

41 Landscape

This chapter details the landscape assessment of the Fastlink section of the proposed scheme. The existing landscape is described and classified into areas of distinctive character which assist in the evaluation of the sensitivity of the landscape and the development of mitigation proposals. Impacts are assessed for both the 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 the opening (when mitigation planting has become established and contributes to screening).

The landscape in this area is predominantly rural, characterised by rolling hills, areas of woodland and open farmland, with scattered settlement and small villages. It is generally assessed as being of medium sensitivity to change.

Appropriate grading of earthworks has been incorporated into the scheme design, and planting (including grassed areas, scrub and woodland) is proposed to improve the fit of the scheme within the surrounding landscape. Fencing and replacement drystone walling is also proposed to tie in with existing field boundaries.

Residual impacts are predicted due to the severance of the open and wooded farmlands, hill and valley landscapes and the introduction of the road corridor, its associated embankments and cuttings, overbridges, junctions, lighting and vehicles movement. The most significant impacts are predicted where the Fastlink divides a sensitive rural valley at the Burn of Muchalls, cuts through the hillsides at Megray, Cookney and Stranog and crosses open farmland on embankment at Blaikiewell.

41.1 Introduction

- 41.1.1 This chapter details the assessment of the landscape impacts of the Fastlink section of the AWPR. The Fastlink study area runs from Stonehaven to the southern edge of Cleanhill Wood. The assessment methodologies are explained, including details of the main sources of information that were utilised. The baseline conditions are described and an assessment made of impacts on the landscape resource that would result from the proposed scheme. This includes an assessment of the changes in the character and quality of the landscape (including settlement), which are likely to occur. Mitigation measures are also developed to address potential impacts.
- 41.1.2 A summary of landscape character, landscape sensitivity, magnitude and potential impacts is presented in Appendix A41.1. Information on the landscape character assessment is contained in Appendix A11.3.
- 41.1.3 The landscape assessment is primarily concerned with:
- direct and indirect impacts on specific landscape features and elements;
 - effects on the overall pattern of elements which together determine the landscape character and regional/local distinctiveness;
 - impacts on special interests or values such as designated landscapes, conservation sites and cultural associations; and
 - changes to perceptual or experiential characteristics of the landscape such as tranquillity and remoteness.
- 41.1.4 The purpose of the landscape assessment is both to identify potential impacts of the proposed scheme and to assist in the design of appropriate mitigation measures.
- 41.1.5 The impact of the proposed scheme on the character of views and visual amenity, which is an important consideration in the assessment of landscape effects, is addressed in Chapter 42 (Visual). The assessment of the views from the new road as they would be experienced by vehicle travellers is contained in Chapter 47 (Vehicle Travellers).

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41.1.6 The extent of the Fastlink study area for the landscape assessment is illustrated on Figure 41.1 and occupies the area of land extending approximately 3km either side of the line of the proposed scheme. Based on professional judgement it was assessed that beyond this area, due to topography and distance from the proposed scheme, indirect landscape impacts would be negligible.

41.2 Approach and Methods

41.2.1 The landscape assessment was undertaken in accordance with the Design Manual for Roads and Bridges (DMRB), Volume 11 Section 3 Part 5, Landscape & Visual Assessment Supplementary Guidance, published by the Scottish Executive in February 2002 and Guidelines for Landscape and Visual Impact Assessment, Second Edition published in 2002 by the Landscape Institute and Institute of Environmental Management & Assessment.

41.2.2 The design of landscape mitigation measures was undertaken in accordance with 'Cost Effective Landscapes: Learning from Nature' (CEL:LFN) (Scottish Executive, 1998), DMRB Volume 10 (Highways Agency et al., 1993) and PAN 58: Environmental Impact Assessment (SEDD, 1998).

41.2.3 The four main steps in the landscape assessment process were:

- description;
- classification; and
- evaluation; leading to
- impact assessment.

41.2.4 Landscape assessment consists initially of the collection of baseline data relating to the individual elements (e.g. hills, valleys, woodlands, hedges, buildings etc), character (i.e. the distinct and recognisable pattern of elements that occurs consistently in a particular type of landscape, and how it is perceived by people) and characteristics (elements or combinations of elements that make a particular contribution to the character of an area, including experiential characteristics such as tranquillity and wildness) of the landscape.

41.2.5 SNH has published a Landscape Character Assessment of South and Central Aberdeenshire (SCALCA), which was used to assist in the classification of the landscape in this assessment. These documents divide the study area into various areas (Landscape Character Areas (LCAs)) of particular Landscape Character Type (LCT). Detailed desk based and field assessment has been undertaken to allow the distribution of Landscape Character Types and Areas to be refined and considered at a more local scale, in order to provide a level of detail to enable evaluation and impact assessment.

41.2.6 An overview of the LLCAs is shown on Figure 41.1 and in detail on Figures 41.2a-b. Photographs of the LLCAs are shown on Figures 41.4a-g

41.2.7 In undertaking the landscape assessment, consideration was given to the following:

- an experience of the landscape is not only visual, but involves all of the senses;
- data relating to the elements of the landscape, its character and value will include that dealt with in separate related sections of this Environmental Statement (e.g. Ecology, Cultural Heritage);
- the value placed on an area is dependant not only on its aesthetic qualities but also on its situation, rarity and usage;
- historical and cultural associations or ecological importance may contribute to the value placed on landscape not generally considered to be of visual or other importance; and
- landscapes which although not designated may be of great local or wider value.

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41.2.8 Data collection to supplement the information provided in ALCA and SCALCA was by way of a desk study and field survey, the latter principally by car and by foot from the surrounding minor roads and tracks and undertaken by teams of at least two landscape architects. In addition, baseline data contained in Stage 2 Environmental Assessments undertaken by Mouchel Consulting Ltd. (2002 and 2003) were utilised, where relevant. Data related to built-up areas, identified simply as 'Settlement' in ALCA and SCALCA were gathered in order to provide a meaningful baseline against which to assess potential scheme impacts on their character and setting (for example through noise and visual impacts). As landscape and visual impact assessments are closely related, the data collected were used for both, as appropriate. The visual impact assessment is provided in Chapter 42.

Desk Study

41.2.9 Structure and Local Plans were consulted to establish the presence of areas of statutory designation and protection. Aerial photographs of the route corridor and current 1:25,000 (Nos 396 and 406) and 1:50,000 (Nos 38 and 45) scale Ordnance Survey maps were studied to help identify landscape elements and patterns.

41.2.10 Data relating to landscape (including baseline landscape character descriptions produced by Mouchel 2003), archaeology, ecology, buildings and settlements were examined to provide a thorough knowledge of conservation interest. Other human interests were established by analysing data relating to recreation and public rights of way.

41.2.11 Consultations were undertaken with statutory and other bodies to supplement the desk study data collection as discussed in Chapter 6 (Scoping and Consultations).

41.2.12 Information of relevance to the proposed development was extracted from these sources and the following topics were explored:

- pattern and scale of landform, land cover and built development;
- special values including national and local landscape designations, Conservation Areas and historical and cultural associations; and
- specific potential receptors of landscape and visual impact, including important parts of the landscape, residents, visitors, travellers and other groups of viewers.

Field Survey

41.2.13 The Fastlink 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 assessment.

41.2.14 Observation of the levels of public use of open spaces, roads and footpaths was made in the field and used to assist in the assessment. Further information on public usage of footpaths, cycle paths and bridleways is contained in Chapter 46 (Pedestrians, Cyclists, Equestrians and Community Effects).

Evaluation of Sensitivity to Change, Magnitude of Change and Impact Significance

41.2.15 Two assessments of proposed scheme impacts were undertaken. Firstly impacts were assessed for the proposed scheme during the winter, year of opening taking account only of mitigation measures which would have an immediate effect (e.g. grading out of slopes, noise barriers, stone walling, new planting, etc). An assessment of impacts was then made for summer 15 years after scheme opening when proposed mitigation planting will have become established.

41.2.16 An initial indication of impact significance was gained by combining sensitivity to change and magnitude of change. Professional judgement based on experience was then used to confirm impact significance.

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- 41.2.17 In accordance with Landscape & Visual Assessment Supplementary Guidance, evaluation of sensitivity to change combines a review of 'susceptibility' (i.e. the ability to accommodate change arising from the proposed road without adverse effect) and 'value', as applied to the main elements of the landscape. . Susceptibility and value take into account information about the various factors considered in arriving at the evaluation, such as key features and characteristics, quality and value/importance, which together create a sense of place. The evaluation of sensitivity of landscape and settlement character areas remote from the proposed route, but where people's experience of these could be altered by the proposals, (for example through visual impacts or increases in traffic noise), focuses primarily on perceptual qualities such as remoteness and tranquillity and the nature of views potentially affected by the route. Outlined below in Table 41.1 are the criteria used to define the overall evaluation of landscape sensitivity:

Table 41.1 – Landscape Sensitivity Criteria

Sensitivity	Criteria
High	Landscape or landscape elements of particular distinctive character, highly valued and considered susceptible to relatively small changes
Medium	A landscape of moderately valued characteristics considered reasonably tolerant of change
Low	A landscape of generally low valued characteristics considered potentially tolerant of substantial change

- 41.2.18 Evaluation of the magnitude of the proposed changes upon the elements of the landscape, brought about by the proposed scheme, involved a review of the nature and scale of the change, together with its duration and degree of permanence, using the criteria outlined below in Table 41.2. The results of this evaluation are presented in Appendix A41.1, Table 15. and Table 41.11 within this chapter.

Table 41.2 – Landscape Magnitude of Change Criteria

Magnitude	Criteria
High	Notable change in landscape characteristics over an extensive area ranging to very intensive change over a more limited area.
Medium	Minor changes in landscape characteristics over a wide area ranging to notable changes in a more limited area.
Low	Minor or virtually imperceptible change in any area or landscape components.

Impact Assessment

- 41.2.19 The framework criteria below in Table 41.3 were used to help determine impact significance (adverse or beneficial) from the differing combinations of levels of sensitivity and magnitude. A summary framework of the criteria is outlined in Table 41.4.
- 41.2.20 It should be noted, however, that this is only a framework to aid consistency of reporting and provide an initial indication of the likely impact arising from the assessment of magnitude and sensitivity. Given that the criteria low/moderate/high represent levels on a continuum or continuous gradation, application of the framework also required judgement and awareness of the relative balance of importance between sensitivity and magnitude.
- 41.2.21 Impacts assessed as a Moderate or Substantial significance are considered to represent key landscape changes and mitigation was therefore incorporated into the scheme proposals to address any such adverse impacts wherever possible.

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Table 41.3 – Impact Significance Criteria for Landscape

Impact	Criteria
Negligible	No noticeable deterioration or improvement in the existing landscape resource.
Negligible to Slight adverse	Barely perceptible variance with the landform, scale or pattern of the landscape resulting in very limited degradation or diminution of the integrity of an area of recognised character; and would change a landscape of low sensitivity.
Slight adverse	At barely perceptible variance with the landform, scale or pattern of the landscape resulting in very minor degradation or diminution of the integrity of an area of recognised character; and would change a landscape of medium sensitivity; or At minor variance with the landform, scale or pattern of the landscape resulting in limited degradation or diminution of the integrity of an area of recognised character; and would change a landscape of low sensitivity.
Slight to Moderate adverse	At barely perceptible variance with the landform, scale and pattern of the landscape resulting in permanent degradation or diminution of the integrity of valued characteristic features and/or elements and/or their settings; and would cause a landscape of high sensitivity to be permanently changed; or At minor variance with the landform, scale or pattern of the landscape resulting in very minor degradation or diminution of the integrity of an area of recognised character; and would change a landscape of medium sensitivity; or At considerable variance with the landform, scale and pattern of the landscape resulting in permanent degradation or diminution of the integrity of valued characteristic features and/or elements and/or their settings; and would cause a landscape of low sensitivity to be permanently changed.
Moderate adverse	At minor variance with the landform, scale and pattern of the landscape resulting in permanent degradation or diminution of the integrity of highly valued characteristic features and/or elements and/or their settings; and would cause a landscape of high sensitivity to be changed; At considerable variance with the landform, scale and pattern of the landscape resulting in permanent degradation or diminution of the integrity of valued characteristic features and/or elements and/or their settings; and would cause a landscape of medium sensitivity to be permanently changed; or At very considerable variance with the landform, scale and pattern of the landscape resulting in permanent degradation or diminution of the integrity of highly valued characteristic features and/or elements and/or their settings; and would cause a landscape of low sensitivity to be permanently changed.
Moderate to Substantial adverse	At considerable variance to the landform, scale and pattern of the landscape resulting in permanent degradation or diminution of the integrity of highly valued characteristic features and/or elements and/or their settings; and would cause a landscape of high sensitivity to be permanently changed. or At very considerable variance to the landform, scale and pattern of the landscape resulting in permanent degradation or diminution of the integrity of highly valued characteristic features and/or elements and/or their settings; and would cause a landscape of medium sensitivity to be permanently changed. or
Substantial adverse	At very considerable variance to the landform, scale and pattern of the landscape resulting in permanent degradation or diminution of the integrity of highly valued characteristic features and/or elements and/or their settings; and would cause a landscape of high sensitivity to be permanently changed; or At extreme variance with the landform, scale and pattern of the landscape resulting in permanent degradation, diminution or destruction of the integrity of highly valued characteristic features and/or elements and/or their settings; and would cause a medium sensitive landscape to be permanently changed.
Severe adverse	At extreme variance with the landform, scale and pattern of the landscape resulting in permanent degradation, diminution or destruction of the integrity of highly valued characteristic features and/or elements and/or their settings; and would cause a highly sensitive landscape to be permanently changed.
Slight beneficial	Minor improvement in the landscape character with proposals fitting in with the scale, landform and pattern of the landscape and enabling limited introduction or restoration of valued landscape characteristics which may have been diminished or lost.
Moderate beneficial	Considerable improvement in the landscape character with proposals fitting in very well with the scale, landform and pattern of the landscape and enabling significant introduction or restoration of valued landscape characteristics which may have been diminished or lost.

Table 41.4 –Summary of Impact Significance Criteria for Landscape

Magnitude	Sensitivity		
	High	Medium	Low
High	Severe	Substantial	Moderate
Medium	Substantial	Moderate	Slight
Low	Moderate	Slight	Negligible

Limitations to Assessment

41.2.22 This assessment has been undertaken on the scheme design of May 2007. With regard to the assessment of landscape impacts in accordance with DMRB, no limitations to this assessment were identified.

41.3 Baseline Conditions

41.3.1 This section provides an overview of the baseline conditions along the route of the Fastlink and its environs and considers the regional context of the proposed scheme and features that influence the landscape including geology, soils, topography, drainage, historic context, settlement, land use and vegetation.

Regional Context

41.3.2 The Fastlink study area is located in the North East corner of Scotland. Buchan and the Moray Firth lies to the north, the Firth of Tay to the south and the Grampian Highlands to the west. Aberdeen is the closest large centre of population.

41.3.3 The study area lies within the northeast Lowlands with the Grampian Highlands containing the Cairngorm Mountains and the Grampian Foothills and Uplands to the west and the Central Lowlands consisting of the Strathmore and Sidlaw Hills and the Fife Lowlands and Uplands to the south.

41.3.4 To the south of the northeast Lowlands region, the sub-region Skene Lowlands, where the Fastlink study area occurs, is generally rolling, smoothly sloped, agricultural land between Stonehaven and Cleanhill Wood on the south bank of the River Dee. This area is drained by numerous burns flowing to the North Sea in the east.

Landscape and other Statutory Designations

Green Belt – Aberdeenshire Council

41.3.5 Aberdeenshire Council identifies areas of Green Belt in the Aberdeenshire Local Plan Adopted 2006, which would be directly affected by the Fastlink. The Aberdeenshire Green Belt links into the Aberdeen City Green Belt and exists to provide countryside for informal recreational purposes and to maintain the landscape setting of Aberdeen. Allowances are only made for developments considered suitable in Green Belt and which accord to structure plan and national planning policy and guidance.

SNH Landscape Character Assessments

41.3.6 SNH has published Landscape Character Assessments covering the whole of Scotland. The South and Central Aberdeenshire (ERM, 1998) assessment covers the Fastlink area. This document was used as a source of information and provided a basis for the Landscape Character Assessment.

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Geology and Soils (for further details see Chapter 38 (Geology, Contaminated Land & Groundwater))

- 41.3.7 Geology and soils are considered in detail in Chapter 38 (Geology, Contaminated Land and Groundwater). However, geology and soils also influence landform and in the context of the landscape assessment are briefly summarised in paragraphs 41.3.8 and 41.3.9 below.
- 41.3.8 The study area lies in an area of mainly metamorphic rock, which also contains outcrops of igneous rock such as granite. The metamorphic rocks tend to be quartz, mica, schist, grit and slate. Stonehaven lies on the coast at the north-eastern extremity of the Highland Boundary Fault which separates this metamorphic terrain to the north from the great sandstone vale of Strathmore to the south.
- 41.3.9 The majority of soils within the study corridor are derived from boulder clay and morainic drift, reflecting the underlying metamorphic geology. Alluvial soils and glacial sands and gravels are found along the tributaries to the River Dee while peat occurs within relatively flat hollows on the plateau to the south of the Dee valley.

Topography and Drainage (for further details see Chapter 39 (Water Environment))

- 41.3.10 The topography and drainage of the Fastlink study area are illustrated on Figure 41.3a-b.
- 41.3.11 Immediately north of Stonehaven, the study area rises steeply from the A90 at around 90m AOD over a pair of prominent hills (Hill of Megray and an unnamed hill, both just over 120m AOD) and onto an undulating plateau which extends as far as the Dee valley.
- 41.3.12 South of the Dee valley, immediately north of the Fastlink junction with the Southern Leg section of the proposed scheme, the route corridor crosses a series of distinct prominent hills, underlain by granite intrusions where the bedrock is close to the surface, notably Hill of Blairs, Cleanhill, Oldman Hill and Clochandighter. Between Stonehaven and this range of hills, the study area generally follows low ground enclosed by a hill massif rising to 267m AOD at the peak of Meikle Carewe Hill in the west and a series of smaller hills rising up to 170m AOD in the east. A number of the peripheral hills in these ranges extend into the study corridor to form prominent local landmarks. The land within this section of the study area is generally undulating, however there are a number of virtually flat peat moss areas providing a strong contrast, the most extensive of which is Red Moss to west of Netherley.
- 41.3.13 The Fastlink crosses the watershed between the River Dee and the Cowie Water catchment area, with several burns flowing eastwards directly into the North Sea. Red Moss lies at the southern watershed of the Dee catchment, from where Burn of Muchalls flows south eastwards to the coast and Crynoch Burn follows a meandering course northwards from Stranog Hill before cutting a steep sided valley through Storybook Glen to the Dee, within the study area for the Southern Leg section of the proposed scheme.
- 41.3.14 In the south, Limpet Burn follows a distinctive, deeply incised, narrow, wooded valley through the study corridor eastwards to the coast.

Historical Context

- 41.3.15 The history of the Aberdeen area is considered in detail in Chapter 43 (Cultural Heritage). However, historical land use also influences the present landscape, and in this context is briefly summarised in paragraphs 41.3.16 to 41.3.20 below.

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- 41.3.16 Stonehaven has a rich and varied history, with much evidence of prehistoric activity in the area substantiated by both the standing stones and the Bronze Age, Iron Age and Pictish relics discovered in and around the town and the wider Aberdeenshire area. Evidence also exists of a Roman presence in the area and as Stonehaven Bay was a natural harbour, it may have sheltered Roman galleys between their raids on the other coastal settlements of the North East.
- 41.3.17 Settlement and farming dates back to prehistoric times, as indicated by remnant field systems, long mounds and burial cairns, from late Neolithic and Bronze Age communities who farmed the land.
- 41.3.18 Until the beginning of the 17th century, Stonehaven was an insignificant settlement existing in the shadow of Dunnottar Castle, but by 1624 the town was elevated to the county town and burgh. Thereafter, Stonehaven spread slowly back from the Harbour and either side of High Street with more extensive development of the "new town" in 1759. From the 1890's until the present day Stonehaven has been a popular place of residence and a holiday resort.
- 41.3.19 The agricultural revolution between the late 18th and early 19th centuries altered the rural landscape from the existing runrig system to fields enclosed with stone walls or earth bunds. As agriculture was changing, the harnessing of water power increased to enable industrial production, and more mills developed along watercourses in Aberdeenshire. These in turn encouraged the diversification and expansion of cropping systems leading to the removal of some stone walls and boundaries, to allow larger field systems. As a result, the fertile land southwest of Stonehaven, known as 'Howe of the Mearns', and Aberdeenshire generally, became a major agricultural production area within the United Kingdom.
- 41.3.20 The depopulation of farming communities in Aberdeenshire due to the agricultural revolution was in some way reversed due to the oil boom of the late 20th century, which encouraged the repopulation of rural areas within commuting distance of Aberdeen and the expansion of existing small settlements into the surrounding rural landscape.

Settlement and Landuse

- 41.3.21 The large coastal market town and holiday resort of Stonehaven is the main settlement to the south of the study area.
- 41.3.22 Outside the main settlement areas, the countryside has numerous dwellings and farmsteads, becoming sparser on the higher ground, served by minor roads and tracks.
- 41.3.23 There are relatively few intact traditional crofts or farm buildings, but large numbers of ruins scattered throughout, surrounded by small fields. Although much of the study corridor is capable of supporting crops, the predominant land uses are sheep and cattle grazing in fields and horse paddocks, typically divided by dry stone walls or fences. Fields are mainly small with larger fields in areas of better quality farmland or associated with former estates such as Ury. In some areas, regular rectilinear patterns are apparent, for example in southern parts of the study corridor around Netherley and Cookney. Fields are mainly small with larger fields of arable farming mainly limited to southeastern areas between Stonehaven and Cookney with most of the poorer quality agricultural land located on the plateau south of the Dee along the central and northern sections of the Fastlink study area.
- 41.3.24 The main road between Stonehaven and the Dee valley is the B979 which runs north to south along the western edges of the route corridor providing access to scattered settlement and a busy alternative to the A90(T) between Stonehaven and Aberdeen. A network of minor roads, which typically follow the contours of the lower valley slopes, serves the farmland between the B979 and the A90(T) and the southern slopes of the Dee valley.

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Vegetation other than agricultural land (pasture and crops)

- 41.3.25 Vegetation cover is described in Chapter 40 (Ecology and Nature Conservation) and is a key component of the landscape, as discussed below in paragraphs 41.3.26 to 41.3.29.
- 41.3.26 The type and extent of vegetation cover varies considerably over the study area, with the majority being the mature, mixed woodland areas at Megray Wood, Ury Estate, Netherley, Altries House and Cleanhill and Craingles Woods, which are remnants of former designed landscapes associated with estates and date between the 17th and 19th centuries. Megray Wood is also adjoined by a coniferous woodland plantation, edged by native Birch scrub.
- 41.3.27 In addition to the larger estate woodland areas, there are several large mixed woodland plantations on the slopes of Cairnwell Hill and near to Berryhill House, with further recently planted screen woodland adjacent to Portlethen Golf Course in the northeast.
- 41.3.28 A number of Beech and Pine shelterbelts feature on the boundaries of fields and roads and mixed woodland copses often occur at field corners or around farmsteads, with several of the copses providing distinctive focal points within the south of the study area.
- 41.3.29 The majority of agricultural land is classified as capable of producing a moderate range of crops limited by wetness, gradient and soil quality. The peat moss only sustains very rough grazing and scrub vegetation, such as Birch scrub at Red Moss while riparian scrub woodland edges the watercourses at Limpet Burn, Cowie Water and Burn of Muchalls.

SNH Landscape Character Assessments

- 41.3.30 The Fastlink study area occurs predominantly within the landscape character type identified in SCALCA as 'Agricultural Heartlands', intercepted to a limited extent by 'Moorland Plateaux' to the west and edged by 'Coastal Strip' to the east.
- 41.3.31 SCALCA further divides the Agricultural Heartlands type into ten Landscape Character Areas (LCA), with the study area, between Stonehaven and Blaikiewell, crossing the 'Kincardine Plateau' LCA. 'The Mounth' LCA is the subdivision of 'Moorland Plateau' which impacts upon the west side of the study area and 'Kincardine Cliffs' is the subdivision of 'Coastal Strip' to the east.

Landscape Character Types and Local Landscape Character Area (LLCA) Descriptions

- 41.3.32 At Cleanhill, the Fastlink joins the Southern Leg of the proposed scheme, which enters Aberdeen City administrative boundary, within which ALCA identifies five collective Landscape Character Types, namely Hill, Open Farmland, Wooded Farmland, Valley and Coast.
- 41.3.33 For the purpose of consistency within this assessment, these collective Landscape Character Types are applied throughout the proposed scheme study area, including the Southern Leg and Northern Leg sections and subdivided into Local Landscape Character Areas (LLCAs). LLCA boundaries within the Fastlink study area are illustrated in Figure 41.2a-b. Six Landscape Character Types have been identified within the Fastlink study area and a description of each is provided below, with a photo illustrating typical appearance. Detailed descriptions of each of the LLCAs are contained in Appendix A41.1 and photographs are shown in Figures 41.4a-g.

Hill Type

- 41.3.34 The Hill landscape character type comprises the highest ground in the Fastlink study area and forms distinctive landmarks or skyline features when viewed from local roads. It is characterised by a gently rounded landform with predominantly smooth slopes. The vegetation cover on summits varies from open moorland to woodland copses. Man-made elements, such as buildings or telecommunication masts, are limited in number but tend to be more visible due to their higher elevation (based upon extract from SNH Report No 80, Aberdeen, 1996).

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Table 41.5 – Hill Type LLCAs

LLCA		Photograph Viewpoint	Landscape Character Type	Overall Sensitivity
Curlethney	41.2a	1	Hill	Low to Medium
Stranog	41.2b	2	Hill	Medium to High
Craigingles	26.2b	3	Hill	High

Open Farmland Type

41.3.35 Open Farmland is an extensive landscape character type which forms much of Stonehaven and Aberdeen's agricultural hinterland. It has a gently rolling landform of open character with relatively few trees. Farmsteads are scattered, often associated with small clumps of trees. Fields are often bordered by drystone walls, although many have been replaced by post and wire fences (based upon extract from SNH Report No 80, Aberdeen, 1996).



Table 41.6 – Open Farmland Type LLCAs

LLCA	Figure Number	Photograph Viewpoint	Landscape Character Type	Overall Sensitivity
Megray	41.2a	4	Open Farmland	Medium
Muchalls	41.2a	5	Open Farmland	Medium to high
Blaikiewell	41.2b	6	Open Farmland	Medium to High
Craiglug	41.2b	7	Open Farmland	Low to Medium

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Wooded Farmland Type

41.3.36 The Wooded Farmland landscape character type is a diverse and rural landscape which tends to be associated with more steeply undulating areas. It is mainly agricultural but contains a high proportion and variety of woodland cover either as plantations, shelterbelts or clumps of trees around the scattered, vernacular buildings (extract from SNH Report No 80, Aberdeen, 1996).



Table 41.7 – Wooded Farmland Type LLCAs

LLCA	Figure Number	Photograph Viewpoint	Landscape Character Type	Overall Sensitivity
Kempstone	41.2a	8	Wooded Farmland	Medium
Netherley/Altries	26.2b	9	Wooded Farmland	High
Cammachmore	41.2b	10	Wooded Farmland	Low to Medium

Valley Type

41.3.37 This character type comprises the valleys of the Cowie Water and Burn of Muchalls where woodland vegetation contrasts with the smooth texture and undulating topography of the valley and the farmland is productive and well-managed.



Table 41.8 – Valley Type LLCAs

LLCA	Figure Number	Photograph Viewpoint	Landscape Character Type	Overall Sensitivity
Glen Ury	41.2a	11	Valley	Low to Medium
Burn of Muchalls	41.2a	12	Valley	High

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Coast Type

41.3.38 The Coast landscape character type is a distinctive, linear and relatively narrow landscape character type, covering the rocky coastline from the south of Aberdeen to Stonehaven. Much of the coastline is marked by steep rugged slopes and cliffs, with numerous coves and bays formed by coastal erosion and small raised beaches in some of the coves above the rocky outcrops. The vegetation is primarily semi-natural with farmland generally running along its western edge. Closer to the built-up areas, the character type has a recreational emphasis (based on extract from SNH Report No 80, Aberdeen, 1996).



Table 41.9 – Coast Type LLCAs

LLCA	Figure Number	Photograph Viewpoint	Landscape Character Type	Overall Sensitivity
Kincardine Cliffs	26.2a	13	Coast	Medium

Urban Area Type

41.3.39 The urban areas within the Fastlink include the residential coastal/commuter settlement of Newtonhill and the historic town of Stonehaven.



Table 41.10 – Urban Area Type LLCAs

LLCA	Figure Number	Photograph Viewpoint	Landscape Character Type	Overall Sensitivity
Stonehaven	41.2a	14	Urban	Low to Medium
Newtonhill	41.2b	No Photograph	Urban	Low to Medium

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41.4 Potential Impacts

41.4.1 Without appropriate mitigation, landscape impacts may include the following:

- alteration of the character of the landscape due to the introduction of the road in an essentially rural landscape;
- alteration of the character of surrounding landscape and settlement areas due to the loss of arable land, improved and semi-improved grasslands, trees, woodlands, drystone walls and disruption to watercourses.
- alteration of the landform due to the introduction of new elements including road surface, noise barriers and bunds, detention ponds, bridges, underpass, culverts, signage and lighting; and
- potential increases in noise, pollution and visual impact on the surrounding landscape, properties and settlements.

41.4.2 Landscape impacts are discussed in detail within section 41.6: Residual Impacts and also in Appendix A41.1.

41.5 Mitigation

Introduction

41.5.1 Landscape mitigation proposals have been designed in accordance with the policy documents, 'Cost Effective Landscapes: Learning from Nature' (CEL:LfN) (Scottish Executive, 1998), 'DMRB Volume 10' (The Highways Agency et al., 1993) and 'Planning Advice Note (PAN) 58: Environmental Impact Assessment (Scottish Executive Development Department, 1999).

41.5.2 The principles in CEL:LfN have three central themes that are to be applied throughout the planning, design and implementation of a road proposal:

- use natural characteristics (e.g. use of native plants species which occur naturally);
- exploration of alternatives (e.g. consideration of different methods of noise attenuation such as barriers or bunds); and
- wise use of resources (e.g. reuse of stone from walls lost to the route).

41.5.3 Proposed landscape mitigation measures relate to earthworks, rock cuttings, detention ponds, structures, planting, seeding and drystone walling.

41.5.4 Land required for landscape purposes is identified on Figures 41.5a-k (showing Landscape and Ecological Mitigation Proposals) and will be used principally to modify landform and to create or enhance habitats.

41.5.5 The land for landscape mitigation will be acquired as part of the Compulsory Purchase Order (CPO), although where land is assessed to be of agricultural value and has the potential to be returned to agricultural use, this may be sold back to the landowners once mitigation has been implemented. If the land is not purchased back it will remain within the ownership of the Scottish Executive and be maintained within the road corridor. For the purposes of this assessment it has been assumed that the latter will be the case so that the 'worst case scenario', is assessed. Land that is required exclusively for ecological planting will be sought to be acquired by agreement.

41.5.6 Landscape mitigation is concerned primarily with mitigation of adverse impacts although, in some situations, opportunities to provide enhancement of the landscape of the road corridor may be taken. The measures described below are those upon which the assessment has been based. Mitigation of adverse impacts falls into three categories: Prevention; Reduction or Offsetting.

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- Prevention: avoidance of both the loss of significant landscape elements and visual impacts on nearby settlements through proposed scheme design; includes sensitive routing of the road alignment and consideration of the height of the road and other structures.
- Reduction: lessening of those adverse effects that cannot be eliminated by prevention (e.g. roadside mounding and planting to screen visual impact from property or publicly used areas).
- Offsetting: provision of alternative or compensatory measures where appropriate and feasible (e.g. replacing drystone walls where appropriate).

41.5.7 Further, more detailed development of the landscape mitigation proposals will be progressed within the Contract Documents of which this document will form a part, along within the Employer's Requirements and Specification. This will include a requirement that the Final Design meets the objectives of the mitigation and that the details are agreed in consultation with SNH. In addition, a Design Guide will be produced to provide further details of how specific mitigation measures are to be implemented and how design aesthetics are to be addressed.

Application of Mitigation Principles

41.5.8 The following prevention, reduction and offsetting approaches have been applied during the planning and design of the proposed scheme:

Prevention

41.5.9 Measures applied to prevent adverse effects are described in 41.5.10. These measures will be adhered to in developing the detailed design and included in the Contract Documents.

Alignment

41.5.10 The achievement of best fit with existing landform where possible; avoidance where possible of the loss or damage to landscape features such as walls, water features or field systems; and avoidance where possible of the loss or damage to sites of ecological or archaeological interest (refer to Chapters 40: Ecology and Nature Conservation and 43: Cultural Heritage respectively).

Reduce/Offset

41.5.11 The elements of the landscape design for the proposed scheme, which include measures designed to reduce and offset adverse impacts, and which will be included in the Employer's Requirements are summarised below.

41.5.12 Location specific measures are described in Appendix A41.1 (Landscape Area Descriptions, Sensitivity, Magnitude of change and Impact Significance) and illustrated on Figures 41.5a-k Landscape and Ecological Mitigation Proposals.

Earthworks

41.5.13 Earthworks proposals aim to minimise the impact of cuttings and embankment slopes and to allow integration of the road with surrounding land, through:

- modification of embankment and cutting slopes to tie smoothly into existing landform and allow land to be returned to agricultural use where appropriate;
- softening changes in slope at junctions and overbridges by smoothing out transitions between slopes; and
- rounding off top and bottom of cuttings and embankments.

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Rock Cuttings

- 41.5.14 Where rock cuttings are proposed, the aim is to integrate them into the landscape as far as possible by:
- creating irregular, naturalistic looking rock faces; and
 - scattering pockets of soil and native seed onto ledges and terraces to encourage random areas of vegetation to establish, where practicable.
- 41.5.15 Where the proposed scheme passes through areas of rock cutting, appropriate measures, as detailed below, will be taken to achieve slopes which reflect the natural strata and the existing rugged terrain, providing ledges, niches and benches for the re-establishment of vegetation. All rock cut profiles shall therefore exploit the nature of the discontinuities and character of the natural rock mass so as to create a profile with a natural appearance, avoiding the creation of uniform smooth faces. Rock traps will be placed alongside the road, where these are required for safety.
- 41.5.16 Bulk blasting as well as pre-split methods may be used, followed by a variety of techniques to achieve the desired profile and surface.
- 41.5.17 Peat or topsoil will be trickled over the rock slope or placed in irregular ledges, niches and in-slope benches to soften the visual impact of the slopes and encourage the establishment of shallow rooted vegetation. The peat or topsoil will be placed so that it is stable in the short and long term and will be seeded, or hydroseeded, with shallow rooted native plant species.

Drystone Walling

- 41.5.18 Walls are proposed along selected sections of the road corridor to maintain and reinforce the distinctive pattern of walling typical of Aberdeenshire. Whenever possible new drystone walls will tie into existing walls.
- 41.5.19 Drystone walls will be constructed to the local and traditional design, approximately 1m high and 0.5m wide. The stone used will be selected from dismantled walls severed by the road corridor. Where no stone from dismantled walls is available, the stone will be selected from local sources and, as far as possible, will reflect the characteristics in size and colour of the existing walls in the local area.

Treatment Ponds and Detention Basins

- 41.5.20 Treatment ponds and detention basins, required as part of the road drainage system, provide the opportunity to create new beneficial features within the landscape and habitat for wildlife. They will be sited within naturally low areas and designed to look as natural as possible. Surrounding earthworks will be designed with smooth flowing contours to integrate naturalistically with the surrounding landform. Abrupt changes in slope, sharp angles and steep side slopes will be avoided. Boundary fencing around ponds will be designed to be as unobtrusive as possible, with the fence type and alignment designed to minimise visual impact. Planting of native scrub species will be undertaken to help screen proposed fencing, outfall and inlet structures, enhance wildlife habitat and provide visual interest. Open ground in the areas of the treatment ponds and detention basins will be seeded with native grasses and wildflowers to provide added wildlife habitat and visual interest.

Noise Barriers

- 41.5.21 The height of the proposed noise barriers along the route will vary in relation to local conditions. Where the height requirement is above 1.2 m, fencing is proposed. It has the potential to be visually intrusive when viewed from the road corridor and surrounding properties. Where possible and appropriate to the surrounding landscape character, tree and scrub planting is proposed along

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the roadside edge of the noise barrier fencing in order to help screen it from the road and nearby properties.

- 41.5.22 Drystone wall are proposed where the height requirement of the barrier is 1.2m or less. This will help to integrate the noise mitigation with the surrounding landscape and mitigation proposals along the route.
- 41.5.23 Barriers on top of earth bunds/false cuttings have also been proposed to reduce the impact of noise barriers in sensitive areas by decreasing the height of fences and walls without losing the mitigating effect.
- 41.5.24 Under the Design and Build contract proposed for the scheme, the detailed design of the noise fencing will be undertaken by the contractor responsible for the works.
- 41.5.25 The location of the proposed noise mitigation measures are shown on Figures 41.5a-k.

Structures

- 41.5.26 The design of structures such as bridges along the length of the route has been informed by a combination of specialist aesthetic advice, design workshops and consultation with Architecture and Design Scotland.

Planting Proposals

- 41.5.27 Aberdeen Airport is located close to the Northern Leg of the proposed scheme. As noted in Chapter 11 (Landscape), consultation is currently ongoing British Airports Authority (BAA) with regard to the AWPR mitigation planting proposals, to ensure that the risk of bird strikes is not increased through habitat creation/enhancement. It is currently not known whether any agreed restrictions will be applicable to the Fastlink. However, planting species mixes will not be finalised until detailed design stage. The objective will be to achieve an acceptable solution which meets the aims of landscape and ecological mitigation without increasing bird strike risk.
- 41.5.28 The proposals related to existing and new planting comprise:
- planting to replace trees lost to the scheme construction;
 - creation of biodiversity through use of predominantly native species, providing new wildlife habitats and complementing existing adjacent habitats. Planting proposals have been developed in consultation with ecology specialists. Refer to Chapter 40 (Ecology and Nature Conservation).
 - mass planting at junctions and bridges to help assimilate the new structures into the surrounding landscape;
 - planting to provide a screen to reduce visual impacts of the road, structures, lighting and noise barriers;
 - use of severed field corners and landlocked areas where appropriate; and
 - introduction of planting at focal points, particularly at roundabouts, junctions and in cuttings.
- 41.5.29 Planting mixes will be based predominantly on native species, proven by established presence within the area and adapted to local conditions. Young stock is generally easier to establish and will therefore be predominant in mixes, although larger plants will be used for initial impact in specific locations, for example where screening is required.
- 41.5.30 Planting will enhance the experience of travelling along the new road by creating a diverse and interesting range of woodland types.
- 41.5.31 Planting will 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

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used to describe and categorise the vegetation covering the land, will inform the selection of plant species however non native species may also be used where they are an established and distinctive feature of the current landscape setting.

Proposed Broad-leaved Woodland Planting

41.5.32 This will 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/Ash as the principal climax community.

41.5.33 Broad-leaved 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.

Proposed Coniferous Woodland Planting

41.5.34 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 smaller percentages of Birch, Rowan and Aspen.

Proposed Mixed Woodland Planting

41.5.35 Mixed woodland refers to woodland where the planting requires a mixture of broad-leaved and coniferous woodland for visual screening purposes and will comprise a mix of sizes of plants such as feathered trees, whips and transplants. This will aim to create multi-layered woodland with a balanced mix of native deciduous and coniferous trees and including native evergreen understorey. The balance between deciduous and evergreen species will be varied to suit desirable density for year-round screening and reflect established planting 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 Scot's Pine, with non-native species limited to Larch and Norway spruce.

Proposed Scrub Woodland Planting

41.5.36 This will comprise small to medium sized native species such as Hawthorn, Hazel, Blackthorn, Elder, Dog Rose and Honeysuckle. This mix is used in areas where a lower height plant cover is more appropriate than the taller woodland mixes.

Proposed Riparian Woodland Planting

41.5.37 Riparian Woodland is to be planted close to ponds and watercourses and in other areas along flood plains or elsewhere with moist, peaty soil conditions. It will comprise a mix of sizes of plants such as feathered trees, whips and transplants using species such as Willow, Birch, Alder, Ash, Rowan, Hazel, Hawthorn, Holly, Wych Elm, Aspen and Scots Pine.

Proposed Feathered Tree Planting

41.5.38 Feathered trees will be introduced in areas where scrubby groups of trees are a feature of the landscape. They will be planted in groups to reflect the existing landscape character and provide impact at an early stage.

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Proposed Hedgerow Planting

- 41.5.39 Hedgerow planting is proposed in locations where they will retain the current landscape pattern by linking to or replacing existing hedgerows. They are also proposed for ecological mitigation in areas where it is appropriate to the existing landscape character. They will comprise native species such as hawthorn, holly, honeysuckle and blackthorn.

Proposed Rock Cut Seeding

- 41.5.40 This will comprise native grass and wildflower species which are able to establish in small areas of thin soil on the cut rock face. The objective is to create pockets of vegetation which look naturally established.

Proposed Grass Seeding

- 41.5.41 Three different seed mixes will be used, dependant on location and use of the area:
- Roadside Verge Mix: This mix is suited to the road-side location being low maintenance, fast establishing and tolerant of traffic and salt spray.
 - Species Rich Grassland Mix: This mix is suited for use in all other areas disturbed by construction works. It consists of a mixture of native, non-invasive grasses and wildflower species to reflect locally occurring semi-natural flora.
 - Agricultural Mix: This mix is used in all areas to be returned to agriculture and will consist of a mix specified by consultation with the landowner.

Proposed Habitat Creation for Ecological Mitigation

- 41.5.42 In addition to following the general objective of enhancing biodiversity through the landscape mitigation, specific proposals for wildlife habitat creation are described in more detail in Chapter 40 (Ecology and Nature Conservation).

Future Potential Design of Focal Points/Gateways

- 41.5.43 Stonehaven Junction has been identified as a specific location where the number of design features which occur or link together create combined impacts. This has been considered as a focal point or gateway where mitigation proposals are required to address the specific combinations of issues arising and meet landscape mitigation objectives.

41.6 Residual Impacts

- 41.6.1 The landscape impacts of the proposed scheme have been assessed taking the landscape mitigation proposals into account. Appendix A41.1 provides a detailed description of the landscape character, sensitivity, the magnitude of change and impacts on each LLCA, with mitigation. In this section Table 41.11 shows the residual impacts (those impacts remaining after the mitigation), for the directly affected LLCAs, presented in the order that the proposed scheme passes through them from south to north. Residual impacts for LLCAs which are indirectly affected are also provided in Table 41.12 in the order that the LLCAs occur from south to north.
- 41.6.2 Photographs from a number of key viewpoints and key receptor locations as shown on Figure 41.7 are shown in the photomontage and wireline photographs provided in Figures 41.8a-g. These illustrate both the existing view and the proposed scheme and were used to inform the assessment of impacts.
- 41.6.3 In the Fastlink the most significant impacts would occur in the Burn of Muchalls LLCA. The impact on this character area would be severe and adverse in the winter of the year of opening, reducing to substantial adverse in the summer 15 years after opening. This is a sensitive valley area lying between the villages of Cookney and Bridge of Muchalls and features natural ponds, scrub riparian

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woodland and blocks of mature woodland. The introduction of the Fastlink would include the introduction of embankments up to 10m high across the valley and a bridge crossing the burn at the western end of the valley. In addition to this, detention ponds will be introduced west of the Fastlink and north of the burn. Mitigation includes the planting of scrub woodland to provide screening and riparian woodland to enhance lost vegetation and integrate the ponds into the landscape.

- 41.6.4 Stranog LLCA is also significantly impacted by the Fastlink. This area lies approximately 4km south of the River Dee and is a hill type landscape. The introduction of the Fastlink would also introduce cuttings through the distinctive, visually prominent landforms at Cookney, Rothnick and Stranog Hill. The proposed scheme would have an adverse impact upon the setting of Cookney Church which is a prominent local landmark on the hill top. Mitigation measures will include mixed woodland and scrub planting to soften the visual impact of the cuttings, provide screening, help to integrate detention ponds and provide habitat. Drystone walls will also be used where these are integral to the character of open areas. Localised grading out of embankment slopes to integrate with the surrounding landform and for potential return to agriculture is proposed at Cookney. The impact on this character area would be substantial to severe adverse in the winter year of opening, reducing to substantial adverse in the summer 15 years after opening.
- 41.6.5 Significant impacts would also occur in Blaikiewell LLCA, an area of open farmland south of the Dee valley. The introduction of a junction with the Southern Leg (Cleanhill Junction), which would be lit at night, detention basins, an embankment of up to 9m high and the realignment of minor roads would result in direct, adverse, large scale impacts. The mitigation design incorporates eased gradients on the Fastlink embankments to integrate with the surrounding landform and allow for potential return to agriculture. In addition, areas of mixed, scrub and riparian woodland planting are proposed to screen views and integrate the road corridor, ponds and junction. In winter year of opening the impact is assessed as substantial to severe adverse, however, in the summer 15 years after opening, as planting matures, the impact will reduce to moderate-substantial adverse.
- 41.6.6 Muchalls LLCA, an area of open farmland enveloping the Burn of Muchalls LLCA, would also be significantly impacted. The introduction of the Fastlink in this area would include the severance of fields and the introduction of a cutting and shallow embankment. Proposed mitigation measures include planting mixed, broadleaved and scrub woodland and providing drystone walls to provide screening and integrate the road with the surrounding landscape character. Due to the naturally exposed character of this area, mitigation planting was considered inappropriate. The Fastlink would therefore remain a dominant feature in the landscape, with the overall impact unchanged from substantial adverse in winter year of opening to summer 15 years after opening.
- 41.6.7 The LLCAs of Megray and Kempstone would also experience significant residual impacts from the introduction of the Fastlink. Megray contains the gateway junction to the Fastlink from Stonehaven. In this area, the new road would create a deep cutting resulting in the diversion of the Megray Burn. In addition, detention ponds and slip roads connecting the new road to the A90 would also have a direct adverse impact on the landscape. Mitigation will include the grading out of the cutting on both sides to integrate with the surrounding landforms of Hill of Megray and the Burn of Muchalls valley. Other proposed measures include the planting of mixed woodland north of the new junction and riparian woodland beside the burn and ponds. In winter year of opening, the impact is assessed as moderate to substantial adverse, however, in the summer 15 years after opening, as planting matures, the impact will reduce to moderate adverse.
- 41.6.8 Kempstone LLCA is situated immediately north of Megray LLCA. The introduction of the Fastlink in this area would include an embankment of up to 16m, an underbridge for Limpet Burn and the creation and realignment of minor and access roads east of the Fastlink. The mitigation design incorporates proposals such as eased gradients on the Fastlink embankments. Other mitigation includes the planting of riparian woodland at the burn and mixed and scrub woodland to provide screening and tie in with existing vegetation. These direct and adverse impacts are assessed as moderate to substantial adverse in winter year of opening, reducing to moderate adverse by the summer 15 years after opening as planting matures.

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- 41.6.9 Of those areas indirectly affected, the LLCAs of Stonehaven and Craingles would be affected by the most significant impacts. Stonehaven has views north towards the Fastlink and in particular the cutting at Megray LLCA. Craingles has views of the junction at Cleanhill and a section of the Fastlink. Both these character areas are assessed as being affected by slight to moderate adverse impact in winter year of opening reducing to slight adverse in the summer 15 years after opening as mitigation planting matures.
- 41.6.10 Kincardine Cliffs, Cammachmore and Curlethney LLCAs would all be indirectly affected with adverse impacts which will reduce to slight or slight to negligible impact levels in summer 15 years after opening.
- 41.6.11 The other LLCAs which are indirectly affected will not experience significant residual impacts.

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Table 41.11 – Residual Impacts on Landscape Character: Directly Affected Areas

Overall Sensitivity	Landscape Component	Magnitude of Change		Summary of Mitigation Proposals	Summary of residual impacts	Impact Significance on Landscape Character Area	
		Winter Year of Opening	Summer, 15 years after opening			Winter, year of opening	Summer, 15 years after opening
Open Farmland : Megray (ch0-1200)							
Medium	B979 Corridor	Medium to High	Medium	- mixed woodland - scrub woodland	-direct adverse impacts due to the introduction of the road in cutting, the Stonehaven junction, ponds and slip roads and associated street lighting.	Moderate to Substantial adverse	Moderate adverse
	Open hillside farmland	High	Medium to High	- riparian planting around ponds/burn	- direct adverse impact on setting due to visual and aural impact of the new road on B979 road corridor, open farmland and surrounding dwellings		
	Edge of former Ury Estate	Low to Medium	Low	- grading out of cutting to integrate with hill and valley landforms - treatment of rock cutting -. dry-stone walls -. feathered trees	- direct adverse impacts due to the redirection of Margay Burn and introduction of ponds and ditches within farmland - reduction in adverse impacts due to grading out of cuttings, the introduction of dry-stone walls and planting to visually integrate the road with surrounding landform and reflect existing landscape character -. reduction of adverse impacts on properties by introducing planting to provide screening		
Wooded Farmland : Kempstone (ch1200-3100)							
Medium	Limpet Burn valley	High	Medium	- riparian woodland - mixed woodland	- direct adverse impacts on Limpet Burn valley due to the introduction of the road on embankment with underbridge crossing and realignment of Limpet Burn.	Moderate to Substantial adverse	Moderate adverse
	Open farmland	High	Medium	- scrub woodland	- direct adverse impacts due to the severance of fields and loss of mature woodland and introduction of new link roads,		
	Areas of gorse and scrub woodland	Medium	Low to Medium	-. broadleaved woodland			

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Overall Sensitivity	Landscape Component	Magnitude of Change		Summary of Mitigation Proposals	Summary of residual impacts	Impact Significance on Landscape Character Area	
		Winter Year of Opening	Summer, 15 years after opening			Winter, year of opening	Summer, 15 years after opening
	B979 road corridor	Low	Low	<ul style="list-style-type: none"> - dry-stone walls - grading out of embankments - hedgerow planting - drystone aprons to tie in with existing drystone walls 	<ul style="list-style-type: none"> underpasses and realignment of minor roads - direct adverse impacts due to visual and aural impact of the new road on Limpet Burn valley, open farm land and the B979 road corridor. - reduction on adverse impacts due to easing of embankments and the introduction of drystone walls and planting to improve integration of the road with the surrounding landform and vegetation - reduction on adverse impacts on B979 road corridor due to reduced volume of traffic 		
Open Farmland : Muchalls (ch3100-4500, 5000-5800)							
Medium	Open farmland basin around Burn of Muchalls	High	High	<ul style="list-style-type: none"> - scrub woodland - drystone walls 	<ul style="list-style-type: none"> - direct adverse impacts on farmland due to introduction on new road on embankment and cutting and at grade across open, rural valley with severance and loss of field boundaries 	Substantial adverse	Substantial adverse
	Hillside farmland between Cookney and the A90 (T)	High	High	<ul style="list-style-type: none"> - mixed woodland - broadleaved woodland - treatment of rock cuttings - grading out of embankments - drystone aprons to tie in with existing drystone walls 	<ul style="list-style-type: none"> - direct adverse impacts due to the due to the introduction of Allochie underpass and Elrick overbridge - direct adverse impacts due to visual and aural impact of the new road on surrounding farmland and properties - reduction on adverse impact due to easing of embankments and introduction of drystone walls and planting 		

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Overall Sensitivity	Landscape Component	Magnitude of Change		Summary of Mitigation Proposals	Summary of residual impacts	Impact Significance on Landscape Character Area	
		Winter Year of Opening	Summer, 15 years after opening			Winter, year of opening	Summer, 15 years after opening
Valley : Burn of Muchalls (ch4500-5000)							
High	Narrow valley and floodplain	High	Medium	<ul style="list-style-type: none"> - riparian woodland - scrub woodland - treatment of rock cutting - drystone aprons to tie in with existing drystone walls 	<ul style="list-style-type: none"> - direct adverse impacts due to the introduction of new road on embankment, cutting and introduction on pond, ditches and access roads - direct adverse impacts due to the due to the introduction of Allochie underpass and Elrick overbridge - direct adverse impacts due to visual and aural impact of the new road. - reduction of adverse impacts due to easing of embankments and introduction of drystone walls and planting to visually integrate the road with the surrounding landscape. 	Severe adverse	Substantial adverse
Hill : Stranog (ch5800-10100)							
Medium to High	Gorse and scrub covered ridges and hilltops	High	Medium to High	<ul style="list-style-type: none"> - drystone walls - drystone aprons to tie in with existing drystone walls 	<ul style="list-style-type: none"> - direct adverse impacts due to the introduction of the new road in cutting, at grade and on embankment and introduction of overbridges at Cookney and Rothnick and an underbridge at Lochton-Auchlunies-Nigg Road.and severance of farmland and woodland. - direct adverse impacts due to the introduction of ponds, ditches and access roads - direct adverse impacts due to visual and aural impact of the new road. - reduction of adverse impacts due to easing of cuttings and embankments and the introduction of dry-stone walls and planting to visually integrate the new road to the surrounding landform and vegetation. 	Substantial to Severe adverse	Substantial adverse
	Open pasture	High	High	<ul style="list-style-type: none"> - scrub woodland - treatment of rock cutting - mixed woodland - standard trees and hedgerows - grading out of embankments and potential return to agriculture - riparian woodland around ponds. 			

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Overall Sensitivity	Landscape Component	Magnitude of Change		Summary of Mitigation Proposals	Summary of residual impacts	Impact Significance on Landscape Character Area	
		Winter Year of Opening	Summer, 15 years after opening			Winter, year of opening	Summer, 15 years after opening
Open Farmland : Blaikiewell (ch10100-11500)							
Medium to High	All areas	High	Medium to High	<ul style="list-style-type: none"> - mixed woodland - scrub woodland - drystone walls - drystone aprons to tie in with existing drystone walls - embankments graded out and potential return to agriculture - riparian woodland at ponds/burn 	<ul style="list-style-type: none"> - direct adverse impacts due to the introduction of the new road on embankment across open agricultural basin, introduction of junction and associated lighting, access roads and severance of fields and field boundaries - direct adverse impacts due to visual and aural impact of the new road - reduction of adverse impacts due to easing of embankments with potential return to agriculture and the introduction of dry-stone walls and planting 	Substantial to Severe adverse	Moderate to Substantial adverse

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Table 41.12 – Residual Impacts on Landscape Character: Indirectly Affected Areas

Overall Sensitivity	Magnitude of Change		Summary of Mitigation Proposals	Summary of residual impacts	Impact Significance on Landscape Character Area	
	Winter Year of Opening	Summer, 15 years after opening			Winter, year of opening	Summer, 15 years after opening
Urban Area : Stonehaven						
Low to Medium	Medium	Medium	- mitigation planting - easing of gradients	-indirect adverse impacts on urban area - indirect reduced adverse impacts on urban area due to mitigation planting	Slight to Moderate adverse	Slight adverse
Valley : Glen Ury						
Low to Medium	No change				None	
Coast : Kincardine Cliffs						
Medium	Low	Low	- mitigation planting - easing of gradients	- indirect adverse impacts on views coast - indirect reduced adverse impacts on urban area due to mitigation planting	Slight adverse	Slight adverse
Hill : Curlethney						
Low to Medium	Low	Low	- mitigation planting - easing of gradients	- indirect adverse impacts on hill - Indirect reduced adverse impacts on hill due to mitigation planting	Slight to Negligible adverse	Slight to Negligible adverse
Urban Area : Newtonhill						
Low to Medium	No change				None	
Wooded Farmland : Cammachmore						
Low to Medium	Low	Low	- mitigation planting - easing of gradients	- indirect adverse impacts wooded farmland - indirect reduced adverse impacts on wooded farmland due to mitigation planting	Slight adverse impact	Negligible to Slight adverse
Wooded Farmland : Netherley/Altries						
High	No change				None	
Open Farmland : Craiglug						
Low to Medium	No change				None	

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Overall Sensitivity	Magnitude of Change		Summary of Mitigation Proposals	Summary of residual impacts	Impact Significance on Landscape Character Area	
	Winter Year of Opening	Summer, 15 years after opening			Winter, year of opening	Summer, 15 years after opening
Hill: Craingles						
High	Low	Low	- mitigation planting - easing of gradients	- indirect adverse impacts on hill - indirect reduced adverse impacts on hill due to mitigation planting	Slight to Moderate adverse	Slight adverse

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