with the proposed scheme has been determined as being Medium/High. The rationale to this rating is set out in Appendix A13.1 (Landscape Character Areas).

13.6.21 In the winter of the year of opening, the proposed scheme would result in a Negligible impact on the south-western boundary of the Strath Tummel: Pitlochry (settlement) LLCA. This level of impact would be incurred as a direct result of the low magnitude of change associated with the loss of very small areas of woodland in the region of the Pitlochry Festival Theatre, and small areas of roadside verge (including woodland) to the existing A9.

13.6.22 These impacts to the features within the LLCA would be limited to a relatively narrow corridor closely associated with the existing A9 and the LLCA would be largely unaffected.

13.6.23 While a negligible impact only, the impacts on the LLCA incurred in the winter of the year of opening will be offset by implementation of the proposed mitigation measures which include the:

- Grading out of the earthworks where possible along the length of the proposed scheme within the LLCA (**Mitigation Item P04-LV8**).
- Retention and protection of existing woodland and other landscape features as far as practicable (**Mitigation Item P04-LV12**).
- Reinstatement of woodland by replacement planting (**Mitigation Item P04-LV13**), the species composition reflecting lost areas of woodland e.g. in the region of ch2700 to the south of the Pitlochry Festival Theatre.

- 13.6.24 On establishment of the proposed mitigation measures by the summer 15 years after opening, particularly the maturation of the proposed woodland planting and re-establishment of the areas of farmland, it is predicted that the magnitude of change to the LLCA associated with the proposed scheme would reduce remain at low. This reduction in the magnitude of change would result in a Negligible residual impact on the Strath Tummel; Pitlochry (Settlement) LLCA which, in the context of this assessment, is not significant.

## **13.7 Statement of Significance**

- 13.7.1 The alignment of the proposed scheme along much of the route of the existing A9 and implementation of mitigation measures, including integrating earthworks into the surrounding landscape and woodland planting, would help to limit the magnitude of change and significance of impact of the road widening.
- 13.7.2 In the winter of the year of opening, the impacts on both the Strath Tummel and Pass of Killiecrankie LLCAs would be significant (**Moderate** and **Moderate/Substantial** respectively). However, in the summer 15 years after opening, following establishment of the mitigation planting, impacts on the Strath Tummel would reduce to not significant (Slight/Moderate). Impacts on the Pass of Killiecrankie LLCA, although reduced through establishment of planting, would remain significant (**Moderate/Substantial**). Impacts on the Strath Tummel: Pitlochry LLCA would be Negligible and not significant in both the winter of the year of opening and by the summer 15 years after opening.
- 13.7.3 There would be no significant impacts in either the winter of the year of opening or in the summer 15 years after opening on the Glen Garry: Blair Atholl LLCA (settlement), Glen Garry: Lower Glen LLCA, Strath Tay: Mid Glen LLCA, Strath Tay: Upper Glen LLCA, Glen Fender LCA, Highland Glens with Lochs LCA, and the Highland Summits and Plateaux LCA.

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