9 Landscape

This chapter presents the landscape assessment of the proposed Scheme and is linked with the assessment of visual effects which are set out in Chapter 10 (Visual).

A study area of up to 3km from the proposed scheme was defined following an appraisal of the theoretical visibility. The baseline conditions were established through desk-based assessment, mapping of theoretical visibility (ZTV), site surveys and consultation. This existing landscape is described and classified into 13 Local Landscape Character Areas (LLCAs), which are areas of distinctive character which assist in the evaluation of the sensitivity of the landscape and the development of mitigation proposals. The landscape in this area is predominantly rural, characterised by low coastal plateau of the Moray Firth which is backed by rolling hills. Areas of forestry, woodland and open farmland are cut through by the wooded River Nairn valley. Settlement is concentrated around Inverness and the coastal town of Nairn. The local landscape is generally assessed as being of low to medium sensitivity to change with the River Nairn valley of medium to high sensitivity. Apart from four Gardens and Designed Landscapes (GDLs) no other national, regional or local landscape designations were identified. Effects are assessed for both winter year of opening (when all mitigation elements will be in place but the mitigation planting is not fully effective) and during the summer 15 years after opening (when mitigation planting had become established and contributes to screening).

All potential effects on the LLCAs are discussed in full in this chapter. Details on the evaluation of sensitivity for each LLCA are contained within Appendix A9.1. The Landscape Objectives developed to focus the mitigation design for the proposed Scheme are set out in Appendix A9.2. At winter year of opening, potential effects on the LLCAs were identified as significant for eight LLCAs due to direct effects of the proposed Scheme and one LLCA due to indirect effects of the proposed Scheme, with no significant effects to any of the GDLs.

Mitigation measures to integrate the proposed Scheme into the landscape include careful alignment and grading out and sensitive profiling of embankments to reflect the local topography and enable the land to be returned to agriculture, where appropriate. Mitigation measures would also comprise the retention and management of existing vegetation and the planting of native mixed, broadleaf and coniferous woodland, scrub woodland, riparian planting and seeding of species rich grassland. Woodland planting is proposed in areas where the surrounding landscape is more wooded and where integration, replacement, restoration or screening is required. Planting mitigation measures are proposed to improve the fit of the proposed Scheme within the surrounding landscape, enhance the local landscape character and biodiversity whilst reducing the impact of the proposed Scheme over time as vegetation establishes.

By Summer 15 Years after construction following the establishment of mitigation planting, direct residual effects were identified as significant for four of the LLCAs, with no significant indirect residual effects on any of the LLCAs and no significant residual effects to any of the GDLs.

9.1 Introduction

9.1.1 This chapter presents the results of the Design Manual for Roads and Bridges (DMRB) Stage 3 Environmental Impact Assessment (EIA) for the A96 Dualling Inverness to Nairn (including Nairn Bypass) scheme (hereafter referred to as the proposed Scheme) in relation to impacts on the landscape.

9.1.2 The assessment methodology is explained below, followed by a description of the baseline landscape resource. An assessment is then made of the potential effects on the landscape resource that would result from the proposed Scheme, taking account of incorporated mitigation. This includes an assessment of the changes in the character, quality and physical fabric of the landscape (including settlement areas) which would be likely to occur.

9.1.3 The chapter is supported by the following appendices and figures which are cross referenced where relevant:

- Appendix A9.1 (Local Landscape Character Areas);
- Appendix A9.2 (Landscape Objectives;
- Figure 9.1 (Local Landscape Character Areas);
- Figure 9.2 (Proposed Scheme on Aerial Photography);

- Figure 9.3 (Landscape Features);
- Figure 9.4 (Local Landscape Character Area Photographs);
- Figure 9.5 (Landscape and Ecological Mitigation);
- Figure 9.6 (Cross Sections); and
- Figure 9.7 (Visualisations).

9.1.4 The assessment of effects on the landscape resource is primarily concerned with changes to:

- specific landscape features and elements;
- the overall pattern of the elements, which together define the landscape character and local regional distinctiveness;
- areas of particular interest and/or value, such as designated landscapes, conservation sites and cultural associations; and
- perceived characteristics of the landscape, such as tranquillity and remoteness.

9.1.5 Effects are assessed for both the winter year of opening (when all the mitigation elements would be in place, but the mitigation planting is not fully effective) and during the summer 15 years after opening (when mitigation planting has become established and contributes to the landscape).

9.1.6 Further considerations related to the landscape assessment are addressed separately within the following chapters:

- Chapter 10 (Visual) in relation to the effects on the character of views and visual amenity; and
- Chapter 16 (People and Communities: All Travellers) in relation to the assessment of the views from the proposed Scheme as they would be experienced by vehicle travellers.

9.1.7 In addition, Chapter 11 (Habitats and Biodiversity) and 14 (Cultural Heritage) also inform this landscape chapter, with regard to the influences of vegetation and wildlife, and cultural designations which relate to landscape character.

Legislative and Policy Background

9.1.8 Appendix A18.1 (Planning Policy Context for Environmental Assessment) describes the planning policies and guidance from national to local level which are relevant to landscape. An assessment of the compliance of the proposed Scheme against all development plan policies relevant to this environmental topic is reported in Appendix A18.2 (Assessment of Development Plan Policy Compliance) and a summary overview is provided in Section 18.4 (Assessment of Compliance) in Chapter 18 (Policies and Plans).

9.2 Methodology

Approach to the Assessment

9.2.1 The landscape assessment was undertaken with reference to the Design Manual for Roads and Bridges (DMRB) including Interim Advice Note IAN135/10 Landscape and Visual Effects Assessment (Highways Agency 2010) (hereafter referred to as IAN135/10), and the Guidelines for Landscape and Visual Impact Assessment 3rd Edition (Landscape Institute 2013) (hereafter referred to as (GLVIA3).GLVIA 3 is more a recently published guidance document and provides greater clarity with regard to:

- the interrelationship between susceptibility and value in determining sensitivity to the proposed scheme: and
- the interrelationship between size or scale, geographical extent of influence, duration and reversibility in determining magnitude of impact.

9.2.2 This was taken into account in assigning significance of effects.

9.2.3 The approach to the assessment and development of mitigation proposals has also been informed by Fitting Landscapes: Securing more Sustainable Landscapes (Transport Scotland 2014).

The Study Area

9.2.4 Within a 5km radius, Zones of Theoretical Visibility (ZTVs) have been prepared for the existing A96 and for the proposed Scheme and are shown on Figures 10.1 to 10.2. The ZTVs have been produced using a bare-earth Digital Terrain Model (DTM), and the maximum extent of the area from which the existing A96, the proposed Scheme and vehicles would be theoretically visible. These do not take into account screening or filtering of visibility by local landform, built features or vegetation, which were considered during subsequent site survey work. Figure 10.1 illustrates the ZTV in relation to the alignment of the existing A96, Figure 10.2 illustrates the ZTV in relation to the proposed Scheme together with lighting, closed-circuit television (CCTV) and variable message sign (VMS)

9.2.5 Following an appraisal of the theoretical visibility displayed by the ZTVs the landscape assessment has focused on the potential landscape impacts along the alignment of the proposed Scheme and a study area up to 3km in distance from it. Based on professional judgement it was assessed that beyond this extent, due to topography and distance from the proposed Scheme, landscape effects, which would only be of an indirect nature, would be of Negligible significance.

Baseline Landscape

9.2.6 The existing baseline landscape was examined in order to gain an understanding of the landscape within the study area and the aspects which would be directly affected e.g. the landscape's constituent elements, its character and how this varies spatially, its geographic extent, its cultural heritage, its condition, the way it is experienced and the value attached to it. This included a desk-based assessment, site walkovers and surveys as discussed below.

Desk Study

9.2.7 The desk-based assessment has been informed through review of the following documents and information which are relevant to this assessment:

- Geographical Information Systems (GIS) data;
- aerial photography;
- web-based photography;
- Jacobs GIS environmental constraints datasets (obtained through consultation with stakeholders);
- 1:25,000 and 1:50,000 Ordnance Survey (OS) mapping;
- Scottish Natural Heritage: No 101 Moray and Nairn Landscape Character Assessment (Turnbull Jeffrey Partnership 1998);
- Scottish Natural Heritage: No 114 Inverness District Landscape Character Assessment (Richards 1999);
- Scottish Natural Heritage: No 90 Inner Moray Firth Landscape Character Assessment (Fletcher 1998);
- A96 Corridor Landscape Assessment Report (Entec UK Limited 2004);
- Nairn South Landscape Character Assessment (The Highland Council 2004);
- The Highland-wide Local Development Plan (HwLDP) (The Highland Council 2012);
- The Inner Moray Firth Local Development Plan (IMFLDP) (The Highland Council 2016);
- A96 Dualling Inverness to Nairn (including Nairn Bypass) DMRB Stage 2 Scheme Assessment Report (Jacobs 2014);

- A96 Dualling Programme: Strategic Environmental Assessment - Tier 2 Environmental Report (CH2M 2015); and
- A96 Dualling Programme: Strategic Environmental Assessment - Post Adoption Statement (CH2M 2016)

Site Surveys

9.2.8 The study area was visited to conduct an up to date field survey that included identification of specific landscape constraints and verification/supplementation of data collected in the desk study.

9.2.9 The field surveys, undertaken between September 2015 and April 2016, were carried out from publicly accessible locations and from private land where approved by the landowner. All surveys were undertaken by a minimum of two landscape architects, with at least one of these a chartered landscape architect.

Effect Assessment

Direct and Indirect Effects

9.2.10 Direct and Indirect landscape effects are defined in GLVIA3. Direct effects result directly from the development itself (i.e. the proposed Scheme) whilst indirect effects are a secondary effect that is a consequential change resulting from the development.

Sensitivity to Change

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

Landscape Susceptibility

9.2.12 Susceptibility is defined in GLVIA3 as *'The ability of the landscape receptor … to accommodate the Scheme without undue consequences for the maintenance of the baseline situation'.* Susceptibility of landscape receptors to change was assessed using the criteria detailed in Table 9.1, along with professional judgment (where applicable interims of medium to high or low to medium may be used).

Table 9.1: Landscape Susceptibility Criteria

Susceptibility	Criteria
High	The landscape receptor is highly susceptible to the nature of the proposed Scheme because the relevant characteristics of the landscape have no or very limited ability to accommodate certain aspects of the development without undue adverse impact, taking account of the existing character and quality of the landscape.
Medium	The landscape receptor is moderately susceptible to the nature of the proposed Scheme because the relevant characteristics of the landscape have some ability to accommodate certain aspects of the development without undue adverse impact, taking account of the existing character and quality of the landscape.
Low	The landscape receptor has low susceptibility to the nature of the proposed Scheme because the relevant characteristics of the landscape are generally able to accommodate certain aspects of the development without undue adverse impact, taking account of the existing character and quality of the landscape.

Landscape Value

9.2.13 GLVIA3 defines landscape value as '*The relative value that is attached to different landscapes by society ... Value can apply to areas of landscape as a whole, or to the individual elements, features and aesthetic or perceptual dimensions which contribute to the character of the landscape'*. A review of existing landscape designations 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. There may also be situations where an undesignated landscape

is of value and/or has susceptibility in local terms. Table 9.2 sets out the relative importance of generic landscape designations and descriptions

Table 9.2: Criteria for Assessing Value of Designated Landscapes

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

9.2.14 Establishing the value of undesignated areas requires examination of individual elements of the landscape. A number of criteria were considered to help determine value as detailed in Table 9.3 and an overall assessment was made for each receptor in terms of high, medium and low value.).

Table 9.3: Criteria for Assessing Value of Non-Designated Landscapes

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

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

Evaluation of Landscape Sensitivity

9.2.15 The sensitivity of the landscape was assessed on a scale of high, medium or low with interims of medium to high or low to medium where applicable. Table 9.4 outlines the criteria as defined in IAN 135/10 which were used to assist in the evaluation of landscape sensitivity. However as noted in IAN 135/10 these criteria are indicative, provided for guidance and not prescriptive, with the evaluation therefore also requiring consistent and justified professional judgement.

Table 9.4: Landscape Sensitivity Criteria

Sensitivity	Criteria
High	Landscapes which by nature of their character would be unable to accommodate change of the type proposed. Typically these would be; • Of high quality with distinctive elements and features making a positive contribution to character and sense of place. • Likely to be designated, but the aspects which underpin such value may also be present outside designated areas, especially at the local scale. • Areas of special recognised value through use, perception or historic and cultural associations. • Likely to contain features and elements that are rare and could not be replaced.
Medium	Landscapes which by nature of their character would be able to accommodate change of the type proposed. Typically these would be: • Comprise common place elements and features creating generally unremarkable character but with some sense of place. • Locally designated, or their value may be expressed through non statutory local publications. • Containing some features of value through use, perception or historic and cultural associations. • Likely to contain some features and elements that could not be replaced.
Low	Landscapes which by nature of their character would be able to accommodate change of the type proposed. Typically these would be: • Comprise some features and elements that are discordant, derelict or in decline, resulting in indistinct character with little or no sense of place. • Not designated. • Containing few, if any, features of value through use, perception or historic and cultural associations. • Likely to contain few, if any, features and elements that could not be replaced.

Magnitude of Impact

9.2.16 The magnitude of landscape impacts was considered in terms of size or scale, the geographical extent of the area influenced the duration and reversibility in accordance with GLVIA3.

Size or Scale

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

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

Geographical Extent

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

- site level;
- the immediate setting of the site;
- the receiving landscape character area; or
- ranging across several landscape areas.

Duration and Reversibility

9.2.19 In accordance with GLVIA3, consideration is also given to the duration and reversibility of landscape impacts in the evaluation of magnitude.

9.2.20 The duration of impacts is judged on the following scale:

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

9.2.21 The magnitude of impact was assessed on a scale of high, medium or low, (or where applicable, interims of medium to high or low to medium), taking account of the degree of landscape change that would occur as a result of the proposed Scheme, as described in Table 9.5.

Table 9.5: Magnitude of Landscape Impacts

Magnitude	Criteria
High	Notable change in landscape characteristics over an extensive area ranging to very intensive change over a more limited area of long-term duration and largely irreversible.
Medium	Minor changes in landscape characteristics over a wide area ranging to notable changes in a more limited area.
Low	Minor or virtually imperceptible change in any area or to any components of the landscape.

9.2.22 The permanent impacts of the proposed Scheme are considered to be of long-term duration and largely irreversible, thus increasing magnitude. However, temporary construction phase effects, for example those arising from site compounds, are often short-term and reversible and thus likely to have a lower magnitude of effect.

Significance of Effects

9.2.23 The significance of landscape effects has been determined through consideration of both the sensitivity of the landscape receptors and the predicted magnitude of change as a result of the proposed Scheme, and defined as being Negligible, Slight, Moderate or Substantial, as shown in Table 9.6.

9.2.24 Effects assessed of being of Moderate significance or greater are considered to constitute significant changes to the fabric, character and quality of the landscape and mitigation would be generally required to reduce these where practicable.

Table 9.6: Significance of Landscape Effects

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

Level of Effect	Criteria
	value) of the landscape, maintain or enhance characteristic features and elements and enable some sense of place to be restored.
Negligible	The proposed Scheme would maintain the character of the landscape, blend in with characteristic features and elements and enable a sense of place to be retained.

Consultation

9.2.25 Consultation was undertaken with statutory and non-statutory consultees, including The Highland Council and Inverness Airport, and the Environmental Steering Group (ESG). The ESG included Scottish Natural Heritage (SNH), Historic Environment Scotland (HES) and the Scottish Environment Protection Agency (SEPA). Further information on consultation is provided in Chapter 6 (Scoping and Consultation).

Limitations

9.2.26 This assessment has been undertaken on the DMRB Stage 3 design as per draft Orders . With regards to the assessment of landscape effects in accordance with DMRB, a number of limitations to the assessment were identified.

9.2.27 The assessment of effects Local Landscape Character Areas has been undertaken based on existing land use. Where land is allocated within the local development plan or where land has extant planning permission or is pending a decision of a planning application, the land-take has been allocated to the development land category and assessed accordingly in Chapter 15 (People and Communities: Community and Private Assets). Given the limited information available regarding the changes these developments would bring about in the landscape, these allocations have not been considered in detail in this chapter. However, should these sites be taken forward for development, it is considered that the sensitivity of the local landscape to the proposed Scheme would be unlikely to be any greater than that of the existing rural landscape, due to the urbanising effect of the future development.

9.2.28 At the time of assessment details of methods of construction and information on the timescale and phasing of works, locations of haulage routes and construction compounds were largely unknown. There is an acknowledgement that construction activities associated with road schemes are short-term and cause generally temporary adverse landscape effects. The assessment is based on assumptions on where the most likely significant, although short term effects from construction activities, may result. Those identified include the construction of junctions, new bridge structures, the demolition of existing structures and large scale earthworks. The location of these activities tends to correlate with the areas where the magnitude of operational impacts would be highest, hence the greatest construction phase effects are generally expected to occur in similar locations to those of the greatest operational effects, as identified for the winter year of proposed Scheme opening, before mitigation planting has established. Given the above together with the relatively short duration of construction activities, it is considered unlikely that construction landscape effects would be of greater significance than those assessed for the winter year of proposed Scheme opening.

9.3 Baseline Description and Evaluation

9.3.1 This section classifies and evaluates the landscape resource of the study area, taking account of the geological, cultural and historical influences and identifying any designated or protected areas.

Strategic Environmental Assessment (SEA)

9.3.2 There are two Strategic Environmental Assessments (SEAs) that are relevant to the proposed Scheme; the SEA for the Strategic Transport Projects Review (Jacobs, Faber Maunsell, Grant Thompson and Tribal Consulting 2008 and 2009) and the SEA for the A96 Dualling Programme (CH2M 2015 and 2016). The outcomes and guidance of the SEAs and the Post Adoption Statements were reviewed and taken into consideration as part of the landscape assessment in relation to the mitigation proposals. Landscape design proposals and mitigation for the proposed Scheme are explained in Section 9.6 (Mitigation) and shown on Figure 9.5.

9.3.3 The STPR Environmental Report and Post Adoption Statement (Jacobs, Faber Maunsell, Grant Thompson and Tribal Consulting 2008 and 2009 respectively) provide guidance in relation to general mitigation principles and mitigation commitments. In relation to the landscape the following aspects are relevant:

- Designing and siting new infrastructure sensitively in areas of landscape and cultural value.
- Landscape maintenance should be undertaken by means that conserve, and where possible enhance, the development of species and their habitats which are protected or of high nature conservation interest in or adjacent to interventions.
- The design of projects should, in the first instance, consider potential landscape impacts at the earliest possible stage.
- Project environmental appraisals should consider the impact on all landscapes, including not only those designated as National Scenic Areas or National Parks or designated through local landscape designations, but also all other landscapes. Design and mitigation of proposals likely to have significant effects on such areas should be aimed at if possible avoiding, and if not possible then minimising, adverse visual and landscape impacts.
- All works should consider the surrounding landscape and carrying out appropriate planting, ground modelling and fencing. Structural treatments should be carried out so as to soften the appearance of any works, environmental barriers or engineering features of the intervention with regard to views from the surrounding landscape and the intervention itself.
- Hard landscape and materials should be selected and maintained, where practicable to suit local character and retain visual amenity.
- Visual screening should be used to reduce visual effects on the population.
- Consideration will be given to how views from the road or railway will be promoted.
- Impacts on Scotland's areas of wild land should also be taken into account where appropriate.

9.3.4 The A96 Dualling Programme: Strategic Environmental Assessment – Tier 2 Environmental Report (CH2M 2015) was published for consultation by Transport Scotland in May 2015 and includes key findings in relation to landscape and visual regarding 'Key Local Issues' and 'Strategic Mitigation'. In February 2016 the Post Adoption Statement (CH2M 2016) published by Transport Scotland concluded the SEA process for the A96 Dualling Programme, in accordance with the requirements of the Environmental Assessment (Scotland) Act 2005.

9.3.5 The specific A96 Dualling SEA 'Key Local Issues' that relate to the A96 corridor within the study area and the 'Strategic Mitigation' recommendations are summarised below and apply to both landscape and visual aspects.

Key Local Issues

9.3.6 The specific SEA 'Key Local Issues' that relate to the A96 corridor within the study area are as follows:

- Neither of the landscape designations in the study area are located within or adjacent to the road corridor.
- The existing A96 is an established part of the local landscape and therefore is an existing feature which reduces its sensitivity.
- Any new elevated structures required to cross watercourses or the railway line, would have a permanent effect on the character of the landscape and would therefore require careful design.

Strategic Mitigation

9.3.7 The specific A96 Dualling SEA 'Strategic Mitigation' that relates to the A96 corridor within the study area are as follows:

- Avoidance of important areas for landscape wherever possible, taking account of other constraints including visual receptors in properties and settlements.

- Minimise impacts on key features and their setting, as well as on the structures of the landscape which contribute to its character and sensitivity including native woodlands, historic buildings and shelterbelts.
- Respecting topography when developing future alignments so that road designs flow with the contours of the land and the road sits out of sight of visual receptors, wherever possible.
- Follow the principles in Transport Scotland's Fitting Landscapes: Securing More Sustainable Landscapes policy.
- Mitigate landscape and visual aspects of new road infrastructure (e.g. junctions) through well designed screen planting using native species typical of the area.
- Take account of other road elements including positioning of signs and lighting columns.

Regional Context

9.3.8 The study area lies to the south of the Inner Moray Firth and to the north of the Cairngorm mountain range. The city of Inverness lies at the western edge of the study area, situated on the Great Glen Fault at the confluence of the Moray and Beauly Firths, whilst the coastal town of Nairn and the village of Auldearn are located to the east of the study area. The study area broadly follows the existing A96 road corridor from Inverness to Blackcastle, with the proposed Scheme bypassing Nairn to the south and Auldearn to the north.

9.3.9 The study area comprises predominantly high quality arable farm land, with frequent blocks of woodland. Scattered villages and smaller clusters of properties transition to more substantial residential development in closer proximity to Inverness and Nairn, with some industrial development adjacent to the existing A96. Inverness Airport is situated to the north of the study area and forms an important resource for the wider Highland region.

Designations

9.3.10 The level of protection afforded to sites of landscape value and importance varies according to their designation as described below.

National Landscape Designations

Inventory Gardens and Designed Landscapes

9.3.11 Gardens and Designed Landscapes (GDL) are listed within the Inventory of Gardens and Designed Landscapes and are designated by HES and SNH. Four sites are located within the study area. These are listed and described below:

9.3.12 Brodie Castle GDL is owned by the National Trust for Scotland and situated on the north side of the existing A96 to the east of Nairn and approximately 1.4km to the east of the proposed Scheme. The 16th century Castle and its policies lie on the coastal plain which slopes very gently to the Moray Firth in the north. The flat nature of the site and the woodlands which enclose it restrict views to the surrounding landscape.

9.3.13 Culloden House GDL is situated approximately 430m to the south of the proposed Scheme and currently forms the setting for the Culloden House Hotel. To the south and east of Culloden House, coniferous plantations on higher ground form the upper horizon of all views and woodland belts and housing development restrict views from the site. The main vista within the designed landscape is defined by the principal avenue from the south-west.

9.3.14 Dalcross Castle GDL is set on Drummossie Muir, a ridge of higher ground above the village of Croy and 2.2km to the south of the proposed Scheme. The 16th century castle is surrounded by an 18th century designed landscape consisting of formal gardens, with some parkland and woodland further away. The woodlands and trees in the policies shelter the grounds and obscure views into the policies from the surrounding area.

9.3.15 Darnaway Castle GDL is situated above the valley of the River Findhorn, 1.46km to the south-east of the proposed Scheme. Darnaway Castle is set in 18th century parkland on a low plateau which is dissected by small tributary rivers of the Findhorn to the east and Muckle Burn to the west. There are extensive views from various points along the drives within the policies, out to the Moray coast and inland along the Findhorn valley to the hills beyond.

Other National Designations

Biodiversity and Geology

9.3.16 One Special Area of Conservation (SAC) is located within the study area. The Moray Firth SAC lies at closest 680m to the north of the proposed Scheme. SACs are designated to protect internationally important threatened habitats and species. There are five Sites of Special Scientific Interest (SSSI) protected for their biological and geological characteristics located within the study area. Two Ramsar sites, designated for protection of wetlands and birds, also fall within the study area boundary, the Inner Moray Firth and the Moray and Nairn Coast which are also designated Special Protection Areas (SPA). A third SPA is also located at Loch Flemington 450m south of the proposed Scheme. Further detail on these sites is provided in Chapter 11 (Habitats and Biodiversity) and, in the case of the SSSIs, Chapter 12 (Geology, Soils, Contaminated Land and Groundwater).

Scheduled Monuments

9.3.17 Numerous Scheduled Monuments are located within the study area. Where these monuments have a particular influence upon the character of the landscape they have been referenced within the chapter. Further details of Scheduled Monuments are provided in Chapter 14 (Cultural Heritage).

Historic Battlefields

9.3.18 Nationally important battlefields are listed within the Inventory of Historic Battlefields and designated by HES. Within the 3km radius study area, two historic battlefield sites are present; Culloden Battlefield and Auldearn Battlefield. Further information on these sites is provided in Chapter 14 (Cultural Heritage).

Ancient Woodland

9.3.19 Areas of woodland identified on the Ancient Woodland Inventory (AWI) fall within the study area, as shown on Figure 11.1. A number of areas lie along the route of the proposed Scheme and would be affected by felling, these include:

- mature broad-leaved semi-natural woodland adjacent to the River Nairn corridor;
- coniferous plantation woodland dominated by Scots Pine near the Brackley Junction and at Tornagrain Wood, Crook Plantation, Bognafuaran Wood and Hardmuir Wood;
- Scots Pine plantation woodland with pockets of Larch and Sycamore at Blackcastle Quarry;
- coniferous plantation woodland dominated by Sitka Spruce and Scots Pine at Russell's Wood; and
- mixed broadleaved and coniferous plantation woodland at Wester Hardmuir Wood.

Tree Preservation Orders

9.3.20 Tree Preservation Orders (TPOs) have been considered during the landscape character assessment. Trees covered by TPOs are considered to be key features within the landscape and although they are not individually referred to, they have been taken into account in the impact assessment below. Any alteration to them has the potential to result in an adverse impact, however no alterations to any of the TPOs are anticipated. TPOs within the study area include:

- HRC17A Culloden Road TPO (Balloch);

- HR61 Feabuie South TPO (Balloch);
- HRC32 Feabuie TPO (Culloden);
- HRC14 Tradespark Wood TPO (Nairn);
- HRC58 Altonburn Road TPO (Nairn);
- HC11 Glen Lyon Lodge Hotel TPO (Nairn);
- HC39 Moss-side Road TPO (Nairn);
- HC44 Alton Burn TPO (Nairn);
- HC48 Rhuallan TPO (Nairn);
- HC53 Convalescent Home TPO (Nairn);
- HC79 Newton Hotel TPO (Nairn);
- HC102 Firthside TPO (Nairn);
- HC104 Cothill TPO (Nairn);
- HRC02 Kinsteary TPO (Auldearn); and
- NACC01 Kinsteary Wood TPO (Auldearn).

Conservation Areas

9.3.21 Conservation Areas are listed within The Highland-wide Local Development Plan (HwLDP) (The Highland Council 2012). Six Conservation Areas are located within the 3km study area; Inverness Riverside, Inverness Crown, Culloden House Policies, Culloden Battlefield, Ardersier and Nairn Fishertown.

Geology, Landform and Drainage

9.3.22 The study area lies to the south of the Moray Firth and encompasses a range of landscapes with a common south-west to north-east topographical grain. The Moray Firth coastline is soft with depositional landforms such as long sand and shingle beaches backed by low raised shorelines and sand dune systems.

9.3.23 The wide coastal plain is formed from Old Red Sandstone and is underlain with thick glacial deposits which provide an undulating landform of rich arable farmland and areas of free draining gravels which tend to be forested. An unusual feature within the coastal plain is the Flemington Eskers, an area of glacio-fluvial deposits forming a long system of braided ridges 5m to 10m high with intervening kettle holes.

9.3.24 To the south of the coastal plain, the land rises and Highland schists and granite form the northern foothills of the Cairngorms, comprising smooth rolling hills covered by extensive moorlands and forestry.

9.3.25 The largest freshwater watercourse within the study area is the River Nairn, which cuts through the landscape from south-west to north-east and passes beneath the existing A96 at Nairn. Other notable waterbodies include the kettle holes associated with the Flemington Eskers.

Historic and Cultural Associations

9.3.26 Much of the landscape that is visible today has evolved as a result of long-term human influence and settlement. Further details are provided Chapter 14 (Cultural Heritage).

9.3.27 The first recorded inhabitants of the area were Mesolithic people who settled the coast and evidence of Neolithic populations can be seen amongst burial cairns dispersed throughout the area. The remains of Iron Age hill forts are evident, as well as the remains of agricultural crofting systems and crannogs.

9.3.28 The site of the famous battle of Culloden lies to the south of the study area on Culloden Moor and military fortifications such as Fort George lie to the north of the study area at Ardersier. By the end of the 19th century the agricultural landscape of the study area had largely formed. The introduction of the railway between Inverness and Nairn and extensive improvements to roads greatly increased the number of visitors to the area. During the 20th century the study area saw new developments in road and air transport with the creation of the existing A96 and the construction of Inverness Airport and also an expansion in urban housing, industry and forestry. One negative aspect of modern development is that much of the natural woodland mix of native oak, pine, ash, birch, and hazel has been replaced with large scale coniferous plantations, reducing the level of plant species diversity.

Vegetation

9.3.29 Vegetation cover within the study area and on the surrounding landscape varies to reflect the natural influences of local geology, landform, microclimate, drainage, soil, colonisation and biodiversity, and the influence of man on land use and management. The predominant types of vegetation cover comprise improved grassland, arable land and coniferous woodland with small amounts of native deciduous woodland, and areas of moor and heathland. Further details are provided within Chapter 11 (Habitats and Biodiversity).

9.3.30 Improved grassland and arable land are predominantly positioned within the open, flat, coastal plain. The soil in these locations is particularly fertile due to its nutrient sediment. Semi-improved pasture and rougher hill grazing occur on the uplands to the south. Although hedgerows are not the predominant means of field separation, they are present, often in combination with hedgerow trees.

9.3.31 Blocks of coniferous woodland plantation have generally been established in slightly elevated locations, where the soil is composed of well-draining gravel. Heather moorland is found interspersed amongst the woodland plantations and field boundaries. Deciduous woodland is established along the banks of the River Nairn and also within remnant estate policies and in shelter belts demarcating field boundaries.

9.3.32 Extensive areas of heathland and gorse are located along the coastal edge and around the Flemington Eskers together with modest areas of wetland around a small number of specific inland water bodies (Loch Flemington, Loch of the Clans, Craigswood Loch and Boath House Lake).

National Woodland Survey of Scotland

9.3.33 The Forestry Commission has published the National Woodland Survey of Scotland (NWSS) (Forestry Commission 2014) which indicates areas of native woodland, nearly native woodland and Caledonian pinewood within Scotland. A number of NWSS woodland areas lie along the route of the proposed Scheme and would be affected by felling, these include:

- nearly native woodland to the south of the Milton of Culloden;
- native and nearly native woodland within Tornagrain Wood;
- native woodland to the west of Drumdivan;
- native woodland within the River Nairn corridor;
- native woodland to the south of Crook; and
- native woodland within Wester Hardmuir Wood.

Settlement and Land Use

9.3.34 To the west of the study area lies the eastern periphery of Inverness which is dominated by industrial and commercial developments including the Inverness Retail and Business Park, with individual residential properties scattered between the larger scale developments.

9.3.35 To the east of Inverness the satellite villages of Smithton, Culloden and Balloch lie to the south of the existing A96, slightly elevated on slopes facing the Moray Firth and backed by Culloden Forest.

9.3.36 Between Culloden and Nairn settlement is sparse and comprises small villages and scattered steadings spread across a landscape of predominantly high quality agricultural land within a matrix of commercial forestry blocks and shelter belts. Industrial features include Inverness Airport and the Norbord Factory with its associated stack which provides a prominent vertical landmark within the landscape.

9.3.37 The existing A96 runs through the market, fishing and tourist town of Nairn passing modern housing developments on the outskirts and Victorian villas and narrow streets of the Fishertown in the centre of the town. To the east of Nairn there are several larger scale retail developments which transition into a rolling farmland interspersed by forestry blocks. The existing A96 bypasses Auldearn, passing the village on its northern edge through a combination of arable farmland and mixed woodland.

SNH Landscape Character Assessments

9.3.38 The study area is covered by six Landscape Character Types (LCTs) defined by SNH in the Inner Moray Firth Landscape Character Assessment (Fletcher 1998), the Inverness District Landscape Assessment (Richards 1999) and the Moray and Nairn Landscape Assessment (Turnbull Jeffrey Partnership 1998). These LCTs are:

- Enclosed Farmed Landscapes;
- Coastal Lowlands Intensive Farming;
- Coastal Lowlands Forest Edge Farming;
- Enclosed Firth;
- Open Firth; and
- Forested Backdrop.

9.3.39 The majority of the proposed Scheme passes through the Enclosed Farmed Landscapes, Coastal Lowlands Intensive Farming and Coastal Lowlands Forest Edge Farming LCTs. The key characteristics of these LCTs, as described in SNH's landscape assessments, are provided below.

Enclosed Farmed Landscapes LCT

9.3.40 The key characteristics of the Enclosed Farmed Landscapes LCT are:

- flat to gently undulating lowlands;
- a transitional character between firth and flood plain;
- farm holdings often enclosed by mature trees;
- remnants of estate woodland with scattered mature trees and open fields;
- mostly semi-enclosed with some views to the Moray Firth and the Black Isle; and
- increasing influence of modern development with the expansion of Inverness and Culloden.

Coastal Lowlands Intensive Farming LCT

9.3.41 The key characteristics of Coastal Lowlands Intensive Farming LCT are:

- flat to gently undulating lowlands;
- large arable fields interspersed with forestry plantations;
- a simple wide horizontal landscape gives an expansive scale;
- large farm holdings are typical and often associated with mature trees and forestry; and
- views are open with extensive views of the Moray Firth and Black Isle.

Coastal Lowlands Forest Edge Farming LCT

9.3.42 The key characteristics of Coastal Lowlands Forest Edge Farming LCT are:

- flat to gently undulating lowlands and convex slopes;
- a distinctive wedge between the Inverness and Nairn separating the hills of Moray with the coastal farmland areas;
- a framework of coniferous woodland and rectilinear field patterns;
- farmholdings with some villages including Tornagrain and Croy; and
- restricted views due to forestry although some areas experience extensive views to the Moray Firth.

Local Landscape Character Assessments

9.3.43 In addition to the LCTs defined by SNH, two further landscape character assessments have been undertaken during studies of the A96 corridor; the A96 Corridor Landscape Assessment (Entec UK Limited 2004) and the Nairn South Landscape Character Assessment (The Highland Council 2004). All of the existing landscape character assessments have been reviewed and supplemented by data collected through both desk-based and field assessment to allow the LCTs to be refined at a more local scale as Local Landscape Character Areas (LLCAs).

9.3.44 These LLCAs are smaller scale units which better reflect local variations in character and provide a level of detail appropriate to the scale of the proposed Scheme in terms of evaluating sensitivity and assessing landscape impact. These are shown on Figure 9.1 and summarised in Table 9.7, with summary descriptions provided in the following paragraphs. Detailed descriptions of the LLCAs together with an assessment of their value, susceptibility and sensitivity are contained in Appendix A9.1 (Local Landscape Character Areas). Photography from locations within the study area which illustrate the character and qualities of each of the LLCAs are presented on Figure 9.4 with photograph locations illustrated on Figure 9.1. Figure 9.3 shows landscape features which illustrate built, topographical and natural elements together with key landmarks and views within the study area.

9.3.45 Urban areas are identified but not classified within the SNH landscape character assessments. However in refining LCTs to a more local scale within the study area, urban areas have been identified as LLCAs. The proposed Scheme however does not directly effect the urban areas and the extent of visibility from these urban LLCAs is limited. It has been considered that there would be no potential for significant effect to the urban character of these LLCAs from the proposed Scheme and thus they have been not been included within the landscape assessment.

Table 9.7: Local Landscape Character Areas and Urban Areas

SNH Classification/ LCT	LLCA	Sensitivity
Urban	Inverness Urban Fringe	-
Urban	Culloden Urban Fringe	-
Enclosed Farmed Landscapes LCT	Culloden Estate Farmlands LLCA	Low to Medium
Coastal Lowlands Intensive Farming LCT	Open Coastal Lowland LLCA	Low to Medium
Enclosed Firth LCT	Enclosed Firth LLCA	Medium
Coastal Lowlands Forest Edge Farming LCT	Forest Edge Farmland LLCA	Low to Medium
Coastal Lowlands Forest Edge Farming LCT/ Coastal Lowlands Intensive Farming LCT	Tornagrain Woods LLCA	Low
Coastal Lowlands Forest Edge Farming LCT	Flemington Eskers LLCA	High
Coastal Lowlands Forest Edge Farming LCT/ Coastal Lowlands Intensive Farming LCT	Enclosed Forest Edge Farmland LLCA	Medium
Coastal Lowlands Forest Edge Farming LCT	River Nairn Corridor LLCA	Medium to High
Urban	Nairn Urban Fringe	-
Coastal Lowlands Forest Edge Farming LCT	Auldearn Forested Rolling Farmland LLCA	Medium
Urban	Auldearn Village	-

SNH Classification/ LCT	LLCA	Sensitivity
Coastal Lowlands Intensive Farming LCT	Auldearn Open Farmland LLCA	Low to Medium
Forested Backdrop LCT	Forested Backdrop LLCA	Medium
Open Firth LCT	Open Firth LLCA	Medium to High
Coastal Lowlands Forest Edge Farming LCT	Hardmuir Forest Edge Farmland LLCA	Low to Medium

Culloden Estate Farmlands LLCA

9.3.46 This LLCA comprises flat large scale agricultural fields within a remnant estate landscape. Mature trees and blocks of woodland limit views to the Moray Firth. The existing A96 is intrusive in places.

Open Coastal Lowland LLCA

9.3.47 This is an extensive LLCA that forms the majority of the study area. It has a flat to gently rolling landform with an open character which allows frequent views to the north across the Moray Firth. Scattered farmsteads with mostly arable fields predominate, but some development is present in the form of industry, the existing A96 corridor and Inverness Airport.

Enclosed Firth LLCA

9.3.48 This LLCA comprises the southern shoreline of the Moray Firth which is partially landlocked by the peninsulas at Fort George and Chanonry Point near Fortrose. The coast comprises a mixture of rocky intertidal areas, sandy beaches and mud flats, with the land rising gently behind. Views to the Black Isle across the Moray Firth are extensive and panoramic.

Forest Edge Farmland LLCA

9.3.49 This LLCA comprises agricultural fields set on undulating to gently sloping land with extensive areas of woodland and forestry including Culloden Forest. Land use comprises a mixture of arable fields and those set to pasture and grassland, enclosed by stone walls, timber post and wire fencing, hedges and shelterbelts. Dense vegetation creates a strong sense on enclosure with views across the Moray Firth from elevated parts.

Tornagrain Woods LLCA

9.3.50 This LLCA comprises of a large woodland made up of mature Scots Pine plantation and other areas of deciduous woodland and immature coniferous plantation. The woods have an extensive path network and features including a curling pond and war memorial. The existing A96 runs through the woods and the Aberdeen to Inverness Railway Line forms the northern boundary.

Flemington Eskers LLCA

9.3.51 The Flemington Eskers are glacial gravel ridges whose landform creates a distinct feature within the landscape. The ridges are about 5m to 10m high and stretch for about 8km to the east of Inverness towards Nairn. Much of the LLCA is designated as the Kildrummie Kames SSSI. The ridges comprise uneven mounds with frequent water bodies and kettle lochs and are covered by a rough scrub of stunted trees, gorse and bracken.

Enclosed Forest Edge Farmland LLCA

9.3.52 This LLCA comprises a quiet and mostly undeveloped rural landscape. This undulating LLCA derives a sense of enclosure from the woodland which lies on higher land to the north, the Flemington Eskers ridge which rises to the south and the River Nairn corridor to the east. Land use is a mixture of woodland and arable with some pasture and contains a high proportion and variety of woodland cover, either as plantations, shelterbelts or clumps of trees around scattered, traditional-style buildings. The harmonious combination of open fields to woodland is an important characteristic.

River Nairn Corridor LLCA

9.3.53 This LLCA area comprises the valley of the River Nairn. Dense woodland vegetation encloses the river banks and contrasts strongly with the landform and character of the surrounding open agricultural farmland.

Auldearn Forested Rolling Farmland LLCA

9.3.54 This LLCA comprises an undulating and rural landscape. Land use is mainly agricultural but contains a high proportion and variety of woodland cover, either as plantations, shelterbelts or clumps of trees around scattered, traditional-style buildings. The relationship of open fields to woodland is an important characteristic.

Auldearn Open Farmland LLCA

9.3.55 This LLCA has a gently rolling landform of open character with a lower number of trees when compared to adjoining LLCAs. Farmsteads are scattered, often associated with small clumps of trees. Fields are often bordered by post and wire fences and occasional hedgerows and shelterbelts.

Forested Backdrop LLCA

9.3.56 This LLCA edges the south-east and north-east of the study area and comprises the forested northern foothills of the Cairngorms and the coastal Culbin Forest. Coniferous plantations dominate contrasting with the surrounding open farmland with the dense vegetation limiting views.

Open Firth LLCA

9.3.57 This LLCA comprises the southern shoreline of the Moray Firth to the immediate east and west of Nairn. The flat to gently rolling coastal edge includes a mixture of dunes, tidal channel and shingle bars and sandy beaches including Nairn Beach. Wide panoramic views across the Moray Firth are experienced from coastal parts, giving a strong sense of space and distance and along with the sound of the sea and birds, increase the sense of openness and isolation.

Hardmuir Forest Edge Farmland LLCA

9.3.58 This LLCA comprises the large scale commercial forestry including Wester Hardmuir Wood and Hardmuir Wood together with a patchwork of pasture and arable fields, rough scrub and wetland which fall to the Burn of Feddan, to the south of the woodland. Long distance views are frequently limited by the blocks of forestry.

9.4 Potential Effects: Construction

9.4.1 Construction activities associated with road schemes cause generally temporary adverse landscape effects. The proposed Scheme is likely to result in effects on the landscape resource during construction as a result of:

- removal of woodland and scrub vegetation;
- vehicles moving machinery and materials to and from the site;
- machinery potentially including heavy excavators, earth moving plant, concrete batching plant, pile drivers, cranes etc;
- exposed bare earth over the extent of the proposed works;
- structures, earthworks, road surfacing and ancillary works during construction including watercourse realignment and excavation of SUDs;
- temporary site compound areas including site accommodation and parking;
- temporary soil storage heaps and construction materials stockpiles;

- lighting associated with night-time working and site accommodation;
- traffic congestion and queuing during work to tie the proposed Scheme with the existing road;
- change to local landscape character during construction period due to changes in landform;
- demolition operations; and
- temporary works associated with bridge construction operations.

9.4.2 These elements would also affect perceptual qualities of the LLCAs such as tranquillity and remoteness and have an urbanising effect. In general the most significant adverse landscape impacts during the construction period are likely to occur where major structures and/or earthworks are being erected or carried out. The locations where these impacts are likely to occur are as follows (from west to east):

- Smithton Junction (construction of junction, underbridge, Sustainable Drainage System (SUDS) and associated earthworks);
- Milton of Culloden Non-Motorised User (NMU) Underpass (construction of underpass,SUDS and associated earthworks);
- Balloch Junction (construction of junction, underbridge, the SUDS and associated earthworks);
- Areas of significant embankments between Morayston and Kerrowaird;
- A96 Kerrowaird Underbridge (construction of underbridge,SUDS and associated earthworks);
- C1020 Dalcross Station Road Overbridge (construction of overbridge and associated earthworks);
- Mid Coul Junction (construction of junction, overbridge, the SUDS and associated earthworks);
- Brackley Junction (construction of junction, overbridge and associated earthworks);
- Gollanfield Road Overbridge (construction of overbridge and associated earthworks);
- A96 Gollanfield Rail Bridge (Demolition of existing A96 550 Gollanfield Rail Underbridge and construction of rail bridge and associated earthworks);
- Nairn West Junction (construction of junction, overbridge and associated earthworks);
- Moss-Side A96 Bridge and Moss-Side C1163 Rail Bridge and Moss-Side NMU Underpass (construction of rail bridges, underpass, SUDS and associated earthworks);
- B9090 Overbridge (construction of overbridge,SUDS and associated earthworks);
- River Nairn Underbridge (construction of underbridge and associated earthworks);
- C1175 Underbridge (construction of underbridge and associated earthworks);
- A939 Overbridge (construction of overbridge and associated earthworks);
- Nairn East Junction (construction of junction, underbridges, the SUDS and associated earthworks);
- C1172 Underbridge (construction of underbridge and associated earthworks;
- Hardmuir Overbridge No 1 (construction of overbridge, the SUDS and associated earthworks); and
- . Hardmuir Overbridge No 2 (construction of overbridge and associated earthworks).

9.4.3 Temporary landscape effects can also occur due to temporary construction compounds. As explained in Chapter 4 (The Proposed Scheme), detail on the phasing of the works, haulage routes, the location of construction compounds is not known at this stage, as these would be determined by the appointed contractor depending on phasing and execution of the works.

9.5 Potential Effects: Operation

9.5.1 The proposed Scheme is described in Chapter 4 (The Proposed Scheme) whilst Figure 9.2 comprises of aerial photographs overlain by the proposed Scheme. The existing A96 is typically 9.5 wide (excluding verges), while the proposed Scheme would be approximately 21m wide (excluding verges and any central reserve widening). Additional lighting and CCTV masts would be introduced at all major junctions (Smithton Junction, Balloch Junction, Mid Coul Junction, Brackley Junction, Nairn West Junction and Nairn East Junction) and variable message signs (VMS) located at two key decision points. Additional landscape impacts from these elements are incorporated into the assessment. Potential landscape effects may include the following:

- alteration of the local character of the landscape due to the loss of existing landscape elements, features and the existing landscape patterns they create as a result of the proposed Scheme, such as loss of existing hedgerows and hedgerow trees, and partial loss of established woodland along the proposed Scheme corridor;
- introduction of infrastructure elements associated with the proposed Scheme including moving traffic, new structures, noise barriers, SUDs ponds and associated earthworks and the introduction of signage and lighting into existing rural and relatively tranquil locations; and
- alteration of the landform due to the construction of embankments and cuttings.

9.6 Mitigation

Introduction

9.6.1 Apart from a small part of the proposed Scheme which follows a similar alignment to the existing A96, from Seafield Roundabout to Seafield and where it runs adjacent to the existing A96 from South of Polfalden to Blackcastle, the route is offline, deviating from the existing A96 through farmland or woodland. The proposed Scheme including landscape mitigation measures has been developed through an iterative design process involving engineering, environmental and landscape specialists, in order to minimise landscape and visual impacts, integrate the road with the surrounding landscape, provide a pleasant experience for travellers, and where possible provide enhancements to the existing landscape.

9.6.2 Landscape mitigation proposals have been designed in accordance with the Scottish Government's policy document: Fitting Landscapes: Securing More Sustainable Landscapes (Transport Scotland 2014), DMRB Volume 10 Environmental Design and Management (Highways Agency, Scottish Executive Development Department, The National Assembly for Wales and The Department of Regional Development Northern Ireland 2001) and Planning Advice Note (PAN) 1/2013: Environmental Impact Assessment (Scottish Government 2013). As noted in paragraph 9.3.2 cognisance has also been taken of the STPR and A96 Dualling SEAs and Post Adoption Statements.

9.6.3 In line with Fitting Landscapes (Transport Scotland 2014) 'Landscape Objectives', detailed in Appendix A9.2 (Landscape Objectives), have been developed to focus the preparation of the design proposals, to help meet the overall proposed Scheme objectives and to mitigate the landscape impacts of the proposed Scheme.

9.6.4 As explained in Chapter 16 (People and Communities: All Travellers), the existing A96 is a key route and the strategy adopted for the landscape mitigation design has therefore been to take advantage of open long distance views where possible, whilst providing visual interest through planting and earthwork design at locations along the route to screen views of the road from nearby visual receptors and the wider landscape.

9.6.5 Landscape mitigation is concerned primarily with mitigation of adverse impacts and as previously stated in paragraph 9.2.24 impacts assessed as being of Moderate or greater significance were considered to represent key landscape changes where mitigation would generally be required to avoid or reduce these impacts, where practicable.

9.6.6 Mitigation of adverse impacts falls into three categories:

- prevention - avoidance of the loss of significant landscape elements through design of the proposed Scheme to achieve sensitive horizontal and vertical alignment;
- reduction - lessening of those adverse effects that cannot be eliminated by prevention (e.g. roadside mounding and planting to integrate with surrounding landform and landscape); and
- offsetting - provision of alternative or compensatory measures where appropriate and feasible (e.g. replacing woodland where appropriate).

9.6.7 The proposed Scheme and its mitigation measures have been designed to respond to the landscape qualities and key characteristics along the route, including tying in with and reflecting existing vegetation patterns and landform and using native species typical of the area. The landscape design as part of the proposed Scheme has been developed to require minimal maintenance and to provide 'flexibility' to accommodate future changes in circumstances, for example to take opportunities for wildlife habitat enhancement or management of views from the road.

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

9.6.9 Further, more detailed development of the landscape mitigation proposals will be progressed and details incorporated within contract documents of which this document will form a part, along with employer's requirements and specification. This will include a requirement that the detailed design meets the objectives of the mitigation and overarching Landscape Objectives.

Construction Phase

9.6.10 The following mitigation measures shall be implemented by the proposed contractor to avoid or reduce landscape impacts during construction. This is particularly important in close proximity to residential receptors and in areas where the landscape is very open (**Mitigation Item L1**):

- programming of works to minimise disruption, including keeping the construction programme to the minimum practicable time and clearing areas for construction as close as possible to works commencing;
- avoidance of night-time working, where possible;
- sensitive locating of site compounds, plant and material storage areas to minimise their landscape impact;
- construction sites to be kept tidy (e.g. free of litter and debris); and
- vegetation to be retained to be fenced off in advance of works beginning on site to ensure protection.

9.6.11 In relation to night-time working, where necessary, directed lighting shall be used to minimise light pollution/glare. In addition to specific approval from the relevant road authority, the contractor may be required to comply with the specific requirements of the Local Authority, which may include providing advice to potentially affected residents.

9.6.12 In relation to the sensitive location of site compounds, where possible existing features such as trees should be used to screen from the wider landscape. Where this is not possible, screening can be achieved using bunds or embankments which may become part of the permanent works. Alternatively, temporary screens can be erected, designed and painted to be as inconspicuous in their surroundings as possible.

9.6.13 The above measures will help to reduce the landscape impacts during construction. However, due to the extensive construction works necessary, these cannot be completely mitigated.

Application of Mitigation Principles

9.6.14 Prevention, reduction and offsetting approaches were applied during the proposed Scheme planning/design and are described below.

9.6.15 Figure 9.5 shows proposed landscape and ecological mitigation, whilst Figure 9.6 presents cross sections of the proposed landscape and ecological mitigation from a range of locations across the proposed Scheme. The proposed landscape and ecological mitigation has evolved from an iterative process between the environment, landscape, and design teams, with consideration given to aesthetics throughout the process.

9.6.16 Prevention measures include best fit with existing landform, avoidance of the loss or damage to landscape features such as water features or field systems and avoidance of the loss or damage to sites of ecological or archaeological interest, as identified in Chapter 11 (Habitats and Biodiversity) and Chapter 14 (Cultural Heritage). Measures designed to reduce and offset adverse impacts, are summarised below.

9.6.17 Location specific measures are described in Table 9.7, Table 9.8 and Table 9.9 and are illustrated on Figure 9.5.

Earthworks

9.6.18 Earthworks proposals aim to minimise the impact of cuttings and embankment slopes and to allow integration of the road with surrounding land (**Mitigation Item L2**) through:

- sensitive grading of all earthworks to improve integration with the surrounding landform, modifying embankment and cutting slopes to reflect and tie smoothly into existing natural landform and to allow land to be returned to its previous use where appropriate;
- avoidance of inappropriate regularly profiled slopes that conflict with the local landform;
- softening changes in slope at junctions and overbridges by smoothing out transitions;
- rounding off top and bottom of cuttings and embankments; and
- modification of the SUDS earthworks in order to improve integration with surrounding landform.

SUDS Basins and Detention Ponds

9.6.19 The SUDS required as part of the road drainage system provide the opportunity to create new beneficial features within the landscape and habitat for wildlife (**Mitigation Item L3**). They shall be sited within naturally low areas and their design developed further to look as natural as possible. Surrounding earthworks shall be designed with smooth flowing contours to integrate naturalistically with the surrounding landform. Abrupt changes in slope, sharp angles and steep side slopes shall be avoided. Boundary fencing, where required, shall be designed to be as unobtrusive as possible, with the fence type and alignment designed to minimise visual impact. Planting of native scrub species shall be undertaken to help screen proposed fencing, outfall and inlet structures, enhance wildlife habitat and provide visual interest. Open ground in the areas around the SUDS shall be seeded with native grasses and wildflowers to provide added wildlife habitat and visual interest. The development of the SUDs design shall be undertaken with reference to the design guidance outlined in DMRB Volume 10, Section 1, Part 1 HA 55/92, New Roads, Landform and Alignment, Chapter 20 and The SuDS Manual (Woods Ballard, B, Wilson, S, Udale-Clarke, H, Illman, S, Scott, T, Ashley, R and Kellagher, R 2015).

Noise Mitigation

9.6.20 Where noise mitigation is proposed (as determined by the noise assessment Chapter 8: Noise and Vibration) its height would vary in relation to local conditions along the proposed Scheme. The measures proposed would be in the form of barrier fencing, earth bund or a combination of the two

depending on height requirements and space available. Barrier fences have the potential to be visually intrusive when viewed from the proposed Scheme and surrounding properties. Where possible and appropriate to the surrounding landscape character, tree, scrub and/or climbing vegetation (as described below) is proposed along the protected side of the noise barrier fencing in order to help screen it from the proposed Scheme and nearby properties (**Mitigation Item L4**).

9.6.21 Earth bunds have been proposed to reduce the number of barrier fences particularly in sensitive locations. The proposals aim assist integration with the surrounding landform through rounding off at the top and bottom of bunds, grading out the back slope where possible and planting the bunds to marry with surrounding vegetation whilst assisting to reduce potential visual impacts (**Mitigation Item L4**).

9.6.22 The detailed design of the noise fencing would be undertaken by the contractor appointed to undertake the works.

9.6.23 The location of the proposed noise barrier fencing and earth bunds is shown on Figure 9.5.

Structures

9.6.24 The design of structures such as bridges along the length of the proposed Scheme has been informed through collaborative design working between engineers and other environmental specialists. The mitigation planting has also been designed to assist integrate proposed structures with the surrounding landscape and soften their appearance.

Lay-By Design

9.6.25 A total of nine lay-bys are proposed along the dual carriageway of the proposed Scheme. Further consideration will be given to creating pleasant and interesting settings for the lay-bys as part of the landscape design development, where possible retaining views out to the surrounding landscape (**Mitigation Item L5**).

Planting

9.6.26 Proposals relating to existing and new planting comprise the following:

- retention of existing trees and vegetation where possible and incorporation with new planting proposals (**Mitigation Item L6**);
- management of sizable areas of retained woodland using methods such as thinning, coppicing and interplanting to enhance sustainability, assist integration with new planting and protect existing screening where possible (**Mitigation Item L7**);
- planting to replace trees lost during the proposed Scheme construction, particularly in areas designated as ancient woodland (**Mitigation Item L8**);
- enhancement of biodiversity through use of predominantly native species, providing new wildlife habitats and complementing existing adjacent habitats (**Mitigation Item L9**). Planting proposals have been developed in consultation with ecology specialists;
- planting designed in association with the landform design to provide integration with the local landscape setting (**Mitigation Item L10**);
- planting mixes shall be designed to reflect locally prevalent assemblages of species and shall be set out in irregular patterns and spacing to replicate naturally occurring vegetation areas (**Mitigation Item L11**);
- planting at junctions and bridges to help assimilate there landform and structures into the surrounding landscape (**Mitigation Item L12**);
- planting to provide screening to reduce visual impacts of the dual carriageway, structures, lighting and noise barriers (**Mitigation Item L13**);
- use of severed field corners and landlocked areas as appropriate (**Mitigation Item L14**); and

- the introduction of more formal planting at transition points such as roundabouts and junctions to create a 'sense of place' and provide visual interest (**Mitigation Item L15**).

9.6.27 Planting shall assist integration with the local landscape character by using species mixes and planting patterns typical of the local landscape. National Vegetation Classification (NVC), which is used to describe and categorise the vegetation covering land in Great Britain, would inform the selection of plant species. Proposed planting mixes shall be predominantly based on native species, proven by established presence within the area and adapted to local conditions. However, non-native species may also be used where they are an established and distinctive feature of the current landscape setting or in areas of more formal planting where they would help to create a sense of place or enhance visual interest. Young stock is generally easier to establish and would therefore be predominant in mixes, although larger plants shall be used for initial impact in specific locations, for example where screening is required (**Mitigation Item L16**).

9.6.28 Planting would enhance the experience of travelling along the proposed Scheme by creating views to a variety of woodland types (**Mitigation Item L17**). This takes account of aspects such as natural woodland characteristics typical in the locality, designed landscape features, or other requirements such as avoiding creation of tree canopies close to the road. More specific details for each type of planting are specified below.

9.6.29 In total, it is estimated that approximately 37 ha of tree and scrub planting would be lost during construction of the proposed Scheme and 109 ha of new tree and scrub planting is proposed.

Deciduous Woodland

9.6.30 Proposed deciduous woodland planting shall comprise of a mix of sizes of plants such as feathered trees, whips and transplants to create a multi-layered woodland dominated by native deciduous trees, with Oak as the principal climax community reflecting surrounding deciduous woodlands. Native shrub species shall also be included to provide understorey and edge planting.

9.6.31 Deciduous woodland planting schemes are derived from canopy compositions of NVC dry-land woodlands. These woodlands are generally classified based on the acidity of the soil, with Oak/Birch woodland on acidic and mesotrophic soils (neither very acid nor very alkaline) and mixed deciduous woodland on more base-rich (calcium-rich) and free-draining soils. The NVC classification for these types of woodlands is often derived from differences in the ground and shrub layer rather than the canopy composition, therefore the planting proposals are designed to develop into broad types of broad-leaved woodland, rather than distinct NVC communities.

9.6.32 A typical tree species mix to be used for deciduous woodland would be:

- Oak - *Quercus robur* (20%);
- Sessile oak - *Quercus petraea* (15%);
- Silver birch - *Betula pendula* (15%);
- Rowan - *Sorbus aucuparia* (15%);
- Beech - *Fagus sylvatica* (5%);
- Wych elm - *Ulmus glabra* (10%);
- Alder - *Alnus glutinosa* (10%); and
- Aspen - *Populus tremula* (10%).

Coniferous Woodland Planting

9.6.33 Coniferous woodland refers to woodland where the majority of species present are coniferous and the minority are deciduous. The planting mix for coniferous woodland should replicate the NVC W18 Scots pine woodland characteristic of Caledonian pinewoods in Scotland. This woodland has Scots pine as the most abundant species, with non-native species limited to Larch and Norway Spruce and with smaller percentages of birch, rowan and aspen. Native shrub species shall also be included to provide understorey and edge planting.

9.6.34 A typical tree species mix to be used for coniferous woodland would be:

- Scots pine - *Pinus sylvestris* (60%);
- Larch - *Larix decidua* (10%);
- Silver birch - *Betula pendula* (15%);
- Rowan - *Sorbus aucuparia* (10%); and
- Aspen - *Populus tremula* (5%).

Mixed Woodland

9.6.35 Proposed mixed woodland planting, which requires both broad-leaved and coniferous woodland for visual screening purposes, shall comprise plants which range in size from feathered trees to whips and transplants. This would aim to create multi-layered woodland with a balanced mix of native deciduous and coniferous trees, including native evergreen understorey. The balance between deciduous and evergreen species shall be varied to achieve year-round screening and reflect existing woodland local to the various sections of the road. As in the coniferous woodland mix, the coniferous species within the mixed woodland should be dominated by the native species Scots pine reflecting surrounding woodlands and providing a strong evergreen framework and a habitat for red squirrels. Native shrub species shall also be included to provide understorey and edge planting.

9.6.36 A typical tree species mix to be used for mixed woodland is:

- Scots pine - *Pinus sylvestris* (20%);
- Oak - *Quercus robur* (20%);
- Alder - *Alnus glutinosa* (10%);
- Larch - *Larix decidua* (10%);
- Holly - *Ilex aquifolium* (10%);
- Aspen - *Populus tremula* (10%);
- Silver birch - *Betula pendula* (10%); and
- Rowan - *Sorbus aucuparia* (10%)

Riparian Woodland Planting

9.6.37 Riparian woodland is to be planted adjacent watercourses and ponds and in other areas along flood plains. It shall comprise a mix of sizes of plants such as feathered trees, whips and transplants using wetland species such as willow, birch and alder. Along the River Nairn corridor the riparian woodland is known as the ‘River of Alders’, Nairn being the Gaelic word for alder, and here planting shall reflect this with alder used as the dominant species. Native shrub species shall also be included to provide understorey and edge planting.

9.6.38 A typical tree species mix to be used for riparian woodland planting is:

- Goat willow - *Salix caprea* (15%);
- White willow - *Salix alba* (15%);
- Birch - *Betula pendula* (15%);
- Alder - *Alnus glutinosa* (20%);
- Aspen - *Populus tremula* (10%);
- Downy birch - *Betula pubescens* (10%);
- Hazel - *Corylus avellana* (5%); and
- Scots pine - *Pinus sylvestris* (10%).

Dry Scrub

9.6.39 Proposed dry scrub planting shall comprise native species of local provenance creating a dense medium height canopy. This mix shall be used in areas where a lower height plant cover is more appropriate than the taller woodland mixes. Single species scrub planting shall be used in areas such as junctions for local impact creating a more formal design.

9.6.40 A typical species mix to be used for dry scrub is:

- Hawthorn - *Crataegus monogyna* (25%);
- Blackthorn - *Prunus spinosa* (25%);
- Juniper - *Juniperus communis* (25%); and
- Dog Rose - *Rosa canina* (25%).

Hedgerows

9.6.41 Hedgerows shall be planted to tie revised boundaries into existing field boundaries but also to reintroduce a lost or degraded element back into the landscape to enhance the landscape character, increase biodiversity and provide screening where required. The hedge species mix aims to reflect species currently used within hedgerows in the region. The holly adds a native evergreen element. A typical species mix to be used for hedgerows is:

- Hawthorn - *Crataegus monogyna* (50%);
- Blackthorn - *Prunus spinosa* (30%);
- Beech - *Fagus sylvatica* (10%); and
- Holly - *Ilex aquifolium* (10%).

9.6.42 Typical hedgerow trees would include:

- Oak - *Quercus robur;*
- Rowan - *Sorbus aucuparia;* and
- Cherry - *Prunus avium.*

Individual Standard Trees and Feathered Trees

9.6.43 Groups of individual trees tree lines shall comprise standard trees in informal or formal groupings and positioned to strengthen the landscape pattern, create distinctive planting and a sense of place at transition points along the proposed Scheme i.e. on approach to and at major junctions and provide screening or filtration of views. Feathered tree groups planted to reflect the existing landscape character and provide impact at an early stage. Typical native species to be used include:

- Scots Pine - *Pinus sylvestris;*
- Beech - *Fagus sylvatica;*
- Silver Birch - *Betula pendula;*
- Aspen - *Populus tremula;*
- Rowan - Sorbus aucuparia; and
- Alder - Alnus glutinosa.

Grass Seeding

9.6.44 For all disturbed soft areas and road verges, different seed mixes shall be used, dependent on location and use (**Mitigation Item L18**):

- roadside verge mix: suited to the roadside location being low maintenance, fast establishing and tolerant of traffic and salt spray;
- species-rich grassland mixes: suited for use in all other areas disturbed by construction works, consisting of a mixture of native, non-invasive grasses and wildflower species to reflect locally occurring semi-natural flora. As well as enhancing biodiversity by providing foraging resources for birds and pollinators, and visual interest along the proposed Scheme, these types of grasslands would require minimal maintenance; and
- wetland grassland mix: suited for use in the SUDS, low lying poorly drained areas and areas around culverts that are likely to experience wet conditions.

Proposed Habitat Creation for Ecological Mitigation

9.6.45 In addition to following the general objective of enhancing biodiversity through the landscape mitigation, more detailed habitat creation proposals are provided in Chapter 11 (Habitats and Biodiversity) and included on Figure 9.5. These include:

- development of woodland mixes to provide habitat for protected species;
- planting of vegetation or seeding of species rich grassland to provide connectivity between existing or potential habitat locations;
- placement of hibernacula in woodland and close to SUDs or wetland;
- replacement of woodland lost; and
- inclusion of singing posts for corn buntings in hedgerows.

9.7 Residual Effects

9.7.1 The residual effects of the proposed Scheme have been assessed taking into account the proposed landscape mitigation. Details of site-specific landscape mitigation for each LLCA are referred to below and are also listed in Table 9.8 (**Mitigation Item L19 to L32**).

9.7.2 Direct effects on LLCAs are described below, and summarised in Table 9.8. Indirect effects are summarised in Table 9.9. Effects on landscape designations are summarised in Table 9.10. Effects reported in this assessment are considered to be adverse unless otherwise stated.

9.7.3 Visualisations prepared for the project are provided in Figure 9.7, alongside photographs showing the existing views. They are combination of wirelines and photomontages produced for illustrative purposes only; they have not been used to inform the landscape assessment. These illustrate the proposed change to the landform in views of the proposed Scheme and provide indicative views of the proposed Scheme once mitigation planting and seeding has become established.

Culloden Estate Farmlands LLCA

9.7.4 The Culloden Estate Farmlands LLCA comprises a remnant estate landscape with a well-established structure encompassing mature trees and blocks of deciduous woodland which generally limit long distance views. The proposed Scheme passes online from the Seafield Roundabout to Milton of Culloden, and then runs to the south of the existing A96, crossing a flat agricultural landscape of geometric fields.

9.7.5 Along the sections of the proposed Scheme which follow a close alignment to the existing A96, the landscape impacts would be limited, resulting primarily from the removal of some roadside vegetation and woodland. Filtered views to the proposed Scheme would be obtained from some locations on the northern edges of Smithton and Culloden but the remnant estate qualities and landscape structure of the LLCA would not be significantly affected and roadside mitigation planting would help to screen views of traffic once mature.

9.7.6 To the east of Milton of Culloden the proposed Scheme would pass through a previously relatively undisturbed agricultural landscape. The open landscape character would be retained and due to the proposed Scheme being slightly raised on embankment, views to the new transport corridor

from the northern edge of Culloden and core footpaths would be obtained and noise and movement introduced into a previously relatively undisturbed quiet environment. This would affect the tranquillity of the LLCA. These impacts would be partially mitigated by hedge planting along the proposed shared use path which would reflect the strong existing field pattern screening some views of the proposed Scheme and reinforcing the existing landscape character.

9.7.7 Noise mitigation measures in the form of earth bunds and barriers at varying heights would be provided adjacent to Seafield, the Smithton Junction, between the existing A96 and the proposed Scheme and adjacent to Milton of Culloden and Allanfearn. These measures would have an impact on views from the road corridor but would not significantly impact the general nature of views within the LLCA. Mitigation planting to the protected side of the barrier would assist in integrating the bunds into the surrounding landscape and also soften and screen visibility of barriers in views from local properties.

9.7.8 The widening of Stratton Lodge Road to the north of Culloden would necessitate the loss of some roadside vegetation on the eastern section of the road. To mitigate this loss, a new hedge with standard beech trees would be planted along the northern edge of the widened route, augmenting the estate character of the LLCA. The mature beech avenue, which runs along the southern boundary of Stratton Lodge Road, is an integral part of the estate character of the Culloden Estate Farmlands LLCA and as such is an important element within the landscape. This avenue would be retained and measures would be taken to protect it during construction as its loss would have a significant effect upon the positive characteristics of the LLCA.

9.7.9 The significance of residual effect upon the LLCA would be Moderate to Substantial. This would reduce to Moderate by the summer 15 years after opening, when the mitigation planting would have integrated the earthworks and the Smithton Junction into the surrounding landscape. However, it should be noted that the majority of this LLCA is allocated for development in the adopted local development plan, which if implemented, would alter the existing character.

Open Coastal Lowland LLCA

9.7.10 The Open Coastal Lowland LLCA extends over a large part of the study area, and covers two sections of the proposed Scheme; a western section between Allanfearn to Newton and an eastern section from the proposed Mid Coul Junction to the proposed Nairn West Junction. The low, gently undulating LLCA mostly comprises agricultural fields and is of an open and expansive scale, with simple wide horizons.

9.7.11 The introduction of the proposed Scheme would have a permanent direct effect on this LLCA due to its visibility across a large proportion of the open landscape. The mitigation planting of roadside hedgerows would however, restore disrupted field boundaries yet retain the open views to the Moray Firth which are a positive attribute of the LLCA. The flat nature of the landscape affords limited views to the road surface from the majority of the LLCA with the proposed Scheme mostly on embankment, with sections in cutting to the east of the proposed Balloch Junction and at Cockhill. The introduction of species rich grassland on roadside slopes would enhance ecological diversity along the route corridor.

9.7.12 Within the western section of the LLCA at the proposed Balloch Junction, the planting of mixed and scrub woodland would soften the appearance of embankments and impart a semi-urban to rural character whilst filtering views from the settlement. The introduction of lighting at the Balloch Junction would introduce a new element of development into the landscape at night-time.

9.7.13 Within the eastern section of the LLCA, the proposed Scheme runs to the north of the existing A96 and then returns online to the east of the proposed Brackley Junction. Inverness Airport lies immediately to the north of the proposed Scheme. The introduction of the Mid Coul Junction would result in direct adverse impacts within the LLCA, however views to this junction would be limited by the surrounding existing woodland and mitigation planting and the proposed Scheme would be perceived within the context of the existing landscape setting. To assist highlighting the Mid Coul Junction as the approach to the airport, a more formalised structure to the mitigation planting is proposed.

9.7.14 Direct adverse impacts would also be experienced at the proposed Brackley Junction due to the introduction of the junction and new access roads to local properties, which would be visible within the wider landscape. Mitigation planting of mixed woodland and scrub would soften the appearance of embankments and help to integrate the earthworks into the landscape with plant species to echo vegetation found in the adjacent Flemington Eskers LLCA. Access roads would be bordered by hedgerows to strengthen and invigorate field patterns and fit with the existing landscape character. The introduction of lighting at the junction would introduce a new element of development into the landscape at night-time.

9.7.15 At Gollanfield, direct adverse impacts would be experienced due to the realignment of Gollanfield Road (C1013) and the introduction of an overbridge (Gollanfield Road Overbridge) which would be visible within the undulating landscape. Proposed mitigation planting comprises roadside hedgerows which would fit with the existing landscape character, keeping views to wider landscape open. At Cockhill the proposed Scheme passes in cutting with visibility to the realigned access road and overbridge associated with the Nairn West Junction (Nairn West Junction Overbridge) limited due to landform and mitigation planting.

9.7.16 The significance of residual effect upon both sections of the LLCA would be Moderate. This would reduce to a Slight to Moderate after the summer 15 years after opening as the proposed mitigation planting becomes established to integrate the proposed Scheme, including the junctions into the surrounding landscape.

Forest Edge Farmland LLCA

9.7.17 The Forest Edge Farmland LLCA comprises a sloping landform with arable fields bordered by extensive areas of forestry and long distance views to the Moray Firth experienced from more open elevated areas. The proposed Scheme passes through the LLCA offline from Newton to Tornagrain and runs to the south of the existing A96, crossing north facing slopes of arable fields elevated above the low coastal plain below.

9.7.18 The proposed Scheme runs through the LLCA frequently on embankment and thus would be seen from open locations to the north of the LLCA but visibility to the proposed Scheme would be limited by areas of woodland in most of the southern parts of the LLCA. The offline alignment of the proposed Scheme would have a beneficial effect for areas close to the existing A96 with the reduced traffic flow increasing tranquillity at these less elevated locations.

9.7.19 Proposed roadside mitigation planting with mixed woodland would help to integrate the proposed Scheme into the landscape whilst strengthening the positive attributes of the LLCA by reinforcing the woodland structure. Mitigation planting has been designed to retain existing long distance views from the proposed Scheme to the Moray Firth where these add to the landscape qualities. South-east of Morayston and on the approach to the Kerrowaird underbridge (A96 Kerrowaird Underbridge), north facing embankment slopes would be graded out and sensitively profiled to assist integration of the proposed Scheme into the surrounding landform and facilitate a potential return to agriculture.

9.7.20 The significance of residual effect upon the LLCA would be Moderate. This would reduce to Slight to Moderate by the summer 15 years after opening, when the mitigation planting would have become established and assisted in integrating the earthworks into the surrounding landscape.

Tornagrain Woods LLCA

9.7.21 Tornagrain Woods LLCA comprises a flat landform which is predominately covered by dense, long established coniferous plantation woodland dominated by Scots pine, which forms a strong sense of enclosure. The majority of the area is designated as AWI woodland. The proposed Scheme passes through the LLCA offline from Tornagrain to the proposed Mid Coul Junction and runs to the north of the existing A96.

9.7.22 The construction of the proposed Scheme including the realigned Dalcross Station Road (C1020) and overbridge (C1020 Dalcross Station Road Overbridge) would necessitate the loss of part of Tornagrain Wood and a considerable number of mature coniferous trees including AWI woodland

and a belt of scrub woodland would be removed. The dense wooded nature of the LLCA would mean that visibility to the proposed Scheme is generally limited and only the areas of scrub to the north of Tornagrain would have longer distance views to the proposed Scheme and its embankments. Mixed woodland planting with Scots pine as the dominant species is designed to mitigate by replacing the lost woodland resource whilst fitting with the existing landscape character. Deciduous woodland planting is proposed along the realigned Dalcross Station Road (C1020) to diversify and enhance the appearance of the woodland edge and the setting for Petty Church.

9.7.23 The proposed Mid Coul Junction would result in some direct adverse visual impacts within the LLCA. The mitigation planting design at the junction would reflect the close proximity of Inverness Airport. Formal standard tree planting, using species related to the adjacent woodland would highlight the approach to the airport and create a sense of place. However views to this junction from the LLCA would be limited by the surrounding woodland and this screening effect would be increased by the development of the mitigation planting.

9.7.24 The significance of residual effect upon the LLCA would be Moderate. This would reduce to Slight to Moderate by the summer 15 years after opening, when the mitigation planting would have become visually linked to the surrounding woodland.

Enclosed Forest Edge Farmland LLCA

9.7.25 The Enclosed Forest Edge Farmland LLCA comprises a quiet and mostly undeveloped rural landscape of low lying undulating open fields which derives a sense of enclosure from the woodland which lies on higher land to the north, the Flemington Eskers ridge to the south and the wooded River Nairn corridor to the east. The proposed Scheme passes through the LLCA offline from the proposed Nairn West Junction to the River Nairn and runs approximately 1km to the south of the existing A96.

9.7.26 Long distance views across the open fields of the LLCA are obtained from many locations and as the proposed Scheme passes through the lower central part of the LLCA its visibility would be widespread in many areas, altering the way in which the landscape is perceived. The proposed Scheme would introduce noise and movement of vehicles into a quiet rural area, bringing a loss of tranquillity, one of the LLCA's positive qualities. The proposed Scheme would also result in the physical division of the LLCA with a severance of field patterns and roads and an imposition of new landforms within the relatively flat low lying landscape.

9.7.27 Direct adverse impacts would be experienced at the proposed Nairn West Junction due to the construction of the junction, overbridge (Nairn West Junction Overbridge) and a new access road to Cockhill. Due to the more wooded nature of the surrounding landscape at this location, the junction would not be widely visible but the introduction of lighting at the junction would introduce a further element of development at night-time. Mitigation planting is designed to reflect the existing landscape character with shelter belts of mixed and coniferous woodland combined with scrub to integrate the new structures and earthworks into the landscape whilst feathered trees and scrub planting would impart a semi-formal character to this junction on the approach to Nairn.

9.7.28 The proposed Scheme runs through the LLCA frequently on embankment and thus would be particularly visible from open elevated locations to the north of the LLCA. However, for areas in Delnies Wood the reduced traffic flow on the existing A96 would have a beneficial effect having a positive effect on tranquillity.

9.7.29 A mixed woodland shelter belt would mitigate impacts by screening views to the realigned Delnies Kildrummie – Howford Road (C1163) and the proposed Moss-side rail underbridges (Moss-side A96 Rail Bridge, Moss-side C1163 Rail Bridge). The mitigation design would retain long distance views from the LLCA to the south, whilst mitigation planting integrates the proposed Scheme into the landscape following the established landscape pattern within the LLCA of shelter belts.

9.7.30 Direct adverse impacts would also be experienced from the construction of an overbridge for the B9090 (B9090 Overbridge) and mitigation of a combination of mixed woodland and hedgerows are proposed to reflect the existing landscape pattern.

9.7.31 The significance of residual effect upon the LLCA would be Moderate to Substantial. This would reduce to Moderate by the summer 15 years after opening, when the mitigation planting would have developed to assist in integrating the scheme in the surrounding landscape whilst providing screening.

River Nairn Corridor LLCA

9.7.32 The River Nairn Corridor LLCA comprises a gentle v-shaped valley enclosed by mature deciduous woodland which contrasts strongly with the character of the surrounding open rolling farmland. This distinction brings a strong sense of isolation and tranquillity to the LLCA. The proposed Scheme travels across the LLCA offline approximately 2km to the south of the existing A96.

9.7.33 Direct adverse impacts would be experienced from the construction of a large-scale bridge crossing the River Nairn (River Nairn Underbridge) and the shared use path. Due to the linear nature of views along the river corridor and wooded nature of the LLCA, the River Nairn crossing would not be widely visible but the introduction of large scale structures and the removal of mature trees which are designated as AWI would adversely affect the enclosed character in locations close to the new crossing.

9.7.34 The significance of residual effect upon the LLCA would be Moderate to Substantial. Measures would be included during construction to limit the extent of existing woodland removed during the building of the bridge structure for the River Nairn crossing. Where possible deciduous woodland would be planted adjacent to the bridge structure to replace planting lost. However due to the high magnitude of change in the LLCA the residual effect by summer 15 years after opening would remain Moderate to Substantial.

Auldearn Forested Rolling Farmland LLCA

9.7.35 The Auldearn Forested Rolling Farmland LLCA is characterised by an undulating topography with extensive areas of woodland, shelterbelts and tree clumps set amongst arable farmland creating a sense of enclosure and uniformity. The proposed Scheme curves east from the River Nairn to Bogside of Boath, passing over the existing A96 at the proposed Nairn East Junction.

9.7.36 The proposed Scheme passes through the AWI plantations at Bognafuaran Wood and Russell's Wood with a mixture of cutting and embankment and a swath of AWI woodland would be felled at these locations. The wooded nature of the LLCA would reduce visibility to the proposed Scheme in these locations and the existing wooded character would be reinforced by mitigation planting.

9.7.37 Direct adverse impacts would be experienced at the proposed Nairn East Junction due to the construction of the junction, with the dual carriageway running on embankment whilst it crosses the B9111 Auchnacloich – Auldearn Road and the existing A96. Due to the more open nature of the surrounding agricultural landscape at this location, the junction would be widely visible and the introduction of lighting at the junction would introduce a further element of development at night-time.

9.7.38 The proposed Scheme passes through the historic site of the Auldearn Battlefield within this LLCA and is also visible from the viewpoint and Scheduled Monument at Dooket Hill in Auldearn. An assessment of the impacts associated with these historical sites is included in the visual assessment in Chapter 10 (Visual) and also in Chapter 14 (Cultural Heritage).

9.7.39 Mitigation planting within the LLCA is designed to reflect the existing forested landscape character, with coniferous and mixed woodland planting to the west to reflect and compensate for the lost woodland resource and mixed woodland to the east to link with existing estate woodland surrounding Boath House. Hedgerows would follow footpath boundaries to strengthen the landscape qualities where field patterns have been truncated.

9.7.40 In more open areas between Nairn and Auldearn the landscape is of a larger scale and the proposed Scheme would appear as a new linear element amongst the undulating fields.

9.7.41 The significance of residual effect upon the LLCA would be Moderate to Substantial. The effect would remain significant but reduce to Moderate by the summer 15 years after opening, when the mitigation planting would developed to more fully integrated the earthworks into the surrounding landscape.

Auldearn Open Farmland LLCA

9.7.42 The Auldearn Open Farmland LLCA comprises gently undulating arable fields interspersed with clumps of deciduous woodland and is of a large scale with open views to simple wide horizons. The proposed Scheme travels across the LLCA offline from Bogside of Boath to Wester Hardmuir Wood to the north of the existing A96.

9.7.43 The introduction of the proposed Scheme would create a permanent direct effect as it runs through a previously relatively undeveloped agricultural landscape. However, the undulating landform combined with the road lying in cutting for much of its route though the LLCA would limit its influence on the LLCA. Mitigation planting has been minimised where possible to retain the existing open character. The introduction of species rich grassland on roadside slopes would enhance ecological diversity within the route.

9.7.44 To the east of the LLCA the introduction of the overbridge at Hardmuir (Hardmuir Overbridge No 1) and the realignment of the access road to Courage Steading would cause direct adverse impacts, which due to the height of the overbridge would be visible within the surrounding undulating open landscape. Informal planting of mixed woodland on embankments in this location would help to visually integrate it into the landscape. The proposed mitigation planting of mixed woodland at this location on the eastern edge of the character area would not reflect the general landscape qualities of the LLCA and would more closely resemble the adjoining Hardmuir Forest Edge Farmland LLCA.

9.7.45 The significance of residual impact upon the LLCA would be Moderate. This would reduce to Slight to Moderate after the summer 15 years after opening as the proposed mitigation planting becomes established and integrates the road into the surrounding landscape.

Hardmuir Forest Edge Farmland LLCA

9.7.46 Hardmuir Forest Edge Farmland LLCA comprises a flat landform predominately covered by coniferous plantation woodland giving a strong sense of enclosure. The proposed Scheme passes through the LLCA from the west of Wester Hardmuir Wood to the junction with the existing A96.

9.7.47 The construction of the dual carriageway, an overbridge at Hardmuir Wood (Hardmuir Overbridge No 2) and the junction with the existing A96 would create permanent direct effects but visibility of these structures would be limited mostly to the linear transport corridor due to the wooded nature of the LLCA. The construction would necessitate the loss of a significant number of mature coniferous trees, including AWI woodland. Mixed woodland planting with Scots Pine as the dominant species is designed to mitigate by replacement of the lost woodland resource whilst fitting with the existing landscape character, improving landscape diversity and retaining the enclosed nature of the LLCA.

9.7.48 The significance of residual impact upon the LLCA would be Slight to Moderate due to the limited visibility of the proposed Scheme from the LLCA. This would reduce to Slight by the summer 15 years after opening, when the mitigation planting would have developed and linked into the surrounding woodland.

Indirect Residual Impacts on Local Landscape Character Areas

9.7.49 Indirect changes to other LLCAs resulting from the proposed Scheme were found to be limited, generally due to the absence of visibility of the proposed Scheme at these locations and are detailed in Table 9.9. No significant impacts were identified at the Enclosed Firth LLCA, Forested Backdrop LLCA and Open Firth LLCA.

9.7.50 The Flemington Eskers LLCA would experience some visibility to the proposed Scheme from elevated locations resulting in a significant Moderate adverse impact. Impacts would no longer be

significant by summer 15 years after opening, when the roadside mitigation planting would have become established.

Indirect Residual Impacts on Designated Landscapes

9.7.51 Indirect changes to Designated Landscapes identified in the baseline resulting from the proposed Scheme were found to be limited, generally due to the absence of visibility of the proposed Scheme at these locations with no significant impacts. No indirect impacts were identified at any of the six Conservation Areas within the study area.

9.7.52 Culloden House GDL would experience filtered views to the proposed Scheme and distant visibility of the new lighting proposed at Balloch Junction, which would result in a Slight impact upon the scenic values of the GDL which would not be significant. The other three GDLs within the study area would not experience any indirect impacts resulting from the proposed Scheme.

Table 9.8: Local Landscape Character Areas (LLCAs) with Direct Residual Effects – (see also Figure 9.5)

Chainage	Sensitivity	Description of Impacts	Winter, Year of Opening		Summary of Mitigation Proposals	Summer 15 Years after Opening		
			Magnitude of Impacts	Significance of Effect		Description of Residual Effects	Magnitude of Impact	Significance of Effect
Culloden Estate Farmlands LLCA								
ch1150 to ch3950	Low / Medium	Direct adverse impacts due to: - widening of existing road corridor from Seafield Roundabout to Milton of Culloden leading to loss of farmland, severance of fields and loss of hedgerows; - introduction of Smithton Junction including associated structures, earthworks, lighting, CCTV, signage; - introduction of noise bunds/ barriers; - loss of remnant estate woodland adjacent to Stratton, Cairnlaw Burn and Allanfearn. - introduction of the SUDS and associated access tracks and fencing; and - loss of farmland to the east of Milton of Culloden due to introduction of the proposed Scheme with severance of fields and loss of existing hedgerows and trees resulting in disruption to the existing landscape pattern. - loss of tranquillity due to introduction of increased and persistent traffic noise and movement.	Medium / High	Moderate / Substantial	Roadside verge with bulb under planting to strengthen urban character of proposed Scheme close to Inverness and enhance the approach to Inverness. Mixed woodland, and scrub woodland to strengthen existing landscape character, screen and soften visibility of proposed Scheme from properties at Resaurie and Culloden. Deciduous woodland to strengthen existing landscape character. Riparian woodland and hedgerow planting to integrate and screen the SUDS, and link with existing woodland and wetland habitats. Roadside and path-side hedgerow planting to repair severed boundaries, reinforce landscape character, soften and assist screen whilst retaining open views. Feathered tree planting to reflect landscape character, assist enhance the approach to Inverness and create a sense of arrival. Standard tree planting at Smithton Junction to strengthen	Reinstatement and provision of screening of the existing A96 and screening, integration and softening of elevated road corridor from the development of the mitigation planting and seeding. Long distance views to the Moray Firth retained where possible. Direct adverse effect on farmland and settlements - large scale, long term, permanent. Direct adverse effect from introduction of Smithton Junction including associated structures, earthworks, lighting, CCTV, signage - large scale, long term, permanent. Direct adverse local effect due to the introduction of noise barriers and bunds – small scale to medium scale, long term, decreasing over time. Direct adverse local effect due to the introduction of the SUDS - medium scale, long term, decreasing over time.	Medium	Moderate

Chainage	Sensitivity	Description of Impacts	Winter, Year of Opening		Summary of Mitigation Proposals	Summer 15 Years after Opening		
			Magnitude of Impacts	Significance of Effect		Description of Residual Effects	Magnitude of Impact	Significance of Effect
					landscape character, enhance approach to Inverness and assist screen visibility of proposed Scheme. Retention and management of existing vegetation where possible. Retention of mature Beech trees along Stratton Lodge Road. Hedgerow with standard beech trees at eastern end of Stratton Lodge Road to replace lost vegetation and strengthen remnant estate landscape character. Mixed woodland and scrub woodland to assist screen visibility and integrate proposed Scheme into the surrounding landscape. Scrub and hedgerow planting to provide visual separation. Scrub woodland planting on noise bunds to assist integration and soften their appearance. Climbers planted to the protected side of noise barriers to aid integration.			
Open Coastal Lowland LLCA								
ch3950 to ch6300	Low / Medium	Direct adverse impact due to: - loss of farmland as a result of introduction of the proposed Scheme;	Medium	Moderate	Roadside and path side hedgerows to reflect the landscape character, screen traffic movement whilst retaining	Addition of hedgerows, and hedgerow with trees as boundary elements to the road to strengthen landscape	Low / Medium	Slight / Moderate

Chainage	Sensitivity	Description of Impacts	Winter, Year of Opening		Summary of Mitigation Proposals	Summer 15 Years after Opening		
			Magnitude of Impacts	Significance of Effect		Description of Residual Effects	Magnitude of Impact	Significance of Effect
and ch10500 to ch17800		- severance of fields and loss of existing hedgerows and trees resulting in disruption to the existing landscape pattern; - introduction of Balloch Junction, Mid-Coul Junction and Brackley Junction including associated structures, earthworks, CCTV, lighting and signage; - widening of existing road corridor; - severance of path and loss of mature boundary trees and hedgerow at core path IN08.16 - loss of existing vegetation along road corridor; - introduction of the SUDS and associated access tracks and fencing; . - realignment of Gollanfield Road (C1013) and introduction of overbridge (Gollanfield Road Overbridge); - introduction of noise barriers at Easter Glackton; - loss of ancient woodland to the east of the proposed Brackley Junction and at Cockhill; Indirect adverse impacts due to: - introduction of Nairn West Junction and overbridge with associated lighting and signage. - severance of path and loss of mature boundary trees and hedgerow at core path IN08.16			open views. Roadside hedgerows with trees to provide partial screening, tie with existing vegetation, reinforce landscape character and retain partial distant views. Riparian and mixed woodland to assist screen SUDS, integrate watercourses and link with existing wetland habitats. Mixed woodland and scrub woodland planting at Balloch Junction to soften embankments screen visibility of proposed Scheme from Balloch and surrounding scattered properties. Retention and management of existing vegetation where possible. Standard tree planting at Balloch Junction to highlight approach to Balloch. Hedgerow and hedgerow with trees to highlight approach to Inverness Airport and provide screening. Mixed woodland and standard tree planting at Mid Coul Junction to reinforce landscape character and create sense of place for junction of the airport. Mixed woodland, scrub woodland, standard trees and hedgerow planting at Brackley	pattern, sense of place and character. Screening, integration and softening of elevated road corridor from development of mitigation planting and seeding. Long distance views to the Moray Firth retained where possible. Partial screening of the proposed Scheme by development of mitigation planting. Direct adverse effect on farmland - large scale, long term, permanent. Direct adverse effect from introduction of Balloch Junction, Brackley Junction and Mid Coul Junction associated structures, earthworks, CCTV lighting and signage - large scale, long term, permanent. Direct adverse local effect due to the introduction of the SUDS - medium scale, long term, decreasing over time. Direct adverse effect at Gollanfield due to realignment of Gollanfield Road (C1013) and introduction of overbridge (Gollanfield Road Overbridge) - large scale, long term, permanent. Direct adverse effect at Cockhill due to realignment of access road - large scale, long term, permanent.		

Chainage	Sensitivity	Description of Impacts	Winter, Year of Opening		Summary of Mitigation Proposals	Summer 15 Years after Opening		
			Magnitude of Impacts	Significance of Effect		Description of Residual Effects	Magnitude of Impact	Significance of Effect
					Junction to soften earthworks, improve integration with the surrounding landscape and provide screening for local properties. Mixed woodland planting adjacent to main dual carriageway to screen visibility and improve integration with the surrounding landscape. Seeding of species rich grassland on embankments, cuttings and flood retention earth bund. Grubbing up, planting and seeding of stretches of redundant road. Scrub woodland to reflect existing local vegetation, assist integration and screen visibility. Scrub and standard tree planting on cuttings to soften earthworks and enhance approach to Nairn West Junction. Mixed woodland, scrub and hedge at Gollanfield to reflect existing local vegetation, to complement the overbridge (Gollanfield Road Overbridge) and to screen views from local roads and paths. Mixed woodland and scrub planting to aid integration, screen and soften views. Standard tree planting within	Direct adverse local effect due to the introduction noise barriers at Easter Glackton - medium scale, long term, decreasing over time. Indirect adverse effect from Nairn West Junction including associated structures, earthworks, CCTV, lighting and signage - large scale, long term, permanent.		

Chainage	Sensitivity	Description of Impacts	Winter, Year of Opening		Summary of Mitigation Proposals	Summer 15 Years after Opening		
			Magnitude of Impacts	Significance of Effect		Description of Residual Effects	Magnitude of Impact	Significance of Effect
					Nairn West Junction to highlight junction to Nairn and to reduce indirect impacts.			
Forest Edge Farmland LLCA								
ch6300 to ch8900	Low/Medium	Direct adverse impact due to: - loss of farmland as a result of introduction of the proposed Scheme; - severance of fields and loss of existing hedgerows and trees resulting in disruption to the existing landscape pattern; - loss of existing vegetation along road corridor; - introduction of underbridge (A96 Kerrowaird Underbridge); - introduction of the SUDS and associated access tracks and fencing; and - loss of scrub habitat bordering Rough Burn due to realignment. Indirect adverse impacts due to: - visual and rural impacts due to introduction of dual carriageway and proposed Balloch Junction.	Medium	Moderate	Path-side hedgerows to reinforce separation of carriageway and pathway. Riparian planting adjacent to the SUDS and realigned watercourses to link with existing watercourses and wetland vegetation and assist integration with surrounding landscape character. Seeding of species rich grassland on embankments. Hedgerow planting to enhance landscape integration and provide partial screening. Scrub woodland to assist integration with surrounding landscape and to soften views. Retention and management of existing vegetation where possible. Mixed woodland and scrub woodland planting to assist landscape integration, soften and or screen visibility of the proposed Scheme from surrounding properties and tie in to with existing vegetation. Grading out and sensitive	Screening, integration and softening of elevated road corridor from development of mitigation planting and seeding. Open long distance views to the west and north west retained in key locations where possible. Direct adverse effect on farmland and topography - large scale, long term, permanent. Direct adverse effect from introduction of underbridge (A96 Kerrowaird Underbridge) with associated embankments - large scale, long term, permanent. Direct adverse local effect due to the introduction of the SUDS - medium scale, long term, decreasing over time.	Low / Medium	Slight / Moderate

Chainage	Sensitivity	Description of Impacts	Winter, Year of Opening		Summary of Mitigation Proposals	Summer 15 Years after Opening		
			Magnitude of Impacts	Significance of Effect		Description of Residual Effects	Magnitude of Impact	Significance of Effect
					profiling of embankments close to Morayston and Kerrowaird to assist integration with adjacent topography and potential return to agriculture.			
Tornagrain Woods LLCA								
ch8900 to ch10500	Low	Direct adverse impact due to: - loss of farmland and woodland due to the introduction of the proposed Scheme, - severance of fields; loss of existing hedgerows and hedgerow trees; - introduction of Mid Coul Junction including associated structures, earthworks, flood mitigation bund, CCTV, lighting and signage; . - realignment of Dalcross Station Road (C1020) and introduction of overbridge (C1020 Dalcross Station Road Overbridge) and embankments; - introduction of the SUDS and associated access tracks and fencing; - loss of Long established plantation woodland at Tornagrain Wood.; and - exposure of 'brown edge' due to loss of trees at edge of woodland.	High	Moderate	Mixed woodland to soften views from local properties and assist integration with the surrounding landscape and screen visibility. Mixed woodland to replace lost AWI woodland in Tornagrain Woods. Path-side hedgerows to reinforce separation of road and pathway. Riparian planting surrounding the SUDS to link with existing wetland habitats and improve integration with surrounding landscape character. Deciduous woodland planting along Dalcross Station Road to enhance the landscape setting through the use of a diverse range of native plant species. Standard tree planting within the proposed Mid Coul Junction to highlight junction to the airport and create a sense of place. Seeding of species rich grassland on embankments. Hedgerow and standard tree planting along Mid Coul Junction	Screening integration and softening of road corridor from development of mitigation planting and seeding. Direct adverse effect on woodland - large scale, long term, permanent. Direct adverse effect from introduction of Mid Coul Junction including associated structures, earthworks, flood mitigation bund, CCTV, lighting and signage - large scale, long term, permanent. Direct adverse effect from introduction of overbridge (C1020 Dalcross Station Road Overbridge) - large scale, long term, permanent. Direct adverse local effect due to the introduction of the SUDS - medium scale, long term, decreasing over time.	Medium / High	Slight / Moderate

Chainage	Sensitivity	Description of Impacts	Winter, Year of Opening		Summary of Mitigation Proposals	Summer 15 Years after Opening		
			Magnitude of Impacts	Significance of Effect		Description of Residual Effects	Magnitude of Impact	Significance of Effect
					slip roads to enhance and highlight approach to Inverness Airport. Retention and management of existing vegetation where possible.			
Enclosed Forest Edge Farmland LLCA								
ch17800 to ch22300	Medium	Direct adverse impact due to: - loss of farmland as a result of introduction of proposed Scheme; - severance of fields; loss of existing hedgerows and trees; - introduction of the proposed Nairn West Junction including associated structures, earthworks, CCTV, lighting and signage; - realignment of the Delnies – Kildrummie – Howford Road;(C1163) - introduction of the rail bridge (Moss-Side C1163 Rail Bridge); - introduction of NMU underpass (Moss-side NMU Underpass); - demolition of existing rail underbridge and introduction of a new at Moss-Side (Moss-Side A96 Rail Underbridge); - realignment of B9091 Croy - Clephanton - Kildrummie - Nairn Road and introduction of the Proposed B9090 and B9091 Link Road; - realignment of the B9090 Loch	High	Moderate / Substantial	Mixed woodland to soften views of road for local properties, integrate with existing vegetation and provide additional habitat. Coniferous woodland and shelterbelts to assist integration with the surrounding landscape, reinforce existing landscape pattern and screen views towards the proposed Scheme from adjacent properties. Species rich grassland on embankments with boundary hedgerows to retain open views and repair severance of field boundaries. Hedgerow planting to enhance local landscape character to soften view and tie in with existing vegetation. Standard tree planting within Nairn West Junction to enhance and highlight junction to Nairn. Mixed woodland and scrub planting at Nairn West Junction to, soften appearance of embankments, integrate the junction in the surrounding	Screening integration and softening of road corridor from development of mitigation planting and seeding. Direct adverse effect from introduction of a large scale road corridor to a relatively undeveloped landscape. Direct adverse effect on farmland - large scale, long term, permanent. Direct adverse effect from introduction of Nairn West Junction associated structures, earthworks, CCTV lighting and signage - large scale - large scale, long term, permanent. Direct adverse effect at Moss-Side due to realignment of Delnies – Kildrummie – Howford Road (C1163), introduction of the rail underbridge (Moss Side C1163 Rail Bridge) and introduction of NMU underpass (Moss-side NMU Underpass) - large scale, long term, permanent. Direct adverse effect as a	Medium / High	Moderate

Chainage	Sensitivity	Description of Impacts	Winter, Year of Opening		Summary of Mitigation Proposals	Summer 15 Years after Opening		
			Magnitude of Impacts	Significance of Effect		Description of Residual Effects	Magnitude of Impact	Significance of Effect
		Flemington – Clephanton – Cawdor – Nairn Road and introduction of overbridge (B9090 Overbridge); - introduction of the SUDS and associated access tracks and fencing; - widening and slight realignment of a number of local roads; - loss of AWI woodland linking to Delnies Wood; - loss of stretches of mature Scots pine shelter belts at Balnaspirach and B9091 Croy - Clephanton - Kildrummie - Nairn Road; and - loss of tranquillity due to introduction of increased and persistent traffic noise and movement.			landscape and screen views from local properties. Mixed woodland at Moss-Side to assist integration with new structures and embankments, assist soften appearance and provide screening to local properties. Riparian scrub/woodland adjacent to the SUDS and existing watercourses, enhance their appearance and link with existing wetland habitats. Mixed woodland planting and hedgerows on approach to and at B9090 Overbridge to integrate and screen visibility the proposed scheme at this location. Retention and management of existing vegetation where possible.	result of introduction of a new at Moss-Side (Moss-Side A96 Rail Underbridge) - large scale, long term, permanent. Direct adverse effect due to realignment of B9091 Croy - Clephanton - Kildrummie - Nairn Road and B9090 Loch Flemington – Clephanton – Cawdor – Nairn Road and introduction of the Proposed B9090 and B9091 Link Road – medium scale, long term, permanent. Direct adverse effect due to introduction of overbridge (B9090 Overbridge) - large scale, long term, permanent. Direct adverse local effect due to the introduction of the SUDS - medium scale, long term, decreasing over time.		
River Nairn Corridor LLCA								
ch22300 to ch22500	Medium / High	Direct adverse impact due to - loss of farmland due to introduction crossing of the River Nairn (River Nairn Underbridge and NMU shared use path); - loss of existing riparian vegetation and habitat along river corridor due to the introduction of crossing of River Nairn (River Nairn Underbridge) and associated embankments; - loss of ancient woodland	Medium / High	Moderate / Substantial	Deciduous woodland planting along the river corridor and adjacent to the bridge (River Nairn Underbridge and NMU shared use path) and where it has been lost during construction of crossing. Retention and management of existing vegetation where possible.	Softening of appearance and partial integration of underbridge (River Nairn Underbridge) into the landscape through development riverside planting adjacent to it. Direct adverse effect on Ancient Woodland - large scale, medium term, decreasing over time. Direct adverse effect from introduction of River Nairn	Medium / High	Moderate / Substantial

Chainage	Sensitivity	Description of Impacts	Winter, Year of Opening		Summary of Mitigation Proposals	Summer 15 Years after Opening		
			Magnitude of Impacts	Significance of Effect		Description of Residual Effects	Magnitude of Impact	Significance of Effect
		adjacent to the River Nairn; and - loss of tranquillity due to introduction of increased and persistent traffic noise and movement.				crossing with associated embankments - large scale, long term, permanent.		
Auldearn Forested Rolling Farmland LLCA								
ch22500 to ch27400	Medium	Direct adverse impact due to: - loss of farmland and plantation woodland due to the introduction of the proposed Scheme; - severance of fields and loss of existing hedgerows and trees; - introduction of NMU path on embankment at River Nairn Underbridge; - introduction of the Nairn East Junction including associated structures, earthworks, CCTV, lighting and signage; - introduction of underbridge (C1175 Underbridge) at Household – Raitloan – Howford Road (;C1175) - realignment of A939 Tomintoul - Grantown on Spey - Nairn Road and introduction of overbridge (A939 Overbridge) and embankments; - introduction of the SUDS and associated access tracks and fencing; - loss of long established AWI woodland at Crook Wood, Bognafuaran Wood and Russell's Wood; - potential exposure of 'brown edge';	High	Moderate / Substantial	Mixed and coniferous woodland to integrate proposed Scheme and screen its visibility from local properties. Mixed and coniferous woodland planting to reinforce existing forested character. Coniferous and mixed woodland to replace lost plantation and ancient woodland. Species rich grassland seeding on cuttings and embankments to assist integrate. Hedgerow planting to assist screening and repair severance of existing field boundaries. Earth bund close to East Lodge Cottage to assist in providing additional visual screening along with mixed woodland planting. Riparian planting and mixed woodland to screen, enhance and integrate SUDS and link with existing wetland habitats. Scrub and standard tree planting to screen and soften views, enhance approach to Nairn and create sense of place. Retention and management of existing vegetation where possible.	Screening integration and softening of road corridor from development of mitigation planting and seeding. Direct adverse effect on farmland and woodland - large scale, long term, permanent. Direct adverse effect from introduction of NMU path on embankment at River Nairn Underbridge - medium scale, long term, permanent. Direct adverse effect from introduction of Nairn East Junction including associated structures, earthworks, CCTV, lighting and signage - large scale, long term, permanent. Direct adverse effect at Household – Raitloan – Howford Road (C1175) due to introduction of underbridge (C1175 Underbridge) – medium scale, long term, permanent. Direct adverse effect from realignment of A939 Tomintoul - Grantown on Spey - Nairn Road and introduction of overbridge (A939 Overbridge) and embankments. Direct adverse local effect due	Medium / High	Moderate

Chainage	Sensitivity	Description of Impacts	Winter, Year of Opening		Summary of Mitigation Proposals	Summer 15 Years after Opening		
			Magnitude of Impacts	Significance of Effect		Description of Residual Effects	Magnitude of Impact	Significance of Effect
		- introduction of a noise bund at Knocknagillan; and - loss of tranquillity due to introduction of increased and persistent traffic noise and movement.				to the introduction noise bund at Knocknagillan – small scale, long term, decreasing over time.		
Auldearn Open Farmland LLCA								
ch27400 to ch29650	Low/ Medium	Direct adverse impact due to: - loss of farmland due to introduction of the proposed Scheme ; - severance of fields and loss of existing hedgerows and trees; - introduction of underbridge (C1172 Underbridge) at Auldearn – Station -Drum Road (C1172) - introduction of overbridge (Hardmuir Overbridge No 1).and realignment of access road at Courage Steading; -introduction of the SUDS and associated access tracks and fencing; and - loss of tranquillity due to introduction of increased and persistent traffic noise and movement.	Medium	Moderate	Species rich grassland seeding on cuttings and embankments to assist integrate the proposed Scheme. Hedgerow planting to assist repair severance and integrate the proposed Scheme whilst retaining open views where possible. Riparian and mixed woodland planting to enhance appearance of, screen and integrate SUDS, and link with existing wetland habitats. Mixed woodland at C1172 Underbridge and Hardmuir Overbridge No 1 to assist integrate the structure and earthworks into the surrounding landscape softening and screening visibility from local properties.	Screening integration and softening of road corridor from development of mitigation planting and seeding. Direct adverse effect on farmland - large scale, long term, permanent. Direct adverse effect at Auldearn – Station - Drum Road (C1172) due to introduction of underbridge (C1172 Underbridge) - medium scale, long term, permanent. Direct adverse effect due to realignment of access road at Courage and introduction of overbridge (Hardmuir Overbridge No 1) - large scale, long term, permanent. Direct adverse effect due to the introduction of the SUDS - medium scale, long term, decreasing over time.	Low / Medium	Slight / Moderate
Hardmuir Forest Edge Farmland LLCA								
ch29650 to ch31100	Low/ medium	Direct adverse impact due to: - loss of farmland and plantation woodland due to the introduction of the proposed Scheme; - severance of fields and loss of	Medium	Slight / Moderate	Mixed woodland to replace woodland lost at Hardmuir Woods and provide additional habitat. Mixed woodland to provide	Screening of road corridor by development of mitigation planting. Direct adverse effect on farmland and woodland - large	Low/medium	Slight

Chainage	Sensitivity	Description of Impacts	Winter, Year of Opening		Summary of Mitigation Proposals	Summer 15 Years after Opening		
			Magnitude of Impacts	Significance of Effect		Description of Residual Effects	Magnitude of Impact	Significance of Effect
		existing hedgerows; - introduction of junction and linkage to the existing A96; - introduction of overbridge and new access road at Hardmuir Road (Hardmuir Overbridge No 2); - loss of Long Established plantation at Wester Hardmuir Wood; and - exposure of woodland 'brown edge'.			screening, assist integration and link woodland habitats at Wester Hardmuir Wood and Hardmuir Wood. Mixed woodland planting to provide separation between the proposed Scheme and existing A96. Boundary hedging along existing A96 to assist in repairing boundary severance. Hedgerow planting to screen visibility of proposed Scheme included access roads from surrounding properties. Retain existing vegetation where possible.	scale, long term, permanent. Direct adverse effect at existing A96 due to introduction of junction realignment of road - medium scale, long term, permanent. Direct adverse effect at Hardmuir Road due to introduction of overbridge and realignment of access (Hardmuir Overbridge No 2) – medium scale, long term, permanent.		

Table 9.9: Local Landscape Character Areas (LLCAs) with Indirect Residual Effects

Sensitivity	Description of Impacts	Winter, Year of Opening		Summary of Mitigation Proposals	Summer (2036), 15 Years after Opening		
		Magnitude of Impact	Significance of Effect		Description of Residual Effects	Magnitude of Impact	Significance of Effect
Enclosed Firth LLCA							
Medium	Visibility to the proposed Scheme is from only a limited number of locations within the LLCA. Visibility of lighting at proposed Smithton and Balloch Junctions from some locations within the LLCA.	Low	Slight / Moderate	Introduction of roadside planting to integrate road corridor into landscape.	Development of the mitigation planting would provide additional screening to the proposed Scheme.	Low	Slight
Flemington Eskers LLCA							
High	Visibility to the proposed Scheme from elevated locations within the LLCA and noise from traffic would affect qualities of remoteness and tranquillity. Visibility of lighting at proposed Brackley and Nairn West Junctions.	Low	Moderate	Introduction of roadside planting to integrate road corridor into landscape.	Development of the mitigation planting would provide screening to the proposed Scheme.	Low	Slight/ Moderate
Forested Backdrop LLCA							
Medium	Long distance views to the proposed Scheme from some open locations within the LLCA. Visibility of the lighting at proposed Nairn East Junction.	Low	Slight	Introduction of roadside planting to integrate road corridor into landscape.	Development of the mitigation planting would further limit the distant visibility to the proposed Scheme.	Low	Slight
Open Firth LLCA							
Medium - high	No change	-	-	-	-	-	-

Table 9.9: Indirect Residual Impacts on Designated Landscapes

Sensitivity	Description of Impacts	Winter, Year of Opening		Summary of Mitigation Proposals	Summer, 15 Years after Opening		
		Magnitude of Impact	Significance		Description of Residual Effects	Magnitude of Impact	Significance
Brodie Castle GDL							
High	No change	-	-	-	-	-	-
Culloden House GDL							
High	Filtered views to the proposed Scheme through trees from the north eastern edge of the GDL. Distant visibility of the lighting at the proposed Balloch Junction at night-time from the north-eastern edge of the GDL.	Low	Slight to Moderate	Roadside hedgerow and hedgerow trees to integrate road corridor into landscape.	Development of the mitigation planting would further limit the distant visibility to the proposed Scheme.	Low	Slight
Dalcross Castle GDL							
High	No change	-	-	-	-	-	-
Darnaway Castle GDL							
High	No change	-	-	-	-	-	-
Inverness Riverside Conservation Area							
High	No change	-	-	-	-	-	-
Inverness Crown Conservation Area							
High	No change	-	-	-	-	-	-
Culloden House Policies Conservation Area							
High	No change	-	-	-	-	-	-
Culloden Battlefield Conservation Area							
High	No change	-	-	-	-	-	-
Ardersier Conservation Area							
High	No change	-	-	-	-	-	-

Sensitivity	Description of Impacts	Winter, Year of Opening		Summary of Mitigation Proposals	Summer, 15 Years after Opening		
		Magnitude of Impact	Significance		Description of Residual Effects	Magnitude of Impact	Significance
Nairn Fishertown Conservation Area							
High	No change	-	-	-	-	-	-

9.7.53 The assessment found that significant direct residual impacts would occur within the LLCAs where the proposed Scheme would affect the positive qualities of tranquillity by the introduction of a major development into landscapes that are relatively undeveloped in character. These LLCAs comprise of the Enclosed Forest Edge Farmland, Auldearn Forested Rolling Farmland and River Nairn Corridor LLCAs. Impacts on the Enclosed Forest Edge Farmland LLCA and Auldearn Forested Rolling Farmland LLCA resulting from the proposed Scheme would be Moderate to Substantial reducing to Moderate after 15 years. Effects for the River Nairn Corridor LLCA resulting from the proposed Scheme would be Moderate to Substantial and these would not reduce after 15 years. Significant effects would also occur on the less tranquil landscapes of the Culloden Estate Farmlands LLCA as a direct result of the proposed Scheme, effects being Moderate to Substantial reducing to Moderate on establishment of the mitigation measures after 15 years. However, it is important to acknowledge that an extensive area of land within this LLCA is allocated to the development land category within the adopted local development plan. Should the land be developed as planned, its character would be altered considerably thus the baseline landscape and the effects of the proposed Scheme within this area would be likely to change. Given that the proposed development would effectively urbanise the landscape, it is considered unlikely that it would become more sensitive to the proposed Scheme than the existing rural landscape and the magnitude of landscape impact is also considered unlikely to increase, given that new roads would be integral to and therefore in character with the development proposals.

9.7.54 In respect of the Open Coastal Lowland LLCA, Forest Edge Farmland LLCA, Tornagrain Woods LLCA and Auldearn Open Farmland LLCA, while direct effects on these LLCAs would be Moderate and significant following construction of the proposed Scheme, the effects would reduce to Slight to Moderate and would not be significant after 15 years with the establishment of the mitigation measures.

9.7.55 Significant indirect residual effects would occur at the Flemington Eskers LLCA with effects that would be Moderate becoming Slight to Moderate and not significant after 15 years. No significant indirect residual effects were found to occur upon any of the designated landscapes within the study area.

9.7.56 No direct or indirect significant effects on designated landscapes would occur as a result of the proposed Scheme.

9.8 References

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