# 22 Land Use

This chapter addresses the potential effects of the proposed scheme on existing and future land use within the Southern Leg study area.

Agriculture is the main land use in the study area and the construction of the proposed scheme would result in a permanent loss of approximately 214 hectares (ha) of agricultural land. Mitigation measures to reduce the impacts on agricultural businesses include the provision of bridges or underpasses over and under the new road to maintain access to fields severed by the AWPR, together with reconnection of field drainage systems, watering points for livestock and reinstatement of boundary features. No farms would have their viability affected.

The main residential areas within the study area are Charleston, Peterculter/Milltimber and Kingswells. In addition, there are scattered properties situated in the surrounding countryside. The proposed scheme would require the demolition of 10 residential properties, one school and two outbuildings within the Southern Leg study area. There are several commercial properties within the study area: access to 27 of these would be affected (one adversely) by the scheme, nine would be directly affected by land-take and one would be affected by noise. The proposed scheme would also affect community land, predominantly in the form of woodland, however mitigation planting would reduce the net loss of woodland in the study area to 2.8ha overall.

# 22.1 Introduction

- 22.1.1 This chapter addresses the potential effects of the proposed scheme on existing and future land use within the Southern Leg study area. The Southern Leg of the AWPR extends from ch200000-207270 and ch100000-111400. The study area that has been defined to assess the impacts on land use extends to 500m either side of the centreline of the proposed scheme, as shown on Figures 22.2a-h. The area lies within the Aberdeen City and Aberdeenshire Council boundaries.
- 22.1.2 The types of land use addressed in this chapter include agriculture, forestry, community facilities (as community land but not buildings, unless to provide context), residential, business and industrial land, disused waterways and development land. Potential impacts on community facilities that are buildings are addressed in Chapter 31 (Pedestrians, Cyclists, Equestrians and Community Effects). In addition to the potential loss of agricultural, development land and the loss of land used by the community, this chapter considers the effects of demolition on residential and commercial property.
- 22.1.3 The main commercial interests identified within the study corridor are those in the primary sector (agriculture and forestry), with agriculture being the main land use identified. Other commercial interests include manufacturing, transport and communications. In this chapter, agriculture, forestry and other agriculturally related commercial activities that use the land as a resource, including sporting interests, are considered together.
- 22.1.4 The temporary changes to land use during the construction period, e.g. land required for storage of construction materials or plants, is considered separately in Chapter 33 (Disruption Due to Construction).

#### Agriculture, Forestry and Sporting Interests

22.1.5 The assessment of the potential impacts on agriculture, forestry (commercial) and sporting interests was undertaken by the Scottish Agricultural College (SAC). In addition, a poultry assessment was undertaken for the poultry enterprises along the scheme (including Newton of Charleston land reference 288 in the Southern Leg) by veterinarian Paul McMullin of Poultry Health Services and is reported separately in Appendix A37.4. For the purposes of this assessment, agriculture is considered to be the practice of cultivating the land and rearing stock to produce food products. Forestry is defined in relation to the rearing of trees to produce wood and wood products. Sporting interests include shooting and stalking activities over agricultural land, forestry as well as water and fishing activities upon lochs, reservoirs, rivers, burns, canals and ponds.

- 22.1.6 The agricultural activities in the study area potentially affected by the proposed scheme are diverse. The capability of land to support different types of agricultural systems, from intensive arable cropping to more extensive pasture based systems, is determined by a range of physical factors such as relief and topography, climate (rainfall and growing season) and soil characteristics. Land is classed by the Macaulay Land Use Research Institute (MLURI) according to its land capability, reflecting the above conditions, and which is further discussed in Section 37.2.
- 22.1.7 In addition to their main farming activities, farmers are developing, particularly in more recent years, complementary activities to generate more diverse income streams for the farming business. These include novel crop and livestock systems, provision of tourist accommodation, leisure and recreation pursuits (including equestrian activity), value-added products and contracting (labour and machinery). In terms of assessing impacts on these additional business activities (e.g. liveries), the loss of agricultural land has been addressed in the agricultural assessment. However, the impacts on the business have been addressed by the business impact assessment.
- 22.1.8 The agricultural assessment within this chapter:
  - describes the agriculture, forestry and sporting activity in the route corridor;
  - outlines the potential effects on agriculture, forestry and sporting activities during construction and operation of the proposed scheme;
  - describes mitigation measures; and
  - identifies residual effects as well as potential aggregate residual effects.

#### **Community Land**

- 22.1.9 For the purposes of this assessment, community land is land that is used by the community for educational, recreational and amenity purposes, and can be either publicly or privately owned. This includes open ground encompassing common or open space, woodland, countryside/greenbelt, derelict and vacant land. In DMRB Volume 11, 'common', refers to any town or village green, and 'open space' refers to any land laid out as a public park or used for public and private recreation, or land that is a disused burial ground. Community facilities such as buildings, footpaths, cycleways and equestrian routes are considered separately in Chapter 31 (Pedestrians, Cyclists, Equestrians and Community Effects). Land containing archaeological remains, historic buildings or gardens are considered in Chapter 28 (Cultural Heritage).
- 22.1.10 DMRB Volume 11 also requires that any potential impacts on un-navigable, disused waterways and any waterway restoration or development proposals be considered. British Waterways was consulted regarding the proposal and to identify the presence of any disused waterways in the study area. As no waterways of this category have been identified for this assessment, this is not considered further in this chapter. Impacts on land of ecological importance are addressed in Chapter 25 (Ecology and Nature Conservation).

#### **Residential and Commercial Land Use**

- 22.1.11 The assessment of the potential impacts on residential and commercial land use is concerned with the demolition of property and associated land-take, as a result of the proposed scheme resulting in loss of homes, facilities, amenities, services or employment. Compensation may be available where there is demolition or loss of private property, and this will be addressed by an economic appraisal of the scheme by the District Valuer prior to the commencement of construction.
- 22.1.12 An assessment of the potential impact of the proposed scheme on non-agricultural/forestry businesses and commercial interests within the study area was undertaken independently by Tribal HCH and is documented in a separate report (Aberdeen Western Peripheral Route: Southern Leg Impact on Businesses, Tribal HCH, 2006 and 2007). This report is confidential as it contains commercially sensitive information on businesses.

#### **Development Land**

22.1.13 The assessment of impacts on development land is intended to address the effects of the scheme on future land use changes. For the purposes of this assessment development land is land that is covered by local authorities' land use planning designations, as identified in Structure and Local Plans, as well as any planning proposals lodged with the planning authorities.

# 22.2 Approach and Methods

- 22.2.1 The assessment of the potential impacts of the proposed scheme on land use was undertaken in accordance with the 'Design Manual for Roads and Bridges' (DMRB) Volume 11, Section 3, Part 6 (The Highways Agency et. al., 1993).
- 22.2.2 The approach and method used is considered separately for each of the following land interests:
  - agriculture, forestry and sporting interests;
  - community land;
  - residential and commercial land use; and
  - development land.
- 22.2.3 For the assessment, the sensitivity of land use features is identified. The magnitude of impacts is then assessed based on specified criteria. From the sensitivity and magnitude, an assessment of the significance of impacts is then made. Mitigation measures to address adverse impacts are identified. This is followed by an assessment of the residual impacts of the scheme, taking into account those mitigation measures.

#### **Agriculture, Forestry and Sporting Interests**

- 22.2.4 The assessment of the effects on agriculture, agriculturally related activities, forestry and sporting activities involves a combination of:
  - desk based research of information sources in relation to agriculture, forestry and land use in the area;
  - consultation where appropriate with interested parties and organisations;
  - identification of characteristics and extent of different agricultural, forestry and land management activities along the length of the proposal;
  - site visits and inspections by experienced professionals; and
  - interviews with the landowners and tenants whose land would be directly affected by the proposed scheme.
- 22.2.5 To assess the overall significance of the potential effects of the proposed scheme on agricultural, forestry and sporting activities, an objective assessment involving sensitivity to impact and magnitude of effects was adopted. This provided an assessment framework and ensured overall consistency of reporting.
- 22.2.6 Structured interviews were held with the landowners and tenants of the potentially affected farms and holdings, and with forestry and sporting landowners and managers within the study corridor. This allowed the following baseline information to be determined:
  - extent of property holdings and form of land ownership;
  - land use, management and performance levels attained;
  - labour and machinery resources;
  - sporting activity and management;

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- other business interests; and
- existing grants.
- 22.2.7 The questionnaire used in the survey and interviews for the Northern Leg, Southern Leg and Fastlink can be found in Appendix A7.2. The results of these interviews were supplemented by the assessments described below.

#### Land Use and Land Capability

- 22.2.8 The combination of site visits and soil investigations allowed land use and land capability of land directly affected by the proposed scheme to be categorised.
- 22.2.9 Additionally, MLURI Land Capability for Agriculture data were used to indicate the land class along the proposed scheme. This classification system gives an indication of the capability of the land to grow certain types of crops and grass. The full classification can be found in Appendix A7.3 (Land Capability Descriptors). Land is classified into seven main classes, some of which have subdivisions. Class 1 is the best quality land and Class 7 is the poorest quality land. Classes 1, 2 and 3<sub>1</sub> are known as prime quality land. Classes 3<sub>2</sub> to 7 are known as non-prime land. The MLURI data were verified with on site assessments of topsoil depth, soil texture, soil colour, wetness, stone content and gradient. This allowed a full and complete assessment of the land according to the Macaulay Land Capability for Agriculture Classification System.
- 22.2.10 Both the magnitude of the effects and the sensitivity of the holdings or particular agricultural land uses are assessed. The assessment of the magnitude of impact is based upon the anticipated land-take identified for each land interest based on the current road model at the time and landscape mitigation proposals. Issues such as severance, access and changes in management of the land parcels are also identified and considered in the magnitude assessment. The assessments of sensitivity are based on the quality of the land affected, the type of farming activity practiced and the farm size. The assessment of magnitude and sensitivity has been based upon indicative criteria and professional judgement.
- 22.2.11 Table 22.1 and Table 22.2 outline the characteristics and description of impacts for each sensitivity and magnitude rating.

Sensitivity	Characteristics
High	Presence of prime quality land (Grade 1, 2, 3 <sub>1</sub> ).
	Conventionally farmed intensive arable cropping and/or intensive livestock systems (e.g. dairying).
	Land of any farm type farmed according to organic/biodynamic standards.
	Small farm size < 50ha
	High value woodland that is rare or distinctive and susceptible to small changes.
Medium	Presence of land of moderate quality (Grade 3 <sub>2</sub> , and 4).
	Conventionally farmed mixed livestock and crop systems of moderate intensity.
	Average farm size > 50 < 100ha
	Moderate value woodlands tolerant of moderate levels of change.
Low	Presence of land of low quality (Grade 5, 6 & 7).
	Conventionally farmed extensive livestock systems.
	Large farm size >100ha.
	Land let out.
	More commonplace woodland tolerant of noticeable change or undergoing substantial development.

#### Table 22.1 – Sensitivity of Receptor

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Magnitude of Impact	Impact Description (one or more criteria)
High	Loss of > 10% of the farmed area
	High degree of severance (> 10% of the farmed area).
	Access to fields compromised with longer route required and machinery restricted.
	High degree of disruption to cultivation patterns with high risk of change in land use.
	Disruption to driven shooting and high value fishing (e.g. salmon).
	Potential for high degree of change in permanent or seasonal employment.
	Noticeable change to the woodland over a wide area or an intensive change over a limited area.
Medium	Loss of >5% <10% of the farmed area
	Moderate degree of severance (>5% < 10% of the farmed area).
	Access to fields changed but moderate increase in travelling and all machinery able to access.
	Moderate degree of disruption to cultivation patterns with moderate risk of change in land use.
	Disruption to walked up shooting and medium value fishing (e.g. trout).
	Potential for moderate degree of change in permanent or seasonal employment.
	Small changes to the woodland over a wide area or a noticeable change over a limited area.
Low	Loss of >1% <5% of the farmed area
	Low degree of severance (<5% of the farmed area).
	Access changed with minimal increase in travelling and all machinery able to access.
	Minimal degree of disruption to cultivation patterns and low risk of change in land use.
	Disruption to rough shooting and low value fishing (e.g. no permit charged).
	Potential for low degree of change in permanent or seasonal employment.
	Very minor changes to the woodland over a wide area or minor changes over a limited area.
Negligible	Negligible change to any of the above factors.

#### Table 22.2 – Magnitude of Impact

22.2.12 Professional judgement and awareness of the relative balance of importance between sensitivity and magnitude allows the overall significance of impact to be assessed in accordance with the general approach and methods adopted in this document and the following table.

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

#### Table 22.3 – Significance of Impact

- 22.2.13 The table provides a guide as to the significance of impact, although it should be noted that professional judgement is used to determine the final significance category. The significance of impact has been assessed without mitigation and then with mitigation to determine the residual impacts.
- 22.2.14 Additionally, in accordance with DMRB Volume 11, an assessment of the residual impact on the likely future business viability of each of the agricultural land holdings is made. The final

assessment relies on professional judgement and is completed by assessing various factors including:

- potential impacts of land-take and severance post mitigation;
- likelihood of change in the type of husbandry and land use;
- impact on environmental agreements; and
- the consequent potential impact on likely future viability.
- 22.2.15 Viability of units is only assessed where the residual significance of agricultural impact is Moderate or above and where the land interests are considered agricultural/forestry commercial businesses (i.e. where the majority of the income arises from agricultural and/or forestry production activity).
- 22.2.16 Impacts relating to the total area of land lost for each land capability grade are also determined for each land interest and for the Southern Leg of the proposed scheme.

#### **Community Land**

22.2.17 Community land was identified through site visits, as well as a review of OS map data and the development plans, which are discussed in paragraph 22.2.22 (Development Land) and in more detail in Chapter 34 (Policies and Plans). The approach to assessing the impact on community land has been to assess the sensitivity of each feature identified according to the sensitivity criteria shown in Table 22.3. The magnitude or extent to which the route affects any of these features was then calculated using criteria as set out in Table 22.5. An assessment of the significance is then undertaken as shown in Table 22.6.

Sensitivity	Description
High	Community land of national importance, e.g. National Parks.
Medium	Land used by the community on a regional scale, e.g. Country Parks, forests and other land managed in such a way as to attract visitors from a regional, or wider, catchment.
Low	Locally used community land, e.g. local parks, cemeteries and local areas of woodland potentially used for recreation.

#### Table 22.4 – Criteria for Sensitivity of Community Land Use Interests

#### Table 22.5 – Magnitude of Impact Criteria for Community Land Use Interests

Magnitude of Impact	Impact Description (one or more criteria)
High	> 50% loss of land and/or complete severance of a site.
Medium	Loss of part of a site (between approximately 15% to 50%) and/or major severance of a site.
Low	< 15% loss of a site and/or partial severance.
Negligible	Very slight change from the baseline condition. Change hardly discernible, approximating to a 'no change' in conditions.

#### Table 22.6 – Significance of Impact Criteria for Land Use Interests

Magnitude	Sensitivity		
	High	Medium	Low
High	Substantial	Moderate/ Substantial	Moderate
Medium	Moderate/ Substantial	Moderate	Slight/moderate
Low	Slight/ Moderate	Slight	Negligible/Slight
Negligible	Slight	Negligible/Slight	Negligible

#### Residential and Commercial Land Use

- 22.2.18 The approach to assessing the potential impact of the proposed scheme on businesses and industrial land was undertaken by conducting face to face interviews with those businesses likely to be affected by the route through demolition or land-take. The interviews were conducted to ascertain the implications of loss of employment and future viability.
- 22.2.19 Residential properties affected by the proposed scheme were identified through a review of Ordnance Survey maps and consultation. The demolition of residential properties is always assessed as an adverse impact of substantial significance.
- 22.2.20 The assessment of the impact on individual businesses was undertaken using the following criteria:
  - Beneficial Impact: the business would be able to continue trading and developing as planned with the proposed scheme making a beneficial contribution to business development;
  - Neutral Impact: the business would be affected by the proposed scheme, but it is likely to be able to continue trading; and
  - Adverse Impact: the business would have to reduce its activities, relocate or close completely.
- 22.2.21 The proposed scheme would require changes to existing access arrangements. The potential impacts from changes to access would include non-agricultural businesses. Therefore, changes to existing access arrangements for non-agricultural businesses is assessed according to the following criteria:
  - Beneficial Impact: business access arrangements are maintained and enhanced such that the business may potentially benefit from improved access.
  - Neutral Impact: business access arrangements with minor modifications/diversions or no diversions required.
  - Adverse: business access arrangements not maintained, with modifications and diversions required.

#### Development Land

- 22.2.22 A review of the following Structure and Local Plans was undertaken to identify development land within the study area:
  - North East Scotland Together Aberdeen and Aberdeenshire Structure Plan 2001-2016 (July 2002);
  - Adopted Local Plan Written Statement for Aberdeen City District September 1991 (Aberdeen City Council);
  - Interim Housing Land Guidance 2003 (Aberdeen City Council);
  - Green Spaces New Places; The Finalised Aberdeen Local Plan Written Statement (August 2004) and Proposed changes (August 2005) (Aberdeen City Council); and
  - Aberdeenshire Local Plan June 2006 (Aberdeenshire Council).
- 22.2.23 Further detailed information on development plans for Aberdeen City and Aberdeenshire is provided in Chapter 34 (Policies and Plans).
- 22.2.24 The assessment of impacts on development land was undertaken through consultation with both Aberdeen City and Aberdeenshire Council Planning Authorities. Both Councils were contacted to identify current planning applications within the study area. They were invited to provide comment on these and on the development land identified.

- 22.2.25 Planning applications within the study area comprise sites covered by current planning applications, applications within the last five years (July 2001 to July 2006), including approved applications not yet implemented, applications pending, and applications refused, but with an appeal pending. Planning applications not considered by the assessment are those which are single housing improvements/extensions that are not directly affected by the proposed scheme; applications which have been withdrawn; applications which have been refused; enforcement actions; and applications outside of the study area.
- 22.2.26 It should be noted that Part E of this ES considers the cumulative environmental effects of the AWPR and major developments likely to take place within the area over similar timescales.
- 22.2.27 The assessment of the impact on development land and planning applications was undertaken using the following criteria:
  - Beneficial: the land would still be available for the proposed use and the development of the road would improve the viability of the site for the proposed development (generally through improved access). Impacts on the amenity of the site would not interfere with its proposed use or the impact on the amenity would be beneficial, in that the road would improve the site's appropriateness of the site for its proposed use.
  - Neutral: the land would still be available for the proposed use and there would be no impact on the viability of the site for the proposed development. There would be no impact on the amenity of the site that would interfere with its proposed use.
  - Adverse: some or all of the site would no longer be available for the proposed use and the road would reduce the viability of the development taking place. Or the road would impact on the amenity of the site in such a way as to interfere with its proposed use.
  - Mixed: the assessment of potential impacts includes some adverse and some beneficial factors.

#### Limitations to Assessment

- 22.2.28 DMRB Volume 11 identifies the potential for 'blight' that could occur as part of a road scheme. Blight manifests itself as the reduction in property prices and/or the partial dereliction of an area due to its proximity to the proposed scheme. It further reflects an anticipated fall in the desirability of a property/area as a result of construction and operation of the road. Property prices are not a material consideration in the planning process and therefore not usually assessed in EIA. Blight is not specifically assessed as it would result in 'doubling up' of impacts (i.e. factors that contribute to blight e.g. noise, visual disturbance and community effects are already included within the relevant chapters of this ES). The potential for economic blight is considered as changes to the viability of a business due to the proposed scheme, and is included within this assessment (refer to section 22.4: Potential Impacts).
- 22.2.29 Land-take estimates are based on the areas shown on the Draft Compulsory Purchase Orders (CPO) which include the scheme design elements, the extent of earthworks and the mitigation measures proposed in this ES (including land returned to agriculture and forestry). At the time of writing this report, the CPO was in the process of being finalised. As the assessment was therefore based on the Draft CPO, any further refinement of detailed design elements may affect the land-take of the scheme. However, it is considered that the areas calculated in this chapter represent a robust assessment; any changes to design elements are envisaged to be minor and, consequently, it is unlikely that impacts reported in this chapter would be affected. However, should later amendments to the scheme design be likely to affect land-take significantly, a recalculation and reassessment would be undertaken.
- 22.2.30 Land-take calculations are reported in hectares to two decimal points. The calculations are generated by using ArcView GIS and AutoCAD measurements. AutoCAD measurements are specifically used for the field-by-field assessment. It should be noted that there will be an inherent limitation to the accuracy of the figures based on the limitations of the software. Severance is also calculated to two decimal places but reported in whole numbers (although percentage severance is calculated based on the two decimal place value).

- 22.2.31 There are some differences between the land-take estimates for agricultural land and community land, due to the different focuses of these assessments. The assessment for agricultural land considers the loss of an area belonging to a particular land interest, where the extent of land affected includes not only areas required for the scheme but also those used for mitigation purposes such as planting. This loss would be reduced if any areas required for mitigation are returned to agriculture and are therefore available for use by the land interest. In contrast, the loss of community land considers the loss of land in terms of its availability for use by the community rather than the land interest. In this assessment, mitigation areas e.g. planting, may retain a community use and therefore can often result in a reduction to the amount of community land lost.
- 22.2.32 Similarly, the land-take and area calculations undertaken for the land use assessment differ from those undertaken as part of the ecology assessment, owing to the different focuses of the assessments. The land use assessment considers the value of woodland in terms of community use, whereas the ecology assessment considers the value of woodland in terms of habitat and presence of protected species.

#### Agriculture, Forestry and Sporting Interest

- 22.2.33 The approach and methods adopted for assessing the impact on agricultural, forestry and sporting interests has involved interviews with affected land interests and an assessment of the general impacts on their business. However, in addition to the limitations discussed previously, the assessment is limited in the following areas:
  - only desk based assessments have been completed for one land interest as it was not possible to arrange visits with them;
  - land-take measurements are estimates; and
  - mitigation measures have been identified and proposed where possible but these have not been refined and agreed with the land interests.
- 22.2.34 Nevertheless, the assessment is considered to provide a robust indication of the significance of effect on agricultural, forestry and sporting interests within the limits described above.

### 22.3 Baseline Conditions

- 22.3.1 The land use within the study corridor for the Southern Leg is varied in nature; including agricultural land, residential areas, recreational areas (predominantly associated with woodland) and businesses. A description of land uses within the study area for the proposed scheme is provided in this section.
- 22.3.2 Existing land use within the study area is shown on Figures 22.2a-h. Transport infrastructure and public utilities are also discussed below, although these are not highlighted on the figures. Agricultural land use details are presented in Figures 22.1a-h.

#### Agriculture, Forestry and Sporting Interest

#### **General Context**

22.3.3 The Aberdeen City and Aberdeenshire Council areas together cover in excess of 500,000 hectares of agricultural land equivalent to 8% of the Scottish agricultural land area. Land quality characteristics within the regions vary considerably. There is some prime quality (LCA Class 3<sub>1</sub>) arable land in the region although the majority of the land is of more marginal quality (LCA Class 3<sub>2</sub>). Hence the proportion of arable crops grown is relatively small with approximately one-third of the land area being classed as arable (in crop or in rotational grassland). Where cereal crops are grown, these are predominantly spring sown. Grass is by far the most important crop in the region with two-thirds of the total land area in temporary grass, permanent grass or rough grazing (SEERAD, 2006).

- 22.3.4 Cattle and sheep, dairy and mixed farms predominate with both crop and livestock farms having a relatively small average farm size when compared to the Scottish average. With good quality grassland common, the beef and sheep sectors are important both in the region and in a Scottish context. However, agriculture in the Aberdeen area, like other parts of Scotland, is changing and a decline in the livestock sector (particularly dairy and sheep) is evident as systems become less intensive. (SEERAD, 2006).
- 22.3.5 The majority of the area affected by the proposed scheme is agricultural land.

#### Land Capability

- 22.3.6 The majority of the land within the study area is of Land Capability Class  $3_2$  (moderate range of crops of average production levels). No Prime quality land (Class 1, 2 or  $3_1$  land) has been identified.
- 22.3.7 At the very eastern end of the Southern Leg study corridor (Figure 22.1a ch206700), the Land Capability Class is 3<sub>2</sub>. This soon reverts to Class 5 and Class 6 as it passes close to and through Hare Moss. The land Class then improves to Class 3<sub>2</sub> and this continues until the Cleanhill Junction ch20000, except for a small section of Class 4 land between ch201500 and ch201600. The section between Cleanhill and the River Dee is mainly woodland. Any agricultural fields in this section are Class 3<sub>2</sub>. The River Dee floodplain is also Class 3<sub>2</sub> and this is the predominant land class through to the northern end of the proposed Southern Leg route with the exception of Class 5 land at ch108600 and ch109600 and Class 6 land between ch105700 and ch105900.

Land Capability	Length	Percentage
Class 1	0.0km	0%
Class 2	0.0km	0%
Class 31	0.0km	0%
Class 3 <sub>2</sub>	12.7km	68%
Class 4	0.2km	1%
Class 5	1.3km	7%
Class 6	0.9km	5%
Class 7	0.0km	0%
Woodland	2.3km	12%
Other	1.3km	7%
Total	18.7km	100%

#### Table 22.7 – Land Capability

22.3.8 A full description of the land capability assessment can be found at Appendix A7.3 (Land Capability Descriptors) and Appendix A22.1 (Land Capability Assessment). Figures 22.1a-h show the indicative land capability for each field affected by the proposed development.

#### Scope of Agriculture, Forestry and Sporting Interests

22.3.9 A total of 48 agriculture, forestry and sporting land interests have been identified in the Southern Leg. The total combined area of the land interests affected by the proposal is approximately 3,793ha.

#### Agriculture

22.3.10 The range of agricultural activity varies from intensive livestock and arable farming systems to extensive cattle and sheep systems and also includes an organic farm. The type of activity and the level of intensity are determined by a number of factors including the land capability. At the southern end of the Southern Leg study corridor, the land is generally either let out or is not used for agricultural production. This changes as the proposed route passes through forestry land

> (Greenhowe of Banchory Devenick Estate and Duff's Hill Forest) and then approaches Hare Moss. Some of the land around Hare Moss supports beef and sheep systems and other land is not used for agricultural production. There is also a dairy unit at Bishopston (Figure 22.2b). The proposed route then passes through more forestry (Clochandighter Wood) before reverting to agricultural land. Here the land supports crop, beef and sheep systems before again entering forestry and woodland on Kingcausie Estate. On crossing the River Dee, the mainly Class 3<sub>2</sub> land supports a range of livestock systems. These are predominantly cattle and sheep systems. However, the exceptions are:

- two dairy units at Auchlea and Backhill Farm, of which Auchlea is an organic unit;
- Craiglug Farm which is managed as organic with the land let out; and
- two liveries Denburn (Denhead of Cloghill Farm) and East Kingsford.

#### Forestry

22.3.11 Compartments of commercial forestry and farm woodland are located within the study corridor of the proposed scheme. Duff's Hill, Clochandighter, Durris Forrest, Gairnhill, Rotten O'Gairn and Kingshill are owned and managed by the Forestry Commission. Additionally, woodland and forestry in private ownership can be found on Banchory Devenick Estate at Greenhowe and Kingcausie Estate. There is some long –established woodland of plantation origin recorded on the ancient woodland inventory within Kingcausie Estate.

#### Sporting

22.3.12 Sporting activity is limited along the proposed scheme. There are no commercial shoots although rough shooting and managed pheasant shooting does take place in the study corridor. Some stalking of Roe Deer is prevalent around woodland areas. The main sporting activity is located in the southern end of the Southern Leg and at the very northern end of the Southern Leg.

#### Sensitivity Assessment

22.3.13 The baseline data collected during the survey were used to give an individual sensitivity assessment for each land interest affected by the project. The sensitivity assessments for each land interest can be found below in Table 22.8.

Land Interest	Farm Type	Scope of Agricultural, Forestry and Sporting Activity	Sensitivity
Land at Redcraigs Land Ref 422 (Figure 22.1a)	No agricultural use	Land in grass, but no agricultural use. No environmental agreements. No woodland. No sporting activity.	Low
Newton of Charleston Land Ref 288 (Figure 22.1a)	Mixed	Small holding with polytunnels and poultry. No environmental agreements. No woodland. No sporting activity.	Low
		Sensitivity of poultry enterprise assessed as Low (See Appendix A37.4)	
Land near Charleston Land Ref 329 (Figure 22.1a)	Let out	Land let out on seasonal basis (dairy followers and sheep). No environmental agreements. No woodland. No sporting interests.	Low
Lochview Croft	No agricultural use	Land in grass, but no agricultural use. No environmental	Low
Land Ref 290 (Figure 22.1a)		agreements. No woodland. No sporting activity.	
Charleston Estate	Let out	Land let out on seasonal basis. No environmental	Low
Land Ref 233 (Figure 22.1a)		agreements. No woodland. No sporting interests.	

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Land Interest	Farm Type	Scope of Agricultural, Forestry and Sporting Activity	Sensitivity
Banchory Devenick Estate (including Greenhowe) Land Ref 214 (Figure 22.1a)	Estate	Large estate supporting two let farms (dairy, cattle & crop and crop & breeding cattle) as well as in hand farming operation (finishing cattle and breeding ewes). Rural Stewardship Scheme application. Large block of commercial and amenity woodland. Sporting activity includes roe deer stalking and fishing on the River Dee.	Medium
Rigifa Land Ref 214 (Figure 22.1a)	Crop and cattle	Large unit farming on east and west of existing A90. Winter and spring cereals, winter oilseed rape. Finishing cattle. No environmental agreements. No woodland. No sporting activity (retained by landowner).	Medium
Mains of Charleston Land Ref 230/217 (Figure 22.1a)	Let out/Livery	Majority of land let on seasonal basis for grazing (cattle). Some land retained and supports livery (stabling for six horses). Land Management Contract environmental agreement (ditching and dyking). Small area of amenity woodland. No sporting activity.	Medium
Land at Bothiebrig Land Ref 223 (Figure 22.1a)	Let Out	Land in grass and let out on a seasonal basis. No environmental agreements. Small area of amenity woodland. No sporting activity.	Low
Land East of Bothiebrig Land Ref 632 (Figure 22.1a)	No agricultural use	Land in grass, but no agricultural use. No environmental agreements. No woodland. No sporting activity.	Low
Craighill Farm Land Ref 430 (Figure 22.1a)	No agricultural use	Land in grass but no agricultural use. No environmental agreements. No woodland. No sporting activity.	Low
Land East of Bankhead Land Ref 334 (Figure 22.1a)	No agricultural use	Land in grass, but no agricultural use. No environmental agreements. No woodland. No sporting activity.	Low
Land near Portlethen Land Ref 320 (Figure 22.1a)	No agricultural use	Land in grass, but no agricultural use. No environmental agreements. No woodland. No sporting activity.	Low
Bankhead Land Ref 210 (Figure 22.1a)	Specialist Beef	Suckler cows with finishing cattle enterprise. Sheep occasionally graze over winter. No environmental agreements. No woodland. Informal rough shooting.	Medium
Duff's Hill Wood Land Ref 256 (Figure 22.1a)	Forestry	Forestry Commission commercial woodland.	Low
Duffshill Farm Land Ref 209 (Figure 22.1a)	Let out	Land let out on seasonal basis for grazing suckler cows and calves. No environmental agreements. No woodland. No sporting interests.	Low
Jameston Farm Land Ref 206 (Figure 22.1b)	Specialist Beef	Small herd of suckler cows plus grow hay/silage for sale. No environmental agreements. No woodland. No sporting interests.	Medium
Bishopston Land Ref 1736 & 229 (Figure 22.1b)	Dairy, cattle, sheep and crop	Small area of spring barley. Main enterprise is dairy (180 cow herd) plus followers and barley beef system. Breeding flock of 360 ewes (pedigree texel and beltex). Cheese and yoghurt made from milk and there is a small farm shop. Land Management Contract agreement (training and farm assurance). No woodland. No sporting activity.	High
Land at Hare Moss Land Ref 282 (Figure 22.1a-b)	No agricultural use	Land in grass, but no agricultural use. No environmental agreements. No woodland. No sporting activity.	Low
Land at Hare Moss Land Ref 279 (Figure 22.1a-b)	No agricultural use	Land in grass, but no agricultural use. No environmental agreements. No woodland. No sporting activity.	Low
Cowford Farm Land Ref 211 (Figure 22.1b)	Crop and Beef	Spring barley. Herd of 140 suckler cows. No sheep. No environmental agreements. No woodland and no sporting activity.	Medium

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Land Interest	Farm Type	Scope of Agricultural, Forestry and Sporting Activity	Sensitivity
Newlands Farm	Hay for sale	No livestock. Hay made for sale. No environmental	Low
Land Ref 211 (Figure 22.1b)		agreements. Woodland Roundels on farm but outside of tenancy. No sporting interests.	
Clochandighter Wood	Forestry	Forestry Commission commercial woodland.	Low
Land Ref 590 (Figure 22.1b)			
Merchant's Croft	Specialist Sheep	No crop. Flock of 800 breeding ewes. Lambs fattened. No environmental agreements. No woodland. Shooting	Medium
Land Ref 228a (Figure 22.1b)		let out by estate (rough shooting and stalking).	
Swellhead Farm	Specialist Beef	Winter and spring cereals (wheat and barley) plus set- aside. Herd of 160 pedigree suckler cows plus herd of	Medium
Land Ref 634 & 5177 (Figure 22.1c)		150 commercial suckler cows. No environmental agreements. No sporting interests.	
Kingcausie Estate	Estate	Large estate supporting one let farm (crop & breeding	Medium
Land Ref 556 (Figure 22.1c-d)		cattle) as well as in hand farming operation (suckler cows). Rural Stewardship Scheme (ancient woodland pasture, dykes, water margins and unharvested crops). Large block of commercial and amenity woodland including ancient woodland. Sporting activity includes roe deer stalking and rough shooting.	
Milltimber Farm	Specialist Beef and	Purchase yearling store cattle and take through to	High
Land Ref 438 (Figure 22.1d)	Livery	finishing. Livery for 30 horses with 20 boxed and grazed and 10 grazing only. No environmental agreements. Some woodland. No sporting interests.	
Woodend Farm	Let out	Land let out on seasonal basis. No environmental	Low
Land Ref 5175 (Figure 22.1e)		agreements. No woodland and no sporting interests.	
Victoria Sawmills	No agricultural use	Land in grass, but no agricultural use. No environmental	Low
Land Ref 584 (Figure 22.1e)		agreements. No woodland. No sporting activity.	
Nether Beanshill	Crop, cattle and sheep plus livery	Cropping includes spring barley plus hay for sale. Finishing cattle (140) plus flock of 170 breeding ewes.	High
Land Ref 510 (Figure 22.1e)		Livery for 13 horses (DIY). No environmental agreements. Small area of amenity woodland. No sporting interests.	
Binghill House	Let out	Land let out on seasonal basis. No environmental	Low
Land Ref 580 (Figure 22.1e)		scheme. Woodland (Hazelwood). No sporting interests.	
Beanshill Cottage	Let out	Land let out on seasonal basis. No environmental	Low
Land Ref 578 (Figure 22.1e)		agreements. No woodland and no sporting interests.	
Westfield	Unknown	A visit could not be arranged with the landowner, therefore a desk-based assessment was undertaken.	Low
Land Ref 723 (Figure 22.1e)		Land in grass and used for grazing.	
South Last	Crop and Cattle	Winter wheat plus seed potatoes (grown on rented land).	Medium
Land Ref 557 (Figure 22.1e)		Finishing cattle enterprise plus sell in-calf heifers (beef). Also rear gimmers. No environmental agreements. No woodland and no sporting activity.	
Kingshill and Gairnhill Wood	Forestry	Forestry Commission commercial woodland.	Low
Land Ref 253 (Figure 22.1f)			
Land near Gairnlea Land Ref 5171 (Figure 22.1f)	No Agricultural Use	Land in grass, but no agricultural use. No environmental agreements. No woodland. No sporting activity.	Low

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Land Interest	Farm Type	Scope of Agricultural, Forestry and Sporting Activity	Sensitivity
Gairnlea Land Ref 566 (Figure 22.1f)	No agricultural use	Land in grass, but no agricultural use. No environmental agreements. No woodland. No sporting activity.	Low
Silverburn Farm Land Ref 610 (Figure 22.1f)	Let out and Horses	Majority of land let on seasonal basis. Area retained supports horses (non commercial). Designated wildlife site. No environmental agreements. Small areas of amenity woodland. No sporting interests.	Low
East Brotherfield Land Ref 561 (Figure 22.1f)	Equestrian	Land supports newly established equestrian business (previously cattle). No environmental agreements. No woodland. No sporting interests.	Medium
Gairn Farm Land Ref 486 (Figure 22.1f)	Specialist Beef	Finishing cattle enterprise on low input system. No environmental agreements. No woodland or sporting interests.	Medium
Craiglug Land Ref 483 (Figure 22.1f)	Let Out (Organic)	Grass let out on seasonal basis.	High
Auchlea Land Ref 477 (Figure 22.1f)	Dairy (Organic)	Organic dairy farm (75 cows plus followers). Male cattle sold finished (bull beef). Rural Stewardship environmental scheme (hedges, ponds and unharvested crops). No woodland and no sporting activity.	High
Backhill Farm Land Ref 473 (Figure 22.1f-g)	Dairy	Small area of spring barley. Main enterprise is herd of 129 dairy cows plus followers. Male calves are taken through to finishing on barley beef system. No environmental agreements. No woodland and no sporting activity.	High
Blackhill of Brodiach Land Ref 466 (Figure 22.1g)	Let out	Land let out on seasonal basis (to Land Ref 473). No environmental agreements. No woodland and no sporting interests.	Low
Land at East Kingford Land Ref 460 (Figure 22.1g)	Livery	9 breeding horses plus 15 horses on livery. Winter 30 ewes to manage grazing. No environmental agreements. Some amenity woodland. No sporting interest.	High
West Hatton Land Ref 333 (Figure 22.1g)	Let out	Land let out on seasonal basis. No environmental agreements. Some amenity woodland. No sporting interests.	Low
Denburn Livery and Stud, Denhead of Cloghill Land Ref 105 (Figure 22.1g)	Livery and Stud	44 horses on livery. 30 full livery, 14 part/DIY livery and 5-6 horses graze land during the winter. Land also used to support equestrian shows and events plus dog agility. No environmental agreements, no woodland and no sporting interest.	High
Derbeth Farm Land Ref 103 (Figure 22.1g-h)	Crop and Specialist Beef	Large area of spring barley with set-aside. Finishing cattle enterprise. No environmental agreements. Native woodland amenity planting. Pheasant shoot (private).	Medium

- 22.3.14 Of the 48 sensitivity assessments, eight are high, 13 are medium, and 27 are low.
- 22.3.15 The eight high sensitivity land interests include three dairy units (Bishopston, Auchlea and Backhill Farm), two organic units (Auchlea which is also a dairy and Craiglug) and four equestrian units (Milltimber, Nether Beanshill, East Kingsford and Denburn at Denhead of Cloghill). The 13 medium sensitivity holdings support beef, sheep and arable systems of moderate intensity and the remaining 27 low sensitivity holdings are predominantly units that have a low level of agricultural production, let land out and where income from farming is a secondary income stream.

#### **Community Land**

22.3.16 Community land within the Southern Leg study corridor comprises mainly woodland and two playing fields. There are also two private clubs, which, although not specifically community land, provide facilities to members for recreational purposes.

- 22.3.17 The woodlands identified within the study corridor include Greenhowe, Duff's Hill, Clochandighter Woodland, Cleanhill Wood, Durris Forrest, Milltimber Wood, Guthrie Hill, Rotten O' Gairn, Gairnhill Wood, Kingshill Wood, West Hatton, Wood near Derbeath Farm and Roundalls near Newlands (north and south). Greenhowe, Clochandighter, Duff's Hill, Durris Forrest, Rotten O' Gairn, Gairn Hill and Kingshill also have commercial forestry interests.
- 22.3.18 Greenhowe is approximately 51.09ha and is privately owned by the Banchory Devenick Estate. There are no paths associated with this woodland. This woodland is assessed as being of low sensitivity in terms of community land; see Table 22.8 for further details on the sensitivity of the commercial plantation in terms of agricultural land.
- 22.3.19 Duff's Hill is approximately 35.04ha and is managed by the Forestry Commission; there are no paths within Duff's Hill for recreational purposes. This woodland is assessed as being of low sensitivity in terms of community land.
- 22.3.20 Clochandighter and Durris Forrest are approximately 41.87ha and 60.52ha respectively and are managed by the Forestry Commission. Both woodlands are also used for recreation and contain recreational paths. These woodlands are assessed as being of low sensitivity in terms of community land.
- 22.3.21 Cleanhill Wood is approximately 89.97ha and is contiguous with Craigingles Wood which is outwith the study corridor. Cleanhill Wood contains a path network, however, the land is within the Kingcausie estate, which is privately owned. This woodland is assessed as being of low sensitivity in terms of community land.
- 22.3.22 Milltimber Wood and Guthrie Hill Wood are approximately 12.66ha and 8.39ha respectively. Both woods can be accessed from Contlaw Road. Milltimber Wood also contains paths, which are used by recreational users. Both areas are privately managed and areas within the woods have been recently felled. Both these woodlands are assessed as being of low sensitivity in terms of community land.
- 22.3.23 Rotten O'Gairn, Gairn Hill Wood and Kingshill Wood are contiguous woodlands managed by the Forestry Commission. In total, they are approximately 169.53ha and contain a well used network of recreational paths and are served by a car park. A portion of the most southern block of Rotten O'Gairn was recently felled. These woodlands are assessed as being of low sensitivity in terms of community land.
- 22.3.24 Moss of Auchlea is a small (6.31ha) wet woodland comprising mainly broadleaved trees. The area is also a District Wildlife Site (DWS) and further details regarding the ecological importance of woodland are provided in Chapter 25. The woodland does not have public paths. This woodland is assessed to be of low sensitivity in terms of community land.
- 22.3.25 The woodland at West Hatton is approximately 5.40ha and is also a District Wildlife site (DWS). Although the woodland does not specifically contain paths, a right of way that continues from the consumption dyke at Kingswells bisects the wood. This woodland is assessed as being of low sensitivity in terms of community land.
- 22.3.26 The woodland areas around Cloghill and Derbeth Farm are predominantly shelter belts which are privately owned and contain no public paths. In total they cover an area of approximately 7.82ha. These woodland areas are assessed as being of low sensitivity in terms of community land.
- 22.3.27 In addition to these large areas of woodland, there are several scattered patches of woodland (<5ha) within the study area. Of particular interest, due to their proximity to the proposed scheme, are wooded areas at: Upper Beanshill, Burnhead, the Old Deeside Railway shelter belt, Denhead of Cloghill shelter belt. Roundalls near Newlands (north and south), shelter belt between Duff's Hill and A90 and three woodland patches near Bothiebrig. However, the majority of these due to their size (<0.5ha) are not considered important in terms of community land.

- 22.3.28 Some of the woodlands listed above are of little value to the community, e.g. they contain no recreational paths and/or are densely planted commercial areas. The extent of which these areas are used by the community is not known, therefore for completeness they are also assessed.
- 22.3.29 There are two playing fields (PFs) within the study corridor: Corbie PF at Bridge of Dee operated by the Council and Albyn School PF Milltimber. The playing fields are assessed as being of low sensitivity. In addition to the playing fields, there are two other local recreational areas, Webster Park and Brimmond Hill, both of which are located north of Kingswells. These areas are assessed as being of low sensitivity in terms of community land.
- 22.3.30 There are two private clubs with facilities within the study corridor, the Aberdeen Aeromodellers Club and the Aberdeen Petroleum Club. The Aberdeen Aeromodellers Club has a field at Hare Moss where members fly their model aircraft. The Aberdeen Petroleum Club (Kippie Lodge) is a sports and country club including a golf course and driving range, gym, all weather tennis courts, squash courts and swimming facilities. For the purposes of this assessment, both the Aberdeen Petroleum Club and the Aeromodellers Club are considered businesses and have therefore been assessed as businesses.
- 22.3.31 In addition to areas of community land discussed above, there are community facilities (buildings) within the study area. These include nurseries, caravan parks and liveries; which are discussed in Chapter 31 (Pedestrians, Cyclists, Equestrians and Community Effects). However, these facilities are also considered to be businesses and are considered as such in this chapter and shown on Figures 22.2a-h.
- 22.3.32 The sensitivity of community land within the route corridor is detailed below in Table 22.9 as assigned based on the criteria set out in Table 22.4.

Community Land Area	Area (ha)	Sensitivity
Greenhowe Plantation	51.09	Low
Duff's Hill	35.04	Low
Clochandighter	41.87	Low
Wood near Burnhead	0.56	Low
Cleanhill Wood	89.97	Low
Durris Forest	60.52	Low
Milltimber	12.66	Low
Guthrie Hill Plantation	8.39	Low
Upper Beanshill	1.66	Low
Rotten O'Gairn	26.20	Low
Gairn Hill	87.40	Low
Kingshill	55.93	Low
West Hatton	5.40	Low
Cloghill/Derbeth Farm Shelter Belts	7.82	Low
Corby PF	1.46	Low
Albyn School PF	4.22	Low
Webster Park	1.56	Low
Brimmond Hill	130.18	Low
Roundall at Newlands (north and south)	0.79	Low

Table 22.9 – Sensitivity of Community Land<sup>1</sup>

<sup>&</sup>lt;sup>1</sup> Sensitivity is based on community use and not on the ecological value of woodland as habitat (which is discussed separately in Chapter 25: Ecology and Nature Conservation).

#### Residential and Commercial Land Use

22.3.33 In order to determine the potential land uses affected by land-take resulting from the scheme, descriptions of the residential areas, educational facilities, businesses and transport infrastructure in the study area are provided below.

#### **Residential Areas**

- 22.3.34 The main residential areas within the Southern Leg route corridor are Milltimber, Peterculter and Kingswells. In addition, there are smaller residential areas at The Crossroads, Burnhead and Beanshill.
- 22.3.35 Milltimber and Peterculter (Figure 22.2d) are located approximately 6-7 miles west of Aberdeen, adjacent to the A93. Both are popular residential areas in Aberdeen and a variety of community facilities are located within these areas. In Milltimber the following community facilities are located within the study corridor: Hawkshill Residential Nursing Home, Aberdeen International School, Aberdeen Petroleum Club (Kippie Lodge) and the Albyn School playing fields.
- 22.3.36 The majority of Peterculter lies outside of the study corridor. However, the former Culter House Nursing Home is located within the study corridor, west of the Kippie Lodge golf course (Figure 22.2d). As this facility is no longer in operation and the building is currently derelict, it is not considered further in this assessment. Inquiries regarding any development plans for the site have been made to Aberdeen City Council, however at the time of writing, no information had been provided.
- 22.3.37 The western edge of Kingswells is located approximately five miles west of Aberdeen city centre at the northern edge of the study corridor, where the Southern and Northern Legs of the proposed scheme meet. Kingswells is a popular residential area with a number of community facilities that include schools, shops, restaurant/pubs and small businesses.
- 22.3.38 The Crossroads is a small residential community clustered around the crossing of two minor roads, northeast of Hare Moss. The community does not include any community facilities.
- 22.3.39 Burnhead community is a collection of ten residential properties southeast of the Blaikiewell junction where the Southern Leg and the Fastlink study areas meet at the Cleanhill junction. There are no associated community facilities at Burnhead.
- 22.3.40 Beanshill community is located north of Milltimber where a few residential properties and farms are clustered together at the foot of Beanshill, off Contlaw Road. There are no community facilities associated with Beanshill.

#### Educational Facilities

- 22.3.41 The following educational facilities have been identified within the study area:
  - Maryculter Playgroup;
  - Camphill Estate;
  - International School of Aberdeen;
  - Albyn School Playing Fields; and
  - Kingswood Learning Enhancement Centre.
- 22.3.42 Maryculter Play Group occupies the Pavilion buildings at the Corby Playing fields near the B979 Bridge of Dee crossing. The play group can accommodate up to 18 pupils from two-and-a-half to five years old and is privately operated.

- 22.3.43 The Camphill Estate at Milltimber is part of the Camphill Community which provides educational facilities and residential areas for special needs children and adults. Camphill also has facilities at Murtle Estate and Newton Dee (approximately 1.8km and 2.8km northeast of the Camphill Estate) which are outside of the study corridor.
- 22.3.44 The International School of Aberdeen is a private school located within Milltimber and adjacent to the Aberdeen Petroleum Club (Kippie Lodge). The land owned by the school includes the building known as "The Lodge" on North Deeside Road. The International School has approximately 340 students and is the only school in Aberdeen to offer the internationally recognised International Baccalaureate Diploma. The diploma is a qualification achieved through a two-year curriculum, primarily aimed at students aged 16 to 19 and is widely recognised by universities.
- 22.3.45 The Albyn School playing fields are located between Milltimber and Peterculter, although the school itself is located several kilometres away on Queen's Road closer to Aberdeen city centre and therefore outwith the study area. The school is private and provides buses to take pupils to the playing fields located at Milltimber.
- 22.3.46 The Kingswood Learning Enhancement Centre occupies two temporary buildings at Mosside of Auchlea, to the north of Moss of Auchlea woodland. The centre opened in 2003 offering children with dyslexia, dyspraxia, ADD/ADHA, Asperger syndrome, autism and related difficulties, an exercise based programme to harmonise movement, integrate perception, enhance learning and improve social skills. Therapies include Neuro-Development Therapy, balance board exercises and bi-lateral integration exercises.

#### Business and Industrial Land

- 22.3.47 The area around Charleston at the start of the proposed Southern Leg route provides a mix of agricultural, residential and industrial land use. Badentoy Industrial Estate & Piper Alpha Business Centre is located south of the proposed route near ch204000, however it is outside of the study area. In addition to the industrial land near Charleston, there are small areas of industrial land where the AWPR would cross the A944. At this location, industrial units provide premises for businesses. Due to the rural and residential nature of the study area, there are no other areas of industrial land within the study area, but there are several scattered businesses within the study area.
- 22.3.48 Key commercial properties located within the study corridor include:
  - Businesses at Charleston Distribution Centre (Jeeves Couriers; Jeeves Group Storage; ANC Express; W. Leiper);
  - Newton of Charleston (Free-Range Eggs);
  - Bothiebrig Garage;
  - Optima Solutions UK Ltd.;
  - Alexander Duncan Cabs Ltd.;
  - EIS Waste Disposal Services;
  - R&B Services;
  - Dennis Irvine Superbike Centre;
  - Ewing Motors;
  - Marywell Park Homes Ltd.;
  - Artward Bound;
  - North East Reprographics Xerox;
  - SBS Logistics Pipe Yard;

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- Aberdeen Aeromodellers Club;
- Redwing Riding School<sup>2</sup>;
- Storybook Glen Theme Park;
- Old Mill Inn;
- Milltimber Farm Livery;
- Hawkshill Nursing Home;
- Culter House Nursing Home;
- Kippie Lodge (Aberdeen Petroleum Club) including Golf course;
- Nether Beanshill Livery;
- East Brotherfield Livery;
- Businesses at Smiddybrae Industrial Units (King Street Autobody, LD Motors and Clark & Sutherland Grain Equipment);
- East Kingsford Livery Yard;
- Paper Suppliers W. Enterprises Ltd.;
- Five Mile Garage, Petrol Station & Caravan Park;
- Ardene House Veterinary Hospital; and
- Denburn Livery and Stud, Denhead of Cloghill Farm.
- 22.3.49 W Leiper is located at Charleston Distribution Centre, east of the A90. The business is a timber manufacturing and joinery business manufacturing garden sheds.
- 22.3.50 Jeeves Couriers Ltd. and ANC Express are located on leased premises at the Charleston Distribution Centre, east of the A90. Jeeves Couriers Ltd. and ANC Express are understood to be associated businesses providing courier and distribution services. Jeeves Group Storage provides storage facilities at the same premises.
- 22.3.51 Newton of Charleston Farm is located to the east of the A90 and just north of Charleston Distribution Centre. The owner of Newton of Charleston Farm is retired and has a sideline business selling free range chicken, duck and geese eggs at the farm gate.
- 22.3.52 Optima Solutions UK Ltd. is located on Wellington Road (A956), just off the Charleston flyover, to the east of the A90. The business is an offshore service company providing heat protection systems for major oil companies.
- 22.3.53 Alexander Duncan (Aberdeen) Ltd. is located on Wellington Road (A956), just off the Charleston flyover, to the east of the A90. The business supply spare parts for all Duncan tractor cabs fitted to a range of tractors.
- 22.3.54 Bothiebrig Garage is located south of the Charleston flyover to the west of the A90. The business is a garage providing vehicle maintenance and repairs services.
- 22.3.55 EIS Waste Services are based at Gallowhill, Nigg (Aberdeen) and provide waste disposal services.
- 22.3.56 R&B Services is located at Checkbar, (Nigg, Aberdeen) south of the Charleston flyover, to the east of the A90. The business provides contract cleaning services.

<sup>&</sup>lt;sup>2</sup> Please note that Redwing Riding School, Livery and Horse Sanctuary are considered in Chapter 37 (Land Use) of the ES within Part D: Fastlink (the majority of the facilities buildings and land are located within the Fastlink Study Area).

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- 22.3.57 Dennis Irvine Superbike Centre is located at Checkbar, (Nigg, Aberdeen) south of the Charleston flyover to the east of the A90. The business is a motor cycle sales, repairs and accessories business.
- 22.3.58 Ewing Motors, a second hand car sales business, is located at Checkbar, (Nigg, Aberdeen) south of the Charleston flyover, to the east of the A90.
- 22.3.59 Marywell Park Homes Ltd. is located on Stonehaven Road, Marywell (Aberdeen), south of the Charleston flyover and to the east of the A90. The business is a residential caravan park with a licence for 88 homes and occupies a site of just over three hectares. However, the land owned by the proprietors of Marywell Park Homes extends to approximately 13 hectares. The site comprises of both owner occupied and rented homes.
- 22.3.60 Artward Bound is located at Marywell (Aberdeen), south of the Charleston flyover, to the east of the A90 within the Marywell Park Homes caravan park. The proprietor leases the premises on an annual basis and has been at the current location for two years. The business is a picture framing workshop and gallery, exhibiting the work of local artists.
- 22.3.61 North East Reprographics Ltd. is located on Stonehaven Road, Marywell (Aberdeen), south of the Charleston flyover, to the east of the A90. The business is a Xerox concessionaire selling Xerox photocopiers, printers, fax machines and multi-function products. The business also provides a demonstration area and an after sales service supporting Xerox products.
- 22.3.62 SBS Logistics is based at Waterloo Quay (Aberdeen) and has a material storage site located at Marywell (Aberdeen), to the east of the A90 near Marywell. SBS Logistics provide logistic solutions, mainly to the oil and gas sector.
- 22.3.63 Aberdeen Aeromodellers Club is based at Hare Moss on a site of approximately 2.6 hectares (plus access track). The club is run by constitution and committee with approximately 100 members. Club members fly radio controlled model aircraft in this area, with models weighing up to 14kg and reaching speeds of more than 50 miles per hour.
- 22.3.64 Redwing Riding School is located near Maryculter, and is part of the Redwing Livery which is discussed in the Fastlink study (refer to Part D: Fastlink). The riding school has an all-weather sand school, a grass paddock and a jumping paddock with standard show jumps. In addition, a range of trails and forest paths can be reached from the riding school.
- 22.3.65 Storybook Glen occupies a site of over 11ha off the South Deeside Road near Maryculter. The business is a children's theme park based on nursery rhymes and fairytales and includes a restaurant, gift and garden centre.
- 22.3.66 Lower Deeside Holiday Park is situated near Maryculter on the B9077. The caravan and holiday park offers a range of facilities including caravans and pine lodges which combined provide 55 spaces for self-catering accommodation, in addition to grass and hard standing touring pitches, camping facilities, an on-site shop, a children's play area and a games room.
- 22.3.67 The Old Mill Inn is a historic 200-year-old country inn located on South Deeside Road, on the edge of the River Dee, offering fifteen accommodation spaces, restaurant and function suite facilities.
- 22.3.68 Hawkhill House Nursing Home is located on North Deeside Road, Milltimber. The Nursing Home is a care home for older people and provides short stay, respite care, day care and longer stay care.
- 22.3.69 Milltimber Farm operates a DIY livery providing stables and grazing. The farm/livery owns various fields which are located on either side of the B979.
- 22.3.70 Kippie Lodge Sports and Country Club is located on the North Deeside Road, between Peterculter and Milltimber. The club occupies a site of approximately 17ha. The club is a non-profit organisation owned and run by its membership and is housed in two buildings with facilities that

include a bar and restaurant, snooker room, and areas to host conferences, functions and exhibitions. The Sports Complex includes a gymnasium, all weather tennis courts, squash courts, swimming pool, driving range, putting green and nine-hole golf course.

- 22.3.71 Nether Beanshill, Milltimber operates a DIY livery business on a site of approximately 6 hectares located on the north side of Contlaw Road, surrounding the cottages at Hill Farm. The Farm also owns land on the opposite side of Contlaw Road. The business includes thirteen stable boxes and an outside ménage.
- 22.3.72 East Brotherfield occupies approximately 28ha at Kingswells. The owners previously farmed cattle and now have a grass livery business with 8-9 horses. The business is planning to expand to include a DIY livery and is in the process of building a general purpose shed, with a view to developing loose horse boxes.
- 22.3.73 Clark and Sutherland Ltd. is located at Smiddy Brae Industrial Units, Kingswells. The business buys, manufactures and installs grain (barley) handling equipment for the farming and whisky industries. King Street Autobody and LD motors are also located at the Smiddy Brae Industrial units. These businesses provide car body repairs with a garage services workshop and a repairs centre respectively.
- 22.3.74 W. Enterprises (Abdn) Ltd. is located at Kingsford Industrial Units, Kingswells adjacent to East Kingsford Livery. The business is a paper merchant specialising in educational materials (paper, card and board) and has an on-site shop providing craft materials, which is open to the general public.
- 22.3.75 East Kingsford Livery Yard is located at East Kingsford Farm, Kingswells with land on either side of the Kingsford to Westhill Road. The business occupies a site of approximately 19ha providing DIY livery and is a British Horse Society approved facility. The business has twelve DIY stable liveries, three grass liveries and nine breeding ponies.
- 22.3.76 Five Mile Garage/Petrol Station and Five Mile Caravan Park are located on the A944 Aberdeen to Westhill road. The business includes a motor vehicle maintenance garage; a petrol station and convenience store; and a caravan park with a license for 24 caravans. The caravan park comprises eight permanent residential caravans (permanent address of caravan owners) and has pitches for additional residential or touring caravans.
- 22.3.77 Ardene House Veterinary Hospital is located on Skene Road, Kingswells. The facility has hospital status providing veterinary services for small animals and dedicated equine veterinary services. The business also operates from two other locations in Aberdeen: Bon Accord Street (Aberdeen) and Jesmond Drive (Bridge of Don, Aberdeen).
- 22.3.78 Denburn Livery and Stud is located at Denhead of Cloghill Farm, Kingswells. The area occupied by the business is approximately 24ha. The business is British Horse Society approved and provides a specialist livery yard and stud farm, catering for the 'elite end' of the market. The livery yard has 39 spaces for horses, plus grass livery space; therefore, up to 50 horses can be on-site at any one time. The business has planning permission to build a new shed and increase the yard to 49 spaces, resulting in space for up to 60 horses on-site, including grass liveries. The business provides a range of leisure options to clients including hacking, show jumping and training in the large indoor school facility. In addition, the business contains a dog agility course.

#### Transport Infrastructure and Public Utilities

22.3.79 Due to the predominantly rural and residential nature of the Southern Leg study area, existing transport infrastructure comprises mainly the local road network. The A90 trunk road and the A956 are both within the study corridor in the vicinity of the Charleston junction. The B979 (including the Maryculter Bridge), the B9077 and the A93 are also within the study corridor. The A93, the B9077 and the A944 would be crossed by the AWPR. There are no park and ride sites within the study area. The nearest is situated off the A944 at Kingswells, within 2km of the proposed scheme. No

land in the Southern Leg study area is set aside in the Development Plans specifically for transport provision such as park and ride sites and railways.

22.3.80 Public utilities along the route include Scotland Gas Network gas pressure mains, overground and underground electricity powerlines, Scottish Water apparatus (including two major aqueducts crossed by the route at Milltimber), mains and sewerage network pipelines and communication network cables. In addition, an oil pipeline operated by Shell runs roughly parallel to and within 100m of the Southern Leg alignment from Kingshill Wood to Kingswells.

#### **Development Land**

- 22.3.81 Potential development land is identified within the Development Plans for Aberdeen City and Aberdeenshire. The Development Plan comprises of the relevant Structure Plan and Local Plans. The relevant Structure Plan for both Aberdeen City and Aberdeenshire is the Aberdeen and Aberdeenshire Structure Plan 2001-2016 (North East Scotland Together) which provides strategic guidance for both areas and was approved in July 2002.
- 22.3.82 For the Aberdeen City area, the relevant local plan is the Aberdeen City District Local Plan which was adopted in September 1991. This document is now significantly out of date and is therefore currently under review. As a result of this delay in the preparation of the review of the Local Plan, Interim Housing Land Guidance was published in 2003 and released a significant number of sites in order to ensure that sufficient housing land was available. Following this, the Finalised Aberdeen Local Plan (Green Spaces, New Places) was published in August 2004, with proposed changes published in August 2005. For the Aberdeenshire area, the Aberdeenshire Local Plan was adopted in June 2006. The proposed development sites within these documents are shown on Figures 22.2a-h.

#### Aberdeen City – Development Plan Allocations

- 22.3.83 The sections of the Southern leg study corridor that are within the Aberdeen City Council area lie to the north of the River Dee and a small area at and to the north of the Charleston junction (Figures 22.2a-d).
- 22.3.84 Development land allocations within the adopted Aberdeen City District Local Plan 1991 which lie within the study area include the AWPR and the indicative route partly resembles the proposed Southern Leg. In addition, there is also one proposed development site within the study corridor. Site R73 at Cove Bay South is allocated for up to 1500 dwellings, along with associated facilities such as a primary school, local shopping and public open space. The adopted Local Plan is now significantly out of date and the housing within the study corridor is now substantially built.
- 22.3.85 Development land allocations within the Finalised Aberdeen Local Plan 2005 which lie within the study area also includes the AWPR. The Finalised Local Plan identifies the AWPR as a major influence on land use allocations and safeguards the land for the road. An indicative route for the AWPR is provided which partly resembles the route proposed for the Southern Leg.
- 22.3.86 Opportunity Sites (OP) are also identified within the Finalised Local Plan and are defined as sites which are likely to become available for development for the period 2000-2010 and include potential Greenfield and Brownfield housing, economic development and employment allocations. OP sites within or near the route corridor include:
  - OP1<sub>S</sub> (Charleston Cove), which was released in the Interim Housing Land Guideline (2003) for 200 homes to be developed during the period 2000 2010. The majority of this site is located within the study area. Planning permission has been granted and the site has now largely been constructed. (OP Site 7 in FLP) (Figure 22.2a: OP1<sub>S</sub>, P25<sub>S</sub>). This site is therefore not considered further within this assessment.
  - OP2<sub>S</sub> (Mosside / Mains of Cairnrobin), allocated for business and industrial use. (OP Site 63 in FLP) (Figure 22.2a). OP2<sub>S</sub> is located on the edge of the study corridor within the area of Aberdeen City (OP Site 63 in FLP). Planning permission was granted for a high quality Class 4

Business use, subject to the conclusion of a legal agreement, in July 2003. This planning permission includes  $OP2_S$  and an additional area to the north. It also includes an area to the south of  $OP2_S$  which is within the Aberdeenshire Council area (Figure 22.2a:  $OP2_S$ , P26<sub>S</sub>).

22.3.87 The Finalised Local Plan also identifies a number of substantial greenfield releases which are defined as Future New Communities (FNC). There are no areas allocated as FNC within the study area. However, the Finalised Local Plan does allocate a FNC at Countesswells which comprises of a new stand alone settlement of 1500 homes for the period post 2010 (Grid reference: NJ875055). This allocation lies outwith the study area to the east of the Southern Leg, however, the Finalised Local Plan states that it could utilise the AWPR and that a separate junction from the AWPR would be required to serve this site.

#### Aberdeenshire – Development Plan Allocations

- 22.3.88 The sections of the Southern Leg study corridor that are within the Aberdeenshire Council area lie to the south of the River Dee and to the south of the junction with the A90 and the A956 at Charleston (Figures 22.2a-d). The adopted Aberdeenshire Local Plan 2006 safeguards the AWPR through its general commitment to the development of a Modern Transport System. Appendix 14 of the Local Plan provides an indicative route for the Southern Leg which is similar to the proposed scheme.
- 22.3.89 A large area of employment land is designated at Marywell, part of which is located within the study area, (Figure 22.2a, OP3<sub>S</sub>) (EmpB within FLP). Part of this designation is the subject of a current planning application for a business park (P24<sub>S</sub>).
- 22.3.90 There is also a housing allocation for 20 units for the period 2000-2005 (Figure 22.2a,  $OP4_S$ ) and an additional allocation of 35 units for the period 2006-2011 at Marywell (Figure 22.2a,  $OP5_S$ ). These two sites are located wholly within the study area. There are no planning applications in relation to these sites.

#### Planning Applications

- 22.3.91 Table 22.10 provides a list of planning applications which have been approved by Aberdeen City Council and Aberdeenshire Council within the last five years (July 2001-July 2006), are within or near the study area of the Southern Leg and have yet to be implemented.
- 22.3.92 Table 22.11 provides a list of planning applications which have been approved by Aberdeen City Council and Aberdeenshire Council within the last five years, are within or near the study area of the Southern Leg, but have been implemented. These sites are not considered further in this assessment.
- 22.3.93 There are four planning applications which have been lodged within the last five years but have yet to be determined. These are detailed in Table 22.12.
- 22.3.94 In addition, a planning application for a residential development including neighbourhood shops and a business park at Schoolhill, Portlethen (APP/2000/0006) was submitted to Aberdeenshire Council more than five years ago. However, planning permission was granted more recently in October 2004. The majority of this site is within the study area and construction is now underway (Figure 22.2a, P27<sub>s</sub>).

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#### Table 22.10 – Planning Applications

Planning Application Site	Ref	Figure	Proposed Development	Status of Application
Blue Hill, Banchory-Devenick S010825PF	P1s	22.2a	Installation of additional collinear antenna.	Full planning permission approved December 2001
Hare Moss, Banchory-Devenick S010438PF	P2 <sub>s</sub>	22.2a	Erection of dwelling house (to replace existing).	Full planning permission approved July 2001
Hare Moss, Banchory-Devenick	P3s	22.2a	Erection of dwelling house (to replace existing).	Full planning permission approved August 2002
Gardener's Cottage, Kingcausie, Maryculter APP/2004/4537	P5 <sub>S</sub>	22.2d	Upgrading low voltage over head electricity supply line to high voltage (250 metre or thereby).	Planning permission approved January 2005
Gardener's Cottage, Kingcausie, Maryculter S030371PF	P6 <sub>s</sub>	22.2d	Siting of portable accommodation and part change of use of dwelling to hostel.	Full planning permission approved June 2003
Camphill, Rudolf Steiner, Milltimber A4/0152	P7 <sub>s</sub>	22.2d	Residential Home.	Planning permission approved 28 July 2004
Erection of new curative eurythmy room, Camphill, Rudolf Steiner	P8 <sub>s</sub>	22.2d	Erection of new curative eurythmy room.	Planning permission approved 10 November 2004
A4/1835				
Milltimber Farm, Milltimber	P9 <sub>s</sub>	22.2d	Agricultural Building.	Planning permission approved
A3/0016				27 January 2003
Kippie Lodge <sup>3</sup> , North Deeside Road	P13 <sub>s</sub>	22.2d	Extension of Sports Complex.	Planning permission approved 5 March 2003
A3/0106	_			
Woodend Farm, Culter House Road	P16 <sub>s</sub>	22.2d	Two Temporary Static Caravans.	Planning permission approved 18 August 2004
A4/1171				
Hill Farm, Contlaw Road, Milltimber A5/1689	P17s	22.2e	Stables.	Planning permission approved 16 February 2006
Westfield Estate, Contlaw Road, Milltimber A6/0387	P18 <sub>s</sub>	22.2e	Agricultural steading.	Planning permission approved 21 June 2006
Backhill Farm, Kingswells A6/0304	P19 <sub>s</sub>	22.2f	Steel framed cattle court.	Planning permission approved 29 March 2006
Kingsford Farm, Kingswells A5/1072	P20 <sub>s</sub>	22.2g	Stable Block.	Planning permission approved 6 July 2005
Denhead of Cloghill, Kingswells	P21s	22.2g	New Farm House.	Planning permission approved
A1/1820				10 October 2002
Grandview, Cloghill, Kingswells	P22s	22.2g	New access road.	Planning permission approved
A2/0915	-			23 January 2003
Mosside/Mains of Cairnrobin	P26 <sub>S</sub>	22.2a	Business and Industrial Park.	Planning permission approved 24 July 2003
Land at Schoolhill, Portlethen	P27 <sub>S</sub>	22.2a	Residential Development including neighbourhood shops and business park.	Planning permission approved 10 December 2004

 $<sup>^{\</sup>rm 3}$  These properties operate as businesses see paragraphs 22.3.45 to 22.3.76

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#### Table 22.11 – Implemented Planning Applications

Planning Application Site	Ref	Figure	Proposed Development	Status of Application
Heathfield Steading, Banchory- Devenick	P4s	22.2b	Change of use of and alterations and extension to	Full planning permission approved February 2003
S020502PF			steading to form three dwelling houses and associated workspace.	
2 Milltimber Brae, Milltimber	P11s	22.2d	Erection of a New House.	Planning permission approved
A1/1241				8 November 2001
The International School	P12 <sub>s</sub>	22.2d	Sports Building.	Planning permission approved
Milltimber				31 August 2005
A5/0339				
Kippie Lodge, North Deeside	P14 <sub>s</sub>	22.2d	Airdome.	Planning permission approved
Road,				5 March 2003
A1/2033				
Charleston Cove	P25 <sub>S</sub>	22.2a	Residential Development.	Planning permission approved

#### Table 22.12 – Planning Applications yet to be Determined

Planning Application Site	Ref	Figure	Proposed Development	Status of Application
4 Milltimber Brae East	P10s	22.2d	New House	Yet to be determined
A5/2007				
48 Culterhouse Road	P15 <sub>s</sub>	22.2d	New House	Yet to be determined
A5/1486				
Land at Mains of Cairnrobin	P23 <sub>s</sub>	22.2a	Business Park	Yet to be determined
06/1932				
Land to the northwest of Maryywell Park	P24s	22.2a	Erection of seven dwelling houses	Yet to be determined
06/1385				

# 22.4 Potential Impacts

22.4.1 The potential impacts, without mitigation, on land use in the study area are discussed below.

#### Agriculture, Forestry and Sporting Interests

- 22.4.2 The scheme has the potential to affect the scope and scale of agricultural and forestry based land management activities and the productive and sporting capacity of the land and water within the route corridor. The possible effects could include:
  - disruption and disturbance during the construction phase including land temporarily lost;
  - permanent loss of land due to the proposed scheme and associated works;
  - severance of fields;
  - disruption to cultivation and land management patterns, sporting activity and in some cases temporary or permanent change in land use;
  - · access restrictions with changes in routes to and from fields;
  - disruption to existing drainage schemes and disruption of provision of water to fields;
  - loss of, or gaps in, commercial and amenity forestry, shelterbelts and covers;
  - increase of woodland windthrow risk;
  - landscape and visual effect of new and exposed woodland edges; and
  - changes in permanent and/or seasonal employment patterns due to changes in the scale and nature of agriculture, forestry and sporting enterprises.
- 22.4.3 The impacts of the proposed scheme have been assessed for all of the agriculture, forestry and sporting land interests potentially affected by the development. The predicted impacts are detailed in Appendix A22.2 (Pre and post Mitigation Impacts for all Affected Land Interests). A summary of the predicted impacts is provided in Table 22.13 below.

#### Table 22.13 – Significance of Predicted Impacts

Significance of Pre-Mitigation Impacts							
Substantial	Substantial         Moderate/         Moderate         Slight/         Slight         Negligible/         Negligible						
	Substantial		Moderate		Slight		
6	6	20	6	4	4	2	

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22.4.4 The potential impacts on six land interests have been assessed as being of Substantial significance. The impacts are described in Table 22.14 below.

Table 22.14 – Description of Predicted Substantial Impacts

Land Interest	Description of predicted impacts
Bishopston Land Ref 1736 &	Loss of 14.21ha in 13 fields of which 9.73ha is LCA Class 3.2, 3.73ha is LCA Class 5 and 0.75ha is LCA Class 6. Total loss would equate to 15% of the farm area.
229	Severance of 25ha (27% of the farm area)
	Disruption to field drainage system
	Loss of Boundary features (drystone walls and fences)
	Disruption to water supply
Milltimber Farm Land Ref 438	Loss of 14.83ha in four fields of LCA Class 3.2 land. Total loss would equate to 15% of the total farmed area.
Figure 22.1d	Severance of 46ha (47% of farm area)
	Disruption to field drainage system.
	Loss of boundary features (drystone walls and fences).
	Disruption to water supply.
	Disruption to livery business (see impact on businesses paragraphs 22.4.13-22.4.29)
Nether Beanshill Land Ref 510	Loss of 14.97ha in nine fields of which all is LCA Class 3.2 land. Total loss would equate to 21% of the total farmed area.
Figure 22.1e	Severance of 30ha (43% of farm area).
	Disruption to field drainage system.
	Loss of boundary features (drystone walls and fences).
	Disruption to water supply.
	Disruption to livery business (see impact on businesses paragraphs 22.4.13-22.4.29)
Craiglug Land Ref 483	Loss of 4.50ha in six fields of LCA Class 3.2 land. Total loss would equate to 39% of the total farmed area. Land lost has organic status.
Figure 22.1f	Severance of 2ha (18% of farm area).
	Disruption to field drainage system.
	Loss of boundary features (drystone walls and fences).
	Disruption to water supply.
East Kingsford Livery	Loss of 6.09ha in four fields of which 3.70ha is LCA Class 3.2 land and 2.39ha is Class 5.2 land. Total loss would equate to 30% of the total farmed area.
Land Ref 460	Severance of 9ha (45% of farm area).
Figure 22.1g	Disruption to field drainage system.
	Loss of boundary features (drystone walls and fences).
	Disruption to water supply.
	Disruption to livery business (impact on businesses paragraphs 22.4.13-22.4.29)
Denburn Livery and Stud	Loss of 3.61ha in six fields of which 2.24ha is LCA Class 3.2 land, 1.08ha is Class 5.3 and 0.29ha is woodland. Total loss would equate to 14% of the total farmed area.
(Denhead of Cloghill)	Loss of equestrian buildings (stabling and ménage facilities).
Land Ref 105	Severance of 14ha (56% of farm area).
Figure 22.1g	Disruption to field drainage system.
. 19010 22.19	Loss of boundary features (drystone walls and fences).
	Disruption to water supply.
	Disruption to livery business (impact on businesses paragraphs 22.4.13-22.4.29)

- 22.4.5 The potential impacts, without mitigation, for the remaining 42 land interests are summarised in Table 22.15.
- 22.4.6 The impacts on the remaining agricultural land interests primarily relate to loss of land, severance of fields, loss of access, loss of field boundaries (predominantly drystone walls), loss of watering points for livestock and disruption to existing field drainage systems.

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- 22.4.7 The main impacts on forestry would occur at Duff's Hill, Clochandighter, Kingcausie and Gairnhill. The impacts relate to the loss of land and the risk of windthrow. Without mitigation, there would be a risk of windthrow in some stands of forest. Windthrow (uprooting) is the most extreme case of mechanical and physiological damage to trees caused by wind. Shallow rooting trees and dense woodland are more prone to windthrow if suddenly exposed, for example when shelter from other trees is removed through felling. Duff's Hill and Clochandighter are currently felled and therefore, there would be no loss of standing trees nor any windthrow risk in these compartments. The windthrow risk is assessed as Moderate to High at Gairnhill and Kingcausie with some stands of trees at Kingcausie assessed as High. Mitigation will therefore be required at these locations.
- 22.4.8 The main impacts on sporting activity would occur at both the southern and northern ends of the Southern Leg. Stalking, pheasant shooting and rough shooting would be limited within the vicinity of the proposed road. Additionally, without mitigation, angling would potentially be compromised in the vicinity of the River Dee crossing.

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Significance	Land Reference	Area Los	st	Severance
		ha	% Farm Area	
Moderate/	Mains of Charleston, Land Ref 230 & 217, Figure 22.1a	6.93	23	Yes
Substantial	Merchant's Croft, Land Ref 637 and Part 228, Figure 22.1b	9.31	10	Yes
	Swellhead, Land Ref 634, Figure 22.1c	13.89	7	Yes
	Gairn Farm, Land Ref 486, Figure 22.1f	5.02	15	Yes
	Backhill (Aldersyde) Farm, Land Ref 473, Figure 22.1f-g	4.14	5	Yes
	Derbeth Farm, Land Ref 103, Figure 22.1g-h	23.34	14	Yes
Moderate	Land near Charleston, Land Ref 329, Figure 22.1a	2.02	37	No
	Lochview Croft, Land Ref 290, Figure 22.1a	2.18	31	No
	Land at Bothiebrig, Land Ref 223, Figure 22.1a	0.97	11	No
	Land East of Bothiebrig, Land Ref 632, Figure 22.1a	1.02	50	No
	Land East of Bankhead, Land Ref 334, Figure 22.1a	0.83	14	Yes
	Duffshill Farm, Land Ref 209, Figure 22.1a	8.12	37	Yes
	Jameston Farm, Land Ref 206, Figure 22.1b	3.13	6	No
	Land at Hare Moss, Land Ref 282, Figure 22.1a-b	0.51	26	No
	Land at Hare Moss, Land Ref 279, Figure 22.1a-b	0.92	55	No
	Newlands Farm, Land Ref 211, Figure 22.1b		20	Yes
	Kingcausie Estate, Land Ref 556, Figure 22.1d		3	Yes
	Victoria Sawmills, Land Ref 584, Figure 22.1e		12	Yes
	Binghill House, Land Ref 580, Figure 22.1e		14	No
	Beanshill Cottage, Land Ref 578, Figure 22.1e		13	Yes
	South Last, Land Ref 557, Figure 22.1e		2	Yes
	Land near Gairnlea, Land Ref 5171, Figure 22.1f	0.61	39	No
	Gairnlea, Land Ref 566, Figure 22.1f	2.82	63	No
	Silverburn Farm, Land Ref 610, Figure 22.1f	6.00	14	Yes
	Backhill of Brodiach, Land Ref 466, Figure 22.1f-g	7.39	24	Yes
	West Hatton, Land Ref 333, Figure 22.1g	6.87	17	Yes
Slight/Moderate	Newton of Charleston, Land Ref 288, Figure 22.1a	0.20	10	No
	Charleston Estate, Land Ref 233, Figure 22.1a	3.08	7	No
	Land near Portlethen, Land Ref 320, Figure 22.1a	1.17	9	Yes
	Woodend Farm, Land Ref 5175, Figure 22.1e	5.66	9	No
	Westfield, land Ref 723, Figure 22.1e	2.34	3	Yes
	Auchlea, Land Ref 477, Figure 22.1f	1.38	1	No
Slight	Banchory Devenick Estates, Land Ref 214, Figure 22.1a	7.56	1	Yes
	Bankhead, Land Ref 210, Figure 22.1a	0.33	1	Yes
	Cowford, Land Ref 211, Figure 22.1b	3.25	2	Yes
	East Brotherfield, Land Ref 561, Figure 22.1f	1.09	4	No
Negligible/Slight	Rigifa, Land Ref 214, Figure 22.1b	1.62	<1	No
	Craighill, Land Ref 430, Figure 22.1a	0.27	2	Yes
	Duff's Hill Wood, Land Ref 256, Figure 22.1a	1.11	3	No
	Kingshill and Gairnhill Wood, Land Ref 253, Figure 22.1f	1.44	1	No
Negligible	Land at Redcraigs, Land Ref 422, Figure 22.1a	0.06	<1	No
	Clochandighter Wood, Land Ref 590, Figure 22.1b	0.07	<1	No

Table 22.15 – Summary of Predicted Impacts -	<ul> <li>Agriculture,</li> </ul>	Forestry and Sporting Interests

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22.4.9 The potential impacts on the poultry unit at Newton of Charleston are described in Appendix A37.4. The pre-mitigation significance of impacts on the poultry enterprise has been assessed as Negligible.

#### **Community Land**

- 22.4.10 Areas of amenity land that are likely to be directly affected by the proposed scheme are predominantly woodlands. Those woodlands affected comprise:
  - Greenhowe Plantation;
  - Duff's Hill;
  - Clochandighter;
  - Cleanhill Wood;
  - Milltimber;
  - Guthrie Hill Plantation;
  - Rotten O'Gairn;
  - Gairnhill;
  - Upper Beanshill;
  - West Hatton;
  - Cloghill/Derbeth Farm Shelter Belts;
  - Deeside Old Railway;
  - Denhead of Cloghill shelter belt; and
  - Roundalls near Newlands (north and south).
- 22.4.11 The woodland areas managed by the Forestry Commission are primarily of commercial concern, however, these wooded areas are also used for recreational purposes, often containing a network of footpaths and forest trails for community use. In particular, there are a number of footpaths within Rotten O'Gairn and Gairnhill. Potential impacts on recreational paths are discussed further in Chapter 31 (Pedestrians, Cyclists, Equestrians and Community Effects).

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22.4.12 Table 22.16 details the potential impacts on woodlands within the study corridor. In addition to these woodlands, small areas (<0.5ha) of wood that would be affected include: the shelter belt between Duff's Hill and the A90 and the woodland patches near Bothiebrig. These areas are not considered significant in terms of community land or commercial forestry. The land-take at these areas is minimal (total land-take 0.14ha).

Name of Land Area	Туре	Description of Impact	Area of Land- take ha	Sensitivity	Magnitude	Significance
Greenhowe Plantation	Woodland (commercial)	Loss 11.94% of woodland and severance.	6.10	Low	Low	Negligible/Slight
Duff's Hilll	Forestry Commission Woodland	Loss 3.17% of woodland.	1.11	Low	Low	Negligible/Slight
Clochandighter	Forestry Commission	Loss 0.17% of woodland.	0.07	Low	Negligible	Negligible
Roundalls near Newlands	Woodland	Loss of 67.32% of woodland.	0.53	Low	High	Moderate
Cleanhill Wood	Woodland	Loss 10.81% of woodland and severance.	9.73	Low	Low	Negligible/Slight
Old Deeside Railway Line	Woodland	Loss 2.19% of woodland.	0.17	Low	Low	Negligible/Slight
Milltimber wood	Woodland	Loss 7.03% of woodland.	0.87	Low	Low	Negligible/Slight
Guthrie Hill Plantation	Woodland (commercial)	Loss 11.44% of woodland.	0.96	Low	Low	Negligible/Slight
Upper Beanshill	Woodland	Loss of 21.43% of woodland.	0.36	Low	Medium	Slight/Moderate
Rotten O'Gairn	Forestry Commission Woodland	Loss 4.54% of woodland, potential land-take at existing car park.	1.19	Low	Low	Negligible/Slight
Gairnhill	Forestry Commission Woodland	Loss 0.37% of woodland.	0.33	Low	Negligible	Negligible
West Hatton	Woodland	Loss 5.22% of woodland and severance.	0.28	Low	Low	Negligible/Slight
Denhead of Cloghill Shelter Belt	Woodland	Loss 27.44% of woodland and severance.	0.29	Low	Medium	Slight/Moderate
Shelter Belts around Cloghill/Derbeth	Woodland	Loss of 39.27% of woodland.	3.07	Low	Medium	Slight/Moderate

#### Table 22.16 – Loss of Land Used by the Community

#### Residential and Commercial Land Use

22.4.13 Within the Southern Leg corridor, a total of 10 residential properties and a school would require demolition under the proposed scheme. In addition, a number of outbuildings associated with Denhead of Cloghill would also be demolished. Table 22.17 provides details on the residential properties potentially affected by the proposed scheme.

	Property Address	Location	Туре	Impact
1	Greenloanings Cottage	Charleston to Blaikiewell	Residential	Substantial
2	Croftlan (5 Milltimber Brae)	Milltimber Brae	Residential	Substantial
3	Bridgebank (3 Milltimber Brae)	Milltimber Brae	Residential	Substantial
4	Millbrae House (6 Milltimber Brae)	Milltimber Brae	Residential	Substantial
5	Clarewood (4 Milltimber Brae)	Milltimber Brae	Residential	Substantial
6	Pine Lodge (315 North Deeside Road)	Milltimber	Residential	Substantial
7	Carskeach (252 North Deeside Road)	Milltimber	Residential	Substantial
8	Dalriach (Westfield)	Milltimber	Residential	Substantial
9	Gairnlea	Blacktop	Residential	Substantial
10	Grandview	Kingswells	Residential	Substantial

#### Table 22.17 – Residential Properties affected by Demolition

- 22.4.14 There will also be impacts on 2 and 2a Milltimber Brae and 309 North Deeside Road. These properties would be evacuated during construction but could be returned to use once the scheme was completed. Therefore although impacted during construction no change in land use is anticipated.
- 22.4.15 In addition to the residential properties listed in Table 22.17, it is anticipated that nine businesses would be directly affected by land-take within the Southern Leg study area. These comprise Newton of Charleston, Marywell Park Homes Ltd., Milltimber Farm, the International School, Kippie Lodge, Nether Beanshill Livery, East Brotherfield Livery, East Kingsford Livery and Denburn Livery & Stud at Denhead of Cloghill Farm.
- 22.4.16 At Newton of Charleston, an area of 0.2ha (10% of the total land) would be required to accommodate the A90 southbound slip road. Newton of Charleston is a small poultry business and has therefore been included in the Poultry Assessment (Appendix A37.4). Due to the loss of land, the potential impact of the AWPR on the business is assessed as adverse.
- 22.4.17 At Marywell Homes Ltd. the proposed route would require approximately 0.7ha (5% of the total land). Of the total land-take 0.4ha is on the west side of the A90 and 0.3ha is on the east side of A90. Due to the loss of land, the potential impact of the AWPR on the business is assessed as adverse.
- 22.4.18 At Milltimber Farm, an area of approximately 15ha (15% of the total land) would be required to construct the proposed scheme, including approximately 4ha of land for landscaping and for visual mitigation. The alignment of the road at approximately ch102000-102900 would sever the land the business covers, such that the stables would be on the opposite side of the new road from the grazing fields. This would be in addition to the B979, which already divides the stables from the grazing fields. Due to the loss of land, the potential impact of the AWPR on this business is assessed as adverse.
- 22.4.19 Under the current road design, the entire land holding of the International School would be subject to compulsory purchase order (CPO) and the buildings demolished including 'The Lodge' on North Deeside Road. The impact on the business is assessed as adverse.

- 22.4.20 Approximately 2ha (14% of the total land) occupied by Kippie Lodge would be lost to the proposed route, with approximately 50% of the total land-take landscaped and used to develop visual mitigation. The route would take land to the east of the Lodge building and Sports Complex as well as a corner of land at the eastern end of the golf course. The route design has been developed in order to avoid affecting the tee or green positions on the golf course. It is anticipated that there would be short and long term loss of amenity as a result of the proposed route. The extent to which the loss of amenity adversely impacts on membership levels and the future viability of the club is uncertain. Regardless of the effects on amenity value, which cannot be quantified at this time, there would be a loss of land as a result of the proposal. The impact on this business is assessed as adverse.
- 22.4.21 At Nether Beanshill, the AWPR would run diagonally through the 68ha site (comprised of agricultural land and the livery which occupies 6.25ha), splitting the land into two parcels of approximately 19ha and 29ha. The livery business currently uses two fields totalling approximately 6ha. Of these, 0.5ha would be lost to the AWPR (8% of the land used by the livery business). None of the stable buildings would be demolished. Overall, the total land-take would be approximately 15ha (22% of the total land area). Access to the horse trails currently used would also be affected where the AWPR crosses them. The impact of the proposed route on the business is assessed as adverse.
- 22.4.22 The AWPR would require approximately 2ha of land (7% of total land) on the east side of East Brotherfield Livery for the development of drainage ponds. The remaining land (approximately 27ha) would not be severed. The existing access road to the business would also be maintained. The potential loss of amenity value cannot be quantified for this assessment. The potential impact of the AWPR on the business is assessed as adverse due to the loss of land.
- 22.4.23 The AWPR would cross the land occupied by East Kingsford Livery on the west side of the Kingsford to Westhill Road, requiring land-take of approximately 6ha (32% of total land). Approximately 17% of the land-take would be landscaped and used for visual mitigation. This would result in the loss of the existing paddocks. The existing buildings, stables and one house would not be demolished and would be located on the west side of the proposed AWPR on an area of land covering approximately 4ha. The land remaining would not be sufficient to support the current number of horses kept, meaning the business would no longer be viable. Therefore the potential impact of the AWPR on this business is assessed as adverse.
- 22.4.24 At Denburn Livery & Stud (Denhead of Cloghill), the AWPR would sever the land used by the business into two portions. Land-take is estimated to be 3ha (13% of total land) and would leave two remaining land parcels, one on each side of the AWPR, covering an area of approximately 9ha and 11ha respectively. The AWPR has restricted future growth in that a planning application for a new house, office block and shed was revoked as a result of the scheme proposals. The impact of the AWPR on this business is assessed as adverse.
- 22.4.25 Kingswood Learning Enhancement Centre would no be affected by land-take, however due to the proximity of the scheme the business would be indirectly affected by noise. The business requires a quiet environment for assessing and working with children who are hypersensitive to noise. The noise impact assessment (Chapter 30: Traffic Noise and Vibration) indicated a substantial adverse impact at this location, therefore the impacts on this business have been assessed as adverse.
- 22.4.26 Several businesses within the Southern Leg might experience indirect impacts, particularly during construction of the scheme. In addition, there would be changes in access arrangements where the proposed scheme crosses or severs existing access. This would result in changes to access for a number of businesses. Table 22.18 summarises the potential impacts on businesses with explanatory notes as appropriate. Chapter 31 (Pedestrians, Cyclists, Equestrians and Community Effects) considers the wider implications of local vehicular traffic issues on the local community.

Business	Impact (Demolition, Land-take, Change in Access)	Job Loss	Existing Access	Change in Access/Loss of Custom	Impact
Charleston Distribution Centre (W. Leiper, Jeeves Couriers, Jeeves Group	Improved access, potential disruption to access during construction	None envisaged	From the A956	Access to A956 and A90 maintained and additional access to AWPR.	Beneficial
Storage and ANC Express)				Temporary disruption to access during construction.	
Newton of Charleston Farm	Minor changes to access	None envisaged	From the A956	Access to A956 and A90 maintained and additional access to AWPR.	Neutral
Optima Solutions UK Ltd.	Potential disruption during construction	None envisaged	From the A956	Access to A956 and A90 maintained and additional access to AWPR.	Neutral
				Temporary disruption to access during construction.	
Alexander Duncan (Aberdeen) Ltd.	Potential disruption during construction	None envisaged	From the A956	Access to A956 and A90 maintained and additional access to AWPR.	Neutral
				Temporary disruption to access during construction.	
Ewing Motors	Change in Access	None envisaged	From minor roads off the A90 or A956.	Access to A956 and A90 maintained and additional access to AWPR.	Neutral
Marywell Park Homes Ltd.	Change in Access	None envisaged	From minor roads off the A90 or A956.	Temporary disruption to access during construction.	Neutral
Artward Bound	Change in Access	None envisaged	From minor roads off the A90 or A956.	Access to A956 and A90 maintained and additional access to AWPR.	Neutral
Northeast Reprographics Ltd.	Change in Access	None envisaged	From minor roads off the A90 or A956.	Temporary disruption to access during construction.	Neutral
SBS Logistics	Change in Access	None envisaged	From minor roads off the A90 or A956.	Access to A956 and A90 maintained and additional access to AWPR.	Neutral
Bothiebrig Garage	Change in Access	Unknown	From the A90 and minor road to the north.	Existing access from the north and A90 to be closed. Lengthy diversion to Marywell junction with A90.	Adverse
EIS Waste Services	Potential disruption during construction	None envisaged	From minor road to Marywell	Access maintained. Temporary disruption to access during construction.	Neutral
R&B Services	Improved access to the north and south	None envisaged	From minor road to Marywell	Existing access maintained	Beneficial

#### Table 22.18 – Details of Potential Impacts on Businesses

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Business	Impact (Demolition, Land-take, Change in Access)	Job Loss	Existing Access	Change in Access/Loss of Custom	Impact
Dennis Irvine Superbike Centre	Potential disruption during construction	None envisaged	From minor road to Marywell	Access maintained. Temporary disruption to access during construction.	Neutral
Aberdeen Aeromodellers	Potential relocation or reconfiguration of site.	None envisaged	From a minor road north of Hare Moss.	No change in access anticipated.	Neutral
Redwing Riding School <sup>₄</sup>	-	-	-	-	-
Storybook Glen Theme Park	No direct impacts envisaged	None envisaged	Minor road off of the B979	Existing access maintained	Neutral
Lower Deeside Holiday Park	No direct impacts envisaged	None envisaged	From the B9077	Existing access maintained	Neutral
Old Mill Inn	No direct impacts envisaged	None envisaged	From the B9077	Existing access maintained	Neutral
Maryculter Playgroup	No direct impacts envisaged	None envisaged	From the B9077	Existing access maintained	Neutral
Milltimber Farm Livery	Land-take and severance.	Unknown	From the B979	Existing access maintained	Adverse
Albyn School Playing Fields	No direct impacts envisaged	None envisaged	From the A93	Existing access maintained	Neutral
International School	Demolition	Unknown	From the A93	N/A	Adverse
Kingswood Learning Enhancement Centre	Change in Access. No land-take. Noise impacts (for details refer to Chapter 30).	None envisaged	Minor road	New access track to the A944	Adverse: due to noise impacts. Impacts on access are considered neutral.
Kippie Lodge – Aberdeen Petroleum Club	Land-take	Unknown	From the A93	Existing access maintained	Adverse
Hawkshill Nursing Home	No direct impacts envisaged	None envisaged	From the A93	Existing access maintained	Neutral
Nether Beanshill Livery	Change in Access and land-take	None envisaged	From Contlaw Road	Existing access maintained	Adverse
East Brotherfield Livery	Land-take	None Envisaged	Access road near Silverburn	Existing access maintained	Adverse
Smiddybrae Industrial Units (Clark & Sutherland; King Street Autobody, and LD Motors)	Improved access to the north and south	None envisaged	From the A944	Existing access maintained	Beneficial
East Kingsford Livery	Land-take	Unknown	From the A944	Existing access maintained	Adverse
East Kingsford Industrial units (W. Enterprises (Aberdeen Ltd.)	Improved access to the north and south	None envisaged	From the A944	Existing access maintained	Beneficial
Five Mile Garage & Petrol Station and Five Mile Caravan Park	No direct impacts envisaged	None envisaged	From the A944	Existing access maintained	Neutral

<sup>&</sup>lt;sup>4</sup> For impacts on Redwing Riding School, Redwing Livery and Horse Sanctuary see Chapter 37 (Land Use) in Part D: Fastlink.

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Business	Impact (Demolition, Land-take, Change in Access)	Job Loss	Existing Access	Change in Access/Loss of Custom	Impact
Ardene House Veterinary Hospital	Improved access to the north and south	None envisaged	From the A944	Existing access maintained	Beneficial
Denburn Livery & Stud Farm (Denhead of Cloghill)	Demolition of buildings, Land- take & severance	Unknown	From road west of Kingswells	Access maintained through provision of overbridge	Adverse

- 22.4.27 The businesses located near the Charleston junction are likely to experience disturbance to their access during construction. These potential impacts and associated mitigation is discussed in Chapter 33 (Disruption due to Construction).
- 22.4.28 The Aberdeen Aeromodellers Club would be located approximately 300m to the north of the AWPR and would not be directly affected by land-take for the proposed scheme. However, the current orientation and layout of the site is such that much of the flying would be towards the proposed route over Hare Moss. There are no specific guidelines for safety distances for this type of activity and no operating license is required, but clubs try to avoid flying aircraft over public areas and roads. The present arrangements are likely to result in some planes flying over the proposed road.
- 22.4.29 A risk assessment will be undertaken to determine whether or not the club can continue to fly over the Moss in the direction of the AWPR. It is possible that the findings from the risk assessment may result in the club being directly affected by the proposed route, as flying would not be able to continue in its present form due to the safety risk to vehicle travellers on the AWPR. If this were the case the impact of the AWPR on this business would be assessed as adverse.

#### **Development Land**

22.4.30 Development land designated within the Aberdeen City Local Plans and Aberdeenshire Local Plans affected by the scheme are discussed below.

#### Aberdeen City – Development Plan Allocations

- 22.4.31 There is one Opportunity Site within the Finalised Aberdeen Local Plan located within the Southern Leg study area at Mosside/Mains of Cairnrobin (OP2<sub>s</sub>). This proposed business and industrial park is likely to benefit from improvements in access and transport links brought about by the proposed scheme, resulting in a beneficial impact.
- 22.4.32 Although outside of the study area, it is likely that the proposed scheme would support the future development area for housing at Countesswells as identified in the Finalised Aberdeen Local Plan. The Finalised Local Plan states that a separate junction from the AWPR would be required to serve this development. There would be no loss of development land at this location as a result of the proposed scheme and residential amenity of this site would not be directly affected by the development of the Southern Leg. As the proposed scheme is supportive of proposals to develop this new settlement, the overall impact is assessed as beneficial.

#### Aberdeenshire – Development Plan Allocations

22.4.33 There would be no loss of development land at OP3<sub>S</sub> as a result of the proposed scheme. This proposed employment land is likely to benefit from improvements in access and transport links as a result of the proposed scheme, resulting in a beneficial impact.

22.4.34 The housing allocation for 20 units for the period 2000-2005 (OP4<sub>s</sub>)and an additional 35 units for the period 2006-2011 (OP5<sub>s</sub>) at Marywell, are located within the study area, adjacent to the A90 south of the Charleston junction, and would require upgrading as part of the proposed works associated with the Southern Leg. It is unlikely that the amenity of this area would change substantially as a result of the proposed scheme, resulting in a neutral impact for both sites.

#### Planning Applications

- 22.4.35 The impact of the proposed scheme on planning applications within the route corridor is provided in Table 22.19, with explanatory notes as appropriate. The following applications with neutral impacts are not included in Table 22.19:
  - P1<sub>s</sub> Blue Hill, Banchory-Devenick S010825PF Installation of additional collinear antenna;
  - P5<sub>S</sub> Gardener's Cottage, Kingcausie, Maryculter APP/2004/4537 Upgrading low voltage over head electricity supply line to high voltage (250m or thereabout);
  - P6<sub>S</sub> Gardener's Cottage, Kingcausie, Maryculter S030371PF Siting of portable accommodation and part change of use of dwelling to hostel;
  - P7<sub>s</sub>-Camphill, Rudolf Steiner, Milltimber A4/0152 Residential Home;
  - P8<sub>S</sub>-Camphill, Rudolf Steiner A4/1835 Erection of new curative eurythmy room;
  - P9<sub>S -</sub> Milltimber Farm, Milltimber A3/0016 Agricultural Building;
  - P15<sub>S-</sub>48 Culterhouse Road A5/1486 New House;
  - P16<sub>S</sub>-Woodend Farm, Culter House Road A4/1171 2 Temporary Static Caravans;
  - P17<sub>s</sub> Hill Farm, Contlaw Road, Milltimber A5/1689 Stables;
  - P18<sub>S</sub>-Westfield Estate, Contlaw Road, Milltimber A6/0387 Agricultural steading;
  - P19<sub>S -</sub> Backhill Farm, Kingswells A6/0304 Steel framed cattle court; and
  - P20<sub>S-</sub>Kingsford Farm, Kingswells A5/1072 Stable Block.

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#### Table 22.19 – Potential Impacts on Planning Applications

Planning application Site	Ref	Figure	Proposed Development	Status of Application	Impact of Route		
Hare Moss, Banchory-Devenick S010438PF	P2S	22.2a	Erection of dwelling house (to replace existing)	Full planning permission approved July 2001	Adverse – may have an impact on amenity		
Hare Moss, Banchory-Devenick	P3S	22.2a	Erection of dwelling house (to replace existing)	Full planning permission approved August 2002	Adverse – may have an impact on amenity		
4 Milltimber Brae East A5/2007	P10S	22.2d	New House	Undetermined	Adverse – may have an impact on amenity		
Kippie Lodge <sup>5</sup> , North Deeside Road A3/0106	P13S	22.2d	Extension of Sports Complex	Planning permission approved 5 March 2003	Mixed – improved transport links, but may have an impact on amenity.		
Denhead of Cloghill, Kingswells A1/1820	P21S	22.2g	New Farm House	Planning permission approved 10 October 2002	Adverse – may have an impact on amenity		
Grandview, Cloghill, Kingswells A2/0915	P22S	22.2g	New access road	Planning permission approved 23 January 2003	Adverse – Site may be required for road.		
Land at Mains of Cairnrobin 06/1932	P23S	22.2a	Business Park	Yet to be determined	Beneficial – improved access arrangements and transport links.		
Land to the north west of Marywell Park 06/1385	P24S	22.2a	8		Adverse – Site may be required for road upgrading.		
Mosside/Mains of Cairnrobin	P26S	22.2a	Business and Industrial Park     Planning permission approved       24 July 2003		Beneficial – improved access arrangements and transport links.		
Land at Schoolhill, Portlethen	P27S	22.2a	Residential Development including neighbourhood shops and business park.	Planning permission approved 10 December 2004	Beneficial – improved access arrangements and transport links.		

<sup>&</sup>lt;sup>5</sup> These properties operate as businesses and for potential impacts on business viability see paragraphs 22.4.9 to 22.4.21.

- 22.4.36 A planning application for 7 dwelling houses at land to the northwest of Marywell Park is yet to be determined and is on land which may be required for the upgrading of the A90 associated with the AWPR. The impact on this current planning application is therefore assessed as adverse.
- 22.4.37 Planning permission for a new access road to serve an existing residential property (Grandview) at Cloghill, Kingswells (P22<sub>s</sub>) would also be directly affected by the proposed scheme as the land would be required for the implementation of the Southern Leg. The impact on this planning permission is therefore assessed as adverse.
- 22.4.38 Two planning permissions for the erection of a dwelling house (to replace existing) at Hare Moss, Banchory-Devenick (P2<sub>s</sub> and P3<sub>s</sub>) would be affected by the proposed scheme due to their close proximity to the proposed scheme. This would result in potential impacts on the amenity of these sites. Hare Moss comprises of a number of residential properties and it is not clear whether the planning permission relates to the same or different houses at this location. The site(s) are located in a quiet, rural location which is relatively flat and with little vegetation. The proposed scheme would therefore alter the rural character and amenity of the area. The impact on these planning permissions is therefore assessed as adverse.
- 22.4.39 A planning application for a new house at 4 Milltimber Brae East, Milltimber is yet to be determined. It is likely to be affected by the proposed scheme due to its close proximity to the Southern Leg and the resultant potential impact on amenity. The site is located within a quiet cul-de-sac within a secluded residential area. The proposed scheme is likely to introduce increased levels of traffic within close proximity of the development site. The impact on this current planning application is therefore assessed as adverse.
- 22.4.40 Planning permission for the erection of a new farm house at Denhead of Cloghill (P2<sub>s</sub> and P3<sub>s</sub>) would be affected by the proposed scheme due to its close proximity to the proposed new road and the resultant potential impact on amenity. The site is located in a semi-rural location, to the west of Kingswells. The proposed scheme would therefore alter the character and amenity of the area. The impact on this planning permission is therefore assessed as adverse.
- 22.4.41 There is one planning permission where the impact of the route has been assessed as having a mixed impact (P13<sub>s</sub>). Kippie Lodge is a sports and country club which currently enjoys a semi-rural character. As a result of the close proximity of the Southern Leg, there may be an impact on amenity. However, this commercial land use may also benefit from the improved access and transport links as a result of the proposed scheme. As a result, the impact of the route is therefore assessed as having a mixed impact on this planning permission.
- 22.4.42 The route would have a neutral impact on the majority of planning permissions ( $P1_{s}$ ,  $P5_{s}$  – $P8_{s}$ ,  $P15_{s}$ – $P20_{s}$ ).
- 22.4.43 Planning permission for a business park at Mosside/Mains of Cairnrobin (P26<sub>s</sub>) and the planning application for a business park at Mains of Cairnrobin (P23<sub>s</sub>) which is yet to be determined, would both benefit from the close proximity of the Southern Leg link with the Charleston junction, resulting in beneficial impacts.
- 22.4.44 The proposed new residential development, neighbourhood shops and business park at Schoolhill would benefit from the improved transport network (P27<sub>s</sub>).

#### 22.5 Mitigation

- 22.5.1 The mitigation proposals are based on:
  - Avoidance routing to avoid effects;
  - Reduction provision of measures to minimise potential effect;
  - Offset provision of works or compensation; and
  - Enhancement provision of measures to improve existing conditions.
- 22.5.2 The scheme design has sought to avoid impacts to sensitive areas of land wherever practicable. However land-take, including demolition of private property, would occur where it is considered necessary for the purposes of constructing the proposed scheme and/or for associated mitigation measures such as landscape alterations. Where the required land-take results in the demolition of property or the loss of land used for farming or commercial forestry, financial compensation to the value assessed by the District Valuer will be provided.

#### Agriculture, Forestry and Sporting Interests

- 22.5.3 Mitigation measures with respect to agriculture and forestry have been developed with the aim of protecting the agricultural capability of land and soils and the maintenance of the viability of farming units and the protection of remaining stands of woodland and forestry.
- 22.5.4 The mitigation measures incorporate the following principles:
  - reducing the temporary loss of land to agriculture and forestry during construction through construction programming, consultation with land interests and reinstatement of agricultural land, post construction.
  - provision of access for land interests to their holdings at all times during construction and operation.
  - limiting damage to agricultural capability of soils through adoption of procedures relating to soil stripping, handling and storage during construction and reinstatement.
  - pre-construction drainage works where required and reinstatement/provision of new drainage as required to maintain agricultural land capability and avoid flooding issues.
  - provision of financial compensation as agreed and determined by the District Valuer.
- 22.5.5 Consultation with landowners and tenants is ongoing but the provision of accommodation works has yet to be agreed. However, agreed mitigation measures and accommodation works will be included within the construction contract. For the purposes of the residual impact assessment, provision of field and steading access, re-instatement of boundary features and re-instatement of field drainage systems have been assumed.
- 22.5.6 Financial compensation will be provided for areas of agricultural land, woodland or forestry lost as a result of the construction or operation of the proposed scheme, and where this is in accordance with the District Valuer's assessment.
- 22.5.7 The various mitigation measures to reduce effects on agriculture, forestry and sporting activity are listed in Table 22.20. Mitigation is considered for each land interest. A series of mitigation measures are proposed from the mitigation item list and applied on a case-by-case basis depending on the impact and the scope for mitigation.
- 22.5.8 Details of the mitigation measures to be employed on a farm by farm basis are detailed for each of the land interests in Appendix A22.2 (Pre and post Mitigation Impacts for all Affected Land Interests).

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#### Table 22.20 – Agriculture, Forestry and Sporting Mitigation Measures

Mitigation Item Number	Mitigation Measure
LU1	Permanent loss of agricultural land and forestry has been reduced through route selection, construction programming, and planning. In addition, the loss will be reduced by re- instatement plans, where appropriate, post construction.
LU2	Access to agricultural land and woodland will be provided at all times during the construction process and post construction. Where appropriate and justified, agricultural overbridges and underpasses will be incorporated into the road design.
LU3	Damage to the agricultural capability of soils will be avoided by the adoption of appropriate measures during construction and reinstatement.
LU4	Existing field and forestry drainage systems will be re-instated to ensure that land capability is maintained and flooding will not be exacerbated.
LU5	Financial compensation, where appropriate, will be provided for the loss of agricultural land, forestry or land with sporting interests, as agreed with the District Valuer.
LU6	Notice of intention to commence construction work will be given to the owners and occupiers of all land along the route before entry is made to such land. Consultation with the landowners and occupiers will allow agreement to a programme of works that minimises disturbance. Any work will be carried out in accordance with the agreed programme as far as is practically possible.
LU7	Preparation of a schedule of condition for agricultural land (including drainage), forestry, roads and paths likely to be affected by the proposed development. This will be made available to the owner or occupier and will ensure that land, roads and paths are restored to the reasonable satisfaction of the landowner or occupier.
LU8	Agriculture, forestry and sporting roads and paths will be re-instated to a condition equivalent to that subsisting before the commencement of any works.
LU9	Agricultural land will be re-instated to a condition as near as is reasonably practicable to that subsisting before the commencement of the works. Topsoil where disturbed will be left in a loose friable condition and where agreed appropriate cover will be replaced. Re-grading where appropriate will be undertaken and land returned to agriculture.
LU10	Where ancillary apparatus and material is sited on agricultural land it would be done so with agreement of the land owner/occupier.
LU11	There will be provision of temporary fences, lights and guards in appropriate locations for the protection of the health and safety of the public and animals and to avoid trespass. Where appropriate, fencing of the working area to a standard adequate for the purpose of excluding any stock kept on adjoining land will be undertaken. All temporary fencing will be maintained in position during constructional work and thereafter unless otherwise agreed with the occupier.
LU12	Where boundary features such as fences, walls and hedges have to be removed to allow construction these will be reinstated with appropriate materials in each case to provide a secure field boundary.
LU13	Precautions relating to the exclusion of stock will be combined with due care and attention by construction staff to prevent the straying of livestock.
LU14	Where access will require to be altered either temporarily or permanently as a result of construction, alternative access for stock and machinery will be provided as appropriate in consultation with the land owner/occupier. Recessed access to be provided off main and side roads as appropriate with loading/unloading area if required.
LU15	All reasonable precautions will be taken during construction to avoid as far as is possible, the spreading of soil borne pests and diseases, and animal and crop diseases. Precautions as recommended by the Scottish Executive Environment and Rural Affairs Department will be observed.
LU16	Careful excavation, storage and replacement of topsoil and subsoil will avoid damage to soils and soil structure and to protect the agricultural capability.
LU17	Particular care will be taken to minimise damage or disturbance to field drains. Laying of new drains will be undertaken as required to keep the affected and adjoining land in good order. Repairing and reinstatement of field drains will be agreed with the land owner/occupier. Where appropriate the integrity of the drainage system will be secured in advance through the installation of header drains (cut off drains) to facilitate construction. All remaining remedial and new drainage works to be undertaken post construction.
LU18	Water supplies for livestock will be protected at all times and alternative supplies would be provided where access would be compromised by any works.

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Mitigation Item Number	Mitigation Measure
LU19	An assessment will be made of the risk of windthrow from any proposed felling and management measures defined for each section of woodland. These will include felling to windfirm edges, topping, pollarding and coppicing.
LU20	All felling to create a windfirm edge will take account of ecological landscape and visual effects. Design to maximise where possible ecological, landscape/visual opportunities.
LU21	Where there are no windthrow or landscape visual issues, tree felling will be minimised to that necessary to allow the safe construction and operation of the road.
LU22	Soil disturbance and compaction from harvesting and extraction will be minimised.
LU23	Reasonable claims in respect of damage to agricultural land or sporting rights will be payable, as will professional charges.

- 22.5.9 The majority of the proposed mitigation will relate to the provision of access to fields and severed areas, reinstatement of boundary features (drystone walls and fences) as well as watering points for livestock, and provision of new or reinstated field drainage systems. In specific areas, a need has been identified for dedicated agricultural overbridges or underpasses. These are identified in Table 22.21.
- 22.5.10 Additionally, re-grading of agricultural land is proposed as part of the landscape mitigation proposals (see Chapter 26: Landscape). Some of this land has the potential to be returned to agricultural use, limiting the agricultural area that would be permanently lost to the proposed scheme. The land interests subject to re-grading are also listed in Table 22.21.
- 22.5.11 Felling mitigation to protect against windthrow with subsequent replanting of some felled areas is also suggested for woodland and forestry compartments.

Mitigation	Description	Benefiting Land Reference		
Use of Overbridges,	Hatton Overbridge at ch206350	Mains of Charleston, Land Ref 230 & 217		
Underpasses and new links/steading		Banchory Devenick Estate, Land Ref 214a		
access to ease		Rigfa, Land Ref 214b		
severance	Bishopston Accommodation Overbridge at ch203300	Bishopston, Land Ref 1736 & 229		
	Kingcausie/Eastland Accomodation Underpass at ch101050	Kingcausie Estate, Land Ref 556		
	Beanshill Accommodation Underpass ch106000	South Last, Land Ref 557		
	Gairn Farm, Accomodation Underpass ch107300	Gairn Farm, Land Ref 486		
	Fairley Cloghill Road Accomodation Overbridge	Denburn Livery and Stud, Land Ref 105		
	Derbeth Overbridge	Derbeth Farm, Land Ref 103		
Re-grading of embankments with potential to	Regrading at Charleston Junction	Charleston Estate, Land Ref 233		
return to	Re-grading main alignment and C34K overbridge	Duffshill Farm, Land Ref 209		
agricultural use	embankments between ch205200 and ch204200	Bishopton, Land Ref 1736 & 229		
	Regrading main alignment between ch203600 and ch203300	Bishopston, Land Ref 1736 & 229		
	Regrading of main alignment between ch109900 and ch110350	Derbeth, Land Ref 103		
Felling of Forestry and	Greenhowe Wood	Banchory Devenick Estate, Land Ref 214		
Woodland	Cleanhill Wood	Kingcausie Estate, Land Ref 556		
	Gairnhill Wood	Kingshill and Gairnhill Wood, Land Ref 253		

Table 22.21 – Major Mitigation Works

22.5.12 A further 1.38ha of land has the potential to be used for agriculture during operation of the scheme at ch206600. This land is not currently in agricultural use and is not owned by an agricultural land interest. Post reinstatement, this land could potentially be used by the adjacent landowners (Land Ref 233 and Land Ref 217).

#### **Community Land**

- 22.5.13 The proposed scheme has been designed so that areas designated as Country Parks, city parks and local parks have been avoided.
- 22.5.14 Woodland was assessed as the main type of community land that would be lost to the proposals. This loss of the use of woodland for amenity purposes will be mitigated through planting and the provision of paths where public access to woodland has been affected. Further details on planting as proposed by the ecology and landscape mitigation and provision of alternative paths are discussed in Chapters 25 (Ecology and Nature Conservation), 26 (Landscape) and 31 (Pedestrians, Cyclists, Equestrians and Community Effects) respectively.
- 22.5.15 In total approximately 48.49ha of planting is proposed for the Southern Leg section of the scheme, however much of this planting can not be considered to mitigate for community land losses. The majority of the planting would not directly compensate for the loss in an affected woodland or the area of planting would be too small (less than 0.5ha) to be of any community value. Therefore, only areas likely to retain community value have been considered as mitigation. Areas of scrub planting are also excluded as they can not be used as community land. Table 22.22 below provides details of the mitigation re-planting of the large woodland areas affected.

Woodland Affected	Area (ha) to be re	planted/replaced		
	West/North of AWPR	East/South of AWPR	Total	Туре
Greenhowe Plantation	1.40	1.19	2.60	Riparian/Mixed
Duff's Hilll	0	0.52	0.52	Mixed
Cleanhill Wood	0.40	0.91	1.31	Broadleaved/Mixed
Milltimber wood	0.19	1.85	2.04	Broadleaved/Mixed
Guthrie Hill Plantation	0.72	0	0.72	Mixed
Gairnhill	0	1.89	1.89	Broadleaved/Mixed
Upper Beanshill	0.11	0	0.11	Coniferous
Cloghill/Derbeth Shelter Belts	1.84	2.41	4.25	Coniferous/Mixed
Roundall near Newlands (north)	0.16	0	0.16	Coniferous
Old Deeside Railway line	0.06	0.08	0.14	Broadleaved

Table 22.22 ·	– Woodland	Mitigation
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22.5.16 In addition to the woodland specific planting, there would be eight areas where woodland will be planted in excess of 0.5ha as part of the landscape mitigation and visual mitigation. Although, these areas are not compensating for a direct loss at a specific woodland due to their size, these areas may also be of value to the community. Details of additional woodland planting are provided in Table 22.23 below.

Area of planting	Area (ha)	Туре		
Miltimber Farm	1.16	Broadleaved		
Bishopton (south)	0.55	Broadleaved		
East Kingsford	1.43	Riparian/Mixed		
near Gairn Farm	1.33	Mixed		
Nethers Beanshill	2.23	Mixed		
Near Beanshill	0.66	Mixed		
Near Craiglug	0.54	Mixed		
Near East Brotherfield	0.66	Mixed		
Total additional planting	8.55	n/a		

#### Table 22.23 – Additional Woodland Planting

#### **Residential and Commercial Land Use**

- 22.5.17 For the purposes of this assessment, where land is required for the proposed scheme that would result in the loss of residential and commercial properties, it is assumed land owners would be compensated financially for the loss in accordance with the District Valuer's assessment. Further details of the extent of financial compensation are beyond the scope of this assessment and will be provided by the District Valuer. Alternative access will also be provided to a number of properties where the proposed scheme affects existing access as discussed in Section 22.4.
- 22.5.18 Potential mitigation measures for non-agricultural businesses directly affected have been identified by Tribal during the interviews, e.g. purchasing additional land. At the time of writing this report, these had not been confirmed and agreed with the relevant parties. As such, these have not been included in the assessment. It is assumed that the International School would receive financial compensation through the District Valuer's assessment to relocate.
- 22.5.19 During consultation meetings, Milltimber Farm Livery indicated that they were considering relocating the livery stables and house to the eastern side of the B979 and the AWPR. Plans to relocate have not been included as mitigation at this stage of the assessment.
- 22.5.20 Construction of the Southern Leg in deep cutting at ch103000-104000 would help reduce the potential for noise impacts on Kippie Lodge from traffic. Landscape mitigation including the planting of mixed woodland will also serve to screen views of the proposed scheme.
- 22.5.21 It is envisaged that the livery business at Nether Beanshill would continue to operate on the remaining area (93%) of the original livery site, but the AWPR could limit the potential for future expansion. Contlaw Road would be maintained and would have provision for equestrian use.
- 22.5.22 An underpass suitable for horses will be provided just south of East Brotherfield Livery to allow farm access onto the east side of the proposed scheme. This underpass would also permit access to Gairnhill Wood. Landscape and visual mitigation, to include mixed woodland planting, is also proposed which will assist in addressing further concerns made by this business about the potential impact of the proposed scheme on the setting of the livery.

22.5.23 In order to reduce potential noise impacts, a 1.6m noise barrier is proposed to be located adjacent to the AWPR northbound near Kingswood Learning Centre and the adjacent residential properties. Landscape mitigation including the planning of mixed and scrub woodland will screen views of the road. Additional noise mitigation in the form of insulation for the workshop may be utilised as well, however, the mitigation details had not been finalised at the time of writing this report.

#### **Development Land**

- 22.5.24 As stated previously, where land take would be required for the proposed scheme, financial compensation will be considered in accordance with the District Valuer's assessment.
- 22.5.25 Where impacts in terms of amenity have been identified, mitigation measures will seek to reduce this impact through landscape planting, which can also assist in alleviating any potential noise and visual impacts arising from the proposed scheme.
- 22.5.26 A summary of the non-agricultural mitigation measures is provided in Table 22.24. For mitigation measures relating to agricultural, forestry (commercial) and sporting interests refer to Table 22.20

Mitigation Item Number	Mitigation objective	Mitigation Measure
LU24	Offset	Where permanent loss of land or demolition of property occurs, consideration will be given to the provision of appropriate financial compensation to relevant landowners, to an amount determined by the District Valuer.
LU25	Reduction	Where access arrangements for businesses are disrupted by the route access will be maintained/ restored to these businesses with possible requirements for diversions and modifications.
LU26	Offset	Areas of woodland replaced or planted (see ecology/landscape mitigation for further details).

#### Table 22.24 – Non-Agricultural Mitigation Measures

#### 22.6 Residual Impacts

#### **Agriculture, Forestry and Sporting Interests**

- 22.6.1 The magnitude and significance of residual impacts have been determined for each of the affected land interests. These are detailed in Appendix A22.2 (Pre and post Mitigation Impacts for all Affected Land Interests).
- 22.6.2 The post mitigation significance of residual effects (adverse) are summarised in Table 22.25.

#### Table 22.25 – Adverse Residual Effects of Proposed Development

Significance of Residual Effect (Adverse)								
Substantial	Moderate/ Substantial	Moderate	Slight/ Moderate	Slight	Negligible/ Slight	Negligible		
6	6	19	6	5	4	2		

22.6.3 The assessments make allowance for land to be returned to agricultural use. The impacts on six land interests (12%) would have a residual impact of Substantial significance. The impacts on 25 land interests (52%) would have a residual impact of Moderate or Moderate/Substantial. The residual impacts on 17 land interests (35%) would have be of Slight/Moderate, Slight or Negligible/Slight significance.

- 22.6.4 Although specific mitigation measures have been developed to address potential impacts, generally, the assessment has found that the residual impacts are broadly similar to the premitigation effects. This is due to the loss of agricultural and forestry land, which would be a major impact of the proposed development. Mitigation has been developed to restore access and minimise the impact of severance. However, the potential impact of the loss of land to the scheme would remain.
- 22.6.5 The residual impact on the poultry unit at Newton of Charleston is described in detail in Appendix A37.4. The mitigation reduces the significance of impact as follows:
  - Newton of Charleston, Land Ref 288 The predicted significance of impact has been assessed as Negligible. Reinstatement of stock proof fencing and drystone walling will prevent straying of stock. This reduces the significance of residual impact to None.
- 22.6.6 The mitigation reduces the significance of residual impact on the following farm:
  - South Last, Land Ref 557 The predicted significance of impact was assessed as Moderate. The mainline of the proposed scheme would split the unit and access to the severed area would be lost. In order to secure access, an agricultural underpass is proposed at ch106000. Additionally, boundary fencing and drystone walls will be restored along with reinstatement of watering points and drainage systems. The post mitigation impact is assessed as Slight.
- 22.6.7 The land-take effects of the proposed development are summarised in Table 22.26. The net areas presented in the table are estimates of the total land lost to the scheme after mitigation measures such as landscape re-grading of embankments and cuttings have been completed and the land returned to agricultural use and areas of felled woodland and forestry to mitigate windthrow have been replanted.

	Prime Agricultural Land (ha)			Non-Prime Agricultural Land (ha)					Woodland and Commercial	Scrub (ha)	Totals (ha)
	LCA (	Class		LCA Clas	LCA Class						
	1	2	3.1	3.2	4	5	6	7	(ha)		
Estimated Land Take	0.00	0.00	0.00	172.29	2.38	20.02	3.99	0.00	25.35 (9.48ha commercial forestry)	0.13	224.16
Potential for Land Returned to Agriculture	0.00	0.00	0.00	3.34	0.00	5.42	0.00	0.00	0.49 (Woodland)	0.00	9.25
Net Land-take	0.00	0.00	0.00	168.95	2.38	14.60	3.99	0.00	24.86 (9.48ha commercial forestry)	0.13	214.91

Table 22.26 – Land-take of Agricultural and Commercial Forestry Land

22.6.8 In addition to the 9.25ha of land returned to agriculture stated above, a further 1.38ha of land that is not currently in agricultural production would have the potential to be returned to agriculture. It is therefore estimated that approximately 213.53ha of land would be lost to the proposed development. This is after land has been returned to agriculture and woodland/forestry. Within this, there is no prime land. Of the total area lost, an estimated 188.54ha (88%) is non-prime land.

22.6.9 It is estimated that a further 24.86ha of woodland would be lost to the proposed development of which 9.48ha is commercial forestry. A further 0.13ha of scrub would also be lost, although, 48.49ha would be planted in mixed, coniferous, broadleaved, scrub and riparian woodland as part of the mitigation proposals. However, none of this woodland would be used for commercial purposes and only 22.39ha will mitigate against community land losses. Therefore, in terms of net loss although 213.53ha would be lost to agriculture only 165.04ha would be occupied by the proposed alignment and associated structures.

#### Effects on Farm Viability

- 22.6.10 Assessments have been made of the effects of land-take and severance on the business viability of the land interests. The financial impact of the proposed development has been assessed, in broad terms, using standard performance figures produced by SEERAD and adapted by SAC for different farm types. This has helped inform the assessment of the impact on farm viability which has also been based upon professional judgement.
- 22.6.11 Farms that have been assessed with residual impacts of less than Moderate were assumed to remain viable. All farms with residual impacts above Moderate have been assessed (refer to Appendix A22.2) to determine whether or not they are viable.
- 22.6.12 For the purposes of this assessment it is assumed that for all businesses, compensation as agreed with the District Valuer will be available for compulsory purchase, severance, injurious affection (adverse effects such as noise and vibration from the scheme and its construction) and disturbance. Additionally, where land interests are displaced from an agricultural unit it is assumed that Farm Loss Payment is also payable.
- 22.6.13 Some of the units that would be affected by the route rely only partly on income from agricultural activity. This is particularly the case for a number of smaller land holdings where land is leased to third parties for grazing and cropping. Although effects on land holding may be significant, the impact of the loss of revenue may be of much lower significance as income is also derived from other sources. Therefore, the viability assessment is considered more appropriate for commercial farms where income derived from agricultural activity forms a high proportion of the total business income.
- 22.6.14 Substantial adverse residual impacts have been assessed on six units. Four of these are equestrian units (Milltimber, Nether Beanshill, East Kingsford and Denhead of Cloghill) and the impact on the business and its viability is discussed elsewhere in this chapter. The remaining farms are Bishopston and Craiglug. Bishopston is a commercial dairy farm and will be substantially affected by the proposal in relation to land lost, severance and disturbance. However, the provision of an overbridge, potential for land to return to agriculture and general mitigation will allow the unit to continue to operate as a dairy unit. Craiglug, although farmed according to organic standards, is let out and it is not considered to be a commercial agricultural business in its own right.
- 22.6.15 No agricultural units are therefore assessed as having their viability affected by the proposed development.

#### Summary and Conclusion

- 22.6.16 The 48 agricultural, commercial forestry and sporting land interests affected by the proposed development collectively farm 3,793ha.
- 22.6.17 It is estimated that 229 fields would be affected with a net loss of 213.53ha of agricultural, woodland and commercial forestry land in order to construct and operate the proposed scheme. This is after land has been returned to agriculture. No prime agricultural land would be lost. The total land lost equates to 6% of the land farmed by the 48 land interests.

- 22.6.18 The proposed development has adverse residual impacts (Moderate or above) on 31 land interests (65%). It is predicted that viability would not be affected on any agricultural units. However, viability would be affected on four equestrian units where agricultural activity also occurs (refer to Residual Impacts: Residential and Commercial Land Use).
- 22.6.19 Overall, the proposed development is assessed as having a Moderate adverse residual impact on agriculture, commercial forestry and sporting interests. This is based on the aggregate area of land lost, its quality and the overall impacts of severance, access and drainage on the affected agricultural, forestry and sporting land interests.

#### **Community Land**

- 22.6.20 Taking into account mitigation proposed in Section 22.5, there would be a net loss for all woodlands identified as community land affected by the proposed scheme with the exception of Milltimber, Gairnhill and the shelter belts at Cloghill/Derbeth. At these three woodlands, proposed planting is greater than the area of woodland lost and the significance of residual impacts are therefore assessed as negligible. In addition, the significance of residual impacts is reduced to Negligible for Duff's Hill, Old Deeside Railway Line and Guthrie Hill Plantation, and to Slight/Moderate for the Roundalls near Newlands due to the proposed mitigation planting. For the remaining affected areas the significance of residual impacts on the community land affected. There would be Slight/Moderate residual impacts on Upper Beanshill wood, Roundalls near Newlands and Denhead Cloghill Shelter Belt. For completeness areas lost at the Shelter Belt between Duff's Hill and the woodland patches near Bothiebrig are included, however, these areas are not considered community land due to their size and consequently the residual impacts are assessed as Negligible.
- 22.6.21 In addition to the woodland specific planting detailed above, planting of over 0.5ha is proposed in several areas as shown in Table 22.23. A total of 25.19ha woodland would be lost to the scheme (including the losses mentioned in paragraph 22.4.12 which are not considered community land). However, there will also be additional planting of 22.39ha, resulting in a loss of 2.8ha of woodland. This loss in woodland is in terms of community land as defined previously. The proposed scheme would result in an overall loss of woodland within the Southern Leg study area. The woodland lost is of low sensitivity and when mitigation is taken into account the overall significance is assessed as Negligible/Slight.
- 22.6.22 Table 22.27 below details the planting mitigation proposed for the various affected woodlands and the resulting residual impact.

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	Area	Area replanted (ha)						Residual		
Woodland	Lost (ha)	% Lost	North/West of AWPR	South/East of AWPR	Total	Туре	Severance	Total Land lost/gained (ha)	% lost	Significance
Greenhowe Plantation	6.10	11.93	1.4	1.19	2.59	Riparian/Mixed	Yes	-3.51	6.87	Negligible/Slight
Duff's Hill	1.11	3.16	0	0.52	0.52	Mixed	No	-0.59	1.68	Negligible
Clochandighter	0.07	0.16	0	0	0	n/a	No	-0.07	0.17	Negligible
Cleanhill Wood	9.73	10.81	0.4	0.91	1.31	Broadleaved/Mixed	Yes	-8.42	9.36	Negligible/Slight
Milltimber wood	0.87	6.87	0.19	1.85	2.04	Broadleaved/Mixed	No	+1.17	n/a	Negligible
Guthrie Hill Plantation	0.96	11.44	0.72	0	0.72	Mixed	No	-0.24	2.86	Negligible
Upper Beanshill	0.36	21.43	0.11	0	0.11	Coniferous	No	-0.25	15.05	Slight/Moderate
Rotten O'Gairn	1.19	4.54	0	0	0	n/a	No	-1.19	4.54	Negligible/Slight
Gairnhill	0.33	0.37	0	1.89	1.89	Broadleaved/Mixed	No	+1.56	n/a	Negligible
West Hatton	0.28	5.22	0	0	0	n/a	Yes	-0.28	5.19	Negligible/Slight
Shelter belts at Cloghill/Derbeth	3.07	39.27	1.84	2.41	4.25	Coniferous/Mixed	n/a	+1.18	n/a	Negligible
Roundalls near Newlands	0.53	67.45	0.16	0	0.16	Coniferous	No	-0.37	47.00	Slight/Moderate
Old Deeside Railway line	0.17	2.19	0.06	0.08	0.14	Broadleaved	n/a	-0.03	0.39	Negligible
Denhead Cloghill Shelter Belt Land-take	0.29	27.44	0	0	0	n/a	Yes	-0.29	27.44	Slight/Moderate
Shelter Belt between Duff's Hill and A90	0.03	7.01	0	0	0	n/a	No	-0.03	7.01	Negligible
Woodland patches near Bothiebrig (4 distinct areas)	0.11	20.96	0	0	0	n/a	n/a	-0.11	20.96	Negligible

 Table 22.27 – Residual Impacts on Community Land (Woodlands)

#### **Residential and Commercial Land Use**

- 22.6.23 There would be substantial residual impacts on a total of 13 buildings, which would be demolished as a result of the proposals. These comprise 10 residential properties, a school and two outbuildings as indicated in Table 22.17.
- 22.6.24 There would be adverse residual impacts on 11 of the businesses affected by the proposed route, these are due to loss of land at 9 businesses, a major access change to one business, and noise impacts on one business. In addition, beneficial residual impacts are expected on 6 businesses due to improved transportation links. Finally, 22 businesses would experience neutral residual impacts; these businesses are not affected by land-take and access to and from them are maintained with minor diversions.
- 22.6.25 It is assumed the International School would be provided financial compensation as determined by the District Valuer's assessment. Due to the loss of the existing school and because relocation plans have not been confirmed the residual impact is assessed as adverse.
- 22.6.26 A summary of the residual impact on commercial properties is shown in Table 22.28 below.

Property/Business Affected	Residual Impact
Charleston Distribution Centre (W. Leiper, Jeeves Couriers, Jeeves Group Storage and ANC Express)	Neutral
Newton of Charleston Farm (eggs)	Adverse
Optima Solutions UK Ltd.	Neutral
Alexander Duncan (Aberdeen) Ltd.	Neutral
Bothiebrig Garage	Adverse
EIS Waste Services	Neutral
R&B Services	Beneficial
Dennis Irvine Superbike Centre	Neutral
Ewing Motors	Neutral
Marywell Park Homes Ltd.	Adverse
Artward Bound	Neutral
Northeast Reprographics Ltd.	Neutral
SBS Logistics Pipe yard	Neutral
Aberdeen Aeromodellers	Neutral
Storybook Glen Theme Park	Neutral
Lower Deeside Holiday Park	Neutral
Old Mill Inn	Neutral
Maryculter Playgroup	Neutral
Milltimber Farm Livery	Adverse
Albyn School Playing Fields	Neutral
International School	Adverse
Kippie Lodge – Aberdeen Petroleum Club	Adverse
Hawkshill Nursing Home	Neutral

Table 22.28 – Residual Impacts on Commercial Properties

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Property/Business Affected	Residual Impact
Nether Beanshill Livery	Adverse
East Brotherfield Livery	Adverse
Kingswood Learning and enhancement Centre	Adverse
Smiddybrae Industrial Units (Clark & Sutherland; King Street Autobody, and LD Motors)	Beneficial
East Kingsford Livery	Adverse
East Kingsford Industrial units (W. Enterprises Aberdeen Ltd.)	Beneficial
Five Mile Garage & Petrol Station and Five Mile Caravan Park	Neutral
Ardene House Veterinary Hospital	Beneficial
Denburn Livery & Stud Farm (Denhead of Cloghill)	Adverse

#### **Development Land**

- 22.6.27 The route would have a neutral impact on the majority of planning permissions ( $P1_{S}$ ,  $P5_{S}$  – $P8_{S}$ ,  $P15_{S}$  – $P20_{S}$ ). The route would also have a beneficial impact on three planning permissions ( $P23_{S}$ ,  $P26_{S}$  and  $P27_{S}$ ) and two development land allocations ( $OP2_{S}$  and  $OP3_{S}$ ).
- 22.6.28 There would be a residual adverse impact on land lost to the proposed scheme at the two sites (P22<sub>s</sub> and P24<sub>s</sub>) where planning permission has been granted. These sites are shown on Figures 22.2.a and 22.2g, respectively.
- 22.6.29 There are four planning permissions for residential properties where there is an adverse impact on amenity as a result of the close proximity of the proposed scheme. There are no proposed mitigation measures for three of these sites. The residual impact for these therefore remains as adverse. Mitigation measures are proposed in the form of landscape planting to screen close views of the Southern Leg from Denhead of Cloghill where there is planning consent for a new dwellinghouse. However, the residual impact would remain adverse.
- 22.6.30 There is one planning permission where the impact is mixed. The extension at the sports club at Kippie Lodge may benefit from the improved transport links but as a result of the close proximity of the proposed scheme, it may be adversely affected in terms of the loss of amenity. The landscape mitigation that is proposed at this location may provide some visual screening, however, the residual impact would remain mixed.
- 22.6.31 Table 22.29 below summarises residual impacts after mitigation for non-agricultural land uses. Residual impacts on agricultural land uses are provided in Appendix A22.2 (Pre and post Mitigation Impacts for all Affected Land Interests).

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Issue	Predicted Impact (with no mitigation)		Description of Mitigation Proposed	Residual Impact
	Description	Significance		Significance
Residential and Commercial Land Use	Demolition of 10 residential properties	Substantial	Financial compensation as appropriate.	Substantial
	Demolition of International School	Adverse	Financial compensation as appropriate.	Adverse
	Loss of 5% of total area of Marywell Homes Ltd.	Adverse	Financial compensation as appropriate.	Adverse
	Loss of 10% of total area of Newton of Charleston	Adverse	Financial compensation as appropriate.	Adverse
	Loss of 15% of total area and severance at Milltimber Farm	Adverse	Financial compensation as appropriate.	Adverse
	Loss of 14% of total area at Kippie Lodge	Adverse	Financial compensation as appropriate.	Adverse
	Loss of 22% of total area (8% of Livery) and severance at Nether Beanshill	Adverse	Financial compensation as appropriate.	Adverse
	Loss of 7% of total area at East Brotherfield	Adverse	Financial compensation as appropriate.	Adverse
	Loss of 32% of total area at East Kingsford Livery	Adverse	Financial compensation as appropriate.	Adverse
	Loss of 13% of total area, demolition of outbuildings and severance at Denburn Livery & Stud (Denhead of Cloghill)	Adverse	Financial compensation as appropriate.	Adverse
	Noise impacts at Kingswood Learning and Enhancement Centre.	Adverse	1.6m Noise barrier (see Chapter 45: Traffic Noise and Vibration).	Adverse
	Potential Relocation or reconfiguration of Aberdeen Aeromodellers Club depending on risk assessment	Neutral	None proposed awaiting outcome of risk assessment.	Neutral
	Improved access to north & south for: Jeeves Couries; Jeeves Group Storage; ANC Express; R&B services; Smiddy Brae Industrial Units (Clark & Sutherland; King Street Autobody and LD Motors); W. Enterprises Aberdeen Ltd and Ardene House Veterinary Hospital.	Beneficial	None required.	Beneficial
	Minor Changes to access (i.e. no major diversions required) at the following businesses: W. Leiper, Newton of Charleston Farm, Optima Solutions, Alexander Duncan (Aberdeen) Ltd., EIS Waste Services, Dennis Irvine Superbike Centre; Ewing Motors, Marywell Park Homes Ltd., Artward Bound, Northeast Reprographics, SBS Logistics, Maryculter Play Group, Storybook Glen Theme Park, Lower Deeside Holiday Park, Old Mill Inn, Albyn School Playing Fields and Five Mile Petrol Station Garage & Caravan Site.	Neutral	Access maintained/restored.	Neutral
	Major Changes to Access (i.e. lengthy diversions required) at Bothiebrig Garage	Adverse	Access maintained/restored, diversions and modifications required.	Adverse
Development	Loss of development land (P22s and P24s)	Adverse	Financial compensation as appropriate.	Adverse
Land	Potential loss of amenity (P2s)	Adverse	None Proposed.	Adverse
	Potential loss of amenity (P3s)	Adverse	None Proposed.	Adverse

#### Table 22.29 – Non-agricultural Residual Impacts

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Issue	Predicted Impact (with no mitigation)		Description of Mitigation Proposed	Residual Impact
	Description	Significance		Significance
	Potential loss of amenity (P10s)	Adverse	None Proposed.	Adverse
	Potential loss of amenity (P21s)	Adverse	Mixed woodland to screen close views from property.	Adverse
	Potential loss of amenity (P13s)	Mixed	Line of trees to integrate with existing pattern.	Mixed
	Improved access arrangements and transport links (P23s)	Beneficial	None required.	Beneficial
	Improved access arrangements and transport links (P26s)	Beneficial	None required.	Beneficial
	Improved access arrangements and transport links (P27s)	Beneficial	None required.	Beneficial
	Improved access arrangements and transport links (OP2s)	Beneficial	None required.	Beneficial
	Improved access arrangements and transport links (OP3s)	Beneficial	None required.	Beneficial
	Neutral impacts to planning applications and development land (P1 <sub>S</sub> , P5 <sub>S</sub> – P8 <sub>S</sub> , P15 <sub>S</sub> –P20 <sub>S</sub> and OP4s and OP5s)	Neutral	None required.	Neutral
Community Land	Loss of 11.93% of total woodland area and severance at Greenhowe Plantation	Negligible/Slight	Mixed planting of 2.64ha (1.4 north & 1.19 south) net woodland loss 6.87%. Financial compensation as appropriate.	Negligible/Slight
	Loss of 3.16% of total woodland area at Duff's Hill	Negligible/Slight	Mixed planting of 0.52ha (0.52 south) net loss of 1.68%. Financial compensation as appropriate.	Negligible/Slight
	Loss of 0.16% of total woodland area at Clochandighter	Negligible	Financial compensation as appropriate. Non woodland specific planting (8.55ha total for entire study area resulting in a net loss of 2.8ha of woodland).	Negligible
	Loss of 10.81% of total woodland area and severance at Cleanhill Wood	Negligible/Slight	Mixed Planting of 1.31ha (0.19 west & 1.85 east) net woodland loss of 9.36%. Financial compensation as appropriate.	Negligible/Slight
	Loss of 6.87% of total woodland area at Milltimber wood	Negligible/Slight	Mixed Planting of 2.04ha (0.19 west & 1.85ha east) net woodland gain. Financial compensation as appropriate.	Negligible
	Loss of 11.44% of total woodland area at Guthrie Hill Plantation	Negligible/Slight	Mixed Planting of 0.72ha (0.72 west) net loss of 2.86%. Financial compensation as appropriate.	Negligible/Slight
	Loss of 4.54% of total woodland area at Rotten O'Gairn	Negligible/Slight	Financial compensation as appropriate. Additional woodland planting (8.55ha total for entire study area resulting in a net loss of 2.8ha of woodland).	Negligible/Slight
	Loss of 0.37% of total woodland area at Gairnhill	Negligible	Mixed Planting of 1.89ha (1.89 east) net gain of woodland. Financial compensation as appropriate.	Negligible
	Loss of 21.43% of total woodland area at Upper Beanshill	Slight/Moderate	Mixed planting of 0.11ha (0.11 west) net loss of 15.05%. Financial compensation as appropriate.	Slight/Moderate
	Loss of 5.22% of total woodland area at West Hatton	Negligible/Slight	Financial compensation as appropriate. Additional woodland planting (8.55ha total for entire study area resulting in a net loss of 2.8ha of woodland).	Negligible/Slight

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Issue	Predicted Impact (with no mitigation)		Description of Mitigation Proposed	Residual Impact
	Description	Significance		Significance
	Loss of 39.27% of total woodland area Shelter belts at Cloghill/Derbeth	Slight/Moderate	Mixed woodland planting of 4.25ha (1.84 west and 2.41 east) net gain of woodland. Financial compensation as appropriate	Negligible
	Loss of 27.44% of total woodland area at Denhead Cloghill Shelter Belt	Slight/Moderate	Financial compensation as appropriate. Additional woodland planting (8.55ha total for entire study area resulting in a net loss of 2.8ha of woodland).	Slight/Moderate
	Loss of 67.45% of total woodland area at Roundalls near Newlands (north and south)	Moderate	Financial compensation as appropriate. Additional woodland planting (8.55ha total for entire study area resulting in a net loss of 2.8ha of woodland).	Slight/Moderate
	Loss of 2.19% of total woodland area at Old Deeside Railway line	Negligible/Slight	Mixed woodland planting 0.14ha (0.06 west and 0.08 east) net loss 0.39%. Financial compensation as appropriate.	Negligible/Slight
	Loss of 0.03ha of non-community woodland at Shelter Belt between Duff's Hill and A90.	Negligible	Financial compensation as appropriate. Additional woodland planting (8.55ha total for entire study area resulting in a net loss of 2.8ha of woodland).	Negligible
	Loss of 0.11ha of non-community woodland patches near Bothiebrig (4 areas).	Negligible	Financial compensation as appropriate. Additional woodland planting (8.55ha total for entire study area resulting in a net loss of 2.8ha of woodland).	Negligible

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### 22.7 References

Aberdeenshire Council (2006). Aberdeenshire Local Plan (Adopted June 2006).

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