13 Landscape

13.1 Introduction

13.1.1 This Chapter presents the '*Design Manual for Roads and Bridges*' (DMRB) Stage 3 Environmental Impact Assessment (EIA) in terms of landscape for the Proposed Scheme for Project 7 - Glen Garry to Dalwhinnie (in the Central Section) of the A9 Dualling Programme. It considers the potential operational and construction impacts on the landscape resource associated with the Proposed Scheme as described in **Chapter 5**. This Chapter includes:

- Baseline conditions within the study area relating to landscape character and landscape receptors
- Potential impacts of the Proposed Scheme, with regard to the identified baseline
- Anticipated mitigation measures
- Residual impacts that are anticipated after mitigation

13.1.2 This chapter should be read in conjunction with **Chapter 14**. The potential effect on views from the road is discussed in **Chapter 9**.

13.2 Approach and Methods

13.2.1 The approach and methodology has been undertaken in accordance with best practice and has been refined to provide a bespoke approach that enables a thorough evaluation of the potential landscape effects within this highly scenic landscape. This EIA was undertaken with reference to guidance within the '*Highways Agency et al, Interim Advice Note (IAN) 135/10 Landscape and Visual Effects Assessment*' and DMRB Volume 11 '*Landscape and Visual*', Section 3, Part 5, 1993.

Scope and Guidance

13.2.2 Other guidance was taken from the '*Guidelines for Landscape and Visual Impact Assessment Third Edition*' (GLVIA3) (Landscape Institute and the Institute of Environmental Management and Assessment, 2013) and '*Fitting Landscapes: Securing more sustainable landscapes*' (Transport Scotland, 2014).

13.2.3 Landscape architects from the various Design Organisations across the A9 Dualling Programme assessing Landscape and Visual effects for DMRB Stage 2 and Stage 3 have formed the Landscape Forum, a sub-group of the A9 Dualling Environmental Steering Group (ESG), to agree a common approach to the assessment and to utilise a similar methodology and terminology.

13.2.4 The A9 Dualling Programme Strategic Environmental Assessment (SEA) and Strategic Landscape Review, '*A9 Dualling Programme, SEA, Environmental Report Addendum* (Halcrow/ CH2M HILL for Transport Scotland, March 2014) includes a series of 'Strategic Considerations' and 'Key Design Implications', which have been taken into account within this landscape assessment, the outline design proposals for the Proposed Scheme, and mitigation.

13.2.5 Consultation and engagement with Scottish Natural Heritage (SNH) and the Cairngorms National Park Authority (CNPA) has been undertaken during the DMRB Stage 3 process as detailed in **Chapter 7** of this Environmental Statement (ES).

Study Area

13.2.6 The Proposed Scheme lies within the Cairngorms National Park (CNP). The area includes the spectacularly dramatic scenery of the Drumochter Pass, a significant landmark on the A9 which is considered to be a notable driving experience that is described as 'grand' and 'sublime' by some commentators. The Pass of Drumochter (Bealach Druim Uachdair) is the main mountain pass between the northern and southern central Scottish Highlands, through which the A9 passes, as does the Highland Main Line (HML) railway, the Sustrans National Cycle Network Route 7 (NCN7) and the Beauly to Denny Power Line (BDL).

13.2.7 The Pass was formed by glacial action during successive Ice Ages and forms a watershed; from this location the River Garry flows to the River Tay and the south, and the River Truim to the River Spey and the north. It is isolated; the nearest settlement of any size, Dalwhinnie, is some 10km to the north.

13.2.8 The summit of the Pass marks the boundary between Perth and Kinross Council (P&KC) and The Highland Council (THC) authority areas. The route through the Pass has been used since prehistoric times. It is the high point on the A9, at 460m (1508 ft.), and in winter can be subject to severe weather conditions.

13.2.9 The Proposed Scheme extends through the Drumochter Pass from Dalnaspidal to just north of Drumochter Lodge. The study area therefore includes the visual envelope of the A9 between Dalnaspidal and Drumochter Lodge.

13.2.10 The Proposed Scheme lies wholly within Drumochter Pass Landscape Character Area (LCA). However, it borders Glen Truim Upper Glen and Dalwhinnie LCA at the northern boundary of the Proposed Scheme, and is visible from within it and other inter-visible LCAs. It is therefore necessary to include an assessment of indirect effects of the relevant part of the Glen Truim Upper Glen and Dalwhinnie LCA that could potentially be affected by Project 7.

13.2.11 The study area was initially informed by the preparation of a theoretical Zone of Visual Influence (tZVI) for the existing A9, which is shown on **Drawing 13.1,** in **Volume 3** of this report. The extent of the tZVI was initially set to 10km either side of the existing A9. TZVIs are based upon bare ground topography and do not take into account any screening or filtering of visibility by local landform, vegetation or built form, and are therefore a worst-case indication of theoretical visibility. See **Appendix 13.1** (as contained in **Volume 2**) for the methodology of the tZVI.

13.2.12 Based on the extent of the tZVI indicated on **Drawing 13.1** (**Volume 3**) and due to the nature of the upland terrain that the A9 passes through, the study area for landscape was therefore set at 5km with the greatest effects anticipated within 2km of the Proposed Scheme. These distance buffers can also be seen on **Drawing 13.1** (**Volume 3**) of this report.

13.2.13 As established within the '*A9 Dualling Programme, SEA, Environmental Report Addendum, Appendix F, Strategic Landscape Review Report'* (Halcrow/ CH2M HILL for Transport Scotland, March 2014), within Section 6 – Key issues, the anticipated landscape effects associated with the Proposed Scheme will likely be limited to the immediate local level and the potential effects on the wider landscape character are considered to be limited.

13.2.14 This chapter identifies any significant effects upon landscape features/ elements, which may result in a permanent change to the recognised landscape character, and subsequently discusses appropriate mitigation, including embedded mitigation designed into the Scheme, and additional mitigation measures which are required to address any adverse effects of the Proposed Scheme.

Baseline Data Sources

13.2.15 Two key published studies establish the baseline for the landscape character assessment of the study area:

- *'Cairngorms Landscape Character Assessment'* Turnbull Jeffery Partnership, published by SNH (1996)
- 'Cairngorms National Park Landscape Character Assessment: Final Report' Alison Grant, published by CNPA (2009)

13.2.16 Other key documents relating to the landscape character include:

- 'The Special Landscape Qualities (SLQs) of the Cairngorms National Park', SNH and CNPA (2010) (SNH Commissioned Report, No.375)
- 'A9 Dualling Programme, SEA, Environmental Report Addendum, Appendix F, Strategic Landscape Review Report', Halcrow/ CH2M HILL for Transport Scotland (2014)

13.2.17 Additional baseline information was produced via site walkovers and desk studies, including reviews of the following information sources:

- 1:5,000, 1:10,000, 1:25,000 and 1:50,000 scale Ordnance Survey mapping
- Google Earth web-based photography
- A9 Dualling commissioned aerial photography (BLOM, 2014)
- Geographic Information Systems (GIS) datasets (including those obtained through the CH2M Fairhurst Joint Venture (CFJV) GIS team in liaison with relevant stakeholders)
- Detailed site assessments made by CFJV landscape architects over a series of site visits in 2015-2017
- Three-dimensional visualisation model of the existing A9 and of the Proposed Scheme

Evaluation Approach

13.2.18 This EIA has been undertaken using the approach outlined below, where the level of significance of an effect is assessed based on the value of the landscape resource; the susceptibility to change of the landscape resource, elements, and character, which together provide an indication of the sensitivity of the landscape to change; and the magnitude of effect.

13.2.19 A common EIA methodology for all Projects within the A9 Dualling Programme has been developed by the landscape architectural teams from each of the three consultancies involved in the programme, in consultation with Transport Scotland (TS) through the A9 Landscape Forum.

13.2.20 In accordance with GLVIA3, there is less reliance on simplistic matrices and more on professional judgement in assessing the significance of the likely impacts. Also, in accordance with GLVIA3, the assessment of sensitivity combines judgements on the value attributed to a receptor and the susceptibility of that receptor to the specific type of development proposed.

13.2.21 All impacts have been considered but only those that are Moderate and above are considered significant. These are reviewed in detail as they are considered to highlight the key impacts.

Assigning Sensitivity

Landscape Value

13.2.22 GLVIA3 defines landscape value as "*the relative value that is attached to different landscapes by society*". A review of existing designations (e.g. National Scenic Area (NSA), Special Landscape Area (SLA)) 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.

13.2.23 There may also be situations where an undesignated landscape is of value and/ or susceptibility in local terms. **Table 13-1** sets out the relative importance of generic landscape designations and descriptions.

Table 13-1: Criteria for Assessing Value of Landscape Designations

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 (NSAs)	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 Scotland's Inventory of Gardens and Designed Landscapes	Gardens and designed landscapes included on the inventory	
Local Landscape Designations (such as Special or Local Landscape Areas, Areas of Great Landscape Value and similar) included in local planning documents	Areas of landscape identified as having importance at the local authority level	Local

13.2.24 Establishing the value attached to undesignated areas requires examination of individual elements of the landscape. A number of criteria need to be considered, as relevant, to help determine value as detailed in **Table 13-2** below. For this Project, only **Table 13.1** is relevant as the project is within the Cairngorms National Park. However, through discussion with the A9 Dualling Landscape Forum, it was agreed that, to provide a consistent approach to methodology across the A9 Dualling, the criteria below would be included in all assessment methodology. An overall assessment was made for each receptor in terms of high, medium and low value.

Table 13-2: 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

Landscape Susceptibility

13.2.25 Susceptibility is defined as the ability of the landscape receptor to accommodate the Proposed Scheme without undue negative consequences. The Proposed Scheme is online dualling of an existing single carriageway road and this has direct relevance to the susceptibility of the landscape receptors, as the road already exists within the baseline. Susceptibility of landscape receptors to change is assessed using the criteria detailed in **Table 13-3** below:

Table 13-3: Landscape Susceptibility Criteria

Susceptibility	Criteria
High	The landscape is unlikely to be able 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

Evaluation of Landscape Sensitivity

13.2.26 **Table 13-4** outlines the criteria used in the evaluation of landscape sensitivity, based on a combination of both susceptibility and value.

Table 13-4: Landscape Sensitivity Criteria

Sensitivity	Criteria
High	Landscape elements of particular distinctive character, which are highly valued and considered susceptible to relatively small change 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 option without undue detriment Landscapes which by nature of their character and value would be able to partly accommodate change of the type proposed
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

Assigning Magnitude of Effect

13.2.27 The magnitude of potential landscape impacts has been assessed in terms of size or scale, the geographical extent of the area influenced, duration and reversibility.

13.2.28 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
- Whether the change is likely to alter the key characteristics of the landscape, which are critical to its distinctive character

13.2.29 The criteria used to assess the size, scale and geographic extents of landscape effects were based upon the amount of change that would occur as a result of the Proposed Scheme, as described in **Table 13-5**.

Table 13-5: Magnitude of Landscape Effect

Magnitude	Criteria
High	Notable change in landscape characteristics over an extensive area, ranging to very intensive change over a more limited area
Medium	Ranging from minor changes in landscape characteristics over a wide area, 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

13.2.30 In accordance with GLVIA3, the evaluation of magnitude also considers the duration and reversibility of landscape effects. The duration of potential effects was judged on the following scale:

- Short-term: under 1 year
- Long-term: up to 15 years

13.2.31 However, in this location it was also necessary to consider effects over a longer time frame (e.g. up to 25 years) as vegetation establishment in areas with high altitude (and latitude), high rainfall and frequent low temperatures, such as found in Project 7, will be slow. This is based on informed professional judgement as discussed through the Landscape Forum.

13.2.32 Temporary construction-phase effects however, for example, those arising from site works areas, are often short-term and reversible and are thus likely to have a lower magnitude of effect.

Assigning Significance of Effect

13.2.33 The significance of landscape effects was determined through consideration of both the sensitivity of the landscape receptors and the predicted magnitude of effect as a result of the Proposed Scheme. GLVIA3 advocates that Landscape and Visual Impact Assessment (LVIA) is an evidence-based process combined with professional judgement and that numerical scoring or weighting criteria should be avoided.

13.2.34 When GLVIA3 was released, the Landscape Institute noted that: “GLVIA3 places greater emphasis on professional judgement and less emphasis on a formulaic approach”.

13.2.35 Therefore, a matrix for assessment of significance is not utilised and a reasoned justification for the allocated significance of effect upon each receptor is provided.

13.2.36 The criteria used to inform judgements on the significance of the assessed landscape effects are described in **Table 13-6**. It should be noted that the significance categories can be either beneficial or adverse. Whilst the majority of potential effects are anticipated to be negative, in some circumstances the addition of new features may be beneficial.

Table 13-6: Significance of Landscape Effect

Level of Effect	Criteria
Substantial	The Proposed Scheme would be at considerable variance with the character (including quality and value) and/ or special qualities of the landscape receptor, degrade or diminish the integrity of a range of characteristic features or elements or damage a sense of place, resulting in an adverse effect The project would enhance the character (including quality and value) and/ or special qualities of the landscape receptor, create an iconic high quality feature and/ or series of elements or enable a sense of place to be created or enhanced, resulting in a beneficial effect
Moderate	The Proposed Scheme would conflict with the character (including quality and value) and/ or special qualities of the landscape receptor, have an adverse effect on characteristic features or elements or diminish a sense of place, resulting in an adverse effect The Proposed Scheme would improve the character (including quality and value) and/ or special qualities of the landscape receptor enable the restoration of characteristic features and elements partially lost or diminished by inappropriate management or development or enable some sense of place, resulting in a beneficial effect
Slight	The Proposed Scheme would not quite fit the character (including quality and value) and/ or special qualities of the landscape receptor, be at variance with characteristic features and elements or detract from a sense of place, resulting in an adverse effect The Proposed Scheme would complement the character (including quality and value) and/ or special qualities of the landscape, maintain or enhance characteristic features and elements and enable some sense of place to be restored, resulting in a beneficial effect
Negligible/ None	The Proposed Scheme would maintain the character and/ or special qualities of the landscape receptor, blend in with characteristic features and elements and enable a sense of place to be retained

13.2.37 It is customary that any effect that is identified as Moderate or Substantial is deemed to be significant and will require detailed investigation of potential mitigation in order to reduce the effect, wherever possible.

13.2.38 In the event of an effect resulting in a Moderate/ Slight effect, whereby Moderate is considered significant and Slight is considered not significant, professional judgement was used to consider and explain if that particular effect was considered to be significant or not significant, based upon the context of the individual receptor. This is explained where relevant in the assessment.

Assigning mitigation

13.2.39 Mitigation measures required to reduce the identified potential effects have been considered during this assessment and are discussed in **section 13.5**.

Limitations to Assessment

13.2.40 There were no specific limitations to the assessment. Landscape Character Areas (LCAs) have been assessed using a combination of site surveys, desktop reviews, maps, site photographs and aerial photography. This provides sufficient information to undertake a full DMRB Stage 3 EIA.

13.3 Baseline Conditions

Landscape Designations

13.3.1 Designated landscape areas are shown on **Drawing 13.2** (**Volume 3**). The only landscape designation is the Cairngorms National Park (CNP).

13.3.2 The study area also includes Core Areas of Wild Land (CAWLs). CAWLs are not statutory designations; however, they are considered in this assessment in relation to wildness.

Cairngorms National Park (CNP)

13.3.3 The Proposed Scheme extent lies within the CNP, established in 2003. This is the highest level of landscape designation in the UK.

13.3.4 The 'special qualities' of the landscape of the Park form part of its designation. These are set out in full in '*The special landscape qualities of the Cairngorms National Park*' (Scottish Natural Heritage Commissioned Report, No. 375, Scottish Natural Heritage and Cairngorms National Park Authority (2010)). The special landscape qualities (SLQ) are summarised as:

General Qualities

- Magnificent mountains towering over moorland, forest and strath
- Vastness of space, scale and height
- Strong juxtaposition of contrasting landscapes
- A landscape of layers, from inhabited strath to remote, uninhabited upland
- The harmony of complicated curves'
- Landscapes both cultural and natural

The Mountains and Plateaux

- The unifying presence of the central mountains
- An imposing massif of strong dramatic character
- The unique plateaux of vast scale, distinctive landforms and exposed, boulder strewn high ground
- The surrounding hills
- The drama of deep corries
- Exceptional glacial landforms
- Snowscapes

Visual and Sensory Qualities

- Layers of receding ridge lines
- Grand panoramas and framed views
- A landscape of many colours
- Dark skies
- Attractive and contrasting textures
- The dominance of natural sounds

Trees, Woods and Forests

- Dark and venerable pine forest
- Light and airy birch woods
- Parkland and policy woodlands
- Long association with forestry

Wildlife and Nature

- Dominance of natural landforms
- Extensive tracts of natural vegetation
- Association with iconic animals
- Wild land
- Wildness

Culture and History

- Distinctive planned towns
- Vernacular stone buildings
- Dramatic, historical routes
- The wistfulness of abandoned settlements
- Focal cultural landmarks of castles, distilleries and bridges
- The Royal connection

Moorlands

- Extensive moorland, linking the farmland, woodland and the high tops
- A patchwork of muirburn

Glens and Straths

- Steep glens and high passes
- Broad, farmed straths
- Renowned rivers
- Beautiful lochs

Recreation

- A landscape of opportunities
- Spirituality

13.3.5 As the proposed A9 Dualling is restricted to the existing infrastructure corridor, it will have limited effect on these qualities; however, each has been considered to ensure that the landscape effects of the Proposed Scheme are fully understood within the context of the special qualities of the CNP.

Note on Assessment of CNP SLQs

13.3.6 Later assessment of Landscape Character Areas (LCAs) and Local Landscape Character Areas (LLCAs), with their unique landscape features and key characteristics, has been undertaken and cross referenced within the assessment of CNP SLQs. The key features and characteristics which link SLQs, LCAs and LLCAs were assigned sensitivity ratings and considered as inter-related across the impact assessment.

13.3.7 The landscape objectives for the Proposed Scheme and subsequent Environmental Mitigation Strategy were developed mindful of the key features and characteristics within the SLQ's, LCA's, and LLCA's. The new landscape framework (features/ elements) was then assessed through to residual impacts to consider any longer-term changes to landscape character; therefore, a further detailed assessment against the SLQs was not undertaken. The CNP SLQ assessment is detailed in **Appendix 13.4** (**Volume 2**).

Special Landscape Areas (SLA)

13.3.8 The Proposed Scheme study area does not fall within or adjacent to any SLAs.

Landscape Character Areas (LCAs)

13.3.9 **Section 13.2** above notes that two published studies present landscape character assessments of the study area around the Proposed Scheme:

- *'Cairngorms Landscape Character Assessment*'
  Turnbull Jeffery Partnership, published by SNH (1996)
- 'Cairngorms National Park Landscape Character Assessment: Final Report'
  Alison Grant, published by CNPA (2009)

13.3.10 The A9 Dualling Programme, *'SEA, Environmental Report Addendum, Appendix F, Strategic Landscape Review Report'*, (Halcrow/ CH2M HILL for Transport Scotland, March 2014) reviewed these publications and determined that, whilst the Turnbull Jeffrey study was a respected source, due to the fact that the CNPA study was more recent and presented LCAs within the Park to a finer grain of detail (i.e. it increased the number of LCAs with more variation identified across the Park), the CNPA study should be prioritised as the predominant LCA reference source.

13.3.11 Therefore, the LCA definitions and descriptions for this chapter have been taken from the '*Cairngorms National Park Landscape Character Assessment*' (CNPA, 2009). LCAs are shown on **Drawing 13.3** (**Volume 3**). The LCAs within the CNPA Assessment of relevance to the Proposed Scheme are:

- Drumochter Pass
- Glen Truim: Upper Glen and Dalwhinnie

Drumochter Pass LCA

13.3.12 This is a dramatic area within the CNP, containing the highest point on the A9. Steep sided slopes contain this narrow pass which links Speyside to Perthshire. The Cairngorm massif lies to the east of the Pass and a series of peaks flank it on the west. There are extensive debris slopes pockmarked with active run-off chutes and landslips.

13.3.13 There is an infrastructure 'corridor' through the Pass which contains the current A9, the Highland Main Line (HML) railway, National Cycle Network Route 7 (NCN7), Estate and telecoms mast

access tracks, and the Beauly to Denny Power Line (BDL). The area is extremely sparsely settled, including only Dalnaspidal, Balsporran Cottages, Drumochter Lodge and other occasional buildings and infrastructure associated with Highland sporting estates and the HML railway.

13.3.14 The headwaters of the south-flowing River Garry and the north-flowing River Truim, and their tributaries meander across the glen floor, sometimes fragmenting into a network of smaller drainage channels, braided channels and wetland. The lower slopes and the edge of the glen floor are extensively covered by glacial-fluvial deposits which are visually apparent when side-lit or following snowfall; a classic hummocky moraine landform where individual ridges mark standstills in the glacial retreat. Heather moorland covers the sides of the Pass, and unimproved grassland along the glen floor creates a simple vegetation pattern, which reflects the small-scale topography, with heather on drier hummocks.

Photograph 13-1: Image of Drumochter Pass LCA

13.3.15 The A9, the HML railway, NCN7 cycle route and the BDL are packed into the narrow pass and run in parallel to each other. Infrastructure such as road signs and the telecommunications masts at Dalnaspidal and Drumochter are highly visible in this sparse landscape.

13.3.16 A change in weather is often experienced when crossing through Drumochter Pass between southern and northern Scotland. The sense of drama related to travelling through such a pronounced Pass is reinforced by the narrowness of the glen, the precipitous side slopes, and the shadows cast by the steep flanks. Views from the elevated A9 into side valleys, such as where Loch Garry joins the Pass, create some relief from a sense of enclosure.

Route-specific Character Issues

13.3.17 Travelling through the Drumochter Pass is a dramatic landscape experience. Open grouse moor predominates, which is managed for shooting via tracks. Shooting butt structures are visible on both sides of the road. The lack of tree cover and expansive, open hillside landscape create a real sense of exposure. The vegetation near the road is mostly heather and rough *Molinia* spp. grassland. Other than coniferous plantation snow belts there are few trees.

13.3.18 The Pass is self-contained, and its character contrasts strongly with Perthshire to the south and Speyside to the north. Hence, the sequence of travelling between different characters heightens the sense of drama and the unique and special landscape character of Drumochter Pass LCA.

13.3.19 The Pass has a pronounced 'upland' character. Sparsely and simply vegetated, wetland and low heath reveal the topography and the active scree slopes and land slips. The landscape's bold simplicity and sublime beauty has been compromised by transport and power infrastructure but there remains the sense of travelling through an area where natural forces dominate over human intervention.

A9 Dualling Programme Strategic Landscape Review Guidance

13.3.20 The '*A9 Dualling SEA Strategic Landscape Review*' 2014, set out strategic guidance for each LCA (also referenced in **Appendix 13.2** (**Volume 2**)). The Drumochter Pass LCA guidance and objectives are described as follows:

> "Minimise the infrastructure associated with the road. Due to the landscape being very open any additional infrastructure would be very evident. Roadside tree planting is unlikely to be appropriate and the palette of materials used for the new road should be very restricted to match the simplicity of the surroundings.
>
> The relationship of the road alignment to the adjoining landform will be very important as the form of the earthworks will not soften over time and vegetation will take many years to establish.
>
> The railway and cycle way are close to the road, have clear views of it and visual impacts of the dualling could be hard to mitigate"

Strategic Landscape Review – LCA Key Landscape Objectives

1. *"Ensure any new alignment fits with the dramatic local landscape form*
2. *The minimising of infrastructure here should be a key design objective and must form a key aspect of the design approach for all disciplines*
3. *Integrate any new tree planting with the existing tree belts, the modification and enhancement of the existing tree belts with broadleaf planting should be considered*
4. *The enjoyment of the spectacular views here should be facilitated*
5. *The design of road and lay-bys should facilitate access to and appreciation of this landscape. This location offers significant opportunity to create an exciting lay-by, but needs sensitive design to enhance the visitor experience whilst leaving a minimal impression on the landscape (also needs to be considered within the context of nature conservation designation restrictions)"*

Sensitivity

13.3.21 The LCA is mostly within the CNP, close to the western boundary of the National Park, peripheral to the core Cairngorms. Drumochter Pass is widely renowned as a distinctive place with a dramatic and wild character. The landscape is therefore of **High** value.

13.3.22 With regard to susceptibility, the Proposed Scheme extent is in the central part of the LCA, which is the most dramatic part of the Pass. However, the Proposed Scheme will be delivered within the existing infrastructure corridor, which includes the A9, the HML railway, NCN7 and the BDL.

13.3.23 These are already recognised features, with some impact on the essential character of the area; however, they also emphasise the LCA's relatively low potential susceptibility to change resulting from the Proposed Scheme. Appropriate design of new road earthworks will play a major part in mitigating the potential impact in this location. On balance, the character area is considered to have a **Low** susceptibility.

13.3.24 Drumochter Pass LCA therefore has an overall **Medium** sensitivity to the Proposed Scheme.

Glen Truim – Upper Glen and Dalwhinnie LCA

13.3.25 This LCA is outside of the Proposed Scheme extents but is adjacent to its northern boundary and visible from within it and other inter-visible LCAs. An assessment of any indirect effects on the relevant part of the LCA is therefore required.

13.3.26 The LCA is a wide floodplain confined by the shallow side slopes of Cathar Mor to the west and elongated rounded hills to the east, containing the A9, BDL and HML railway infrastructure. It is sparsely vegetated, with little woodland; only scrubby willow and occasional broadleaves associated with the watercourses, as well as larger blocks of conifers. The glen floor is dominated by poorly drained grassland and wet heath, and is in part fenced into large fields.

Photograph 13-2: Image of Glen Truim Upper Glen and Dalwhinnie LCA

13.3.27 The gently graded side slopes are dominated by heather moorland. Extensive commercial conifer woodland extends over the east facing slopes to the south above Dalwhinnie and flanking either side of the impounded Loch Ericht, which is barely visible from the road behind its dam.

13.3.28 The A9, the HML railway, the minor road along the west of the glen, are all elevated above the strath floor, aligned lengthwise along the glen. The glen feels elevated, expansive, exposed and open, an impression emphasised by the sparse vegetation and lack of cultivated land, as well as the shallow gradients of the side slopes and low relief of surrounding hills, especially to the west.

13.3.29 There is very little existing settlement, except for Dalwhinnie, which includes the prominent white painted distillery. The River Truim is fed by drains and tributaries as it meanders across the flat floor of this trench-like section of straight valley. It is prone to flooding and has braided

reaches. Occasional gravelly glacial-fluvial deposits and terraces at the edges of the glen floor stand out as features.

Route Specific Character Issues

13.3.30 The road landscape is very open and there is limited tree cover nearby. The landform creates a series of sweeping curves. The slightly elevated road allows open views across the strath. The openness also means that traffic and infrastructure is clearly visible.

13.3.31 The low rolling Monadhliath summits to the north and west enclose and define the wider landscape. The simplicity of the topography is complemented by the lack of pattern in the vegetation cover.

13.3.32 The sense of elevation and openness, and the relative dominance of natural processes such as flooding, is pronounced, despite the presence of infrastructure and the settlement at Dalwhinnie.

A9 Dualling Programme – Strategic Landscape Review Guidance

13.3.33 The '*A9 Dualling SEA Strategic Landscape Review*', 2014, set out guidance for this LCA (additionally discussed in **Appendix 13.2** (**Volume 2**)):

"Retain the exposure of the road and the open landscape with limited vegetation.

Road alignment should reflect and respect the local landform.

The relationship of the railway with the road should be carefully managed to minimise inter visibility"

Strategic Landscape Review – LCA Key Landscape Objectives:

1. *"Ensure any new alignment fits with the dramatic local landscape form*
2. *Reinforce the existing open character*
3. *The minimising of infrastructure here should be a key design objective and must form a key aspect of the design approach for all disciplines*
4. *The enjoyment of the spectacular views of the distillery and the views towards the Drumochter hills from the north should be facilitated"*

Sensitivity

13.3.34 As the LCA is almost entirely within the CNP, the landscape is clearly of high value. With regard to susceptibility, its expansive openness and vast scale mean that human interventions are less important, hence its susceptibility to change would be medium to low.

13.3.35 The dualling will take place within the existing infrastructure corridor which includes the existing A9, NCN7, together with the BDL for the southern half of the LCA.

13.3.36 However, re-establishment of roadside vegetation will take considerable time due to the inclement local climate. The design of the new road earthworks will need to play a major part in mitigation of potential effects.

13.3.37 This LCA is allocated **High** value and **Medium/ Low** susceptibility, resulting in **Medium** sensitivity.

Local Landscape Character Areas (LLCAs)

13.3.38 To enable DMRB Stage 3 assessment of landscape effects at a local level, a series of Local Landscape Character Areas (LLCAs) have been identified, that are specific to the A9 dualling project, and which allow a closer-grained understanding of the baseline landscape.

13.3.39 Each LLCA has a distinct character, and they have been defined through desk study and site inspection. In contrast to the LCAs, they are specifically related to the A9 and the experience of travelling along the road corridor. The LLCAs are shown on **Drawing 13.4** (**Volume 3**). Key characteristics of each LLCA are described below.

Dalnaspidal LLCA

13.3.40 Dalnaspidal LLCA is centred on the small settlement of Dalnaspidal with infrastructure and woodland, surrounded by a sweeping Highland landscape including Loch Garry, the River Garry and tributaries, and a magnificent vista from the A9 over Dalnaspidal south-west to Loch Garry. Contained within a strath formed by the slopes of Druim Coire Mhic Sith (790m AOD), Sow of Atholl (803m AOD) and Meall na Leitreich (775m AOD), the landform varies between undulating slopes on the floodplain, to steep terraces nearer the A9 and rock outcrops present along the Allt Coire Mhic Sith to the east, dominated by the Grampian mountains and Cairngorm massif to the east. Vegetation forms a mosaic of woodland, heather moorland, rough grassland and rolling slopes that vary seasonally from a muted brown in autumn/ winter to the verdant green in spring and purple heather in summer. Infrastructure interrupts and fragments the landscape, contributing to a loss of the sense of wildness.

Route specific aesthetic/ perceptual aspects

- Large scale, open/ exposed landscape with a diverse mixed texture of rolling hills and rough pastures. Dramatic moorland with muted colours and small-scale landscape patterning near Dalnaspidal and the A9 corridor
- The road and buildings form intricate shapes with fragmented areas of tree plantations; the A9 and the wild scenery contribute to interesting and dramatic ambience
- Attractive mix of human and natural elements; there is no single focus of features; there is a pattern of irregular fields of rough grazing pasture adjacent to the floodplain divided by wire fences
- Enclosure of mature coniferous woodland contrasting with rough grassland and moorland
- Sense of enclosure amongst the woodland and buildings; very open and exposed towards Loch Garry

Photograph 13-3: Image of Dalnaspidal LLCA

13.3.41 The landscape character of Dalnaspidal LLCA contains the existing A9 road, power, communication and hydroelectric infrastructure and a small number of dwellings that are surrounded by existing mature plantation woodland and shelterbelts. The LLCA falls partially outside the CNP and, due the presence of infrastructure and modern functional agricultural structures is of **Medium** value.

13.3.42 The LLCA has a **Medium** susceptibility to change, and has an overall **Medium** sensitivity.

Allt Dubhaig LLCA

13.3.43 Allt Dubhaig LLCA consists of a strath floor with the A9 carriageway adjacent to the HML railway and braided meandering channels of the Allt Dubhaig watercourse within its broad floodplain. The surrounding open marsh to the south gives way to undulating moraines. A coniferous shelterbelt plantation borders the east of the A9. The Sow of Atholl to the west and Fuar Mhonadh to the east contain the LLCA and provide a dramatic backdrop to this landscape.

Route specific aesthetic/ perceptual aspects

- Open and vast in scale, exposed towards the east and west, backed by Munro and Corbett hills
- Diverse mixed texture of smooth hills and moorland with muirburn (heather) rolling or sloping, curved with a muted colour, textured land cover and form
- Curvaceous form of meandering river and undulating moraines resonate with curvilinear A9 road. BDL is a discordant feature.
- The largely natural elements are attractive; there are a number of visual features that are widely dispersed (namely the hills, BDL, A9 and HML railway), transmission pylons and cables are very apparent

Photograph 13-4: Image of Allt Dubhaig LLCA

13.3.44 Allt Dubhaig LLCA falls within the CNP and is of **High** value. The area contains existing A9, rail, power, communication and hydroelectric infrastructure and existing mature coniferous shelterbelts; however, these elements are relatively minor components of the landscape and do not detract from the aesthetically remarkable plaited channels of Allt Dubhaig, the contained form of the strath, and the notable pattern of moraines upon open moorland.

13.3.45 The dualling of the A9 will be located within the existing infrastructure corridor, and this LLCA therefore has a **Medium** susceptibility. This results in an allocation of **High/ Medium** sensitivity.

Pass of Drumochter LLCA

13.3.46 The LLCA is a narrow glen with moraines and infrastructure, within a steep-sided pass enclosed by Creagan Doire Dhonaich (724m AOD), with scree covered slopes and rock outcrops, to the east and the rounded form of the Boar of Badenoch (739m AOD) to the west. Heath-covered moraines fill the floor of the pass. Dark rock gives the area a muted contrasting mosaic of muirburn, rough grassland and scree/ rock outcrops. Minor watercourses cascade from the hills to the strath floor; Allt an Tuirc runs north from the Boar of Badenoch, forming headwaters of the River Truim. Large, wire-fenced, irregular plots for rough grazing and heather moorland are interspersed with grassland and bog, particularly on the floodplain.

13.3.47 The A9, HML railway and the BDL traverse in parallel through the area. Lattice transmission pylons and cables are a conspicuous feature throughout the LLCA. Coniferous shelterbelt plantations partly border the A9 to the east, partially screening the BDL from view on the A9 at the Pass summit. Despite this, the pass remains a dramatic and outstandingly beautiful area.

Route specific aesthetic/ perceptual aspects

- Open, exposed towards the east and west, and vast in scale
- Diverse mixed texture of rounded moorland hills with rough pasture nearer the road.

- Rolling topography with a muted colour and patterning, becoming disrupted near the northern part of the LLCA towards Balsporran and the A9 corridor
- The A9 traffic and trains on the HML railway combined with the wild scenery contribute to an interesting and contrasting landscape
- The largely natural elements are attractive; there are several features that are widely dispersed (namely; the hills, BDL, A9, and HML railway)

Photograph 13-5: Image of Pass of Drumochter LLCA

13.3.48 The LLCA falls wholly within the CNP and is therefore of **High** value. The area contains the existing A9 road, rail, power and communication infrastructure and existing mature coniferous shelterbelts. All of which are concentrated into a narrow corridor flanked to the east by precipitous scree slopes and rocky outcrops, and to the west by the River Truim and more dramatic slopes. The natural elements dominate the landscape and infrastructure elements do not greatly detract from the otherwise wild and dramatic open moorland strath and upland characteristics. This LLCA, due to its scale, can accommodate proposed changes with little consequence.

13.3.49 The LLCA has a **Medium** susceptibility to change, with an overall **High/ Medium** sensitivity.

Dail A'Chuirn LLCA - The southern section of Glen Truim strath

13.3.50 An open strath floor with a small number of dwellings, river, infrastructure and woodland, this LLCA is the most southerly section of Glen Truim strath. The majority of the LLCA is within Project 7 to its most northern extent; the LLCA continues on within the more northern Project 8, Dalwhinnie to Crubenmore project extent. The upper River Truim floodplain and the lower slopes of an open U-shaped strath, formed by Creagan Mor (772m AOD) and the rolling ridge of Meall a'Bhuirich (710 AOD) to the west and A Bhuidheanach (879m AOD) to the east. Infrastructure routes intersect the area parallel to the river; open moorland and two dwellings are located either side of the A9 in the south, where there are coniferous shelterbelts and

plantations. Allt an Tuirc and Allt Coire Fhar converge at Balsporran Cottages to form the River Truim, which meanders north along the floodplain

13.3.51 The landform in this LLCA opens northward to a U-shaped strath formed by the River Truim and the mountains to the west, including Creagan Mor (772m AOD). To the east of the A9, landform undulates and rises slightly. The BDL is partially screened beyond the tree belt to the east, running parallel to the A9. There are open expanses of heather on the slopes that stretch west towards Meall a'Bhuirich and areas of rough grassland in the strath. The River Truim meanders through the landscape alongside the HML railway to the west. Telegraph poles run adjacent to the HML railway.

Photograph 13-6: Image of Dail A'Chuirn LLCA

13.3.52 Built form includes Balsporran Cottages and Drumochter Lodge. The latter is nestled within mature mainly coniferous plantations on both sides of the A9. North of Drumochter Lodge, a shelter belt extends to the east of the A9 to beyond the Proposed Scheme boundary. Balsporran Cottages sits in open land on the floodplain of the River Truim surrounded by a few scattered (mainly) broadleaf trees.

Route specific aesthetic/ perceptual aspects

- Large scale, open/ exposed diverse mixed texture of rounded massive hills with rough pastures and moorland
- Extensive rolling topography with muted colours but a different localised character near Balsporran and the A9 corridor
- The A9 forms a regular pattern with fragmented areas of tree plantations around Drumochter Lodge
- The A9 and HML railway combine with the wild scenery contribute to an interesting and contrasting landscape

- The mix of human and natural elements are attractive; there are a number of features that are widely dispersed; including a pattern of rough grazing pasture adjacent to the floodplain divided by wire fences
- Enclosure of mature coniferous woodland belts adjoining rough grassland and moorland; informal patterning amongst the woodland and buildings; open and exposed towards the east and west

13.3.53 The LLCA falls within the CNP; key landscape elements include the upper River Truim, Corbett and Munro hills and is therefore of **High** Value.

13.3.54 Although the strath floor is occupied by the upper River Truim, the LLCA also contains the existing A9 road, the HML railway, the BDL, the NCN7 and communications infrastructure concentrated within a narrow corridor. Mature but functional coniferous shelterbelts flank this section of the A9 to the east, helping to partially screen the road from the east and the BDL from the road itself. The infrastructure elements are collectively conspicuous components of the landscape and detract from otherwise wild, exposed open moorland strath and upland scenery.

13.3.55 The dualling of the A9 will be located within the existing infrastructure corridor, and the LLCA therefore has a **Medium/ Low** susceptibility. This results in an allocation of **Medium** sensitivity.

Dalnaspidal Forest LLCA

13.3.56 The LLCA is defined by steep hills separated by deep glens of glacial origin and more recent ravines; watercourses incise the hillsides feeding larger rivers in the strath floor, which is covered by a mosaic of heather muirburn grouse moor, bog and rough grass. Geological features include ridges, spurs, scree, moraines and rocky outcrops. There are five principle hills, well defined by deep separating glens, ranging from south to north: the Sow of Atholl (803m AOD), Boar of Badenoch (739m AOD), A' Mharconaich (975m AOD), Geal-charn (917m AOD) and Creagan Mor (772m AOD), all of distinctive character. Access tracks with simple bridge structures follow the glens between the hills. Linear arrays of dry stone grouse butts traverse the hills.

Route specific aesthetic/ perceptual aspects

- A vast, exposed landscape, the lack of built form removes points of reference in regards to the sense of scale; as a consequence, any impact of the A9 is diminished
- Curved form of the hummocky moraines and watercourses echoes large scale horizon. The alignment of the A9 fits well into this landscape.
- The vegetation has a muted, monochrome colour which becomes colourful in summer months

Photograph 13-7: Image of Dalnaspidal Forest LLCA

13.3.57 The LLCA falls mostly within the CNP and it is covered by nature conservation designations; other landscape characteristics include Corbett and Munro hills, and it is therefore of **High** value.

13.3.58 The landscape character area consists of wild, exposed open moorland and upland scenery; although, because of its distance from the A9, it will have a **Low** susceptibility to change, and the LLCA has an overall **Medium** sensitivity.

Southern Hill Slopes LLCA

13.3.59 A steep upland massif with muirburn grouse moorland, the LLCA is dominated by the continuous, convex Cairngorm 'massif' (the Grampians), incised by small ravines with exposed rock and cascading burns, absent of trees and buildings. Vegetation is characterised by muirburn grouse moor. Steep, verging on sheer, slopes rise up to the southern hill range plateau of the Cairngorms. The massif extends the length of Project 7. The steep slopes, incised by gullies creating outcropping ridges, merge with the floor of the strath.

13.3.60 Creagan Doire Dhonaich creates a perpendicular ridge, adjacent to the A9 carriageway at the Pass of Drumochter. Peaks include (from the south) Fuar Mhonadh (approx. 820m AOD), Creagan Doire Dhonaich (724m AOD), Meall a Chaorainn (916m AOD) and A Bhuidheanach (approx. 870m AOD). The massif is broken by a significantly large, steep sided gully of the Allt Coire Mhic Sith separating Fuar Mhonadh and Druim Coire Mhic Sith to the south.

Route specific aesthetic/ perceptual aspects

- Vast in scale, devoid of trees, built form or infrastructure, the existing A9 is minimal in impact
- The land mass is incised by gullies and ridges. The V-shaped gullies and protruding ridges give an undulating form that contains the A9 corridor and limits its influence on the wider landscape

- The large lattice transmission pylons and cables are very apparent, as they are throughout Project 7, increasing the effect of the existing infrastructure corridor

Photograph 13-8: Image of Southern Hill Slopes LLCA

13.3.61 The LLCA falls within the CNP and contains several nature conservation designations (Site of Special Scientific Interest (SSSI)/ Special Area of Conservation (SAC)/ Special Protection Area (SPA)); it contains Corbett and Munro hills, and to the east of the area, the Cairngorms Core Area of Wild Land (CAWL) no. 15, and is therefore of **High** value.

13.3.62 The area consists of wild, exposed open moorland and upland scenery; however, due to its distance from the A9, the LLCA will have a **Low** susceptibility to change but still has an overall **Medium** sensitivity.

Loch Garry LLCA

13.3.63 The open, horizontal plain of the loch is enclosed within a narrow glen. The LLCA is dominated by the 3km long, 500m wide Loch Garry with its north-west/ west-east orientation. The steep scree and grouse moor covered Meall na Leitreach and the less steep Meallan Buidhe flank the loch. Access tracks and footpaths, a sluice dam, weirs, canal and hydro-brakes at the east end of the loch are clearly visible from the A9, beyond which the broad expanse of Loch Garry dominates the landscape.

13.3.64 The loch outflows into the River Garry which flows north-eastward towards Dalnaspidal and then dog-legs to the southeast into the upper Glen Garry, through dispersed plantations of broadleaved trees.

Route specific aesthetic/ perceptual aspects

- From the loch side, the A9 infrastructure does not intrude on the attractive scenery
- Meandering river and curved hills contrast with the linearity of the existing A9 dual carriageway and HML transport routes

- A contrast in textures and form creating a harmonious, inspirational sweeping landscape into which the A9 infrastructure fits reasonably

Photograph 13-9: Image of Loch Garry LLCA

13.3.65 The LLCA falls outside of the CNP; while from any distance it lends a feature of beauty to the highland scenery, Loch Garry is a hydroelectric reservoir, displaying a characteristic draw-down 'tide mark'; weirs, bridges, access tracks, canals, and dam infrastructure that dominates the eastern part of the LLCA. The loch is flanked by precipitous hillsides with spectacular panoramic views stretching to the southwest towards Loch Rannoch. The LLCA is of **High** value.

13.3.66 Because of its distance from the A9, and the presence of extensive infrastructure associated with hydroelectricity generation, the LLCA will have a **Low** susceptibility to change from the Proposed Scheme; it has an overall **Medium** sensitivity.

Upper Glen Garry LLCA

13.3.67 The LLCA is an open glen with some woodland and infrastructure within the northern extent of the Glen Garry: Upper Glen LCA; consisting of a strath enclosed by hills and the floodplain of the River Garry. The landform varies, including steep, mildly undulating slopes of Sron na h-Eitech (approx. 700m AOD) and Meall a Bhathaich (approx. 630m AOD) with shallower gradients on the lower slopes levelling out onto the flood plain.

13.3.68 The existing A9 divides into an attractive split level dual carriageway which complements the steep glen side. The BDL, NCN7 and HML railway run in parallel from northwest to southeast, and an access track skirts around the base of Sron na h-Eitech southwards. Wire fences separate the road from rest of the landscape, and there are scattered small stands of young mixed woodland. Grouse moor with muirburn and rough grassland, peat bog and scree dominate the surroundings with alluvial deposits forming over the floodplain.

Route specific aesthetic/ perceptual aspects

- The infrastructure intrudes on the attractive scenery and fragments the landscape, reducing its sensitivity to further change
- The existing split level A9 dual carriageway fits well within meandering river and curved hills contrast with the linearity of the infrastructure and transport routes

Photograph 13-10: Image of Upper Glen Garry LLCA

13.3.69 The LLCA falls partially outside of the CNP (to the southwest); it is composed of an enclosed strath containing the existing dualled A9, the LLCA also contains the meandering upper reaches of the River Garry, flanked to the northeast and southwest by precipitous hills that create a southern gateway to Drumochter Pass. The LLCA is of **High** value.

13.3.70 The LLCA will have a **Low** susceptibility to the Proposed Scheme as there will be only a relatively minor section that is affected by A9 engineering works. It has an overall **Medium** sensitivity.

Landscape Character Value, Susceptibility and Sensitivity Summary

13.3.71 A summary of the landscape value, susceptibility to change and overall sensitivity of each LCA and LLCA around the Proposed Scheme extents is provided in **Table 13-7** below.

Table 13-7: Summary of LCAs and LLCA Value, Susceptibility and Sensitivity

Area	Value	Susceptibility	Sensitivity
Landscape Character Areas			
Drumochter Pass LCA	High	Low	Medium
Glen Truim Upper Glen and Dalwhinnie LCA	High	Medium/ Low	Medium
Local Landscape Character Areas			
Dalnaspidal	Medium	Medium	Medium
Allt Dubhaig	High	Medium	High/ Medium
Pass of Drumochter	High	Medium	High/ Medium
Dail a Chuirn	High	Medium/ Low	Medium
Dalnaspidal Forest	High	Low	Medium
Southern Hill Slopes	High	Low	Medium
Loch Garry	High	Low	Medium
Upper Glen Garry	High	Low	Medium

Landscape Features

General

13.3.72 In accordance with the Evaluation Approach (**section 13.2**), assessment of susceptibility to change of elements of the landscape resource, is taken to mean its individual characteristics/ features. This sub-section provides a high-level, project wide assessment of discrete landscape characteristics that inform the LCA and LLCA evaluations. These are assessed as separate items to evaluate the components that together form the landscape of the study area, and how the Proposed Scheme interacts with them individually. They have provided a basis for assessing the landscape objectives of the Proposed Scheme, and the assessment of sensitivity of each characteristic provides a means of indicating the degree to which those objectives are met by the design.

Landform

13.3.73 **Drawing 13.5** (**Volume 3**) presents the topography of the study area. The Proposed Scheme is largely contained within the dramatic Drumochter Pass, steep slopes enclosing the elevated strath, opening out to the south west towards Loch Garry and to the north towards Dalwhinnie. The elevated pass is bounded by undulating hills of the Dalnaspidal Forest to the west and southern hill slopes of the Cairngorm massif to the east. The hummocky moraines on the hillsides to the west of the pass, together with surrounding rounded hilltops and the u-shaped Drumochter strath itself, are characteristic of landform created following the retreat of glaciers.

13.3.74 The dramatic landscape of Drumochter Pass, with its Corries and rounded hills, dominates the scenery. Located either side of the Drumochter Pass, the gently rounded hill summits are generally between 900-950m AOD, qualifying as both Munros and Corbett's, though the full range of summit heights in the area varies from between 360m to 1,010m AOD. The hills either side of the Pass are divided by steep-sided watercourse gullies.

13.3.75 The dramatic landform is a key defining characteristic of the landscape character and is of **High** value. The scale of the existing landform is however very different to the scale of Proposed Scheme so there will be a **Medium** susceptibility to local changes as part of the A9 dualling and the feature is therefore allocated a **High/ Medium** sensitivity.

Vegetation and habitat

13.3.76 The vegetation within the Proposed Scheme is dominated by acidic plant communities. The most extensive are the mid-altitude heather dominated heaths and the montane heaths and grasslands above 750m, but there are also substantial areas of mire and wet heath on gently sloping or level ground. The montane communities include heaths, grasslands, moss heaths, and blanket mires, forming complex mosaics dependent upon exposure and drainage.

13.3.77 The lichen-rich variants of these heaths are a feature of the eastern Highlands, as is Bilberry-dominated snow bed vegetation. Variation within the principal vegetation types depends upon such factors as aspect, slope and exposure. The dry heath, contrasts with damp heath supporting sphagnum mosses and cloudberry.

13.3.78 Whilst it appears wild, the existing vegetation cover within the study area and the surrounding landscape has been created by human action through land use and livestock management, together with the natural influences of local geology, landform, microclimate, drainage, and soils. The regular practice of burning the heather (muirburn) is a key aspect in determining the appearance of the moorland. Generally, the slopes are rolling heather moorland and the glen floor is poorly drained grassland.

13.3.79 The vegetation is extensive and the heather moorland is of **High** value. It has a **Low** susceptibility to the changes proposed as part of the A9 dualling therefore a **Medium** sensitivity has been allocated to this landscape feature.

Woodland

13.3.80 The Proposed Scheme extents contain three lengths of conifer plantation trees running parallel to the east of the A9, planted as a snow shelter belt. This woodland is non-native and linear; the functional and unnatural appearance does not fit well with the landscape form. The belt around Drumochter Lodge, extending on both sides of the A9, is however of greater age and contains more diverse species, including mature scots pine. There is existing mixed coniferous planting in and around Dalnaspidal which encloses and screens the residential properties.

13.3.81 There is little woodland in this landscape; the areas that do exist are mainly functional coniferous plantations and are of **Medium** value, but of **High** susceptibility to change, therefore **High/ Medium** sensitivity has been allocated to this feature.

Wildness

13.3.82 Whilst the proposals do not impact directly on any designated areas of wildness, the area has a very wild and inhospitable character. It feels remote and relatively untouched by human endeavour, even though the land is actively managed. Wildness within the study area of the Proposed Scheme is of **High** value.

13.3.83 The presence of coniferous plantations, the BDL pylons and transportation infrastructure does little to lessen the apparently desolate atmosphere. This quality is largely detached from the infrastructure corridor and therefore has a **Low** susceptibility to change in the vicinity of the existing road. Hence an assessment of **Medium** sensitivity is allocated to this landscape feature.

Water

13.3.84 The view of Loch Garry winding deep into the hills is a dramatic water feature and the braided and meandering Allt Dubhaig is an important element of this landscape. The line of the upper River Truim meandering northwards towards the River Spey is attractive and there are numerous

burns and streams forming cascades and waterfalls which are generally small in scale, even when in spate.

13.3.85 Water is a **High** value element within the landscape. The larger water bodies and rivers have a **Low** susceptibility as they are not affected by the changes proposed as part of the A9 dualling, but some of the burns close to the road may be impacted. A **Medium** sensitivity has been allocated to this landscape feature.

Historic and Cultural Associations and the Built Environment

13.3.86 Full details of the historic and cultural landscape features are provided in **Chapter 15**. Overlapping issues include:

- The corridor has long been an important north-south transport route, containing General Wade's Military Road (GWMR), the HML railway, walking and cycling routes and the A9 itself (discussed in **Chapter 15**)
- A partially intact Wade bridge is located at Dalnaspidal, incorporated into the current Allt Coire Mhic-sith watercourse underbridge
- The area is sparsely inhabited; the largest settlement is Dalnaspidal, a hamlet of 5 occupied properties, agricultural buildings and railway infrastructure
- Drumochter Lodge is a hunting lodge; its surrounding grounds are part of an undesignated designed landscape containing a stone faced retaining feature surrounding a rectangular garden to the west of the main house
- In 1803, Samuel Taylor Coleridge described the area as "*a wild and desolate moorland*"; nothing fundamentally has changed since (effect on moorland as a Historic Landscape type is discussed in **Chapter 15**)
- Several Munro mountains are accessible from this stretch of the A9, as well as a network of hill paths that are used by walkers, game keepers and shooting parties

13.3.87 There is a general absence of buildings and other man-made artefacts, apart from the road and surrounding BDL/ HML infrastructure. Whilst there are farm buildings in Dalnaspidal, the majority of buildings in Drumochter Pass LCA are of a vernacular design and important features in this landscape. Other features, including GWMR and the named summits of the Munros, are culturally and historically of **High/ Medium** value and have a **Medium** susceptibility to change. Therefore, a **Medium** sensitivity has been allocated to this element.

Landscape Fit

13.3.88 The key factor in considering landscape fit is the relationship between the road geometry and the surrounding landform. The road alignment consists of a series of attractive sinuous curves that follow the eastern edge of the strath. Generally, the scale of the curves is entirely appropriate to the adjoining slopes and the hills beyond, and this therefore results in a good landscape fit.

13.3.89 The existing route is perceived as fitting relatively well within the landscape and therefore does not detract from the predominant open moorland strath and upland characteristics, contributing to the landscape experience as a whole.

Landscape Experience

13.3.90 The landscape experience is inevitably subjective; dependent on each individual. Dalnaspidal residents and those working on the nearby estates will have a very different appreciation of the landscape from tourists driving through the Highlands for the first time. However, there is some commonality of experience that is generated by the landscape itself, and cumulative subjective experiences lead to a consensus regarding the emotional responses to a particular landscape.

13.3.91 The hills dominate and define this landscape. The summits are not generally dramatic but form a large scale, undulating and clearly post-glacial landscape. The experience of passing through this area is one of slowly unfolding ridgelines and horizons, with valleys meandering through the landscape to the west and the less fissured, homogenous slopes of the Cairngorm massif dominating the east.

13.3.92 Travellers on this section of the A9, or on the HML railway, experience a sequence of "*layers of receding ridge lines*" and the "*harmony of complicated curves"*, (SNH & CNPA (2010)) which are defining special qualities of the CNP.

13.3.93 Heather moorland is the dominant vegetation, covering extensive slopes which, from a distance, appear almost featureless as variations are subtle, reflecting slight changes in soil fertility and drainage.

13.3.94 Whilst woodland cover is minimal, the tree belt alongside the A9 is an important landscape feature, however incongruous.

13.3.95 The hill paths are extensively used both by Munro walkers and those wishing to experience the wildness of the remote areas. The experience of the landscape here is heavily influenced by the local climate; snow cover accentuates the underlying landform as well as the shape and curvature of hillsides, particularly due to the ever-changing weather conditions that significantly alter the light and hence the experience. The open hillsides form a canvas showing the cloud shadows. Sunlit patches and rain showers are often localised and visible from a distance, emphasising the sense of wildness, scale and openness of this landscape.

13.3.96 The relationship between the road and the HML railway is important. For much of this area, the railway is intervisible with the A9 with clear views uninterrupted by landform or woodland within the strath floor. The manner in which roadside embankments on the west side of the A9 are treated has a particularly significant influence on railway user views.

13.3.97 The vegetation of the existing A9 embankments, first constructed in the 1970's, now matches that of surrounding flora. This has resulted in the road becoming settled and 'bedded-in' within the adjacent landscape, with only the traffic itself being apparent from relatively short distances.

13.3.98 **Chapter 9** considers the effects of the Proposed Scheme on Non-Motorised Users (NMUs) and vehicle travellers.

13.3.99 The landscape experience here is therefore perceived as a **High** value and, given that the relationship of the A9 to the landscape will not alter greatly despite the widening, it will be of **Medium** susceptibility to change, with an overall **High/ Medium** sensitivity.

Landscape Features and Perceptual Sensitivity Summary

13.3.100 A summary of the value, susceptibility to change and overall sensitivity of each landscape feature, together with historic and cultural associations, landscape fit and landscape experience within the Proposed Scheme is provided in **Table 13-8** below**.**

Table 13-8: Summary of Landscape Features (1-5) and Perception (6-7) Sensitivity

Ref.	Characteristic	Value	Susceptibility	Sensitivity
Landscape Feature				
1	Landform	High	Medium	High/ Medium
2	Vegetation and habitat	High	Low	Medium
3	Woodland	Medium	High	High/ Medium
4	Wildness	High	Low	Medium
5	Water	High	Low	Medium
Landscape Perception				
6	Historic and Cultural Associations	High/ Medium	Medium	Medium
7	Landscape Experience	High	Medium	High/ Medium

Baseline Summary

13.3.101 There are a variety of sensitive landscape features within the study area; however, the level of sensitivity is fairly uniform throughout. This can be anticipated as the landscape is large-scale and homogeneous, and hence the type of experience within it is imbued throughout the LCA. For the purpose of this EIA the following key elements were assessed:

- The two LCAs both have a **Medium** sensitivity to the Proposed Scheme. The effect is direct on Drumochter but indirect on Glen Truim Upper Glen and Dalwhinnie LCA
- All LLCAs as listed above have at least a **Medium** sensitivity to the Proposed Scheme
- Several SLQs of the CNP are considered to be present within the LCAs, LLCAs and landscape features; these are specifically discussed within **Appendix 13.4** (**Volume 2**)
- Of the seven landscape characteristics listed above, three are **High/ Medium** sensitivity (landform, woodland and landscape experience), whilst others have a **Medium** sensitivity
- While existing vegetation may be of high value as habitat it is less so in terms of landscape sensitivity; the non-native woodland on the other hand is considered to be high sensitivity, mostly due to its disproportionate importance in screening and integrating the large-scale infrastructure of the A9 corridor into the landscape
- Historic and Cultural Associations and the Built Environment has a **Medium** sensitivity
- The landscape experience is of **High/ Medium** sensitivity because of the existing infrastructure of the A9 itself, the BDL and the railway

13.4 Potential Impacts

Introduction

13.4.1 This section considers the potential temporary (construction phase) and permanent (operational phase) landscape effects of the Proposed Scheme on the landscape character areas and features discussed in **section 13.3.**

13.4.2 Through the environmentally led design process, embedded mitigation has been developed and is incorporated within the Proposed Scheme design. Embedded mitigation is further explained below. All effects identified within this section have been assessed with the inclusion of embedded mitigation.

13.4.3 Construction phase effects on LLCAs are identified in **Table 13-11**. The long term permanent effects, after years 15-25, identified in **Table 13-12**, are assessed to include embedded and additional mitigation. Additional mitigation is further explained in **section 14.5**.

Embedded (Primary) Mitigation

13.4.4 Through the DMRB Stage 3 iterative design process, environmentally led workshops considered each aspect of the developing design and made recommendations for certain features to be included in the next design iteration. These aspects have been defined as 'embedded mitigation' and, where they are included in the Proposed Scheme design, they are considered within the context of the impact assessment as providing mitigation to avoid or reduce environmental impacts, and in some cases, provide environmental benefits.

13.4.5 With respect to GLVIA 3 terminology, 'primary' mitigation is what this EIA refers to as 'embedded' mitigation. With respect to landscape considerations in this chapter, the relevant aspects of project specific embedded (primary) mitigation measures include:

- preliminary form of cutting and embankment slopes adjoining the mainline (including areas of rock cut) have been designed with the involvement of Landscape Architects to reflect local landform features where possible, within peat, habitat and flood zone constraints. There are a number of landform-sensitive areas set out within **Chapter 14**, which have been designed to respond to adjacent landform as far as possible. Through the design process, and as reflected within the Proposed Scheme, the desired gradients of all slopes adjoining the road have been set. Additional mitigation in the form of detailed design for some of these areas will be required to improve aesthetics and the landscape fit. This is set out in **Table 13-15**.
- retaining wall structures (RWS) of between approximately 1m and 6m height located to the east of the southbound carriageway, designed to minimise overt intrusion into views from the road, or open landscape, at a number of locations. Retaining walls are primarily located on the southbound carriageway, apart from one between the NCN7 and the northbound carriageway at Drumochter Pass. Specific chainages (ch.) for each location are provided in **Table 13 15**.
- preliminary form of sustainable drainage system (SuDS) basins, have been designed in conjunction with Landscape Architects to reflect local landscape characteristics and to replicate natural features where possible

- three no. Type A[1] lay-bys within the Proposed Scheme include a widened segregation strip and links to NMU routes. The locations are:
  - northbound, approx. ch. 800 at Dalnaspidal
  - northbound, approx. ch. 3,600 at Drumochter Pass
  - southbound, approx. ch. 4,000 at Drumochter Pass
- Design of retaining walls and other structures
- Designs to improve the appearance and integration of structures, cascades and access tracks
- Design of rock work areas

13.4.6 While the impact assessment is undertaken in cognisance of the embedded (primary) mitigation features noted above, in order to ensure that all project mitigation requirements (including standard, embedded (primary), and project specific mitigation) are captured, they have been included within **section 13.5, Mitigation**, and the **Schedule of Environmental Commitments** in **Chapter 21**. The project specific, i.e. additional, mitigation listed in **section 13.5** is what GLVIA 3 refers to as secondary mitigation. Standard, embedded and project specific mitigation has been identified within **Table 13-15.**

13.4.7 The long term permanent effects after years 15-25 identified in this section have been assessed as including the embedded and additional mitigation. The details of the proposed additional (project specific) mitigation are further explained in **section 13.5**.

Additional (Secondary) Mitigation

13.4.8 Additional landscape mitigation is that which is necessary to reduce or minimise any likely long-term residual effects following the implementation of embedded (primary) landscape mitigation measures. In general, this would comprise the introduction of planting that screens adverse views from sensitive receptors; replaces element of views that have been removed by the Scheme; augments existing features; or enhances views by, for example, creating a context or frame. Proposed additional mitigation measures are what GLVIA3 refers to as 'secondary' mitigation, and are further explained in **section 13.5**.

13.4.9 Additional mitigation, specific to views from the road, has been developed with input from Landscape Architects to align with the key landscape and visual design objectives for the Proposed Scheme (please refer to **Appendix 13.2** (**Volume 2**)), including:

- Design of the roadscape environment including seeding and planted features (as shown on **Environmental Mitigation Drawings 6.1 to 6.7** (**Volume 3**))

[1] Type 'A' lay-bys, as defined in DMRB, include merge/ diverge tapers and a segregation island to physically separate the lay-by from the operational carriageway
Type 'B' lay-bys, as defined in DMRB, are roadside bays with no physical separation from the operational carriageway

- Visual/ aesthetic treatment of retaining walls; retaining wall facades within the Proposed Scheme are to be faced with natural stone effect and designed carefully to break up their linear appearance, subject to detailed design
- Natural finish to reflect the appearance of the existing stone bridge facade of the Dalnaspidal Allt Coire Mhic-sith watercourse underbridge, subject to detailed design
- New embankments and cuttings are to be further developed at detailed design stage to feather into tops and toes of adjacent (existing) gradients, at approved profiles, to form slopes of natural appearance, to blend into the topography within the Scheme context
- SuDS are to be further developed at detailed design stage including seeding and planted features (as shown on **Environmental Mitigation Drawings 6.10 to 6.12** (**Volume 3**))

Additional Lay-by Proposals

13.4.10 The design under assessment includes three no. Type A lay-bys, each with a segregation island, as discussed above. These are 'embedded' into the design. However, at each of these locations, there is potential to augment the lay-bys, within the Land Made Available (LMA) boundary for the Proposed Scheme, with areas designed to facilitate users' enjoyment of the spectacular surrounding landscape scenery.

13.4.11 **Figures 13-1** to **13-3** below present indicative illustrations of proposals currently under consideration for each area:

- **Figure 13-1**, northbound lay-by, approx. ch. 800 at Dalnaspidal
- **Figure 13-2**, northbound lay-by, approx. ch. 3,600 at Drumochter Pass
- **Figure 13-3**, southbound lay-by, approx. ch. 4,000 at Drumochter Pass

13.4.12 The landform elements of these proposals, i.e. earthworks required to create terraces and platforms, are included within the 3D earthworks models for the Proposed Scheme.

13.4.13 Relevant features, beyond principal earthworks requirements, such as furniture (e.g. benches/ shelters/ picnic tables), fencing or walls, ramps or steps, signage and interpretation information, with '*Access for All*' compliant footpaths and links to the existing NMU network are 'additional' requirements.

13.4.14 The indicative lay-by proposals are presented here both to help illustrate the difference between embedded and additional mitigation, and to highlight that additional mitigation detailing will continue to develop through later detailed design stages.

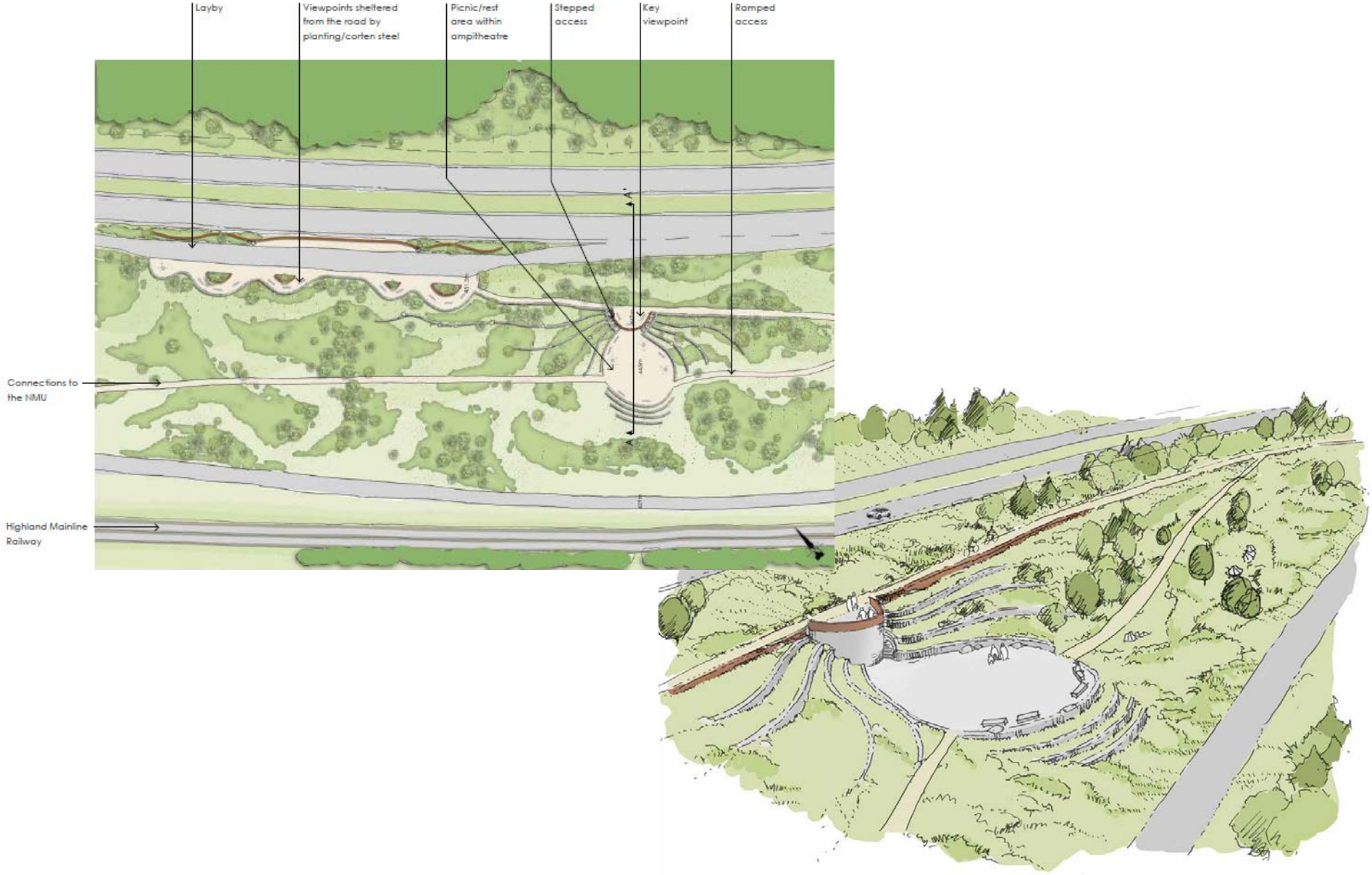
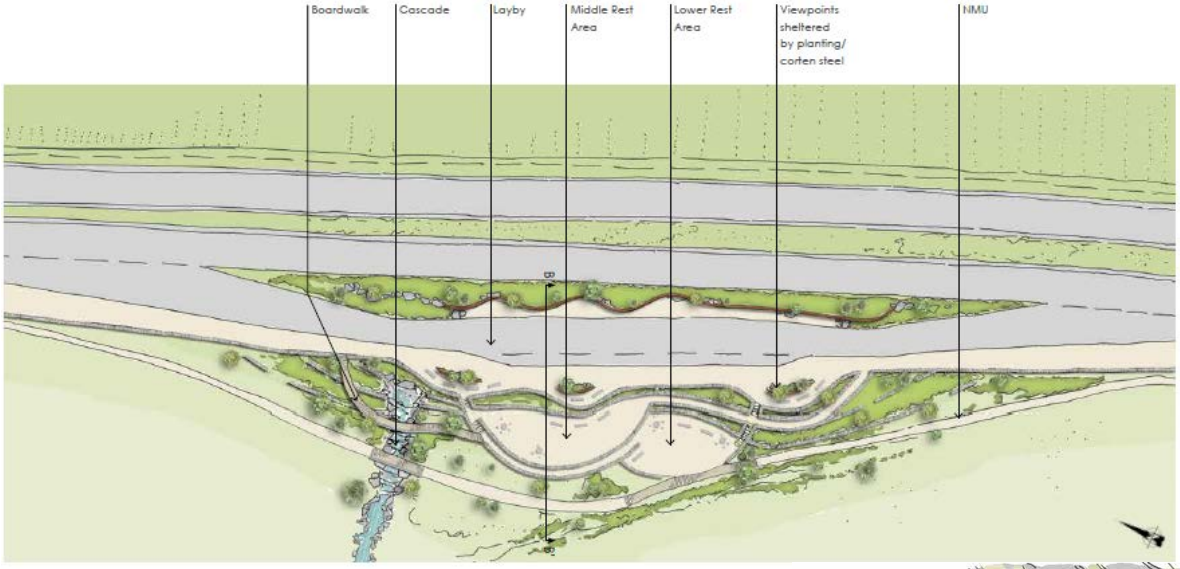


Figure 13-1: Illustrative impression and layout - NB lay-by proposal, Dalnaspidal (approx. ch. 800)



Northbound Type A;
Layby facilities upgraded to include:

- viewpoints with seating and interpretation panels, separated from vehicle parking by a raised planter and gradients to lower level
- Upper and lower rest areas
- DDA compliant steps and ramps (via NMU) to picnic area (with interpretation panels
- Benches and bins
- Retained embankment (using rock or constructed retaining wall) incorporating relocated peat and native bog and heath planting
- Connections to the NMU

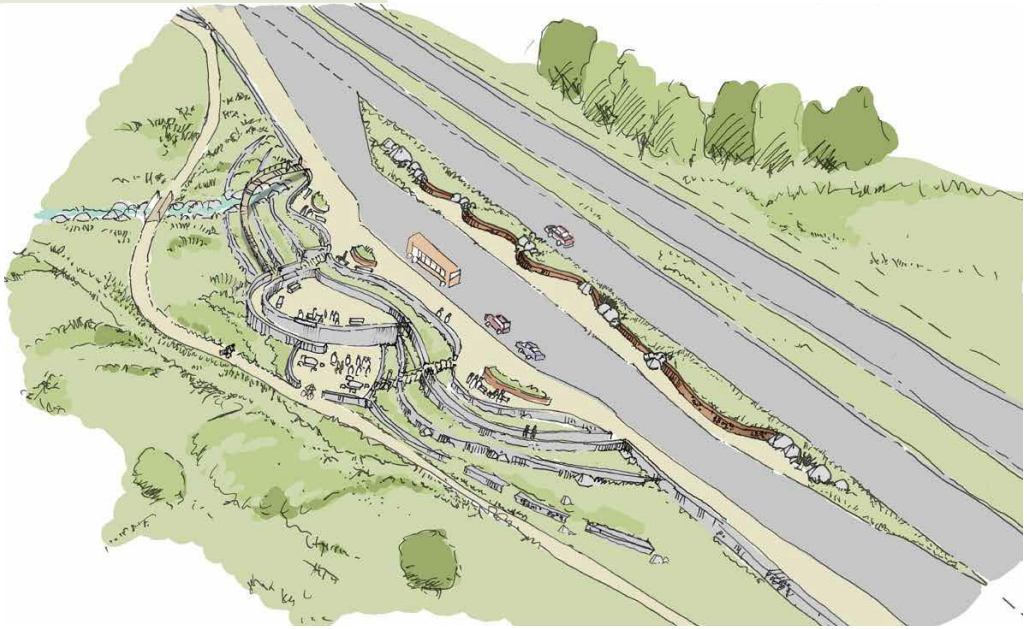


Figure 13-2: Illustrative impression and layout - NB lay-by proposal, Drumochter Pass (approx. ch. 3,600)

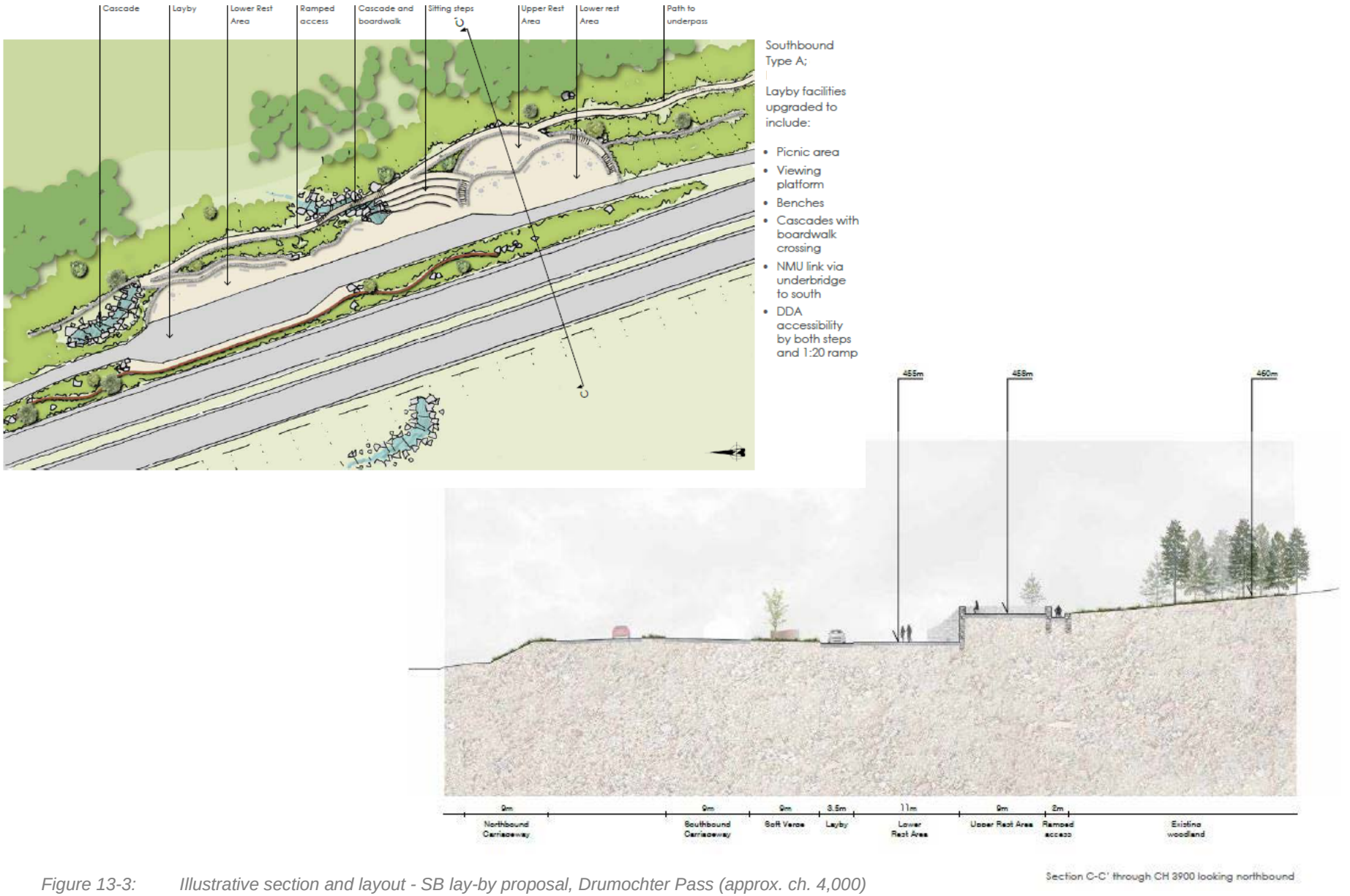


Figure 13-3: Illustrative section and layout - SB lay-by proposal, Drumochter Pass (approx. ch. 4,000)

Temporary Impact Assessment – Construction Phase

13.4.15 Although the effect of construction on landscape character and features will be limited, there are a range of likely construction activities that may affect the study area, including:

- Site clearance and demolition
- Pre-earthworks drainage and temporary SuDS
- Earthworks general (cut/ fill)
- Rock cuts and rock breaking
- Watercourse diversions
- Drainage networks, including SuDS basins
- Earthworks rolling and compaction
- Vegetation loss and exposed bare earth over the extent of the Proposed Scheme
- Machinery, potentially including heavy excavators, earth moving plant, concrete batching plant and cranes
- Structures demolition
- Bridge abutment, structure and deck construction
- Road pavement laying
- Signage installation
- Active traffic management
- Temporary roads, access tracks, haul routes
- Temporary site compound areas including site accommodation and parking
- Site restoration (ecological and landscape mitigation works)
- Temporary lighting for night working, potentially impacting on CNP Dark Skies Special Landscape Quality

13.4.16 Construction activities may result in a high local magnitude of change, but they will be temporary and of relatively limited duration.

Construction phase effects

13.4.17 Impacts of temporary construction phase works that will be common for all of the landscape features may include: vehicles and machinery, vegetation loss, exposed earth, structures and earthworks, access roads, material storage and lighting.

13.4.18 Site compound areas including site accommodation and parking, are not considered within this assessment as locations of these will be negotiated by the Contractor.

13.4.19 Construction stage effects will be temporary and of relatively limited duration. The overall landscape character is unlikely to be fundamentally changed by these short-term effects; however, they will affect the landscape experience for their duration.

13.4.20 More significant temporary effects will likely arise from earthworks and structures, for example:

- Proposed Dalnaspidal access and underbridge
- Proposed Balsporran/ Drumochter Lodge access and underbridge
- Proposed SuDS basins and maintenance tracks
- Proposed NCN7 re-routing

13.4.21 Further specific temporary, construction phase effects and permanent operational phase effects are considered between Glen Garry and Drumochter under each of the landscape character area and feature receptors in the sections below.

Permanent Impact Assessment – Operational Phase

13.4.22 Mitigation to reduce impacts was developed for the Proposed Scheme as part of the pre-EIA design iterations (embedded mitigation) and during the DMRB Stage 3 assessment (additional mitigation).

13.4.23 The assessment of long term or permanent effects after years 15-25 (as considered in **Table 13-12**) has been undertaken in context, assuming the inclusion of embedded and additional mitigation.

13.4.24 The potential landscape impacts of dualling were assessed in relation to the following aspects:

- Landscape designations - CNP SLQ's
- LCAs
- LLCAs
- Landscape features
- The landscape experience

Designated Landscapes – Cairngorms National Park (CNP)

13.4.25 All of the study area lies within the CNP. Following discussions with CNPA, through the A9 Dualling Landscape Forum, it was agreed that the review of the SLQs should focus on the LCAs that embody the specific special qualities, and that SLQs would be included within the LLCA assessment, as presented in **Appendix 13.4** (**Volume 2**). The potential effects on LLCAs are summarised in **Tables 13-11 to 13-14.**

13.4.26 The special qualities which are relevant to the area around Dalnaspidal and the Drumochter Pass are highlighted in **bold** below:

General Qualities

- **Magnificent mountains towering over moorland, forest and strath**
- **Vastness of space, scale and height**
- Strong juxtaposition of contrasting landscapes
- **A landscape of layers, from inhabited strath to remote, uninhabited upland**
- **'The harmony of complicated curves'**
- **Landscapes both cultural and natural**

The Mountains and Plateaux

- The unifying presence of the central mountains
- An imposing massif of strong dramatic character
- The unique plateaux of vast scale, distinctive landforms and exposed, boulder strewn high ground
- **The surrounding hills**
- The drama of deep corries
- **Exceptional glacial landforms**
- **Snowscapes**

Visual and Sensory Qualities

- **Layers of receding ridge lines**
- **Grand panoramas and framed views**
- **A landscape of many colours**
- **Dark skies**
- **Attractive and contrasting textures**
- The dominance of natural sounds

Trees, Woods and Forests

- Dark and venerable pine forest
- **Light and airy birch woods**
- Parkland and policy woodlands
- Long association with forestry

Wildlife and Nature

- **Dominance of natural landforms**
- **Extensive tracts of natural vegetation**
- **Association with iconic animals**
- **Wild land**
- **Wildness**

Culture and History

- **Vernacular stone buildings**
- **Dramatic, historical routes**
- The wistfulness of abandoned settlements

Moorlands

- **Extensive moorland, linking the farmland, woodland and the high tops**
- **A patchwork of muirburn**

Glens and Straths

- **Steep glens and high passes**
- **Broad, farmed straths**
- **Renowned rivers**
- **Beautiful lochs**

Recreation

- **A landscape of opportunities**
- **Spirituality**

13.4.27 As the Proposed Scheme is restricted to the existing infrastructure corridor, it will have limited effect on many of these qualities; however, each has been considered to ensure that the effects of the proposed dualling are fully understood within the context of the CNP SLQs.

13.4.28 It is considered unlikely that the Proposed Scheme will result in any significant adverse effects on the CNP SLQs in the long term, as any anticipated effects are likely to be localised and limited in scale and nature.

CNPA Landscape Character Areas

Drumochter Pass LCA

13.4.29 Within the Drumochter Pass LCA, the scale of the landscape is vast, and the Proposed Scheme is small in comparison. All effects will be contained within the existing infrastructure corridor. **Table 13-9** reviews the potential effects on the key features of this character area.

Assessment of Key Characteristics

Table 13-9: Potential Effects upon Drumochter Pass LCA Key Characteristics

Key Characteristic	Potential effects
Dramatic and sublime character	Some slight reduction during construction but less on completion
Hummocky moraines	None
Braided watercourses in valley floor	None
Little tree cover	Some slight increase on completion due to mitigation of underbridge access to Dalnaspidal and Drumochter/ Balsporran, and around the retaining wall at Drumochter Pass and Dalnaspidal proposed Lay-bys
Heather and scree slopes	Minimal

Assessment of Key Objectives

13.4.30 The Proposed Scheme has been assessed against the landscape objectives established for this LCA via the A9 Dualling Programme Strategic Landscape Review. The assessment has informed the development of mitigation measures and consideration of residual effects; however, as it is not technically an assessment of potential landscape impacts, the assessment is provided as supporting information in **Appendix 13.3** (**Volume 2**).

Magnitude of effect

13.4.31 The effect of the Proposed Scheme on Drumochter Pass LCA is reviewed below. The key characteristics are strongly represented throughout, apart from the most northerly section adjacent to Project 8, Dalwhinnie to Crubenmore, which represents a transition zone between the Drumochter Pass LCA and the area of Glen Truim: Upper Glen and Dalwhinnie LCA. The magnitude of effect is assessed at construction, completion and over the long term.

Construction Stage

13.4.32 The entirety of the Proposed Scheme lies with the Drumochter Pass LCA. The scheme switches from east to west widening through the Proposed Scheme extent. There are some major structures and earthworks required, including underbridges at Dalnaspidal and Drumochter Lodge/ Balsporran and the 'pinch point' at Drumochter Pass (approx. ch. 4,880 to ch. 5,820) where there is the need for retaining walls.

13.4.33 The haul road used for the previous construction of the BDL is intrusive and affects the landscape experience. Removal of woodland, particularly around the Dalnaspidal and Drumochter/ Balsporran underbridges, will reveal sections of the BDL which are currently partially screened, to view from the existing A9 carriageway and NCN7.

13.4.34 The BDL access track affects the landscape experience where it is visible, but as sections of the access track, particularly north of Drumochter Lodge, will likely be utilised as part of the Proposed Scheme works, the scheme will not add significantly to the effect.

13.4.35 Removal of existing shelter belt plantations will be minimised wherever possible; however, temporary winter resilience measures, including snow fencing, may be required. As far as possible, impacts of these should be mitigated by planting native shrubs and trees in advance of main earthworks construction completion to ensure early establishment at completion.

13.4.36 The works will be restricted to a narrow band within this corridor, so impacts on the wider landscape will be limited despite the high visibility of the works. A **Medium** magnitude has been allocated to this LCA for the construction phase, as it is a relatively minor change to an existing feature in a limited area of the overall LCA.

Operation Phase – on Completion (Year 1)

13.4.37 Effects of the Proposed Scheme at Operation Phase Year 1 will be similar to those during construction **(Medium)**, but lessened on completion due to effects of embedded mitigation becoming apparent; including the underbridge access to Dalnaspidal and Drumochter/ Balsporran, NCN7 links and realignment, Balsporran car park, and signage rationalisation. The impact on existing coniferous shelterbelts will be apparent due to the removal of roadside woodland edge revealing branchless lower trunks of remaining trees; new scrub/ shrub cover planting will not have matured. Tree removal will also result in increased visibility of the BDL and A9/ HML railway intervisibility.

Operation Phase – Long Term (Years 15-25)

13.4.38 The Proposed Scheme includes more naturalistic slopes than a standard engineered slope; however, the impact will nonetheless be significant due to the exposed nature of the area where there are currently few trees, and because of removal of existing shelterbelt in some sections of the route, particularly north of Dalnaspidal (southbound) between ch. 450 – ch. 3,000. Native mix woodland and scrub/ shrub planting is proposed on these slopes to integrate the earthworks into the wider landscape and replace existing roadside planting lost to the Proposed Scheme.

13.4.39 By years 15 – 25, the overall landscape effect, compared to the existing road, will be limited; landscape mitigation planting will have become established and feathered into the Proposed Scheme embankments and rock cuts, merging with ecological habitat mitigation, replacement shelterbelt planting and the existing landscape. A **Medium** magnitude of effect has been allocated to this LCA for the long-term operational phase.

Significance of Effect

13.4.40 The landscape of Drumochter Pass is highly valued, but the LCA has been allocated a **Medium** sensitivity due to its limited susceptibility to the road widening and adjacent infrastructure. The landscape is large scale and dramatic. The proposed changes are small relative to the scale of the adjoining hills, but as the latter remain unchanged and are directly linked by views and character, the changes close to the road would be conspicuous, without mitigation. It is important to note that the proposed works will be confined within the existing infrastructure corridor and effects

will be focussed and constrained, restricting the extent of landscape that is affected despite the wide visibility.

Construction Stage

13.4.41 At construction stage, given a **Medium** sensitivity and **Medium** magnitude of effect due to construction activities, dust and exposure of bare earth during movement, an overall allocation of **Moderate** effect on this character area has been identified.

Operation Phase – on Completion (Year 1)

13.4.42 At operation year 1 the effects will be **Moderate**; although the Proposed Scheme would be at variance with the characteristics of this LCA, the completed scheme would be more confined in extent and less apparent than the temporary works, and hence the adverse effects will have reduced but not to the point of eliminating them.

13.4.43 To mitigate these adverse effects, further (secondary) mitigation is proposed in the form of vegetation to match the surrounding plant assemblage in addition to the embedded mitigation in terms of slope design, as discussed in **section 13.5**.

Operation Phase – Long Term (Years 15-25)

13.4.44 At operation years 15 – 25 the overall effect would be significantly mitigated compared to the likely effect without planting and compared to the operation year 1. Once planting has matured and begun to develop a natural multi-layered and variable age growth pattern, the landscape characteristics of the embankments and earthworks will integrate with those of the adjoining landscape. It may take several decades for the interface to completely cease to be apparent. The overall landscape effect, compared to the existing road, will be very limited. By operation years 15 – 25 the significance of effect of the Proposed Scheme will be **Moderate/ Slight** (not significant, given the resultant relatively minor change within a limited area of the overall LCA).

Glen Truim: Upper Glen and Dalwhinnie LCA

Assessment of Key Characteristics

13.4.45 Most relevant to the northern tie-in of Project 7 with Project 8, Dalwhinnie to Crubenmore, **Table 13-10** below indicates potential effects upon this LCA's characteristics.

Table 13-10: Potential effects upon Glen Truim Upper Glen and Dalwhinnie LCA key characteristics

Characteristic	Potential effects
Very open character	Some slight reduction during construction but less on completion
Wide floodplain	Some effects anticipated around proposed SuDS basins and earthworks between A9 and River Truim
Sweeping curves	The dualled route follows the existing A9 alignment, no significant difference
Simple topography	Possible effects if earthworks fail to be naturalistic
Tree cover	Adjacent to the Proposed Scheme, the shelterbelt from Drumochter Lodge to Drochaid a Bhacain will be affected
Heather side slopes	Minimal
Wet heath/ poor grassland in floodplain	Potential impact on vegetation in floodplain to the west between Drumochter Lodge to Drochaid a Bhacain due to underbridge access

Assessment against Key Objectives

13.4.46 The Proposed Scheme is assessed against the LCA objectives established via the A9 Dualling Programme Strategic Landscape Review, set out in **sub-section 13.3.33**. The full assessment is set out in **Appendix 13.3** (**Volume 2**).

Magnitude of effect

13.4.47 The scale of the potential effect for the Proposed Scheme within the Upper Glen Truim and Dalwhinnie LCA, is reviewed below with the mainline (including tie-in) and the River Truim being considered here. The effects will be indirect.

Construction phase

13.4.48 The works will be restricted to a narrow band within the infrastructure corridor so effects on the wider landscape will be limited, despite potential high visibility of construction works.

13.4.49 The Proposed Scheme will result in vegetation loss along existing road embankments. Associated earthworks and construction of SuDS may be exposed here and will locally alter the characteristics of the heather moorland and grassland.

13.4.50 Embedded mitigation includes design of the horizontal/ vertical alignment to improve the environmental fit of the road and keeping the new route within the existing infrastructure corridor, reducing the associated effects prior to application of any additional mitigation. Landform design reflects adjacent topography and land cover.

13.4.51 SuDS basins provide a buffer between the road corridor and the railway. NCN7 will be realigned and locally widened with passing places to integrate shared access to estate land and SuDS features in places.

13.4.52 The construction tie-in of Project 7 to Project 8 should be relatively straightforward within this LCA, with parallel widening to the east of the existing A9. It does however require large embankments, predominately to the east but with some to the west side of the road as well. These would have an effect on the local landscape character of the area. The landscape to the east is enclosed by the shelterbelt with undulating moorland slope rising to the hills. The strath of Glen Truim to the west is generally very empty. The BDL follows the A9 corridor in this section of the LCA, which will be more exposed to view due to tree removal during construction.

13.4.53 A **Medium** magnitude has been allocated to this LCA for the construction phase, as it is a relatively minor change, within an existing infrastructure corridor, in a relatively small section of this LCA.

Operation Phase on Completion (Year 1)

13.4.54 Upon completion of construction, the finished earthworks and the relationship of the road and the Drumochter Lodge/ Balsporran junction to its adjoining landscape will be clearly evident. Large areas of bare earth will be visible, although these will be softened and integrated into the shelterbelt to the east and embankments to the west by rapid establishment of native grasses, followed by growth of heather, scrub willow and replacement planting for any sections of the existing shelterbelt removed due to construction works.

13.4.55 The Proposed Scheme will be restricted to a narrow band within this infrastructure corridor so effects on the wider landscape will be limited. Road furniture, including signs, snow gates, snow poles, barriers and fencing will be kept to a minimum, replacing the existing. The overall effect will be minimal.

13.4.56 The NMU route (NCN7) continues into Project 8, adjacent to the A9, and new lay-bys will be similar in appearance to existing DMRB Type A (with widened separation strips).

13.4.57 A **Medium** magnitude has been allocated to Upper Glen Truim and Dalwhinnie LCA for operation year 1, as the Proposed Scheme represents a relatively minor change in an existing infrastructure corridor within this LCA, and the effects would typically be indirect.

Operation Phase – Long Term (Years 15-25)

13.4.58 Given the generally open character of the landscape, large areas of woodland planting are not proposed; however, appropriate planting of heather and acid grassland, scrub willow and trees in suitable areas will reduce mainline dualling effects over time, and help to integrate new earthworks with scrub willow to the west of the road. A **Low** magnitude has been allocated.

Significance of effects

13.4.59 The landscape is large scale and dramatic. The proposed changes are very small in comparison to the adjoining hills. All the works will be within the existing infrastructure corridor and so have limited effect, despite the wide visibility.

13.4.60 When planting matures, the new earthworks will blend into the adjoining slopes. It may take several decades for the interface to cease to be apparent. As scrub/ woodland planting matures, the overall landscape effects, compared to that of the existing road, will be very limited.

Construction Stage

13.4.61 At construction stage, there will be a **Moderate** significance of effect due to the scale of the works.

Operation Phase – On Completion (Year 1)

13.4.62 At operation year 1, a **Moderate** significance of effect continues, as mitigation planting will not be fully established.

Operation Phase – Long Term (Years 15-25)

13.4.63 In the long term at 15 – 25 years, as planting establishes and integrates within the LCA, the overall effect would reduce to **Slight**.

Local Landscape Character Areas Effects

13.4.64 **Table 13-11** below identifies the effects on each of the LLCAs described in **section 13.3** at Construction Stage, taking the assessment of sensitivity from **Table 13-7** and assessment of landscape features, historic and cultural, landscape fit and landscape experience from **Table 13-8**.

13.4.65 During construction, mitigation to all LLCAs will be limited in terms of reduction of effects, but bearing in mind construction effects are temporary, it is expected that there will be a slight reduction in effects immediately following completion, even if additional mitigation (planting) will not have begun to appreciatively reduce adverse effects.

Table 13-11: Potential Significance of Effects on LLCAs at Construction

Assessed LLCA	Potential Effects Commentary	Sensitivity	Magnitude	Significance	Comments on Mitigation
Dalnaspidal	Some shelterbelt woodland loss north east resulting from construction of the underbridge and access, and to the south west due to SuDS basin 004. Dalnaspidal earthworks, new access tracks and SuDS will alter the landform and affect the characteristics of the LCA west of the road.	Medium	High	Substantial/ Moderate	Planting of native grass seeding and mature shrub planting will be undertaken as soon as possible following final modelling of roadside/ SuDS basin earthworks will soften the appearance of embankments. Early tree planting will reinstate loss of woodland and soften the appearance of the Dalnaspidal access and watercourse underbridges
Allt Dubhaig	Road widening and lay-by construction along this stretch of the A9 will cause some vegetation loss. Earthworks will be quite prominent towards the hills to the west; existing shelterbelt to east will screen and backcloth the construction works.	High/ Medium	High	Substantial/ Moderate	Planting of native seeding and low level planting will be undertaken as soon as possible following final modelling of roadside/ SuDS basin earthworks will blend the proposed embankments into the surrounding landscape. SuDS basins and embankments are modified to integrate with the existing landform.
Pass of Drumochter	Road widening will cause vegetation loss along existing embankments. Associated earthworks and construction of SuDS may be more exposed here and will locally alter the characteristics of the heather moorland and grassland.	High/ Medium	High	Substantial/ Moderate	Planting of native grass seeding and shrub planting will be undertaken as soon as possible following final modelling of roadside/ SuDS basin earthworks will soften the appearance of road embankments and SuDS basins. SuDS basins and embankments are modified to integrate with the existing landform.
Dail a Chuirn	Construction of a new access track due east of the mainline will cause loss of woodland in the shelterbelt. Access construction to serve Balsporran/ Drumochter will have effects on the local landscape character. It will also cause loss of vegetation and affect the characteristics of adjacent heather moorland and grassland.	Medium	High	Substantial/ Moderate	Planting of native grass seeding and shrub planting will be undertaken as soon as possible following final modelling of roadside/ SuDS basin earthworks will soften the appearance of road embankments and SuDS basins. Early tree planting will reinstate loss of woodland but will have little effect during construction.
Dalnaspidal Forest	There will be limited effects here as there is no construction being undertaken in this LLCA. During construction, there may be effects on the local landscape character of the area by indirect association.	Medium	Low	Moderate/ Slight (not significant)	None required
Southern Hill Slopes	There will be limited effects here as there is no construction being undertaken in this LLCA. During construction, there may be effects on the local landscape character of the area by indirect association.	Medium	Low	Moderate/ Slight (not significant)	None required
Loch Garry	There will be limited effects here as there is no construction being undertaken in this LLCA. During construction, there may be effects on the local landscape character of the area by indirect association.	Medium	Low	Moderate/ Slight (not significant)	None required
Upper Glen Garry	There will be limited effects here as most of the mainline has already been dualled. Construction of a new access track will result in loss of vegetation. Associated earthworks will alter the characteristics of adjacent heather moorland and grassland.	Medium	Medium	Moderate	Native grass seeding and shrub planting will be undertaken as soon as possible following final modelling of roadside/ SuDS basin earthworks will soften the appearance of road embankments and SuDS basins

13.4.66 **Table 13-12** below identifies the effects on each of the LLCAs described in **section 13.3**, at operation year 1 and operation years 15-25, taking the assessment of sensitivity from **Table 13-7** and assessment of landscape features, historic and cultural, landscape fit and landscape experience from **Table 13-8**. Detailed commentary on the likely effect on the CNP SLQs is included in **Appendix 13.4** (**Volume 2**).

13.4.67 Additional mitigation is identified within this chapter to offset potential adverse effects, residual to the embedded mitigation at Construction, as described within **Table 13-12**. Therefore, the long term permanent effects, after years 15-25, identified in **Table 13-14**, are assessed to include the embedded and additional (secondary) mitigation. The effect of additional mitigation is further explained in **section 13.5**.

13.4.68 While the impact assessment is undertaken in cognisance of the embedded (primary) mitigation features noted above, in order to ensure that all project mitigation requirements (including embedded/ primary, additional and generic best practice construction mitigation) are captured, they have been included within **section 13.5**, and the Schedule of Environmental Commitments contained in **Chapter 21**. The additional mitigation listed in **section 13.5** is what GLVIA 3 refers to as secondary mitigation. Additional mitigation has been included within the assessment of residual effects, presented later in **Table 13-15**.

Table 13-12: Potential Effects on LLCAs at Operation Year 1 and Years 15-25

Assessed item	Potential Effects Commentary	Sensitivity	Operational Impacts Potential effects - Operation Year 1		Comments on Mitigation	Operational Impacts Potential effects - Operation Year 25	
			Magnitude	Overall Effect		Magnitude	Overall Effect
Dalnaspidal	Considerable change to local landscape character due to construction of the underbridge and access, and to the south west due to SuDS basins 003 and 004. Some snow belt woodland loss to the east and coniferous plantation will be lost to construction of the new access road to Dalnaspidal Station Cottages/ NCN7; associated earthworks, new access tracks and SuDS will alter the landform and affect the characteristics of the LLCA west of the road. SuDS basins 000,001, 003 and 004 will be constructed to the west of the carriageway in confined locations and have been shaped sympathetically to blend into the strath.	Medium	Medium	**Moderate**	Native grass seeding and mature shrub planting will soften the appearance of embankments. Tree planting will reinstate loss of woodland, the new woodland will soften the appearance of the Dalnaspidal access underbridges to both the east and west of the carriageway SuDS basins and embankments will be modified to integrate with existing natural topography, reflecting the adjacent natural landform Additional scattered tree planting within the Dalnaspidal lay-by facilities will mitigate the loss of any existing trees near to the road. Tree planting specified as mixed native woodland will diversify existing coniferous treebelts.	Low/ Medium	**Moderate/ Slight (not significant)**
Allt Dubhaig	Road widening and lay-by construction will cause some vegetation loss. Earthworks will be prominent towards the hills to the west; existing snow belt to east will screen and backcloth the works, although parts of the tree belt will be affected. There will be further effects on the open grassland characteristics to the west. SuDS basins 020 and 042 will be constructed to the west of the existing carriageway	High/ Medium	Medium	**Moderate**	Native grass seeding and low level planting to proposed embankments will restore the local character of this area to reinstate any loss of vegetation over the proposed embankments. SuDS basins and embankments are modified to integrate with the existing landform. Seeding to the SuDS features and additional planting will reinstate dry heath habitats to the north of these features. SuDS basins and embankments will be modified to integrate with existing natural topography, reflecting the adjacent natural landform	Medium/ Low	**Slight**
Pass of Drumochter	Road widening will cause vegetation loss along existing road embankments. Safety barrier / retaining walls, north and south bound lay-by facilities and the pedestrian underbridge at ch. 3,000 and associated earthworks, and construction of SuDS basins 060, 063, 065, and 069 may be more exposed and alter the characteristics of the heather moorland and grassland.	High/ Medium	High/ Medium	**Substantial/ Moderate**	Native grass seeding and shrub planting will soften the appearance of road embankments and SuDS basins. Natural stone effect to retaining walls and careful design will mitigate the linear appearance of retaining walls SuDS basins and embankments will be modified to integrate with existing natural topography, reflecting the adjacent natural landform.	Low	**Moderate/ Slight \ (not significant)**

Assessed item	Potential Effects Commentary	Sensitivity	Operational Impacts Potential effects - Operation Year 1		Comments on Mitigation	Operational Impacts Potential effects - Operation Year 25	
			Magnitude	Overall Effect		Magnitude	Overall Effect
Dail a Chuirn	Construction of Balsporran/ Drumochter underbridge access and new tracks through the property linking it to the underbridge access and Drumochter Estate track to the east will have effects of the local landscape character. It will also cause loss of trees and other vegetation and affect the characteristics of adjacent heather moorland and grassland. SuDS basins 076, 078, 083, 092, and 102 will be constructed to the west of the existing carriageway. A bund to the west frontage of Drumochter Lodge will alter the character of the Lodge to the wider landscape setting by introducing a physical and visual barrier. Some existing garden planting will be lost, but this is mainly Rhododendron, an invasive species that is being eradicated. Other exotic species that may be lost are mostly non-native forestry trees. An existing stone faced retaining feature will be lost or altered.	Medium	High	**Moderate/ Substantial**	Native grass seeding and shrub planting will soften the appearance of road embankments and SuDS basins. Tree planting will reinstate loss of woodland outside of the SSSI, including an area of wet woodland to the west of the northbound carriageway, south the underbridge. SuDS basins and embankments will be modified to integrate with existing natural topography, reflecting the adjacent natural landform. The bund to the west frontage of Drumochter Lodge will merge with the raised roadside embankment and reduce visual intrusion of the new carriageway and moving vehicles into the property. It will eventually appear to be part of the natural landform, once vegetated, reflecting adjacent glacial moraines and drumlins. The link between the Lodge and the grounds will be retained, although the footprint of the grounds will be reduced. The views of the grounds from outside will be lost. The Ha-ha referenced in **Chapter 15** is not a major feature; it is not a traditional Ha-ha, but a stone faced retaining feature. The bund will redefine the purpose of the garden as an enclosed area surrounding the house.	Medium/ Low	**Moderate/ Slight (not significant)**
Dalnaspidal Forest	Limited effects - no construction undertaken in this LLCA. During construction, there may be effects on the local landscape character of the area by indirect association.	Medium	Low	**Moderate/ Slight**	None required – potential effects will soften over time due to indirect benefit of additional mitigation (planting) in adjacent 'on line' LLCAs	Low	**Negligible**
Southern Hill Slopes	There will be limited effects here as there is no construction being undertaken in this LLCA. During construction, there may be effects on the local landscape character of the area by indirect association.	Medium	Low	**Moderate/ Slight**	None required – potential effects will soften over time due to indirect benefit of additional mitigation (planting) in adjacent 'on line' LLCAs	Low	**Negligible**
Loch Garry	There will be limited effects here as there is no construction being undertaken in this LLCA. During construction, there may be effects on the local landscape character of the area by indirect association.	Medium	Low	**Moderate/ Slight**	None required – potential effects will soften over time due to indirect benefit of additional mitigation (planting) in adjacent 'on line' LLCAs	Low	**Negligible**

Assessed item	Potential Effects Commentary	Sensitivity	Operational Impacts Potential effects - Operation Year 1		Comments on Mitigation	Operational Impacts Potential effects - Operation Year 25	
			Magnitude	Overall Effect		Magnitude	Overall Effect
Upper Glen Garry	There will be limited effects here as most of the mainline has already been dualled. Construction of a new access track will result in loss of vegetation. Associated earthworks will alter the characteristics of adjacent heather moorland and grassland. A SuDS basin at ch. -500,will be constructed to the west of the carriageway in a confined location, shaped sympathetically to blend into the strath. An earth embankment will extend effects to the west of the carriageway.	Medium	Medium	**Moderate**	Native trees, heath and grass seeding planting will soften the appearance of road embankments and SuDS basins. SuDS basins and embankments will be modified to integrate with existing natural topography, reflecting the adjacent natural landform.	Low	**Slight**

Landscape Features - Effects

Landform

13.4.69 The landform is the key component of the scenery and is of **High/ Medium** sensitivity. The horizontal/ vertical alignment looked to improve the environmental fit of the road therefore reducing the associated effects prior to any additional mitigation. The earthworks associated with the dualling are small in comparison with the surrounding landscape. The proposed slopes have been developed with the assistance of Landscape Architects to ensure, where possible, slopes blend well with the adjoining topography.

13.4.70 Three principle levels of slope treatment (identified in **Table 13-15**) shall be followed for the grading of embankments in landform-sensitive, priority areas to mitigate the appearance of Proposed Scheme. These are:

- Level 1: Slopes with tree/ shrubs/ scrub planting: Where proposed vegetation will soften engineered slopes
- Level 2: Open landscapes that have relatively minor topographic variation that only require specification to ensure that the earthworks are softened and reflect the surrounding landform to some extent.
- Level 3/ Priority Areas: specific locations within open (landform sensitive areas) that will require a detailed specification of slope.

13.4.71 The chainage (ch.) locations for each type are shown in **Table 13-15**.

13.4.72 Level 3/ priority areas are detailed on the **Environmental Mitigation Drawings 6.1** to **6.7** (**Volume 3**) and are labelled as 'landform sensitive earthworks'.

13.4.73 For level 3 priority areas, drawings and specifications for each location shall be produced as part of the contract documents, subject to detailed design. This is detailed in **Table 13-15**.

Construction Phase

13.4.74 During construction, there will be a large amount of earth stripping, transporting and storing of material. Upon completion, the finished earthworks and the relationship of the road within the wider landscape will be clearly evident. Large areas of bare earth will be visible, particularly where acute slope embankment gradients have had to be incorporated to avoid and limit encroachment into the flood plain and SAC.

13.4.75 The earthworks and bridging infrastructure associated with the Dalnaspidal underbridge at northbound ch. 0 to 350 and southbound ch. 0 to 800 will affect the landform of Allt Coire Mhic-sith watercourse adjacent to the track. Design treatment of cut/ fill, slope and landform, removal and replacement of existing trees/ vegetation and naturalisation of water course bank and cascade rockwork will be apparent within the vicinity of the HML railway level crossing, NMU and associated tracks. The new Dalnaspidal underbridge will provide pedestrian access, and abutment faces will require a treatment that is appropriate to their landscape sensitivity.

13.4.76 Natural stone effect finish will be used on the elevation/ façade of the new underbridge superstructure (subject to detailed design). Existing stone dykes and walls will be kept in place; keeping existing features will mitigate the Proposed Scheme works in this area.

13.4.77 The access at Dalnaspidal will introduce large scale earthworks. However, these will be in an area with a variety of existing woodland, infrastructure, dwellings, slopes and earthworks, including the existing Allt Coire Mhic-Sith underbridge, which will be extended under the new carriageway.

13.4.78 Replanting of conifer woodland removed by construction of SuDS basin 004 will also help reduce impacts. Landscape mitigation at year 1 shall include tree planting, including mixed screen planting near to the level crossing on the site of the dilapidated railway shacks; however, the majority of earthworks will be bare or seeded with green sward to reduce the immediate impact.

13.4.79 The access at Balsporran/ Drumochter Lodge at ch. 6,850 to 7,800 introduces substantial earthworks that will be more noticeable than the earthworks immediately adjoining the scheme. The mainline here is raised to accommodate the junction underpass. Earthworks here will remove extensive areas of existing coniferous woodland around Drumochter Lodge. They will also introduce new earthworks in the open land between the River Truim and the A9 to the north of the existing Balsporran Cottages access.

13.4.80 Naturalistic earthwork gradients and aesthetic design/ specification of landform will provide mitigation at year 1. Planting of new and replacement native mixed woodland trees and scrub will help integrate the underbridge and SuDS basin 076 earthworks into the landscape context and will reduce effects below that of an unmitigated scheme. Advance planting could help reduce effects at year 1.

13.4.81 Based on available GI information at the time of writing, rock cuttings are anticipated (at least) between ch.-200 and ch. 0 (tie-in) (east) and ch. 4, 750 and ch. 5, 650 (east). Combined with landscape and visual considerations, geotechnical advice should be followed with regards the design of these cuttings in relation to stability, the need for artificial support, and slope angles, and they should aim to achieve the best possible exposures.

13.4.82 Retaining walls will be required at several locations. At approximate northbound ch. 4,970 to 5,820, a safety barrier and concrete retaining wall alongside the HML railway boundary would be visible. An appropriate natural stone effect treatment of the face of the retaining wall will assist in breaking up the homogenous appearance of the retaining wall for the benefit of hill-walkers, rail passengers and NMU users. The finish will be subject to detailed design as additional mitigation, where indicated on **Environmental Mitigation Drawings 6.1** to **6.7** (**Volume 3**).

13.4.83 SuDS basin structures will require mitigating planting in locations where existing planting will have been removed, including SuDS basins 063, 065, and 069 (ch. 5,900 to 6,000; and ch. 6,100 to 6,500). Broadleaf trees and scrub will be planted to mitigate SuDS structures near River Truim, also providing riparian habitat, but this is unlikely to have become established at year 1.

13.4.84 The magnitude will be **High/ Medium** during construction and there will be an overall **Moderate** and therefore significant effect.

Operation Phase

13.4.85 At operation year 1 the slopes to northbound and the southbound carriageway will be highly evident from the road and the surrounding hills and thus will have relatively high magnitude of effect. The effect will reduce due to the cessation of construction traffic and nuisance, and all slopes will benefit from the first green flush of planting and grass seeding. However, given the **Medium** sensitivity of the landform, and the high visibility of the new earthworks, there will be a **Medium** magnitude of impact and due to the sensitive earthworks design that will replicate the adjoining landform and create a naturalistic appearance, resulting in an overall **Moderate** significance of effect.

13.4.86 With additional mitigation in place, as detailed in **Table 13-13**, the overall effect will be **Slight/ Negligible** at years 15-25.

Vegetation

Construction Phase

13.4.87 Vegetation has been assigned a **Medium** sensitivity. To avoid unnecessary handling and decomposition of peat structure won from excavation works, where possible, peat will be laid directly within identified restoration areas and planted with appropriate seeding or translocated heath vegetation, ideally in a single operation. Peat restoration works will be visible, appearing similar to the main earthworks. Please see **Chapter 10** for further information on the handling and restoration of peat.

13.4.88 During construction, vegetation within permanent works boundaries will be removed and soils will be stripped, closely correlating to the earthworks areas identified by **P07-LV1** in **Table 13-15**. There will be disturbance to vegetation and, given the exposure and altitude, re-establishment of vegetation will be slow, potentially resulting initially in denuded ground which will be evident in areas during construction phase.

13.4.89 Therefore, magnitude of impact will be **High**/ **Medium** with overall effect being **Moderate.**

Operation Phase

13.4.90 Vegetation close to the road will be most vulnerable to change but, during construction, all vegetation within the land made available boundary will be affected, potentially requiring several years to become re-established. Due to the initial greening following the end of construction activity, however, the magnitude of effect will be **Medium** on completion. Considering the **Medium** sensitivity, the overall effect would be **Moderate.**

13.4.91 In order to mitigate this effect, all earthworks shall be planted to match adjoining habitats such that, in the long term, there will be very limited effect on vegetation, other than the permanent effect to the area lost to tarmac, which is minimal in the overall landscape context, even at a local level. Therefore, there will a **Low** magnitude of change and only a **Moderate/ Slight** effect on vegetation by years 15-25.

Woodland

Construction Phase

13.4.92 Woodland has been assigned a **High/ Medium** sensitivity. The alignment of the main carriageway to the east of the A9 southbound carriageway may impact existing coniferous shelterbelts at ch. 500 – 1,500, ch. 1,950 – 2,575, ch. 3,500 – 4,250, and ch. 7,100 – 9,741. To the west, existing woodland will be lost or impacted between ch. 7,250 and 7,700. The lower branchless tree trunks of the inner canopy will be exposed to view due to felling of the edge of the canopy. Variation in slope gradients will reduce the effect on landscape; however, some tree loss will occur. With reference to **Chapter 12**, total existing woodland or woodland and scrub (of various types differentiated within the ecological assessment) that will be affected by the Proposed Scheme is approx. **15.12ha** overall, as set out below:

- Conifer plantation = 12.81ha
- Mixed plantation = 0.82ha
- Clear felled areas = 0.16ha
- Shrub/ Scrub = 1.33ha

13.4.93 Appropriate scattered tree/ shrub planting on the western side of the corridor, along the old A9 embankment, is required to mitigate for loss of scattered scrub habitat currently present, and to align with CNPA advice on the reinstatement of this habitat type from northbound ch. 400 to approximately ch. 1,500. Where possible, this would be planted in advance and therefore be partially established on completion.

13.4.94 Woodland along the road corridor will be augmented at Dalnaspidal between southbound approximately between ch. -250 and c. 750 and ch. 500 and 2,500; the Pass of Drumochter, southbound between ch. 3,600 and 4,250; Drumochter Lodge (both southbound and northbound) between ch. 6,750 and 7,700; and north of Drumochter Lodge (southbound) from ch. 7, 700 to Drochaid a Bhacain.

13.4.95 Outwith the SSSI, new wet woodland and native woodland planting will be required west of the northbound carriageway opposite Drumochter Lodge approximately between ch. 7,200 and ch. 7,600, to augment or replace that lost to the underbridge infrastructure at this location. This should be planted as early as possible in order to ensure that it is effective from, or soon after, year 1. Mitigation using native shrubs and trees should aim to seamlessly harmonise with ecological planting, in order to integrate the embankments and new road into adjacent highly sensitive landscape. Planting and seeding on new slopes will be restricted to appropriate native mixed shrub and tree planting of local provenance. Where some of the existing tree belt will be intact but where trees have been removed, native mixed species, trees and shrubs will be planted to reduce the impact of exposed woodland edge.

13.4.96 There will be a **High** magnitude of impact and overall **Substantial/ Moderate** effect during construction. The associated loss of woodland has been calculated, resulting in approx. 14-15 ha removed by the Proposed Scheme (woodland and scrub combined).

Operation Phase

13.4.97 The proposed landscape strategy will deliver the following woodland/ scrub habitats as part of the overall Environmental Mitigation design as illustrated in **Environmental Mitigation Drawings 6.1** to **6.7** (**Volume 3**):

- Native Woodland = 9.22ha
- Wet Woodland = 5.66ha
- Woodland Edge = 12.61ha
- Shrub/ Scrub= 2.47ha

13.4.98 The total proposed habitat creation is approx. **29.96 ha** woodland and woodland edge/ shrub/ scrub. The majority of the wet woodland is located outwith the SSSI and a significant element of the native woodland and woodland edge is either like-for-like replacement of, or new, winter resilience. The proposed winter resilience planting is based on native species mixes rather than exotic trees such as Lodgepole Pine, as many of the existing shelterbelts are.

13.4.99 At operation year 1 the magnitude will remain High due to replacement planting not having grown and there still being potentially bare areas. Therefore, there will be a **Substantial/ Moderate** significance of effect. At years 15-25 there will be a **Low** magnitude of effect and an overall **Moderate/ Slight** effect, once replacement planting is established.

Wildness

Construction Phase

13.4.100 Wildness has been assigned a **Medium** sensitivity . The wider setting of open heather moorland of the area is perceived as wild. The straths and passes through which the A9 travels have more diverse land uses, with areas of rough grazing and elements linked to infrastructure. The A9 follows the flatter terrain of the passes and straths, and the wider landform will not be affected; only a narrow corridor close to the existing road will be altered and it is proposed that the new earthworks will reflect the local landform.

13.4.101 The proposed dualling is outwith designated areas of wild land, but can be seen from the Rannoch-Nevis-Mamores–Alder area and the Cairngorms areas; the boundaries of both are approximately 500m at their nearest to the A9 at Dalnaspidal Creagan Doire Dhonaich. Low visibility of the existing A9 is a defining characteristic of the boundary of the adjoining wild areas. Construction activity will detract from the overall sense of wildness for the duration of works, but this will be relatively short-term and limited to the existing road infrastructure corridor. The widening will have no direct impact on land cover in areas identified as a Core Area of Wild Land.

13.4.102 The widening of the A9 will inevitably bring it slightly closer to the wild areas but the scale of the landscape is such that the impact of this will be insignificant. The existing infrastructure corridor with A9, BDL, and HML railway and telecom masts is widely visible. The dualling will introduce additional artefacts into the landscape, particularly during construction; however, in comparison with the existing road and pylons, the impact of these will be limited.

13.4.103 It is therefore considered that there will be a **Medium** magnitude of effect, which with a **Medium** sensitivity results in a **Moderate** effect overall during construction.

Operation Phase

13.4.104 At year one, the magnitude will be **Medium** and a **Moderate** significance of effect will remain. Due to habitat and planting management, at years 15-25 this will reduce to **Slight**.

Water

Construction Phase

13.4.105 Water has been assigned a **Medium** sensitivity . There are a number of major and minor watercourses crossing under the road, and there will be new structures and culverts constructed to accommodate these, together with cascades to resolve level changes. Many of the existing cascades to the east of the A9 were constructed in the 1970s and have an artificial appearance, and many of these will require diversion and reconstruction. This will enable reinstatement of more natural patterns and appearance, particularly where incorporated into areas open to view such as proposed lay-bys. It is intended that such cascades will be reconstructed incorporating use of site-won natural stone.

13.4.106 There is likely to be a **Medium** magnitude of impact and overall **Moderate** effect on watercourses crossing the line of A9 during construction.

Operation Phase

13.4.107 Effects on watercourses will be mitigated through sensitive naturalistic design form by year one, to a **Slight** significance of effect, and will further decrease as vegetation establishes along diverted watercourses and cascades bed-in, to **Negligible** in the longer term (years 15-25).

Historic and Cultural Associations

13.4.108 Of **Medium** sensitivity, a proposed earth bund screen between the roadside and west of Drumochter Lodge at ch. 7,200 – 7,500 will have a substantial effect and will result in loss of existing trees and alteration or loss of an existing modest stone retaining wall feature. The bund was a specific mitigation measure proposed following consultation with the landowner to screen the Lodge from the road, and the views of the grounds from outside will be lost. However, the bund will be heavily planted and seeded with appropriate mixed tree and shrub species of native provenance. A planting schedule will be considered at detailed design stage, as set out in **Appendix 6.1** (**Volume 2**) of this report. The bund to the west frontage of Drumochter Lodge will merge with the raised roadside embankment and reduce intrusion of the new carriageway on the character of the property. It will eventually appear to be part of the natural landform, once vegetated, reflecting the shape of adjacent glacial moraines and drumlins. The link between the Lodge and the grounds will be retained, although the footprint of the grounds will be reduced.

13.4.109 Access within the grounds of Drumochter Lodge is aligned to avoid as many existing trees as possible, while minimising earthworks by using existing access tracks to the north of the Lodge to link the former BDL access track to the underbridge access.

13.4.110 There is likely to be a **Low** magnitude of impact and overall **Moderate**/ **Slight** effect on this characteristic at construction, diminishing to **Negligible** by Year 25.

Landscape Fit

13.4.111 The Proposed Scheme alignment follows the existing road which, as determined in the baseline assessment in **sub-sections 13.3.88 - 13.3.89,** has a good landscape fit. The carriageway has been separated in stretches. While the separation strip width is restricted, it does allow for some vertical alignment separation, which responds to topography more sensitively than a full-width dual carriageway.

13.4.112 Between ch. 4,600 and 5,800, where there is a particularly narrow corridor between existing slopes, the BDL pylons and the HML railway, the northbound carriageway shall be raised by up to 1.5m over this stretch, while the southbound carriageway will be higher again by approximately 1m. This will reduce the amount of cut slope required on the southbound carriageway. Although retaining walls of up to 5m are required on the east side they shall be built into the hillside and will be lower than if the carriageway remained at its current elevation.

13.4.113 The vertical alignment change supports the landscape fit of the road, reducing associated effects prior to any additional mitigation, following the existing infrastructure corridor and supporting the landscape experience through variations in levels.

Landscape Experience from the A9

13.4.114 Travellers will be provided with an improved landscape experience via the dualled A9 and connections to new extended Type A lay-bys, which will be in place northbound at Dalnaspidal, ch. 800, and at Drumochter Pass northbound ch. 3, 400 to 3,800 and southbound ch. 3, 700 to

4,200 replacing existing lay-bys. These features will have extensive retaining walls, earthworks, steps, paths, and they include potential for viewing platforms with appropriate fencing, as well as new mixed groundcover, shrub and tree planting. Earthworks and structures associated with these features will be conspicuous during construction, but not more so than those of the adjacent mainline; the earthworks will have been seeded and greened-up by end of construction. The lay-bys are in an area of **Medium** sensitivity, and will have a **Moderate** effect.

13.4.115 Similarly, proposed car parking at Balsporran at northbound ch. 6,750 to 7,000 will introduce a new granular surface, paths, and low key parking bay demarcation, but this will not extend beyond existing car park boundaries. Although sensitivity will be **High** in this area, the magnitude of change will be **Low** and the effect will be **Moderate** and positive.

13.4.116 Where the character of the existing landscape is generally open, low level planting and seeding is proposed on earthwork slopes, as well as supplementing the existing coniferous woodland belt, to help integrate the new earthworks.

13.4.117 Infrastructure has been kept to a minimum within the Proposed Scheme; however, there is a perception that roadside furniture may clutter the corridor landscape. There will be signs, barriers and fencing which could increase the roadscape presence within the wider area. These will however replace existing road furniture so the overall effect will be limited, due to their scale and nature.

13.4.118 Bearing in mind these measures, with a **Medium** sensitivity, Landscape Experience at construction phase has been allocated a **Medium** magnitude of change, with an overall **Moderate** significance because of the presence of construction traffic, plant, and temporary works, albeit in a limited area.

13.4.119 On completion at operation phase year 1 there is likely to be a **Low** magnitude of change as the experience of the surrounding landscape will largely return to a settled state, similar to the existing, and cessation of construction works; significance of effect will be **Moderate**. At operations years 15 – 25, an overall **Slight** effect will remain on this characteristic.

Summary

13.4.120 At construction phase, there would be significant (**Moderate** to **Substantial)** effects on LCAs Drumochter Pass and Glen Truim: Upper Glen and Dalwhinnie, and LLCAs Dalnaspidal; Allt Dubhaig; Pass of Drumochter; Dail a Chuirn, and Upper Glen Garry, and landscape features including Landform, Vegetation, Woodland, Wildness, Water and Landscape Experience.

13.4.121 **Table 13-13** below summarises the assessment on Landscape Features at construction, and **Table 13-14** further below summarises the assessment at Year 1 and Years 15-25.

13.4.122 At operational phase year 1, these effects will have diminished, but will remain mostly significant (excepting Hydrology and Historic and Cultural Associations). At operational years 15 – 25, in all cases, the potential effects reduce in the long term with mitigation, which is discussed further in the next section.

Table 13-13: Potential Significance of Effects on Landscape Features and Perception at Construction

Assessed item	Potential Effects Commentary	Sensitivity	Magnitude	Overall Effect	Comments on Mitigation
Landform	Earth stripping, transporting and storing will result in large areas of visible bare earth Acute slope embankment gradients constructed to avoid flood plain and SAC will create additional landform impacts Dalnaspidal, Balsporran/ Drumochter Lodge underbridges; Allt Coire Mhic-sith watercourse underbridge; design treatment of cut/ fill, slope and landform design and integration with SuDS Basins affect landform Retaining walls will be highly visible	High/ Medium	High/ Medium	**Substantial/ Moderate**	The horizontal/ vertical alignment looked to improve the environmental fit of the road therefore reducing the associated effects prior to any additional mitigation. Embankments are to be modified to integrate with existing natural topography, reflecting the adjacent natural landform.
Vegetation	Species poor roadside grasses will be mainly affected; heather moorland mostly unaffected	Medium	High/ Medium	**Moderate**	Replacement with similar species to the immediate roadside; overall increase in wet/ dry heath.
Woodland	Alignment of the main carriageway east of the A9 southbound carriageway impacts existing coniferous shelterbelt; Conifer plantation west of Drumochter Lodge partially removed	High/ Medium	High	**Substantial/ Moderate**	Replacement tree planting with native mix species within affected areas, or planting with native grass seeding and scrub/ shrub planting will soften the appearance of road embankments.
Wildness	Project boundary constrained by SAC, SSSI to east and by HML railway and River Truim to west; area beyond Proposed Scheme is minimally impacted	Medium	Medium	**Moderate**	Planting with native grass seeding and scrub/ shrub planting will soften the appearance of road embankments and SuDS basins. Replacement tree planting in affected areas will reduce loss of woodland but will have little effect during construction.
Water	Multiple watercourses channelled under new carriageway, most within existing locations	Medium	Medium	**Moderate**	Reinstatement of watercourses and cascades using natural stone and margin vegetation as advised by ecologists
Historic and Cultural Associations	No designated or listed properties affected Existing Dalnaspidal Bridge to be demolished to accommodate new junction Drumochter Lodge garden is an undesignated designed landscape, existing retaining wall feature may be affected by new access roads, design includes berm for screening house from raised A9 carriageway	Medium	Low	**Moderate/ Slight** (not significant)	Natural stone effect finish to reflect the Dalnaspidal Old Bridge in facing new structures. Sensitive consideration of existing trees and flood plain within Drumochter Lodge garden, feathering in of berm to existing ground and connection of retaining wall feature into the new berm
Landscape Experience	Slowly unfolding ridgelines and horizons not affected CNP SLQs not affected Some shelterbelt trees removed, mostly on southbound side Initial increased BDL visibility NCN7 realigned and reinstated where necessary Initially greater road/ HML railway intervisibility	High/ Medium	Medium	**Substantial/ Moderate**	Diversions to the A9 will be in effect; the NMU will be diverted and some section closed temporarily New cut slopes affecting tree belts will be replanted with native mix species where possible, or with scrub/ shrub to reduce visibility of lower, exposed canopy where trees are lost to the works

Table 13-14: Potential Effects on Landscape Features & Perception, Operation Year 1 & Years 15-25

Assessed item	Potential Effects Commentary	Sensitivity	Operational Impacts Potential effects - Operation Year 1		Comments on Mitigation	Operational Impacts Potential effects - Operation Year 25	
			Magnitude	Overall Effect		Magnitude	Overall Effect
Landform	As construction phase at year 1	High/ Medium	Medium	**Moderate**	Embedded mitigation; secondary/ additional mitigation required as outlined by **Table 13-15**	Low	**Slight**
Vegetation	As construction phase at year 1	Medium	Medium	**Moderate**	Embedded mitigation includes incorporation of existing shelterbelts into landscape mitigation areas Secondary/ additional mitigation required as outlined by **Table 13-15**	Low	**Slight**
Woodland	As construction phase at year 1	High/ Medium	High	**Substantial/ Moderate**	Secondary/ additional mitigation required as outlined by **Table 13-15**	Low/ Medium	**Moderate/ Slight** (not significant)
Wildness	As construction phase at year 1	Medium	Medium	**Moderate**	None required.	Low	**Slight**
Water	As construction phase at year 1	Medium	Low	**Moderate/ Slight** (not significant)	Embedded mitigation; secondary/ additional mitigation required as outlined by **Table 13-15**	Low	**Slight**
Historic and Cultural Associations	As construction phase at year 1	Medium	Low	**Moderate/ Slight** (not significant)	Embedded mitigation includes berm between Drumochter Lodge and A9. Secondary/ additional mitigation required as outlined by **Table 13-15**	Low	**Slight**
Landscape Experience from the A9	A9 benefits now fully evident including NMU links and realignment, stopping facilities, underbridge access, signage rationalisation, Slowly unfolding ridgelines and horizons not affected Meandering homogenous slopes of the Cairngorm massif valleys not affected Some shelterbelt trees removed, new slope faces replanted Initial increased BDL visibility NCN7 realigned, reinstated Road/ HML railway intervisibility	High/ Medium	Low	**Moderate**	Embedded mitigation, secondary/ additional mitigation and road management will further 'bed' the Proposed Scheme into the landscape as outlined by **Table 13-15**	Low	**Slight**

13.5 Mitigation

13.5.1 This section discusses mitigation in relation to the construction and operation phases of the Proposed Scheme.

Standard, Embedded and Additional (Project Specific) Mitigation

13.5.2 There are standard mitigation measures that are common to the A9 Dualling Programme. A number of the measures have been identified as being relevant to reduce the overall impacts of the Proposed Scheme as listed in **Table 13-15**, items SMC-LV1 to SMC-LV7. Standard mitigation applies to both the Landscape and Visual elements affected by the Proposed Scheme.

13.5.3 Embedded Mitigation measures are project specific and are included in the design of the Proposed Scheme. For clarity, these are also included in **Table 13-15,** items P07-LV1 to P07-LV3, where relevant to this chapter. Note that the impact assessment has included consideration of these measures.

13.5.4 There is also Project Specific Mitigation which includes additional mitigation measures that have been identified as part of this EIA process and which apply specifically to the Landscape resource affected by the Proposed Scheme. These are also listed in **Table 13-15**.

13.5.5 The key principles for earthwork/ landform design as additional mitigation include the following:

- The landform design shall achieve integration with the surrounding local landscape to reduce adverse landscape and visual impacts through the following aspects:
  - The creation of smooth flowing slope profiles which reflect and are in character with the naturally occurring adjoining topography in terms of gradients, scale and form.
  - Ensuring varying slope profiles in both cross and longitudinal section
  - Forming naturalistic transitions in gradient including rounding the tops and bottoms and grading-out of side slopes to provide a smooth transition into the adjoining landforms and more closely resemble the surrounding landscape character
  - Integrating earthworks with Structures, planting and existing ground levels

13.5.6 **Figure 13-4** illustrates a typical approach to be taken in the Proposed Scheme; embankments are to be modified to integrate with existing natural topography, reflecting the adjacent landform.

13.5.7 Three levels of specification of landform will be considered:

- Level 1 - no specific requirements over and above the general requirements; it is appropriate to plant trees/ shrubs/ scrub on these slopes
- Level 2 - a blanket requirement applicable to open landscape of relatively minor topographical variation, that is achievable in all locations at minimal additional cost, utilising few detailed design metrics, particularly top and toe rounding and long section variability to ensure that the earthworks are softened and reflect the surrounding landform to some extent; the extent of variation need not be large
- Level 3 - specific locations within landform sensitive areas that will require a detailed specification of significant variation for particularly sensitive, highly visible slopes

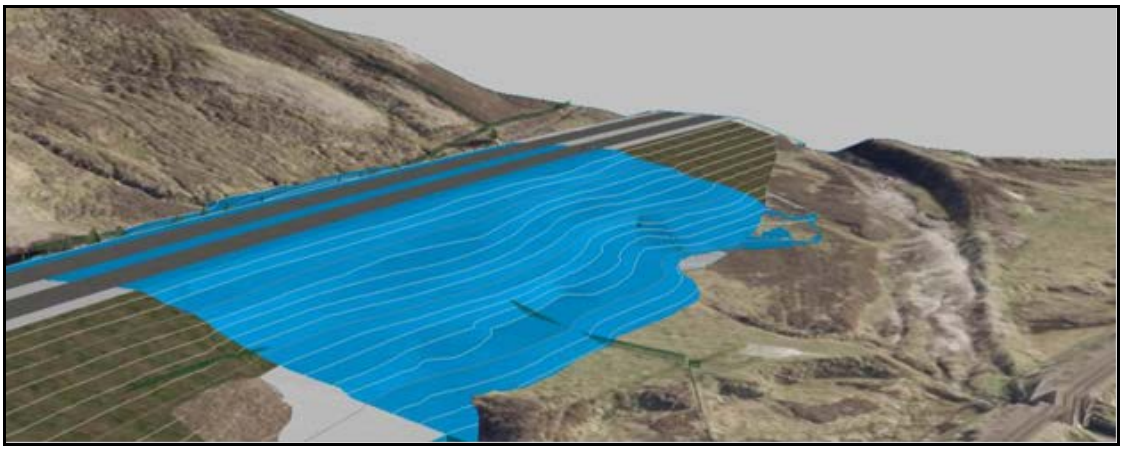


Figure 13-4: Rendered 3D model to convey the landform specification

Seeding and Planted Features

13.5.8 The embedded and additional mitigation design has been developed mindful of the sensitivity of the local landscape character, visual amenity, ecological designations (SSSI/ SPA/SAC) and the CNP SLQ's. The current A9 corridor and associated roadside woodland/ plantation vegetation provides relevant context to the existing functional shelterbelts, which offer a degree of route resilience during winter months and are prominent landscape features.

13.5.9 The Proposed Scheme involves the removal of certain sections of this woodland due to route widening and introduction of the new junctions at Dalnaspidal and Drumochter Lodge. In line with current policy, and the requirement to deliver adequate mitigation to offset any associated significant impacts, both in relation to landscape and visual impacts, **Environmental Mitigation Drawings 6.1 – 6.7** (**Volume 3**) and **Appendix 6.1** (**Volume 2**) have been developed following detailed discussions with CNP and SNH.

13.5.10 Any proposed woodland/ scrub planting within the SSSI has been reviewed and reduced, where possible, to provide a balance between the ecological and landscape/ visual assessment recommendations.

Monitoring Requirements

13.5.11 Embedded and additional elements implemented as part of the mitigation works shall be monitored during the construction contract and maintenance period to ensure they are well maintained and that planting becomes established, effectively mitigating visual as well as landscape impacts.

13.5.12 Monitoring will inform promotion of best practice to all landscape works, particularly to prevent damage to planting during the establishment period, and will ensure corrective action is taken where necessary.

13.5.13 Monitoring shall be carried out during the agreed contract maintenance period, in tandem with normal maintenance supervision, with specific regard to:

- earthwork, rock cutting, and retaining wall mitigation measures
- planting/ seeding of acid and wet grassland, dry and wet heath, including
- scrub/ shrub, woodland edge and woodland

13.5.14 Monitoring includes assessment of planting environments; species selection; the use of planting techniques to ensure effective establishment; the effectiveness of fencing and vegetation protection against sheep, wild fauna, pest infestation, and of the effectiveness of horticultural practice during the agreed landscape maintenance period and landscape planting management.

13.5.15 This also includes monitoring of existing woodland health and stability, assessment of the effect of removal of woodland edge on conifer shelterbelts, new understorey planting of trees to the woodland edge to ameliorate the effect of wind exposure (in respect to wind throw).

13.5.16 This is explained further within **Appendix 6.1 and 13.3** (**Volume 2**), in relation to the proposals illustrated on **Environmental Mitigation Drawings 6.1 – 6.7** (**Volume 3**) of this report. The effectiveness of such treatment will assist in determining long-term maintenance and planting strategies.

Table 13-15: Standard Mitigation Commitments for landscape and visual effects and specific mitigation commitments for landscape effects

Item Ref.	Approximate Chainage/ Location	Timing of Measure	Description	Mitigation Purpose/ Objective	Specific Consultation or Approval Required
Standard A9 Mitigation					
SMC-LV1	Throughout Proposed Scheme	Construction	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 top soiling, reseeding and planting shall be undertaken as soon as practicable after sections of work are complete.	To reduce the duration of any landscape and visual impacts.	None required
SMC-LV2	Throughout Proposed Scheme	Pre-Construction & Construction	As far as practicable, plant and material storage areas will be appropriately sited to minimise their landscape and visual impact.	To reduce landscape and visual impact of plant and material storage areas.	None required
SMC-LV3	Throughout Proposed Scheme	Construction	Construction sites will be kept tidy (e.g. free of litter and debris).	To reduce visual impact of construction sites.	None required
SMC-LV4	Throughout Proposed Scheme	Construction	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.	To reduce light pollution/ glare during night-time working.	None required
SMC-LV5	Throughout Proposed Scheme	Construction	To protect soil quality for the purposes of landscape planting, the following measures will be implemented: • 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 2m in height. • Stripped topsoil shall be used in areas of the same proposed vegetation type to utilise the existing natural seed bank. • Subsoil in planting areas shall be replaced after construction and ripped to a minimum of 450 mm prior to topsoiling and planting. • Proposed planting areas in existing arable and pasture land, not subject to construction activity, will be ripped to 600 mm to alleviate compaction.	To protect soil quality for the purposes of landscape planting.	None required
SMC-LV6	Throughout Proposed Scheme	Construction	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.	To limit vegetation loss as far as practicable.	None required
SMC-LV7	Throughout Proposed Scheme	Pre-Construction	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.	To protect existing trees and shrubs unaffected by the Proposed Scheme.	None required
n/a (note)	*Throughout Proposed Scheme*	*n/a*	*Further to the above, **Mitigation Items SMC-E7** and **SMC-E8** (as detailed in **Chapter 12**) will be implemented to protect vegetation which is identified to be retained.*	*To protect vegetation which is identified to be retained.*	*n/a*

Item Ref.	Approximate Chainage/ Location	Timing of Measure	Description	Mitigation Purpose/ Objective	Specific Consultation or Approval Required
Embedded Mitigation					
P07-LV1	**Level 1 chainages:** Southbound: • ch. 500 to ch. 1,500 • ch. 2,075 to ch. 2,200 • ch. 3,325 to ch. 2,600 • ch. 2,700 to ch. 2,750 • ch. 2,975 to ch. 3,000 • ch. 3,125 to ch. 3,275 • ch. 3,450 to ch. 3,600 • ch. 3,725 to ch. 3,825 • ch. 4,000 to ch. 4,400 • ch. 6,600 to ch. 6,950 • ch. 7,075 to ch. 8,000 • ch. 8,050 to ch. 9,700 Northbound • ch. 200 to ch. 750 • ch. 7,050 to ch. 7,200 • ch. 7,250 to ch. 7,450 • ch. 7,500 to ch. 7,625 **Level 2 chainages:** Southbound: • ch. 000 to ch. 100 • ch. 3,600 to ch. 3,625 • ch. 4,400 to ch. 4,700 Northbound: • ch. 8,400 to ch. 8,500 • ch. 8,925 to ch. 9,450 **Level 3/ Priority chainages, including new embankments above retaining walls:** Southbound • ch. 100 to ch. 400 • ch. 1,500 to ch. 1,850	Design Construction	**Slope and retaining wall treatment** The whole of the Proposed Scheme is landform sensitive to varying degrees of importance, as landform creates the main interface between the surrounding character and the mainline. Landscape Architects have assisted in setting the slope gradients from the A9 verge to the surrounding land. This assessment and initial design work has identified three levels of landform sensitivity as follows: • Level 1: Slopes where it is appropriate to plant trees/ shrubs/ scrub • Level 2: Open landscapes that have relatively minor topographic variation that only require specification to ensure that the earthworks are softened and reflect the surrounding landform to some extent • Level 3/ Priority Areas: specific locations within landform sensitive areas that will require a detailed specification of slope: See **Mitigation Items P07-LV7, P07- LV8, P07-LV9, P07-LV10, P07- LV11, P07-LV12, P07-LV13, P07-LV16, and P07-LV18** for further information.	To mitigate adverse landscape effects of the Proposed Scheme on the Drumochter and Glen Truim Upper Glen LCAs and LLCAs within Project 7 with excavations/ earthworks/ slopes of natural appearance that blend into the very open surrounding landscape and slopes stabilised with seeding and planting, as shown on the **Environmental Mitigation Drawings 6.1 to 6. 7** in **Volume 3.** Retaining walls will allow the vertical alignment of the Proposed Scheme to be raised to reduce cross section gradients and rock cutting to the east of the carriageway at the pinch point between the BDL, the widened A9, NCN7 and the HML railway, reducing landscape impacts, as shown on the **Environmental Mitigation Drawings 6.1** to **6.7** in **Volume 3**. This approach aligns with **Appendix 13.3 Section 4, Landscape Objectives of Volume 3** (landscape fit, minimise infrastructure).	Transport Scotland

Item Ref.	Approximate Chainage/ Location	Timing of Measure	Description	Mitigation Purpose/ Objective	Specific Consultation or Approval Required
	• ch. 3,250 to ch. 3,400 • ch. 4,700 to ch. 5,350 • ch. 5425 to ch. 5,750 • ch. 5,990 to ch. 6,575 Northbound • ch. 100 to ch. 400 • ch. 200 to ch. 1,250 • ch. 1,550 to ch. 2,100 • ch. 2,100 to ch. 2,450 • ch. 2,450 to ch. 3,000 • ch. 3,25 to ch. 3,125 • ch. 3,175 to ch. 3,450 • ch. 3,800 to ch. 4,100 • ch. 4,200 to ch. 4,950 • ch. 7,425 to ch. 7,550 • ch. 7,650 to ch. 8,400 • ch. 8750 to ch. 8950				
P07-LV2	Northbound ch.000; ch. 100; ch. 300; ch. 400; ch. 2,000; ch. 4,200; ch. 6,000; ch. 6,300; ch. 6,500; ch. 6,900; ch. 7,700; ch. 8,300; ch. 9,200	Design Construction	**SuDS basins** Landscape Architects have influenced the design of the SuDS that form part of the Proposed Scheme – ref. SuDS basins 000, 001, 003, 004, 020, 042, 060, 063, 065, 069, 077, 083 and 092 These have been shaped as best possible to blend into surrounding topography and to look like natural features within this open landscape See **Mitigation Item P07-LV26** for further information	To mitigate adverse landscape impacts of the SuDS basins on the landscape characteristics of the LCA, LLCAs, landscape features and landscape perceptions. This approach aligns with **Appendix 13.3 Section 4, Landscape Objectives of Volume 3** (landscape fit, minimise infrastructure).	Not Applicable

Item Ref.	Approximate Chainage/ Location	Timing of Measure	Description	Mitigation Purpose/ Objective	Specific Consultation or Approval Required
P07-LV3	Northbound ch. 725 to 950; ch. 3,450 to 3,750 Southbound ch. 3,875 to 4,050	Design Construction	**Type A Lay-bys** 3 no. Type A Lay-bys within the Proposed Scheme with a wide segregation strip and potential links to NMU routes. The locations are: • northbound at approx. ch. 800 at Dalnaspidal • northbound at approx. ch. 3,600 near Drumochter Pass • southbound at approx. ch. 4,000 near Drumochter Pass See **Mitigation Items P07-LV4, P07-LV5** and **P07-LV6** for further information regarding refinement of Type A Lay-by earthworks.	To provide rest and stopping area with views over adjacent spectacular landscape, to optimise traveller experience, while fitting into the very open surrounding landscape and mitigating adverse impact on landscape characteristics of the LCA, LLCAs, landscape features and landscape perceptions. This approach aligns with **Appendix 13.3 Section 4, Landscape Objectives of Volume 3** (landscape fit, minimise infrastructure, facilitate access, appreciation of this landscape).	Not Applicable
Project Specific Mitigation (Additional)					
P07-LV4	Between ch. 800 to 1,100 northbound	Design Construction	**Earthwork / facility refinement:** **Dalnaspidal Northbound Type A Lay-by - extended** Preliminary grading of embankments and path linking to NMU shall be undertaken in accordance with the **Environmental Mitigation Drawings 6.1 to 6.7 in Volume 3.** Further work to retaining walls, viewing platforms, steps and ramps shall be subject to detailed design.	To provide a rest and stopping area with views over the Allt Dubhaig braided channels geological SSSI and glimpsed view of Loch Garry to south west to optimise traveller experience, while complementing the landscape characteristics of the LCA, LLCAs, landscape features and landscape perceptions, particularly Dalnaspidal and Allt Dubhaig LLCAs and the settlement of Dalnaspidal and mitigating adverse landscape impacts. This approach aligns with **Appendix 13.3 Section 4, Landscape Objectives of Volume 3** (landscape fit, minimise infrastructure, facilitate access, appreciation of this landscape).	TS/ CNPA/ SNH
P07-LV5	Between ch. 3,400 to 3,700 northbound	Design Construction	**Earthwork / facility refinement:** **Drumochter Northbound Type A Lay-by – extended** Preliminary grading of embankments and path linking to NMU shall be undertaken in accordance with the **Environmental Mitigation Drawings 6.1 to 6.7 in Volume 3.** Further work to retaining walls, viewing platforms, steps and ramps shall be subject to detailed design.	To provide rest and stopping area with views over Drumochter Pass to the Boar of Badenoch to west to optimise traveller experience, while fitting into the very open surrounding landscape and mitigating adverse impact on	TS/ CNPA/ SNH

Item Ref.	Approximate Chainage/ Location	Timing of Measure	Description	Mitigation Purpose/ Objective	Specific Consultation or Approval Required
				landscape characteristics of the LCA, LLCAs, landscape features and landscape perceptions, particularly Pass of Drumochter LLCA. This approach aligns with **Appendix 13.3 Section 4, Landscape Objectives of Volume 3** (landscape fit, minimise infrastructure, facilitate access, appreciation of this landscape).	
P07-LV6	Between ch. 3,800 to 4,100 southbound	Design Construction	**Earthwork / facility refinement:** **Drumochter Southbound Type A Lay-by – extended** Preliminary grading of embankments shall be undertaken in accordance with the **Environmental Mitigation Drawings 6.1 to 6.7 in Volume 3**. Further work to paths linking to the NMU, retaining walls, viewing platforms, steps and ramps shall be subject to detailed design.	To provide rest and stopping area with views over the A9 to Drumochter Pass to the Boar of Badenoch to west to optimise traveller experience while fitting into the very open surrounding landscape and mitigating adverse impact on landscape characteristics of the LCA, LLCAs, landscape features and landscape perceptions, particularly Pass of Drumochter LLCA. This approach aligns with **Appendix 13.3 Section 4, Landscape Objectives of Volume 3** (landscape fit, minimise infrastructure, facilitate access, appreciation of this landscape).	TS/ CNPA/ SNH
P07-LV7	**Level 1 chainages:** Southbound: • ch. 500 to ch. 1,500 • ch. 2,075 to ch. 2,200 • ch. 3,325 to ch. 2,600 • ch. 2,700 to ch. 2,750 • ch. 2,975 to ch. 3,000 • ch. 3,125 to ch. 3,275 • ch. 3,450 to ch. 3,600 • ch. 3,725 to ch. 3,825 • ch. 4,000 to ch. 4,400 • ch. 6,600 to ch. 6,950 • ch. 7,075 to ch. 8,000	Design Construction	**Slope treatment** As noted within embedded **Mitigation Item P07-LV1**, the whole of Project 7 is landform sensitive to varying degrees of importance. New embankments and cuttings for all level 1, 2 and 3 slopes shall be feathered into the toe/ top of existing gradients at varying profiles to form slopes of natural appearance that integrate into the sensitive landscape context, where indicated on **Environmental Mitigation Drawings 6.1 to 6.7**, contained within **Volume 3** of this report**,** subject to detailed design as additional mitigation. For level 3 priority areas, drawings and specifications for each location shall be produced as part of the contract documents, subject to detailed design. This will detail the desired contours, with cross sections to indicate how these slopes should be constructed. Landscape and visual considerations shall be coordinated with structural engineering and geotechnical advice for design in relation to stability and appearance of retaining walls and rock cuts subject to detailed design.	To mitigate adverse landscape impacts on the landscape characteristics of the LCA, LLCAs, landscape features and landscape perceptions, particularly Pass of Drumochter LLCA and to optimise traveller experience while fitting into the very open surrounding landscape and mitigating adverse landscape impact. This approach aligns with **Appendix 13.3 Section 4, Landscape Objectives of Volume 3** (landscape fit, minimise infrastructure).	Transport Scotland

Item Ref.	Approximate Chainage/ Location	Timing of Measure	Description	Mitigation Purpose/ Objective	Specific Consultation or Approval Required
	• ch. 8,050 to ch. 9,700 Northbound • ch. 200 to ch. 750 • ch. 7,050 to ch. 7,200 • ch. 7,250 to ch. 7,450 • ch. 7,500 to ch. 7,625 **Level 2 chainages:** Southbound • ch. 000 to ch. 100 • ch. 3,600 to ch. 3,625 • ch. 4,400 to ch. 4,700 Northbound: • ch. 8,400 to ch. 8,500 • ch. 8,925 to ch. 9,450 **Level 3/ Priority chainages:** Southbound • ch. 100 to ch. 400 • ch. 1,500 to ch. 1,850 • ch. 3,250 to ch. 3,400 • ch. 4,700 to ch. 5,350 • ch. 5425 to ch. 5,750 • ch. 5,990 to ch. 6,575 Northbound • ch. 100 to ch. 400 • ch. 200 to ch. 1,250 • ch. 1,550 to ch. 2,100 • ch. 2,100 to ch. 2,450 • ch. 2,450 to ch. 3,000 • ch. 3,25 to ch. 3,125 • ch. 3,175 to ch. 3,450 • ch. 3,800 to ch. 4,100 • ch. 4,200 to ch. 4,950 • ch. 7,425 to ch. 7,550 • ch. 7,650 to ch. 8,400 • ch. 8750 to ch. 8950				

Item Ref.	Approximate Chainage/ Location	Timing of Measure	Description	Mitigation Purpose/ Objective	Specific Consultation or Approval Required
P07-LV8	Southbound: RW1: Ch. 1,000 to 1,120 RW2: Ch. 1,550 to 1,620 RW3: Ch. 1,660 to – 1,730 RW4: Ch. 2,790 to 2,850 RW5: Ch. 2,850 to 2,940 RW6: Ch. 4,880 to 4,930 RW7: Ch. 4,950 to 5,150 RW8: Ch. 5,350 to 5,440 RW10: Ch. 5,750 to 5,950 Northbound: RW9: Ch. 4,950 to 5,820	Design Construction	**Retaining wall treatment** Retaining wall facades shall be faced with a natural stone effect finish. To break up the appearance of the retaining walls, large locally won boulders or blocks of rock will be used at random intervals at the base of the walls reflecting the appearance of natural outcrops. Detailed design drawings and specifications for each location shall be produced as part of the contract documents, and as indicated on the indicated on **Environmental Mitigation Drawings 6.1 to 6.7 in Volume 3 or in Mitigation Item P07-LV1,** subject to detailed design as additional mitigation.	To mitigate adverse landscape impacts on the landscape characteristics of the LCA, LLCAs, landscape features and landscape perceptions, particularly Pass of Drumochter LLCA and to break up the linearity of the retaining walls, to optimise traveller experience while fitting into the very open surrounding landscape and mitigating adverse landscape impact. The combined use of materials/ treatment of the extensive retaining walls would diffuse the incongruous appearance of the homogenous concrete retaining walls therefore reducing their impact, and improving their fit within the wider landscape. This approach aligns with **Appendix 13.3 Section 4, Landscape Objectives of Volume 3** (landscape fit, minimise infrastructure).	Transport Scotland
P07-LV9	Between ch. 4,970 to ch. 5,820 northbound safety barrier / retaining wall	Design Construction	**Planting: Retaining wall** Low level shrub planting and seeding shall be planted adjacent to the retaining wall where space allows, subject to detailed design.	To integrate structures and embankments into the adjacent existing landscape to create natural facing indistinguishable from natural rock outcrop to structural concrete retaining walls while fitting into the surrounding landscape, and mitigating adverse landscape impact on the landscape characteristics of the Pass of Drumochter LLCA. This approach aligns with **Appendix 13.3 Section 4, Landscape Objectives of Volume 3** (minimise infrastructure, landscape fit, diversify species, replace lost planting).	Not Applicable

Item Ref.	Approximate Chainage/ Location	Timing of Measure	Description	Mitigation Purpose/ Objective	Specific Consultation or Approval Required
P07-LV10	Between approximate ch. 7400 and 7600 northbound and southbound	Design Construction	**Earthworks refinement:** **Drumochter Lodge and Balsporran access underbridge** New embankments and cuttings shall be feathered into the toe/ top of existing gradients at approved profiles to form slopes of natural appearance, where indicated on the **Environmental Mitigation Drawings 6.1** to **6.7** in **Volume 3**.	To mitigate adverse landscape impacts of the new underbridge on the characteristics of Dail A'Chuirn LLCA, with excavations/ earthworks/ slopes that blend into the very open surrounding landscape. This approach aligns with **Appendix 13.3 Section 4, Landscape Objectives of Volume 3** (landscape fit; minimise infrastructure).	Not Applicable
P07-LV11	Between approximate ch. 7,400 and 7,600 northbound and southbound	Design Construction	**Planting:** **Drumochter Lodge and Balsporran access underbridge** Replacement of native woodland/ scrub/ shrub planting lost through construction of the Proposed Scheme shall be as specified on **Environmental Mitigation Drawings 6.6 in Volume 3.**	To mitigate adverse landscape impacts of the new underbridge on the characteristics of Dail A'Chuirn LLCA, Drumochter Lodge and Balsporran Cottages with mixed native tree planting that blends into the very open surrounding landscape and slopes at as early a stage as possible. This approach aligns with **Appendix 13.3 Section 4, Landscape Objectives of Volume 3** (minimise infrastructure, landscape fit, diversify species, replace lost planting).	Not Applicable
P07-LV12	Between approximate ch. 7,300 and 7,400 southbound	Design Construction	**Earthworks refinement:** **Drumochter Lodge Berm** Berm construction shall be integrated with excavations/ earthworks/ slopes that blend into the very open surrounding landscape and slopes are integrated with existing landform, where indicated on **Environmental Mitigation Drawings 6.1** to **6.7** in **Volume 3**.	To mitigate adverse landscape effects of the new underbridge on the landscape characteristics of the LCA, LLCAs, landscape features and landscape perceptions, particularly Dail A'Chuirn LLCA and Drumochter Lodge undesignated designed garden. This approach aligns with **Appendix 13.3 Section 4, Landscape Objectives of Volume 3** (landscape fit, respect and refer to cultural heritage).	Not Applicable

Item Ref.	Approximate Chainage/ Location	Timing of Measure	Description	Mitigation Purpose/ Objective	Specific Consultation or Approval Required
P07-LV13	Between approximate ch. 7,300 and 7,400 southbound	Design Construction	**Planting:** **Drumochter Lodge Berm** The berm shall be planted with native conifers and shrubs, profiled to integrate with adjacent landform and stone faced retaining feature, subject to detailed design. Woodland/ scrub/ shrub planting lost during construction phase shall be replaced; native woodland species of local provenance to improve biodiversity, landscape fit and visual amenity shall be introduced, where indicated on **Environmental Mitigation Drawing 6.6 in Volume 3.**	To mitigate landscape impacts of the Proposed Scheme on Drumochter Lodge. This approach aligns with **Appendix 13.3 Section 4, Landscape Objectives of Volume 3** (diversify species, replace lost planting, respect and refer to cultural heritage).	Not Applicable
P07-LV14	Between ch. 800 to 1,100 northbound	Design Construction	**Planting:** **Dalnaspidal Type A Lay-by** A wide range of different native heath, scrub and small tree species of local provenance to improve biodiversity, landscape fit and visual amenity shall be planted subject to detailed design.	To provide a rest and stopping area with views over the Allt Dubhaig braided channels geological SSSI and glimpsed view of Loch Garry to south west to optimise the traveller experience, while complementing the landscape characteristics of the LCA, LLCAs, landscape features and landscape perceptions, particularly Dalnaspidal and Allt Dubhaig LLCAs and the settlement of Dalnaspidal. This approach aligns with **Appendix 13.3 Section 4, Landscape Objectives of Volume 3** (diversify species, replace lost planting).	Transport Scotland
P07-LV15	Between ch. 3,400 to 3,700 northbound	Design Construction	**Planting:** **Drumochter Northbound Type A Lay-by** A wide range of native heath, scrub and small tree species of local provenance shall be planted to improve biodiversity landscape fit and visual amenity around Drumochter Northbound Type A Lay-by subject to detailed design.	To mitigate adverse landscape impacts of the Proposed Scheme from on sensitive receptors at Drumochter Lodge, blending the berm into the surrounding designed garden while complementing the landscape characteristics of the LCA, LLCAs, landscape features and landscape perceptions. This approach aligns with **Appendix 13.3 Section 4, Landscape Objectives of Volume 3** (facilitate access, diversify species, replace lost planting, appreciation of this landscape).	Transport Scotland

Item Ref.	Approximate Chainage/ Location	Timing of Measure	Description	Mitigation Purpose/ Objective	Specific Consultation or Approval Required
P07-LV16	Between ch. 6,750 to 7,000 northbound	Design Construction	**Earthworks refinement:** **Balsporran access and car park** Embankments around Balsporran access and car park shall be graded to integrate adjacent landscape slopes with excavations/ earthworks/ slopes that blend into the very open surrounding landscape and slopes are stabilised with planting; parking surface shall be granular permeable material on geo-grid, where indicated on **Environmental Mitigation Drawings 6.5 in Volume 3.**	To mitigate adverse landscape impacts of the reinstated car park and access roads on the landscape characteristics of the LCA, LLCAs, landscape features and landscape perceptions, particularly Dail A'Chuirn LLCA and Balsporran Cottages and Drumochter Lodge. This approach aligns with **Appendix 13.3 Section 4, Landscape Objectives of Volume 3** (minimise landscape impacts, appreciation of this landscape).	Not Applicable
P07-LV17	Between ch. 6,750 to 7,000 northbound	Design Construction	**Planting:** **Balsporran access and car park** A wide range of native grass seeding, heath, scrub and small tree species of local provenance to improve biodiversity, landscape fit and visual amenity shall be planted around Balsporran access and car park to soften and integrate landscape mitigation with wildlife habitat and to restore landscape character. Planting specification shall be subject to detailed design.	To mitigate adverse landscape impacts of the reinstated car park and access roads on the landscape characteristics of the LCA, LLCAs, landscape features and landscape perceptions, particularly Dail A'Chuirn LLCA and Balsporran Cottages and Drumochter Lodge. This approach aligns with **Appendix 13.3 Section 4, Landscape Objectives of Volume 3** (diversify species, replace lost planting, appreciation of this landscape).	Not Applicable
P07-LV18	Between ch. 200 to 500 northbound and ch. 400 to 600 southbound	Design Construction	**Earthworks refinement:** **Dalnaspidal and Allt Coire Mhic-sith underbridges** New embankments and cuttings shall be feathered into the toe/ top of existing gradients at approved profiles to form slopes of natural appearance, where indicated on the **Environmental Mitigation Drawings 6.1 and 6.2** in **Volume 3**.	To mitigate adverse landscape impacts of the underbridges on the landscape characteristics of the LCA, LLCAs, landscape features and landscape perceptions, particularly Dalnaspidal and Allt Dubhaig LLCAs and the settlement of Dalnaspidal. This approach aligns with **Appendix 13.3 Section 4, Landscape Objectives of Volume 3** (minimise infrastructure, minimise landscape impacts, appreciation of this landscape, facilitate access).	Not Applicable

Item Ref.	Approximate Chainage/ Location	Timing of Measure	Description	Mitigation Purpose/ Objective	Specific Consultation or Approval Required
P07-LV19	Between ch. 200 - 500 northbound and ch. 400 - 600 southbound	Design Construction	**Planting and rockwork:** **Dalnaspidal and Allt Coire Mhic-sith underbridges** Steep gradients of underbridge embankments terraced using site-won rockwork to reflect the form of natural outcrops, subject to detailed design. Planting shall be commenced as early as possible to allow establishment of trees and shrubs in key locations around Dalnaspidal and Allt Coire Mhic-sith underbridges to restore landscape character. Woodland/ scrub/ shrub planting lost through construction of the Proposed Scheme shall be treated by replanting of mixed native broadleaf and conifers as indicated on **Environmental Mitigation Drawing 6.1 in Volume 3** to restore landscape character and improve landscape fit**.**	To mitigate adverse landscape impacts of the underbridges on the landscape characteristics of the LCA, LLCAs, landscape features and landscape perceptions, particularly Dalnaspidal and Allt Dubhaig LLCAs and the settlement of Dalnaspidal. This approach aligns with **Appendix 13.3 Section 4, Landscape Objectives of Volume 3** (minimise landscape impacts, appreciation of this landscape, diversify species, replace lost planting facilitate access).	Transport Scotland
P07-LV20	Approximate ch. 7,400 to 7,600 northbound	Design Construction	**Replanting:** **Drumochter Lodge existing woodland** Replace woodland planting lost opposite Drumochter Lodge, between the A9 carriageway and slip roads and the River Truim with appropriately diverse species of planting. Woodland to the north of Drumochter Lodge (to the east of the carriageway) lost through the Proposed Scheme works will be replaced with pockets of native woodland reflecting local landscape characteristics and types, as indicated on **Environmental Mitigation Drawings 6.5 and 6.6 in Volume 3**, to areas both to the north and south of Drumochter Lodge. Any woodland/ vegetation lost during construction and the maintenance period shall be replaced with native woodland species to restore landscape character as indicated on **Environmental Mitigation Drawing 6.6 in Volume 3.**	To mitigate the landscape impact of the Proposed Scheme on the landscape characteristics of the LCA, LLCAs, landscape features and landscape perceptions, particularly Dail A'Chuirn LLCA. Pockets of native woodland planting shall off-set woodland loss on earthworks, to reflect local landscape characteristics and types. This approach aligns with **Appendix 13.3 Section 4, Landscape Objectives of Volume 3** (minimise landscape impacts, integrate new tree planting with the existing tree belts, diversify species, and replace lost planting).	Not Applicable

Item Ref.	Approximate Chainage/ Location	Timing of Measure	Description	Mitigation Purpose/ Objective	Specific Consultation or Approval Required
P07-LV21	Throughout the Proposed Scheme	Design Construction	**Planting:** **Landscape integration with habitat in floodplains** Appropriate native species woodland under planted by heath along the northbound carriageway embankment and within the River Truim and Allt Dubhaig floodplains shall be planted as indicated on **Environmental Mitigation Drawings 6.1 to 6.7 in Volume 3.**	To screen valuable habitat for wading birds and other species and to reinstate any vegetation removal and reinstatement of the area, mitigate the landscape characteristics of the LCA, LLCAs, landscape features and landscape perceptions, particularly Dail A'Chuirn LLCA. This approach aligns with **Appendix 13.3 Section 4, Landscape Objectives of Volume 3** (landscape fit; minimise landscape impacts, appreciation of this landscape).	Not Applicable
P07-LV22	Throughout the Proposed Scheme	Design Construction	**Planting:** **Landscape integration with habitat to open heath and embankments** Seeding, heath and scrub planting to the west of the A9 between the A9 verge and HML railway shall be as specified on **Environmental Mitigation Drawings 6.1 to 6.7 in Volume 3**.	To ensure screening of embankments of the Proposed Scheme from on the landscape characteristics of the LCA, LLCAs, landscape features and landscape perceptions and integrate with the surrounding landscape This approach aligns with **Appendix 13.3 Section 4, Landscape Objectives of Volume 3** (integrate with existing planting, minimise landscape impacts).	Not Applicable
P07-LV23	Throughout the Proposed Scheme	Design Construction	**Planting:** **Landscape integration with existing coniferous woodland** Where necessary, reinstatement of coniferous woodland with varied mix of native species including coniferous and broadleaf trees and shrubs shall be carried out based on natural vegetation growth patterns and integration of new broadleaf planting into existing shelterbelts where indicated on **Environmental Mitigation Drawings 6.1 – 6.7 in Volume 3**	To mitigate adverse landscape impacts of the Proposed Scheme on the landscape characteristics of the LCA, LLCAs, landscape features and landscape perceptions and to integrate with habitat. This approach aligns with **Appendix 13.3 Section 4, Landscape Objectives of Volume 3** (integrate with existing planting, minimise landscape impacts).	Not Applicable

Item Ref.	Approximate Chainage/ Location	Timing of Measure	Description	Mitigation Purpose/ Objective	Specific Consultation or Approval Required
P07-LV24	Throughout the Proposed Scheme, but mainly on the eastern side of the carriageway	Design Construction	**Planting:** **Mitigation of plantation shelterbelts** Appropriate native species woodland, under planted by native mix heath, along the east road embankment shall be planted in affected areas to limit risk of wind throw and further damage to remaining trees, where indicated on **Environmental Mitigation Drawings 6.1 – 6.7 in Volume 3**	To provide mitigation of any new shelterbelts and to also reinstate vegetation removal, to mitigate the impact of the Proposed Scheme on the landscape characteristics of the LCA, LLCAs, landscape features and landscape perceptions and habitat. This approach aligns with **Appendix 13.3 Section 4, Landscape Objectives of Volume 3** (diversify species, integrate with existing planting, minimise landscape impacts).	Not applicable
P07-LV25	Throughout Proposed Scheme	Design Construction	**Planting:** **Embankments/ cut slopes** Where possible embankments of a suitable gradient should be treated with locally excavated peaty top soil and cut turves supplemented by appropriate local provenance seeding and mixed species vegetation. Planting design shall be as indicated on **Environmental Mitigation Drawings 6.1 to 6.7 in Volume 3**	To mitigate adverse landscape impacts of the Proposed Scheme on the landscape characteristics of the LCA, LLCAs, landscape features and landscape perceptions and habitat. This approach aligns with **Appendix 13.3 Section 4, Landscape Objectives of Volume 3** (diversify species, integrate with existing planting, minimise landscape impacts).	Not Applicable
P07-LV26	Northbound ch.000; ch. 100; ch. 300, ch. 400; ch. 2,000; ch. 4,200; ch. 6,000; ch. 6,300; ch. 6,500; ch. 6,900; ch. 7,700; ch. 8,300; ch. 9,200	Design Construction	**Suds basins design refinement** Embankments of 13 no. SuDS basins –. 000, 001, 003, 004, 020, 042, 060, 063, 065, 069, 077, 083 and 092 Landscape Architects have influenced the design of the SuDS basins that form part of the Proposed Scheme as detailed in embedded **Mitigation Item P07-LV2**. Further design shall integrate SuDS basins with roadside slopes (including slopes to access tracks) at SuDS basins 000, 001, 003, 004, 020, 042, 060, 063, 065, 069, 077, 083 and 092. SuDS basins are landform sensitive and shall look as natural as possible to blend into surrounding, very open, landscape. Appropriate seeding and planting is required as specified on **Environmental Mitigation Drawings 6.1-6.7**(**Volume 3**).	To mitigate adverse landscape effects of the SuDS basins from sensitive receptors of the LCA, LLCAs, landscape features and landscape perceptions. This approach aligns with **Appendix 13.3 Section 4, Landscape Objectives of Volume 3** (landscape fit, minimise landscape impacts)	Not Applicable

Item Ref.	Approximate Chainage/ Location	Timing of Measure	Description	Mitigation Purpose/ Objective	Specific Consultation or Approval Required
P07-LV27	Throughout Proposed Scheme	Design Construction	**Planting:** **SuDS basin slopes and drainage features** Planting should be as indicated on **Environmental Mitigation Drawings 6.1-6.7 in Volume 3** of this report. Locally excavated surface vegetation turves, supplemented with wet grass species shall be planted to SuDS basins, drainage channels and compensatory storage areas to blend with locally adjacent habitats. Seeding and scrub planting shall be used to soften SuDS basin excavations/ earthworks/ slopes and drainage features to integrate landscape mitigation with adjacent habitat features.	To mitigate adverse landscape impacts of the SuDS basins on the landscape characteristics of the LCA, LLCAs, landscape features and landscape perceptions, particularly Drumochter Pass LCA. This approach aligns with **Appendix 13.3 Section 4, Landscape Objectives of Volume 3** (diversify species, integrate with existing planting).	Not Applicable
P07-LV28	Throughout Proposed Scheme	Design Construction	**Road signage/ furniture** Specification of signs, fences, barriers and other roadside furniture will be carefully considered as part of the detailed design for the Scheme. Fencing and barriers in particular will require ongoing design review as will minimisation of roadscape features such as signs and barriers at more open areas, such as the Drumochter Pass lay-bys.	To ensure reduced effects of the Proposed Scheme on the characteristics of the LCA, LLCAs, landscape features and landscape perceptions, and to ensure they do not obscure landscape features or degrade perception. These items are expected along a road scheme of this nature, however minimising them to the necessary requirements will help with the enjoyment of the high-quality landscape. This approach aligns with **Appendix 13.3 Section 4, Landscape Objectives of Volume 3** (minimise infrastructure, minimise landscape impacts, appreciation of this landscape).	Not Applicable
P07-LV29	Throughout Proposed Scheme	Design Construction	**Natural Finish – Dalnaspidal Underbridge** The western façade of the new underbridge may be faced with a natural stone finish to reflect the appearance of existing General Wade Bridge (viewpoint 4 in Chapter 14, NN 64655 73527, Dalnaspidal Old Bridge, to be demolished), where indicated on **Environmental Mitigation Drawing 6.1 in Volume 3.**	To ensure that the abutment faces will be finished in a manner that is appropriate to their landscape sensitivity. This approach aligns with **Appendix 13.3 Section 4, Landscape Objectives of Volume 3** (minimise landscape impacts, appreciation of this landscape, respect and refer to cultural heritage).	Transport Scotland

Item Ref.	Approximate Chainage/ Location	Timing of Measure	Description	Mitigation Purpose/ Objective	Specific Consultation or Approval Required
Project Specific Monitoring					
P07-LV30	Throughout Proposed Scheme	Design Construction Post-construction	**Monitoring:** **All mitigation measures** All landscape and visual mitigation items (where indicated on **Environmental Mitigation Drawings 6.1 – 6.7** in **Volume 3** of this report) shall be monitored during the agreed contract maintenance period, and appropriate remedial actions shall be taken where landscape and visual mitigation fails to establish, in specific regard to: • earthworks, rock cutting, and retaining wall mitigation measures • planting/seeding of acid and wet grassland, dry and wet heath • scrub, shrub, woodland edge and woodland planting Monitoring will assess planting selection/techniques and long-term landscape planting management, including fencing and vegetation protection against sheep, cattle, wild fauna, pest infestation, and horticultural practice, particularly to prevent damage to planting during the establishment period. Monitoring will also include assessment of existing woodland health and stability, and removal and replanting of woodland edge to ameliorate wind throw in conifer shelterbelts, as explained further within **Appendix 6.1 and 13.3 (Volume 2)**, and where indicated on **Environmental Mitigation Drawings 6.1 – 6.7** in **Volume 3** of this report, in conjunction with the Outline Peat Management Plan (OPMP, refer to **Mitigation Item P07-G9** in **Chapter 10**) and Outline Habitat Management Plan (OHMP, refer to **Mitigation Item P07-E25** in **Chapter 12**). All monitoring shall be subject to detailed specification.	To inform management and maintenance strategies so slopes, retaining walls, cuttings, vegetation and trees are well maintained and that planting becomes established, mitigating adverse landscape impacts of the Proposed Scheme on the landscape characteristics of the LCA, LLCAs, landscape features and landscape perceptions and habitat. This approach aligns with **Appendix 13.3 Section 4, Landscape Objectives of Volume 3** (all items).	Transport Scotland CNPA SNH

13.6 Residual Effects

13.6.1 This section considers the temporary (construction) and permanent (operational) potential residual landscape effects of the Proposed Scheme on the LCAs and LLCAs and Landscape features assessed in **section 13.5** and **Table 13-7**. It sets out the residual effects, accounting for impacts at operation phase years 15-25. Effects are adverse unless otherwise stated.

Temporary - Construction Phase

13.6.2 As detailed in **section 13.4**, **Table 13-11** and **Table 13-13**, the construction of the Proposed Scheme will result in unavoidable temporary Substantial or Moderate significant adverse effects on Drumochter Pass LCA, the on-line LLCAs (Dalnaspidal, Allt Dubhaig, Pass of Drumochter, and Dail a Chuirn and Upper Glen Garry), landscape features of landform, vegetation, woodland and water and on the landscape perceptual feature of landscape experience. Even though such effects may be significant during the construction phase, as they are also temporary, they are not considered residually significant.

Permanent

13.6.3 **Section 13.5** identifies significant potential impacts. Through mitigation detailed in **Table 13-12** and **Table 13-14**, given the establishment of vegetation by years 15-25, it is anticipated there will be no significant residual impacts when mitigation is in place and planting has established.

13.6.4 The greatest effects in the long term are **Moderate/ Slight** (not significant) effects upon the Dalnaspidal, Pass of Drumochter and Dail a Chuirn LLCAs in this localised location, due to the notable changes at the Dalnaspidal and Balsporran/ Drumochter Lodge Junction underbridges and Pass of Drumochter retaining walls. Over time, the underbridge earthworks and planting design will integrate with the surrounding landscape, and retaining wall natural stone effect finish will patina and weather, merging with the dark hues of the hillsides.

13.6.5 **Table 13-16** sets out the summary of residual effects.

Table 13-16: Predicted Residual Effects on Landscape Character and Features

Receptor	Sensitivity *Table 13-7 & Table 13-8*	Significance of Impact – Construction Phase *Table 13-11*	Significance of Impact – Operation Year 1 *Table 13-12*	Mitigation Ref. (*Table 13-15*)	Residual Significance of Impact – Operation Years 15-25
Landscape Character Areas					
Drumochter Pass LCA	Medium	Moderate	**Moderate**	All measures noted	**Moderate/ Slight (not significant)**
Glen Truim: Upper Glen LCA	Medium	Moderate	**Moderate**	No direct mitigation; potential indirect effects will soften over time	**Slight**
Local Landscape Character Areas					
Dalnaspidal LLCA	Medium	Substantial/ Moderate	**Moderate**	P07-LV1, P07-LV2, P07-LV3, P07-LV4, ,P07-LV7, P07-LV8, P07-LV9, P07-LV13, P07-LV14, P07-LV16, P07-LV18, P07-LV19, P07-LV21, P07-LV22, P07-LV23, P07-LV24, P07-LV25, P07-LV26, P07-LV27, P07-LV28, P07-LV29, P07-LV30	**Moderate/ Slight (not significant)**
Allt Dubhaig LLCA	High/ Medium	Substantial/ Moderate	**Moderate**	P07-LV1, P07-LV2, P07-LV7LV3, P07-LV5, P07-LV8, P07-LV9, P07-LV16, P07-LV21, P07-LV22, P07-LV23, P07-LV23, P07-LV24, P07-LV25, P07-LV27, P07-LV28, P07-LV30	**Slight**
Pass of Drumochter LLCA	High/ Medium	Substantial/ Moderate	**Moderate**	P07-LV01, P07-LV2, P07-LV6, P07-LV7, P07-LV8, P07-LV9, , P07-LV15, P07-LV16, , P07-LV21, P07-LV22, P07-LV23, P07-LV23, P07-LV24, P07-LV25, P07-LV26, P07-LV27, P07-LV28, P07-LV30	**Moderate/Slight (not significant)**
Dail a Chuirn LLCA	Medium	Substantial/ Moderate	**Moderate/ Substantial**	P07-LV1, P07-LV2, P07-LV3, P07-LV4, P07-LV10, P07-LV11, P07-LV12, P07-LV13, P07-LV15, P07-LV16, P07-LV17, P07-LV20, P07-LV21, P07-LV22, P07-LV23, P07-LV23, P07-LV24, P07-LV25, P07-LV26, P07-LV27, P07-LV28, P07-LV30	**Moderate/ Slight (not significant)**
Dalnaspidal Forest LLCA	Medium	Moderate/ Slight	**Slight**	No direct mitigation Effects will reduce over time	**Negligible**
Southern Hill Slopes LLCA	Medium	Moderate/ Slight	**Slight**	No direct mitigation Effects will reduce over time	**Negligible**
Loch Garry LLCA	Medium	Moderate/ Slight	**Slight**	No direct mitigation Effects will reduce over time	**Negligible**
Upper Glen Garry LLCA	Medium	Moderate	**Moderate**	No direct mitigation Effects will reduce over time	**Slight**
Landform	High/ Medium	Moderate	**Moderate**	P07-LV01, P07-LV02, P07-LV03, P07-LV04, P07-LV05, P07-LV06, P07-LV07, P07-LV08, P07-LV09, P07-LV10, P07-LV12, P07-LV16, P07-LV18, P07-LV24, P07-LV25, P07-LV26, P07-LV28, P07-LV30	**Slight**
Vegetation: habitat	Medium	Moderate	**Moderate**	P07-LV11, P07-LV13, P07-LV14, P07-LV15, P07-LV16, P07-LV17, P07-LV19, P07-LV21, P07-LV22, P07-LV23, P07-LV24, P07-LV25, P07-LV27, P07-LV26, P07-LV30	**Slight**

Receptor	Sensitivity *Table 13-7 & Table 13-8*	Significance of Impact – Construction Phase *Table 13-11*	Significance of Impact – Operation Year 1 *Table 13-12*	Mitigation Ref. (*Table 13-15*)	Residual Significance of Impact – Operation Years 15-25
Woodland	High/ Medium	Substantial/ Moderate	**Substantial/ Moderate**	P07-LV11, P07-LV13, P07-LV20, P07-LV21, P07-LV22, P07-LV23, P07-LV24, P07-LV25, P07-LV27, P07-LV26, P07-LV30	**Slight**
Wildness	Medium	Moderate	**Moderate/ Slight**	P07-LV13, P07-LV21, P07-LV22, P07-LV23, , P07-LV25, P07-LV30	**Slight**
Water	Medium	Moderate	**Slight**	P07-LV2, P07-LV19, P07-LV27	**Moderate/ Slight (not significant)**
Historic and Cultural Associations	Medium	Moderate/ Slight	**Moderate/ Slight**	P07-LV3, P07-LV13, P07-LV14, P07-LV20, P07-LV29	**Moderate/ Slight (not significant)**
Landscape Experience from the A9	Medium	Substantial/ Moderate	**Moderate**	P07-LV1, P07-LV2, P07-LV3, P07-LV4, P07-LV5, P07-LV6, P07-LV7, P07-LV8 P07-LV9, P07-LV10, P07-LV11, P07-LV12, P07-13, P07-LV14, P07-LV15, P07-LV16, P07-LV17, P07-LV18, P07-LV19, P07-LV21, P07-LV22, P07-LV23, P07-LV 24, P07-LV25, 07-LV26, P07-LV27, P07-LV28, P07-LV29, P07-LV30	**Slight**

Summary

13.6.6 Significant adverse effects on the LCAs and LLCAs are anticipated at construction and often at Year 1 before most embedded and additional mitigation will be established. As noted above, with embedded (primary) and additional (secondary) mitigation in place, there are no residual significant effects on the LCAs, LLCAs, landscape features, CNPA SLQs, or the SLA.

13.6.7 The greatest effects in the long term are **Moderate/ Slight** (**not significant**) effects upon the Drumochter Pass LCA. This is due to the notable changes at the Dalnaspidal and Allt Coire Mhic-sith, Balsporran/ Drumochter Lodge Junction underbridges; and Drumochter Pass retaining walls, which will alter the characteristics of the LCA and LLCAs in localised locations. Over time the underbridges, retaining walls and associated planting design will integrate with the surrounding landscape.

13.6.8 Proposed planting, as detailed on the **Environmental Mitigation Drawings 6.1-6.7** (**Volume 3**), will achieve a number of objectives, including improving biodiversity, enhancement of the LLCAs and be of benefit to the CNPA SLQs.

13.7 References

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