28 Cultural Heritage

This chapter identifies the potential direct and indirect impacts of the Southern Leg section of the proposed scheme on known and potential sites of cultural heritage importance. The chapter also addresses effects on the wider historic landscape and historic landscape character. The chapter assesses the significance of the impacts and outlines measures for avoiding or mitigating these impacts, where possible.

An archaeological desk based assessment and walkover survey identified 183 sites of cultural heritage importance. These range in date from the prehistoric period to the recent past. The individual importance of each site has been assessed on a scale of 'Less than Local' to 'International' importance. Potential direct impacts on 49 sites were identified, along with adverse visual impacts on the setting of 18 sites. Overall, the historic landscape is characterised by small rectangular fields bounded by stone walls with isolated farmsteads. There is also potential for the presence of unknown archaeological remains within the scheme's land take.

Recommendations for works required to identify any unknown sites that might be present and to evaluate and mitigate potential direct and indirect impacts are provided.

28.1 Introduction

- 28.1.1 The key objectives of the assessment were to:
 - identify known and potential features of cultural heritage significance and assess their importance;
 - characterise the wider historic landscape;
 - identify and assess the magnitude and significance of the impact of the proposed development on each individual site and on the wider historic landscape;
 - assess the potential for impacts on unforeseen features of cultural heritage importance, especially previously undiscovered archaeological remains; and
 - propose measures for avoiding, reducing or mitigating potential impacts.

28.2 Approach and Methods

Baseline Conditions

- 28.2.1 Baseline conditions were initially identified through a DMRB Stage 1 Assessment (Jacobs 2006), carried out in accordance with the principles set out in DMRB Volume 11, Section 3, Part 2 (Archaeological Assessment Stage 1). For this Stage 3 Assessment, baseline information contained in the earlier Stage 1 survey was updated by means of the following:
 - a review of existing archaeological information;
 - a walkover survey of a study area 500m wide, centred on the proposed scheme, undertaken in August 2006;
 - consultation of any additional relevant information;
 - additional consultation with statutory and non-statutory consultees, including Historic Scotland, Aberdeenshire Council and Aberdeen City Council; and
 - preparation of a cultural heritage baseline report (Appendix A28.1).
- 28.2.2 The study area used for this study extended to approximately 250m either side of the centreline of the proposed scheme. Additional information was gathered from a wider surrounding area to place this baseline information in its regional context, and to allow the identification of individual sites at a greater distance that may be vulnerable to visual impacts.

- 28.2.3 In addition to DMRB, other policy documents and published guidelines taken into account in the preparation of this chapter included:
 - National Planning Policy Guideline (NPPG) 5: Archaeology and Planning (Scottish Office 1994a);
 - Policy Advice Note (PAN) 42: Archaeology The Planning Process and Scheduled Monuments Procedures (Scottish Office 1994b);
 - Standard and Guidance on Archaeological Desk-Based Assessments (The Institute of Field Archaeologists 1994);
 - Memorandum of Guidance on Listed Buildings and Conservation Areas (Historic Scotland 1998);
 - NPPG 18: Planning and the Historic Environment (Scottish Office 1999); and
 - Scottish Historic Environment Policy 2: Scheduling: protecting Scotland's nationally important monuments (Historic Scotland 2006).
- 28.2.4 The information contained in this chapter presents the results of the DMRB Stage 3 Assessment. Further detail of the methodologies and information sources used in this chapter is given in the Cultural Heritage Baseline Report (Appendix A28.1).

Impact Assessment

28.2.5 As described in Chapter 5 (Overview of Assessment Process), impact significance was determined by reference to the sensitivity of the receptor (cultural heritage site) and the magnitude of potential impact. As described in detail below, this assessment was undertaken separately for direct impacts (e.g. damage or severance), and indirect impacts (i.e. changes to setting due to visual intrusion).

Sensitivity

Site Importance

28.2.6 It is common practice in cultural heritage assessment to define the sensitivity of individual cultural heritage receptors through assessing their individual 'importance'. Sites were assigned a level of importance on a scale of 'Less than Local' to 'International' as shown in Table 28.1, based on statutory designation and/or assessed cultural heritage importance as explained below.

Importance	Site Type					
International	World Heritage Sites.					
National Scheduled Ancient Monuments (SAMs).						
	Category A Listed Buildings.					
	Some undesignated sites assessed as being of National importance using the methodology given in Paragraph 28.2.9					
Regional	Category B Listed Buildings.					
	Conservation Areas and Designed Landscapes.					
	Some undesignated sites assessed as being of Regional importance using the methodology given in Paragraph 28.2.9					
Local	Category C(s) Listed Buildings.					
	Some undesignated sites assessed as being of Local importance using the methodology given in Paragraph 28.2.9					
Less than Local	Sites either already badly damaged or destroyed, or whose cultural heritage value is too slight for inclusion in a higher class.					

Table 28.1 – Site Importance

28.2.7 World Heritage Sites are afforded international protection under the UNESCO World Heritage Convention, with Scheduled Ancient Monuments (SAMs) nationally protected under the 'Ancient

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Monuments and Archaeological Areas Act 1979'. The 'Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997' provides for the designation of Category, A, B and C(s) Listed Buildings which are considered to be of National, Regional and Local importance respectively.

- 28.2.8 Conservation Areas designated under the 1997 Act (above) and Designed Landscapes designated as such by Historic Scotland are assessed as being of Regional importance.
- 28.2.9 The majority of sites of cultural heritage importance are not currently afforded any statutory protection through designation. However, the desirability of preserving such sites can be a 'material factor' in decision making processes, in line with guidance set out in NPPG 5 (paragraphs 4 and 14). For the purposes of assessment, each undesignated site identified in the Cultural Heritage Baseline Report was assigned a level of importance on the scale defined in Table 28.1 above. The assessment was based on professional experience judgement, taking account of criteria set out in the following guidance:
 - criteria used in Scottish Historic Environment Policy 2 for the designation of SAMs; and
 - non-statutory criteria used in the designation of Listed Building categories (Memorandum of Guidance on Listed Buildings and Conservation Areas, Historic Scotland 1998).
- 28.2.10 In some cases there is insufficient information to wholly assess the importance of a site. In such cases the importance of the site has been assessed as Unknown

Sensitivity of Setting

- 28.2.11 While the relative importance of cultural heritage features provides a good basis for the assessment of direct physical impacts, it cannot do so for potential indirect impacts on the visual setting of a site. Some highly important sites may be invisible above ground level, while some sites of lesser intrinsic importance may nevertheless be visually prominent and sensitive to visual impacts on their setting. For this reason, the sensitivity of individual sites to visual impacts on their setting was separately assessed. The baseline surveys were designed to identify such visually sensitive sites even if they lay beyond the main baseline study area (i.e. more than 250m from the centre-line of the proposed scheme). Identification and assessment of such sites was carried out in partnership with Jacob's Landscape Architects who undertook the wider Visual Impact Assessment for this Environmental Impact Assessment.
- 28.2.12 Many archaeological sites are not visible, or barely visible, from ground level. Such sites will usually not be vulnerable to visual impacts. However, some invisible or partially invisible sites may be located in an area where the immediate topography or the character of views to or from the site is important to its historic integrity or Cultural Heritage value, or to the academic understanding of the site, and consequently impacts in its setting might be considered more significant. A process of selection was therefore undertaken prior to selecting sites for visual impact assessment, using the following criteria:
 - the sites are visible above ground level; and
 - the sites are either directly accessible to the public, or are visually prominent from a publicly accessible point at distance; and
 - the nature of the sites is such that the aesthetic quality of their setting may be considered a contributory factor in assessing the overall site importance; or
 - if invisible, the topographical context and landscape interrelationship of the site is important to our appreciation and understanding; or
 - the site is a SAM, or a Listed Building.
- 28.2.13 The sensitivity of cultural heritage sites to visual impacts was assessed according to criteria set out in Table 28.2 below.

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Sensitivity	Description		
High	Sites of National importance that are visually prominent and whose visual setting contributes significantly to their importance.		
	Invisible or partially visible sites of National Importance whose location and topographical context aid our understanding of their form and function.		
Medium	Sites of Regional importance that are visually prominent and whose visual setting contributes significantly to their importance.		
	Invisible or partially visible sites of Regional importance whose location and topographical context aid our understanding of their form and function.		
Low	Sites of Local importance whose landscape setting contributes significantly to their importance.		
Not sensitive			

Table 28.2 – Sensitivity of Cultural Heritage Sites to Impacts on Setting

Magnitude of Impact

28.2.14 For the purposes of this assessment, the severity or magnitude of impact was assessed independently of the site value. Impacts were assessed both for individual sites and, where groups of buildings or features were affected, as an overall impact.

Magnitude of Direct Impacts

28.2.15 The magnitude of direct, physical impacts was assessed in accordance with the categories and criteria shown in Table 28.3.

Magnitude	Impact Description
Very HighWhere there would be complete or nearly complete demolition or loss (of more than approximately 80%) of a site to the development.	
HighWhere there would be partial loss (between approximately 50% and 80%) of a site to the development.	
Medium Where there would be loss of part (between approximately 15% and 50%) of a site	
Low	Where would be a minimal loss of part of a site (up to 15%).

Table 28.3 – Magnitude of Direct Impacts

- 28.2.16 The percentages and figures provided in the above definitions are guided by professional judgement and are necessarily approximate.
- 28.2.17 In some cases there is insufficient information on the extent of sites and therefore the percentage of the site on which the proposed scheme would have a direct impact. In these cases the magnitude of impact has been assessed as Unknown.

Magnitude of Impacts on Setting

28.2.18 The magnitude of visual impacts on the setting of cultural heritage sites was assessed according to established principles and criteria set out in the 'Memorandum of Guidance on Listed Buildings and Conservation Areas' (Historic Scotland 1998) and 'Guidelines for Landscape and Visual Impact Assessment' (LI/IEMA 2002). These criteria were also used in the assessment of overall visual impacts and are described in more detail in Chapter 27 (Visual). The application of the criteria leads to a definition of the magnitude of impact for each viewpoint on a four-point scale of Dominant, Prominent, Present or Negligible.

Significance of Impact

28.2.19 The significance of impacts was determined using matrices, with the sensitivity of the receptor on one axis and the magnitude of impact on the other, but the full assessment of significance of impact also relied upon experience and reasoned judgement, supported by substantiated evidence. Four levels of significance were defined which apply equally to beneficial and adverse impacts. The matrix used for direct, physical impacts is reproduced here as Table 28.4, with 'sensitivity' defined in terms of 'importance'.

Importance	Magnitude							
	Very High	High	Medium	Low				
International	Very Substantial	Very Substantial	Very Substantial	Very Substantial				
National	Very Substantial	Very Substantial	Very Substantial	Substantial				
Regional	Substantial	Substantial	Moderate	Moderate				
Local	Moderate	Slight	Slight	Slight				
Less than Local	Slight	None	None	None				

Table 28.4 – Significance of Direct Impact

- 28.2.20 Where either the Importance of a site or the Magnitude of impact has been assessed as Unknown, the Significance of impact has also been assessed as Unknown.
- 28.2.21 The significance of visual impacts on setting was assessed by taking into account the sensitivity of the site and the magnitude of impact, in terms of potential impacts on the most dominant view both to and from the sensitive sites. The matrix for this assessment is shown in Table 28.5.

Sensitivity Magnitude					
Dominant Prominent		Prominent	Present	Negligible	
High	Substantial	Substantial	Moderate	Slight	
Medium	Substantial	Moderate	Slight	None	
Low	Low Moderate		Slight	None	
Not sensitive	None	None	None	None	

Table 28.5 – Significance of Impacts on Setting

Limitations to Assessment

- 28.2.22 Delays in agreeing access to assess the indirect impact on views from Eastland House (Site 157) and Kingcausie House and sundials (Site 185, 176 and 184) resulted in the assessment for these features being based on desk based sources only.
- 28.2.23 In addition, owing to the accelerated programme for the Environmental Impact Assessment, specific measures to mitigate the potential impact of the scheme on visually sensitive sites have not been finalised.

28.3 Baseline Conditions

28.3.1 This section outlines the cultural heritage of the study area in chronological order and describes the sites that were identified by the assessment. A more detailed archaeological and historical background is provided in the Cultural Heritage Baseline Report (Appendix A28.1) and details on the individual sites within the study area are provided in a gazetteer (available on request, in CD-Rom format).

Cultural Heritage of the Study Area

- A total of 170 cultural heritage sites were identified within the study area. There is potential for visual impacts on a further 13 visually sensitive sites (Sites 146, 150 151, 191, 193, 274, 276, 298, 300, 306, 425, 444 and 448) outside the study area which were also assessed. The locations of all sites are shown on Figures 28.1a h.
- 28.3.3 Using the methodology set out in section 28.2 (Approach and Methods), the importance and visual sensitivity all the 183 sites was assessed. Details of the importance of each site are provided in the gazetteer and are summarised in Table 28.6 below:

Importance	Number of Sites
National	9
Regional	30
Local	116
Less than Local	25
Unknown	3
Total	183
Sensitivity	Number of Sites
High	8
Medium	21
Low	85
Not Sensitive	69
Total	183

Table 28.6 – Summary of Importance of Sites Assessed

Prehistoric

- 28.3.4 One site dating to the Mesolithic Period (8000 4000 BC) has been identified within the study area. Approximately 230 fragments of flint were collected from a ploughed field close to Maryculter Bridge (Site 213; see Figure 28.1d (insert)). Although rare in Scotland, there does appear to be a concentration of Mesolithic activity sites and flint scatters along the River Dee, including the site at Nethermills Farm close to Banchory, outside the study area (Wickham Jones 1994, 64). It is possible that the Mesolithic hunter-gatherer population were exploiting the resources of the Dee, especially salmon, on a seasonal basis.
- 28.3.5 Cloghill Longcairn SAM (Site 448; see Figure 28.1g) is of National importance. The remains of this Neolithic funerary monument are located on the edge of a terrace on the southwest flank of Cloghill. This site has been heavily robbed in the past and, while much of the present mound results largely from field-clearance, the original cairn measures about 52m from east-southeast to west-northwest by a maximum of 12m transversely. Dating to the Neolithic period (4000 2200BC), long cairns were usually communal burial sites where the bones of many individuals were placed in a chamber over a long period of time, and covered by a mound of stone or earth. The early farmers who built these sites may have used stone axes, such as the example recorded in the National Monuments Record Scotland as being found close to Fairley House (Site 473; see

Figure 28.1g), to clear woodland for arable and pasture fields. It is also possible that such axes were also used for ceremonial purposes.

- 28.3.6 A total of five sites dating to the Bronze Age (2200-1000 BC) have been identified within the study area. Miltimber Farm Standing Stone (Site 269; see Figure 28.1d) is recorded from late 19th century historical sources as the last remaining element of a former stone circle. There is no visible trace remaining of this monument. Site 273 (see Figure 28.1d) is the find-spot of a barbed and tanged flint arrowhead located 300m to the east-northeast of Site 269. Another prehistoric flint arrowhead (Site 277; see Figure 28.1d) was recovered 90m to the north-northeast of Site 273. A second possible stone circle located within the study area was identified within the grounds of Cloghill House in the early 20th century (Site 459; see Figure 28.1g). No visible trace of this monument now remains. Binghill Stone Circle and Cairn (Sites 298 and 300; Figure 28.1e) are Scheduled Ancient Monuments.
- 28.3.7 No sites of Later Prehistoric date (Late Bronze Age and Iron Age, 1000 BC to AD 43) were identified within the study area.
- 28.3.8 A multi-period archaeological landscape complex is located at Beans Hill (Site 309; see Figure 28.1e). Some elements of this complex are likely to have their origins in the prehistoric period, including hut-circles, small cairns, and a cup-marked boulder. Site 309 has been proposed for Scheduling and is therefore of National importance.
- 28.3.9 The specific date of a linear cropmark and possible enclosure located north of the River Dee (Sites 238 and 239; see Figure 28.1d (insert)) identified from aerial photographs is unknown. It is possible that these are also of prehistoric date. These features are located 150m northeast of Site 213 (see Figure 28.1d insert), the Mesolithic flint scatter, but are certainly of a later date. The Dee valley should be considered to be an area that has potential for the presence of unknown archaeological remains.

Medieval

- 28.3.10 Sites dating to the Medieval period (500-1603 AD) are also poorly represented in the study area although the area is unlikely to have been unoccupied. No early Medieval settlements are known and rural settlement in this early period is very little understood, therefore there is little basis for prediction. What is known about Scottish Medieval rural settlement is largely inferred through analogy from the immediately following Post-Medieval period. On this basis, it is thought that the Later Medieval settlement pattern was dispersed, with the population living in a network of small, scattered settlements known as 'fermtouns', of which there may be several in any given parish. Tenant families would have farmed in a traditional system known as 'runrig', under which the land immediately around the settlement was cultivated in open fields divided into long, narrow ridged strips (rig and furrow). Any amenities which may be present in a parish, such as castles, churches or mills, could stand isolated or at one of the fermtouns which then became known as 'castletoun', 'kirktoun' or 'milltoun' and survive in the place-name record, often combined with the parish name. For much of the Medieval period, the land around Aberdeen in the study area probably formed part of such a system.
- 28.3.11 Sites 342, 349, 353 and 454 (see Figures 28.1e and 28.1g) are areas of areas of rig and furrow. As these earthworks were produced by an agricultural system which had its origins in the Medieval period, but which continued until the late 18th century precise dating is usually impossible. A basal sherd of medieval pottery was recovered during ploughing in the vicinity of Eastland Cottage (Site 147; see Figure 28.1c).
- 28.3.12 In return for their loyalty, King Robert the Bruce granted the citizens of Aberdeen his hunting lands of Stocket Forest in 1319. The Freedom Lands and Marches were originally defined by 10 "gret grey stanes". Site 360 is a probably one of these boundary stones and is shown on Figure 28.1f. New boundary markers were erected in 1578 and these have a characteristic saucer mark depression. Site 345 is one such boundary marker and Site 335 is the site of a cup marked stone, that has since been removed (refer to Figure 28.1e).

Post Medieval and Modern

- 28.3.13 The cultural heritage of the study area is generally characterised by sites of Post Medieval and Modern date (1603 1901 and 1901 present respectively). A total of 153 sites in the study area dating to these periods have been identified within five broad functional categories:
 - Category 1: 90 agricultural sites farmsteads, cottages, crofts, field systems, consumption dykes, clearance cairns, sheepfolds;
 - Category 2: 32 non-agricultural buildings, including manses (i.e. ecclesiastical residences), designed landscapes, gate lodges, gardens, sundials and burial grounds;
 - Category 3: 9 industrial sites, the majority of which are related to extractive industries quarries and gravel pits;
 - Category 4: 7 transport and communication sites roads, bridges, railways and associated sites; and
 - Category 5: Boundary Markers the majority of the 20 boundary stones within the study area mark the boundary between the parishes of Peterculter and Maryculter.

Category 1: Agricultural Sites

- 28.3.14 The agricultural and economic improvements of the 18th and 19th centuries have their origins in the 17th century. 'Improving' leases were granted to selected tenants. Under these leases, the communal runrig system of cultivation was dismantled and replaced with longer, more varied crop rotations in large enclosed private fields. Activities such as the enclosure of the land, the quarrying and burning of lime for use as a fertiliser and the planting of trees all resulted in lasting changes to the landscape. New, isolated farmsteads may have been established, while some fermtouns may have been converted to single farmsteads.
- 28.3.15 Farmsteads of this period usually comprise stone built farmhouse and ancillary buildings, such as barns and byres, set around a rectangular farmyard. Also included in this category are crofts and cottages. A total of 34 such sites have been identified within the study area. In the majority of cases, these buildings have been rebuilt in the recent past or have been modernised.
- 28.3.16 Consumption dykes are closely associated with the age of agricultural improvement. These dykes are the result of the removal of large amounts of stone from agricultural land, gathered together to form thick stone walls. They therefore served two key agricultural improvement functions - the improvement of the soil by removal of stone, and the enclosure of the new private fields. The construction of these features in the region continued throughout the eighteenth and nineteenth centuries (Croly 2004). Although not a feature unique to the North East of Scotland, they are a landscape feature which is now uncommon elsewhere and highly characteristic of this region. A total of 30 consumption dykes have been identified within the study area. Of these, Kingswells Consumption Dyke (Site 444; see Figure 28.1g) is a Scheduled Ancient Monument. Other sites include stone walls (Sites 228 and 256; see Figure 28.1a, and 446; see Figure 28.1g) and a drystone wall landscape at Marywell (Site 493; see Figure 28.1a). A relict field system was identified at Sunnyside (Site 496; see Figure 28.1b), comprising low stone banks 0.2m high by 0.3m wide orientated north to south and east to west and sub-oval clearance cairns. Seven cairns or groups of clearance cairns (piles of stone cleared from the fields before cultivation) have been identified within the study area (Sites 121; see Figure 28.1c, 155 and 189; see Figure 28.1a, 336; see Figure 28.1e, 440; see Figure 28.1g, 497and 498; see Figure 28.1b).
- 28.3.17 The widespread introduction of sheep farming in northern Scotland was also largely a phenomenon of the improvement movement. Five sheepfolds have been identified (Sites 285, 287, 346, 348, and 519; see Figure 28.1e). These are circular drystone wall structures used to pen sheep.
- 28.3.18 Site 154 (Figure 28.1a) is a suboval mound composed of earth and stone. The low lying location of and visible presence of modern material suggests that this site is not of cultural heritage

importance but is a modern feature designed to raise the ground on which livestock feeders are placed.

Category 2: Non-agricultural buildings

- 28.3.19 Kingcausie House (Site 185; see Figure 28.1d) comprises elements of three main periods of construction. These consist of an original house, probably of 17th century date but destroyed by fire in about 1680; a rebuilding carried out before 1740; and additions made by David Bryce in 1852. Architectural features of 17th century date incorporated in the later building include a horizontal gunloop, a fireplace and two blocked door ways, one with a roll-moulded surround. The 18th century house, which forms the central block of the present building, was of three storeys, had a plain façade and a hipped roof. The house assumed its modest Scottish Baronial design with strongly symmetrical entrance façade in 1852 when the two wings and entrance portico were added. At the same time, the 18th century doorway was removed from the front of the house and rebuilt as a free-standing structure at the west end. This site is a Category B Listed building and is therefore of Regional importance.
- 28.3.20 Other sites associated with Kingcausie include a designed landscape (Site 156; see Figure 28.1b) and two sundials (Sites 176 and 184; see Figure 28.1d) and the North Lodge (Site 204; see Figure 28.1d insert) and Glianthus Lodge (Site 504; see Figure 28.1c) and a small ornamental bridge (Site 514; see Figure 28.1d). Site 176 is a Category B Listed Building while Site 184 is a Category C(s) Listed Building. These sites are shown on 28.1d.
- 28.3.21 The possible foundations of the original 17th century house built by Henry Irvine were discovered during drainage excavations at the site a number of years ago.
- 28.3.22 There has been a house on the present site of Culter House (Site 276; see Figure 28.1d) since the 12th century, but the present house was built in 1640. The southeast wing has its tower projections at the ends, and the doorway and corbelled centre chimney with Cumin coat-of-arms are original features. The northwest wing is 18th century. A regular nine-bay front of three storeys and a basement with wings was added to the north and south in 1910. This site is a Category A Listed Building of National Importance, while the walled garden, gazebo, doocote and gate piers are Category B Listed.
- 28.3.23 Cloghill House and Garden (Site 458) is a Category B Listed Building of Regional importance. The original T-plan building built in the 1770s was extended in the 1790s and early 19th century. An associated sundial (Site 457; a Category B listed Building of Regional Importance) dates to the mid 18th century while offices associated with the house (Site 460) were built in the late 18th century. Site 460 is a Category C(s) Listed Building of Local importance. These sites are shown on Figure 28.1g.
- 28.3.24 Manses within the study area include Glenburnie Manse (Site 151; see Figure 28.1c) and Eastland House (Site 157; see Figure 28.1d), both of which were built in the 18th century with 19th century additions. These sites are Category C(s) Listed Buildings of Local importance.
- 28.3.25 Peterculter Old Free Church (Site 306; see Figure 28.1e), which was built in the early 19th century, is also a Category C(s) Listed Buildings of Local importance. Maryculter Parish Church (Site 150; see Figure 28.1c), built in 1787, is a Category B Listed Building of Regional importance.
- 28.3.26 A Friends' Burial Ground (Site 431; see Figure 28.1g) is situated about 520m west-northwest of Kingswells Home Farm. The burial ground was founded by Alexander Jaffrey, who died in 1673. Rectangular in plan, it measures 23.8m from north-northeast to south-southwest by 18m transversely and is defined by a drystone wall. This site is proposed for scheduling and is of National importance.
- 28.3.27 Auchlunies House Designed Landscape (Site 187; see Figure 28.1b) is the possible remains of a 17th to 19th century designed landscape, while Site 278 is the garden attached to Kippie Lodge (Site 279; see Figure 28.1d). Sites 108, 126 and 148 (see Figure 28.1a), 139 (see Figure 28.1c),

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383 (see Figure 28.1f) and 516 (see Figure 28.1d) are buildings, or the sites of buildings, identified from the 1^{st} and 2^{nd} editions Ordnance Survey maps. Site 175 (see Figure 28.1d) is a pot weir while Site 286 is a well (see Figure 28.1e).

Category 3: Industrial

28.3.28 Two mills are located within the study area. The Mill Inn at Maryculter (Site 193; see Figure 28.1d) is an 18th century water-mill, now converted, while Site 515 is the site of a Post Medieval water-mill and lade (i.e. a channel bringing water to the mill from the millpond, or returning it to the stream) identified during the walkover survey (see Figure 28.1d) The other seven industrial sites within the study area are related to extractive industries and comprise five quarries (Sites 116; see Figure 28.1b, 174, 192, 196; see Figure 28.1a and 240; see Figure 28.1d), a sand pit (Site 414; see Figure 28.1g) and an area of quarries, quarry pits and cairns on the northwest part of Gairn Hill Wood and the southwest part of Kingshill Wood (Site 400; see Figure 28.1f).

Category 4: Transport and Communications

28.3.29 Of the sites in this category, Sites 191(see Figure 28.1d), 206 (see Figure 28.1d insert) and 522 (see Figure 28.1f) are all road bridges. Built in 1883, Milton Bridge is a Category C(s) Listed Building of Local importance comprising a shallow segmental arch with flanking storm-water arches of granite ashlar. Site 246 (see Figure 28.1d) is the route of the Deeside Railway. The "Deeside branch' was opened in 1854 as the Deeside Railway and was later grouped into the London and North-Eastern Railway. Site 275 (see Figure 28.1d) was an intermediate station on this line. Site 145 (see Figure 28.1a) is the Route of the Great South Road.

Category 5: Boundary Markers

- 28.3.30 As stated above, The Freedom Lands and Marches were originally defined by 10 "gret grey stanes". New boundary stones were erected in 1578 and in the 1790s. Westfield Farm Boundary Stone, inscribed "ABD 22", and Beans Hill Boundary Stone, inscribed "ABD 23", (Sites 334 and 344; see Figure 28.1e) are boundary stones that date from the 1790s. Both of these sites are Category B Listed buildings of Regional importance. The inscription "ABD" most likely stands for Aberdeen.
- 28.3.31 A further 18 sites classed as boundary stones have been identified within the study area. Sites 211, 214, 217, 247, 248, 249, 250, 251, 255, 258, 259, 260, 261 and 267 (see Figure 28.1d insert) are the remains of a system of at least 20 boundary stones which are shown on the 1st and 2nd edition Ordnance Survey maps. They marked the boundary between Peterculter to the north of the River Dee and Maryculter to the south of the river. This parish boundary now separates the local authorities of Aberdeen City and Aberdeenshire. Site 210 is a boundary stone marking this boundary which dates to 1959 (see Figure 28.1d insert) while Site 173 (see Figure 28.1a) marks the boundary between the parishes of Nigg and Banchory Devenick. Sites 164 and 165 (see Figure 28.1a) are two boundary stones depicted on the 1867 Ordnance Survey map. No trace of these sites was identified during the walkover survey.

Areas of Potential for Unknown Archaeological Remains

- 28.3.32 The number of known archaeological sites of earlier date that have been found within the study corridor is unusually low for such a relatively large study area. However, there is sufficient archaeological evidence to show that the surrounding area was occupied from at least the early Mesolithic period onwards. It is therefore highly likely that there has been human activity in the study area since earliest times. It is considered highly possible that additional archaeological remains, that that could not be identified by the desk-top and walkover surveys, are present in the study area.
- 28.3.33 Hare Moss Wetland (Site 153; see Figure 28.1a) has been assessed as an area of palaeoenvironmental importance. Other possible areas of potential for the presence of unknown archaeological remains include:

- valley of the River Dee;
- in the vicinity of Waterside Croft (indicated by Site 238 and 239; see Figure 28.d insert;) and
- Beans Hill.

Historic Landscape Character

- 28.3.34 While small areas of 17th to 19th century designed parkland survive, the historic landscape of the study area was created in the 18th and 19th centuries and is characterised by small rectilinear pasture fields bounded by stone walls or consumption dykes with isolated farmsteads and croft holdings and allotments also present, along with open areas of upland grazing. This landscape was modified in the late 19th and 20th centuries with the improvement of the communications (road and rail) networks, the creation or expansion of nucleated settlement, and later the creation of larger fields for pasture, improvement of upland pasture through drainage and enclosure and forestry plantations.
- 28.3.35 While individual components of the landscape are of National or Regional importance, the importance of the wider historic landscape has been assessed as Local.

28.4 Potential Impacts

28.4.1 Only sites for which a potential impact has been identified are discussed further. Potential direct impacts are assessed in the first instance, followed by an assessment of potential indirect impacts.

Direct Impacts

28.4.2 The construction phase of the proposed scheme would give rise to direct impacts on sites of cultural heritage importance. Of the 183 sites identified, potential direct impacts affecting 49 sites are predicted, with impact significance ranging from None to Substantial. All impacts are adverse unless otherwise stated. The locations of these sites are shown on Figures 28.1a to 28.1h and summarised in Table 28.7 below. For ease of use together with scheme design drawings, locations are described by reference to chainage as shown on those drawings. National Grid References for every site are provided in the gazetteer (available on request, in CD-Rom format).

Site No.	Site Name	Chainage	Description of Impact	Sensitivity (Importance)	Magnitude of Impact	Significance of Impact
120	Burnhead Standing Stone (Site of)	200350	A SUDS pond is proposed at the site of Less than Local Very High this standing stone.		Very High	Slight
121	Blaikiewell, Cairns (1)	200100 - 100150	The eastern part of this site would be disturbed by construction of the proposed scheme.	Local	Low	Slight
122	Burnhead Cropmark	200500	The southern half of this site as defined by the NMRS will be disturbed by construction.	Local	High	Slight
129	Auchintoul Croft	202000	The proposed scheme will remove the remains of this croft.	Local	Very High	Moderate
145	Great South Road	204600	This site would be bisected by the proposed scheme.	Local	Low	Slight
153	Hare Moss Wetland	205100 - 203650	This former area of wetland would be bisected by the proposed scheme.	Unknown	Medium	Unknown
154	Mound east of	204700	This mound would be	Less than Local	High	None

Table 28.7 – Assessment of Potential Direct Impacts

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Site No.	Site Name	Chainage	Description of Impact	Sensitivity (Importance)	Magnitude of Impact	Significance of Impact
	Great South Road		completely removed by the proposed scheme.			
156	Kingcausie House Designed Landscape	100150 - 101900	The proposed scheme would disturb the southwestern edge of this designed landscape.	Regional	Low	Moderate
164	Greengate Boundary Stone (2)	205400	This boundary stone has been removed.	Less than Local	None	None
174	Bothie Bridge, Quarry	930	The site of this quarry lies beneath the line of the A92 (T) dual- carriageway and has most likely been removed by this road	Less than Local	High	None
190	Dyke, South Of Gordon	206000	This site will be bisected by the proposed scheme.	Local	Very High	Moderate
192	South Of Gordon - Quarry (2)	206080	This quarry would be removed by the proposed scheme.	Less than Local	High	None
196	South Of Gordon - Quarry (1)	206080	This quarry would be removed by the proposed scheme.	Less than Local	Very High	Slight
202	Maryculter Bridge Cropmarks	101950	The proposed scheme will encroach on the northwestern corner of this site as defined by the NMRS.	Local	Unknown	Unknown
205	Hillhead, Charleston - Consumption Dyke	1400	The southwestern end of this consumption dyke will be removed by the scheme.	Local	Low	Slight
209	Charlestown Farmstead	206750 - 206960	The proposed scheme would have an impact on the eastern, northern and western edges of this site.	Local	High	Slight
212	Charleston - Consumption Dyke	207000	The proposed scheme runs within 1.5m of the western edge of this consumption dyke.	Local	Low	Slight
222	West Charleston Dyke (3)	280	The southeastern part of this dyke will be removed by the proposed scheme.	Local	Low	Slight
225	Lochview Croft Dyke (2)	190	20m of the most western part of this site will be removed by the proposed scheme.	Local	Low	Slight
230	West Charleston Dyke (4)	280	20m of the most eastern part of this site will be removed by the proposed scheme.	Local	Medium	Slight
236	Lochview Croft Dyke (1)	290	Approximately 15m of the western end of this dyke will be removed.	Local	Medium	Slight
238	Waterside Cropmark	102470	The extent of this site is unknown. The NGR provided locates this site 35m from the western edge of the proposed scheme. There is potential for a direct	Regional	Unknown	Unknown

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Site No.	Site Name	Chainage	Description of Impact	Sensitivity (Importance)	Magnitude of Impact	Significance of Impact
			impact on unknown archaeological deposits associated with this site.			
239	Waterside Enclosure	102480	The extent of this site is unknown. The NGR provided locates this site 10m from the eastern edge of the proposed scheme. There is potential for a direct impact on unknown archaeological deposits associated with this site.	Regional	Unknown	Unknown
242	West Charleston Dyke (5)	430	The eastern half of this site will be removed by the proposed scheme.	Local	High	Slight
246	Deeside Railway	102890	This railway will be bisected by the proposed scheme.	Local	Medium	Slight
273	Milltimber, Arrowhead	103100	The NGR provided for this find-spot places it within 3m of the proposed scheme. There is potential for a direct impact on unknown archaeological remains associated with this find spot	Local	High	Slight
277	Milltimber Arrowhead	103260	The NGR provided places this site within the land- take of the proposed scheme.	Local	High	Slight
285	Nether Beanshill Sheepfold (1)	103840	This site will be removed by the scheme.	Less than Local	Very High	Slight
286	Nether Beanshill Well	104040	This site will be removed by the scheme.	Less than Local	Very High	Slight
287	Nether Beanshill Sheepfold (2)	104100	This site will be removed by the scheme.	Less than Local	Very High	Slight
346	Beans Hill Pen (1)	105640	The western half of this site will be removed by the scheme	Less than Local	Very High	Slight
347	Westfield Farm Flints	105640	The NGR provided places this flint scatter within the footprint of the proposed scheme. There is potential for a direct impact on unknown archaeological remains associated with this flint scatter.	Regional	Very High	Substantial
349	Beans Hill Rig (4)	105450 - 105760	The proposed scheme will sever this area of rig.	Local	High	Slight
429	Croft Of Hatton	108700	Any subsurface remains associated with this site may be removed by the proposed scheme	Less than Local	Very High	Slight
432	Spoutwells Croft	108825	This site is located less than 10m from the eastern edge of the proposed scheme	Less than Local	Unknown	Unknown
441	West Hatton Dyke (2)	109165	This dyke will be bisected by the	Local	Medium	Slight

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Site No.	Site Name	Chainage	Description of Impact	Sensitivity (Importance)	Magnitude of Impact	Significance of Impact
			proposed scheme			
443	West Hatton Dyke (1)	109170	This dyke will be bisected by the proposed scheme	Local	Medium	Slight
450	Denhead Of Cloghill Dyke (3)	109500	A total of 40m of the northwestern end of this site will be removed by the proposed scheme.	Local	Low	Slight
462	Cloghill - Consumption Dyke	109825	Approximately 25m of the eastern end of this site will be removed by the proposed scheme.	Local	Low	Slight
493	Marywell Stone Walls	120 - 540	The proposed scheme will have an impact on the western edge of this site	Less than Local	Low	None
496	Sunnyside Field System	202650 - 202800	The northern edge of this site will be removed by the proposed scheme.	Local	Medium	Slight
497	Sunnyside Field Clearance	202400	This clearance cairn will be removed by the proposed scheme.	Less than Local	Low	None
514	Kingcausie Bridge	101475	This site will be removed by the proposed scheme	Local	Very High	Moderate
515	Mill building and Lade	101480	This site will be removed by the proposed scheme	Local	Very High	Moderate
516	Kingcausie Building	101480	This site is located less than 5m from the land take of the proposed scheme	Local	Low	Slight
518	Kingcauise Shed	101250	This site will be removed by the proposed scheme	Less than Local	Very High	Slight
519	Nether Beanshill Sheep Fold	104135	This site is located within the footprint of the proposed scheme.	Less than Local	Very High	Slight
520	Nether Beanshill Dyke	104125	The entire length of this dyke will be removed by the proposed scheme	Local	Very High	Moderate
522	Silverburn Bridge	106500	This site will be removed by the proposed scheme	Local	Very High	Moderate

- 28.4.3 One very high magnitude direct impact on a Regionally important site was identified. Westfield Farm Flints (Site 347) is scatter of flints dating to the prehistoric period and may indicate other prehistoric archaeological remains in this area. The significance of the impact on this scheme has been assessed as Substantial.
- 28.4.4 The significance of impact on seven sites has been assessed as Moderate. All other impacts are of Slight or Lower significance, with the exception of Unknown impact significance for sites where importance and/or impact magnitude cannot be confirmed. The importance of Site 153 is currently unknown, while the magnitude of impacts on Sites 202, 238, 239 and 432 are also unknown. The significance of the impact of the proposed scheme on these sites is therefore also unknown.
- 28.4.5 The identified impacts are summarised in Table 28.8.

Significance of Impact	Site Numbers	Total
Very substantial	None	0
Substantial	Site 347	1
Moderate	Sites 129, 156, 190, 496,514,515,522	7
Slight	Sites 120, 121, 122, 145, 156, 196, 205, 209, 212, 222, 225, 230, 236, 242, 246, 273, 277, 285, 286, 287, 346, 349, 429, 441, 443, 450, 462, 516, 518, 519, 520	30
None	Sites 154, 164, 174, 192, 493, 497	6
Unknown	Sites 153, 202, 238, 239, 432	5
Total		49

Table 28.8 – Summary of Identified Direct Impacts

Indirect Impacts

28.4.6 Of the 176 cultural heritage sites assessed, potential indirect impacts on the setting of 25 sites were identified. Using the methodology outlined in paragraph 28.2.18, the significance of these indirect impacts were assessed as ranging from Slight to Substantial significance. The location of these sites is shown on Figures 28.1a-h, and summarised in Table 28.9 below.

Site No.	Site Name	Sensitivity	Magnitude of Impact	Significance of Impact
151	Kirkton Of Maryculter, Glenburnie, Manse	Low	Present	Slight
157	Eastland House	Low	Dominant	Moderate
176	Kingcausie House, Sundial (1)	Medium	Dominant	Substantial
184	Kingcausie House, Sundial (2)	Medium	Dominant	Substantial
185	Kingcausie House	Medium	Dominant	Substantial
191	Maryculter, Milton Bridge	Low	Prominent	Slight
193	Maryculter, Mill Inn	Medium	Prominent	Moderate
278	Kippie Lodge, Garden	Medium	Prominent	Moderate
279	Kippie Lodge	Medium	Prominent	Moderate
306	Peterculter Old Parish Church	Low	Present	Slight
309	Beans Hill complex	High	Dominant	Substantial
431	Friends' Burial Ground	High	Dominant	Substantial
444	Kingswells, Consumption Dykes	High	Dominant	Substantial
448	Longcairn	High	Dominant	Substantial
457	Cloghill, Sundial	Medium	Prominent	Moderate
458	Cloghill House	Medium	Prominent	Moderate
460	Cloghill, Offices	Medium	Prominent	Moderate
472	Fairley House	Low	Present	Slight

Table 28.9 – Potential Indirect Impacts On Setting

- 28.4.7 In addition, potential visual impacts on the setting of Camp Cottage (Site 146), Maryculter Parish Church (Site 150), Culter House and associated features (Sites 276 and 274), Binghill Stone Circle and Cairn (Sites 298 and 300) and Kingswells House (Site 425) were assessed as None.
- 28.4.8 The identified impacts on setting are summarised in Table 28.10 below.

Significance of Impact	Site Numbers	Total
Substantial	Sites 176, 184, 185, 309, 431, 444, 448	7
Moderate	Sites 157,193, 278, 279, 457, 458, 460	7
Slight	Sites 151, 191, 306, 472	4
None	Sites 146, 150, 276, 274, 298, 300, 425	7
Total		25

Table 28.10 – Summary of Identified Impacts on Setting

- 28.4.9 The potential for visual impacts on these sites is described below. The existing situation is described, followed by a description of the nature of the potential impact on views from the site and views to the site. The significance of impact within the first year of opening is then assessed.
- 28.4.10 Glenburnie Manse (Site 151) is situated on the hillslopes side on the southern side of the River Dee valley, within walled grounds and bounded by a number of large mature trees. The trees within the gardens of the house screen the manse from views across the valley, particularly during the summer months, although the location of the house is highly visible from much of the settlements of Milltimber and Peterculter. The proposed scheme would be in cutting within the mature woodland of the Kingcausie Estate to the east and would not significantly affect views of the house. The orientation of the house means that the primary views would not be affected during the summer months and once all the mitigation planting has matured, much of the proposed scheme would be effectively screened. During the winter months, the proposed scheme would be visible in views at acute angles from the front of the house and from smaller side windows as it crosses the Dee Valley to the north. The new river crossing and the lights of the Milltimber Junction would also be visible. Overall, the low sensitivity of the site to visual impacts and the 'present' magnitude of the views to the proposed scheme mean that the significance of visual impact on the setting of this site has been assessed as Slight.
- 28.4.11 Milton Bridge, Maryculter (Site 191; a Category C(S) Listed Building) is a narrow stone road bridge on the B9077 (South Deeside Road) which crosses the Crynoch Burn as it runs down to join near its confluence with the River Dee. The bridge is partially hidden from view by semi-mature riparian vegetation, particularly during the summer months. During the winter months, eastbound traffic gains open views across the Dee Valley as it leaves the bridge. Milton bridge is hidden from views by the curve of the road and by the riparian vegetation around the Crynoch Burn and is therefore not a significant landscape feature. Eastbound traffic along the B9077 would be able to see the new River Dee Crossing as it leaves the mature woodland of the Kingcausie Estate, crossing the river and then over the floodplain on embankment towards Milltimber. There would be a significant impact on existing views. During the summer months, the existing riparian vegetation around the site will provide some screening but the proposed new crossing over the Dee Valley bridge would still restrict views across the valley from the Milton Bridge. The proposed scheme and the new river crossing would have a significant impact on views of the area. Overall, the significance of the visual impact on the setting of this site has been assessed as Slight.
- 28.4.12 Mill Inn (Site 193; a Category C(S) Listed Building) is an 18th century former corn mill on the floodplain of the River Dee adjacent to the existing river crossing for the B979, near Maryculter. Site 193 has been converted into a bar/ restaurant with a small number of rooms. The established vegetation partially screens Mill Inn from views from across the valley, but the higher elevation of the settlement in Milltimber allows some views towards the site. The semi-mature vegetation along the banks of the River Dee helps to limit views during the summer months. During the winter months, the inn has open views across the valley towards Milltimber and Peterculter. The inn would have some views of the proposed scheme as it crosses the valley on embankment to the east of the site. The clearance of some of the mature vegetation as part of construction would be visible from the mill. The proposed scheme would be slightly elevated in relation to the inn. The primary impact on the setting of the site would be the increased visibility of the traffic crossing the valley. The existing vegetation around the property should help to screen views during the summer

months. Overall, the significance of the visual impact on the setting of this site has been assessed as Moderate.

- Kippie Lodge and Garden (Site 278 and 279) is a large house set within wooded grounds used by 28.4.13 the Aberdeen Petroleum Club as the central building of a leisure club and golf course. The lodge and garden are used for social functions, with some limited views into the valley available through the mature trees of the estate. The lodge is partially visible from the hillside on the southern side of the Dee valley, but the woodland around the estate partially hides it from view. As the lodge and garden are currently partially hidden within the trees, they are not significant landscape features. The proposed scheme would be visible through the trees and would affect the setting of the site, but it would not affect the primary views across the valley to the south. The significance of the impact on views will depend on the extent of the clearance of the estate woodland for the construction of the proposed scheme. The proposed road cutting would be visible on the hillside to the east of the lodge as would the access road for the new Milltimber Junction. The road would be visible in cutting to the side of the lodge and in views across the valley. The loss of some large areas of mature woodland would have a significant impact in views across the valley during the winter year of opening. Overall, the significance of visual impacts on the setting of this site has been assessed as Moderate.
- 28.4.14 Peterculter Old Free Church (Site 306: a Category C(s) Listed Building) is situated on the lower slopes of Beans Hill and has been converted into a dwelling. The position of the house provides the house with panoramic views across the rolling farmland to the south. The house is surrounded by several mature trees that partially screen the building from views of the surrounding area. However, the former church remains a prominent landmark, and is visible from a number of minor roads and scattered dwellings across the area. The proposed scheme would be in cutting at some distance to the east of the site and would be generally screened by the surrounding rolling topography. A short stretch of the proposed scheme would be visible to the east of the house as it crosses the rolling farmland around Nether Beanshill farm. The new Milltimber Junction, including the bridge and lighting, would be visible resulting in a minor impact upon the rural setting of the house. However, these views would be at an acute angle and the primary views would not be affected. Overall, the significance of visual impacts on the setting of this site has been assessed as Slight.
- The Beans Hill Archaeological Complex (Site 309) is proposed for Scheduling and is of National 28.4.15 Importance. Much of the hillside is used for rough grazing, with some medium-sized, regularlyshaped fields marked out with drystone walls and post-and-wire fences. There are areas of scrub and gorse across the hillside. Beans Hill represents one of the high points in the area and is visible from the surrounding roads and scattered dwellings. Despite the visual prominence of the hill itself, the denuded nature of the majority of the archaeological remains means that they are not identifiable as significant landmarks in views towards the complex from any distance. However, the location of the site results in panoramic views from the site itself across most of the surrounding countryside. A long stretch of the proposed AWPR road would be visible to the east of the area, running from the small settlement around the Hill of Milltimber towards Kingshill Wood. This would have a significant impact on views from the site, particularly to the east, which would represent a substantial change to its rural setting. The proposed scheme would be visible in the background in some of these views, but it would be below the level of the archaeological complex. The majority of the proposed scheme would be in cutting, which would reduce its visibility and minimise impacts. However, the overall significance of visual impacts on setting of this site has been assessed as Substantial.
- 28.4.16 The Friends' Burial Ground (Site 431) has been assessed as being of National importance and is proposed as a Scheduled Ancient Monument. It is located near the top of a small hill to the west of Kingswells House. The burial ground currently sits on the brow of a hill to the west of Kingswell House and is a prominent landscape feature within the surrounding farmland. There is a cluster of mature trees planted within a drystone boundary wall that makes the burial ground visually prominent from the A944 and from some farms to the south. The proposed scheme would have a significant impact on the setting of the burial ground, which would obtain a clear view across the South Kingswells Junction, as the carriageway would pass less than 100m from the site. The views from the burial ground have already been affected by the A944 and the development of Westhill.

The proposed scheme would cut into the hillside to the west of the site, with a major junction sited on the valley floor below. As the AWPR carriageway would be in cutting, but the close proximity (approximately 100m), of the proposed scheme would have a significant visual impact on views across the surrounding area. The overall impact on the setting of Site 431 has been assessed as Substantial.

- 28.4.17 Kingwells Consumption Dyke (Site 444) is a Scheduled Ancient Monument. The dyke runs eastwest from the C89C road (which forms the western edge of Kingswells) to a stand of semi-mature trees at its western end (which form part of the West Hatton District Wildlife Site). The proposed scheme would be visible as it cuts into the hillside to the north of the consumption dyke, before becoming embanked, and is then screening by the woodland and the ridgeline to the west. The overall effect may result in a significant impact on views from the dyke, which, despite the close proximity of Kingswells, remains relatively rural. The majority of the views towards the dyke are obtained from the existing road that runs around Kingswells, with a small number of views possible from the houses at the edge of the town. The proposed scheme would have a significant impact on these views and affect the semi-rural setting of the site. Overall, the significance of visual impacts on the setting of this site has been assessed as Substantial.
- 28.4.18 Cloghill Longcairn (Site 448) is a Scheduled Ancient Monument located on the southern slopes of Cloghill above the A944. The position of the cairn on the hillside allows open views across the rolling hillside in the valley between Cloghill and Kingshill. The cairn is in a poor condition. The present setting of the cairn has been disturbed by the presence of the busy A944 road to the south, but more significantly by a large electricity pylon in the adjacent field. The proposed scheme would be highly visible as it crosses the valley and runs through the South Kingswells Junction, where it would meet the A944. The proposed scheme would have a significant visual impact on views and the rural setting of the site, although these have already been partially compromised by development. The proposed scheme would run across the valley to the east of the cairn, with significant impact on views within the valley. However, the poor condition of the cairn means that it is not prominent in any views, so the proposed scheme would not be affecting any specific views of the site. The overall impact on the setting of this site has been assessed as Substantial.
- Cloghill House (Site 457), the associated office (Site 460) and sundial (Site 457) are located in 28.4.19 grounds covered with mature trees and shrubs that shelter the house from view from the surrounding area. The house and buildings are also screened from views from the outside by the existing woodland around the estate. The house and associated structures are not visually prominent, but their setting within the grounds with its long tree-lined driveway is important to their character. The proposed scheme would pass to the west of the estate, running through a large cutting higher up the hill. The mature trees around the main house would provide some screening from the proposed scheme and help to minimise the visual impact. There would be significant views of the proposed scheme from the estate offices, but the proposed scheme would be in cutting and generally would not be too visible from the property. A neighbouring property on the hillside would be demolished to make way for the proposed scheme. The setting of the estate would be unlikely to be affected, as the proposed scheme would not encroach on the defined boundary. The proposed scheme would potentially be visible in views looking up towards the estate from Kingswells, but the proposed road would be in cutting as it passed behind the trees, so the magnitude of any visual impact has been assessed as Present. Overall, the significance of visual impacts on the setting of this site has been assessed as Moderate.
- 28.4.20 Fairley House (Site 472) is a Category C(s) Listed Building located to the northwest of Kingswells. The house and gardens are surrounded by mature trees and shrubs, which help to shelter it from views from the surrounding area. The immediate estate will not be affected by the proposed route and there will be limited views of the road from the house and garden during the winter. The visual impact will be unlikely to be significant and during the spring and summer there should be sufficient screening from the existing vegetation to protect the house from views of the road. In addition there will be no impact on views towards the house as it will be sheltered by the mature trees. The significance of visual impacts on the setting of this site has been assessed as Slight.

- 28.4.21 Due to difficulties with access to private land, the assessment of Eastland House (Site 157; a Category C(s) Listed Building) and Kingcausie House and Sundials (Sites 185, 176 and 184) was based on a desk study only.
- 28.4.22 Eastland House (Site 157) is relatively isolated and is currently sheltered within mature woodland. The proposed scheme would be in close proximity to the House as it passes through the Kingcausie Estate. The proposed scheme would be on an embankment as it passes through the grounds, causing the loss of mature trees. This would open up views from the house and have a significant impact on its setting. The significance of visual impacts on the setting of Eastland House has provisionally been assessed as Moderate.
- 28.4.23 Kingcausie House (Site 185; a Category B Listed Building) is a prominent landmark located on a hillside on the southern side of the Dee Valley. While much of the estate is covered in mature woodland, the open gardens to the front of the house mean that it retains open views across the valley towards Milltimber. There are two sundials (Sites 176 and 184) located within the grounds of the house that are considered to be part of its setting, although they are too small to be identified in any distant views of the estate. The proposed scheme would be in cutting to the west of the house, with elements of the proposed scheme within 100m of the house. The new river crossing would be visible in the valley below and there would be views of the house along the carriageway as the proposed scheme heads north towards the Milltimber Junction and this would have a significant impact on the views from the house and the setting of the house. The proposed scheme would be very close to the house and would cause a significant impact to views across the valley. The significance of visual impacts on the setting of Kingcausie House has provisionally been assessed as Substantial.

Impacts on the wider historic landscape

28.4.24 The importance of the wider historic landscape has been assessed as Local. The scheme as proposed would have direct impact on this landscape through removal and severance of elements of the existing rectilinear fieldscape and realignment of the field patterns in a small number of cases. The curving nature of the proposed scheme is incongruous with the historic landscape. The significance of the impact of the scheme on the wider historic landscape has been assessed as Slight.

28.5 Mitigation

28.5.1 The mitigation proposals outlined below have been developed in consultation with Historic Scotland, Aberdeenshire Council City Archaeologist, City of Aberdeen Council Archaeologist, and specialists from within the Jacobs design team.

Pre-Construction Archaeological Evaluation

- 28.5.2 As described in section 28.3 (Baseline Conditions), the area around Aberdeen is known to have been occupied since early prehistoric times. Therefore, although few early remains are known within the study area, it is considered likely that additional, currently undiscovered archaeological remains are present in the study area. It is therefore recommended that a staged programme of archaeological evaluation (i.e. preliminary field investigations designed to clarify the presence, absence, nature and sensitivity of archaeological remains) is implemented prior to confirmation of the full scope of mitigation works required for the scheme.
- 28.5.3 This staged programme of archaeological evaluation will be required sufficiently far in advance of construction to permit the design and implementation of pre-construction mitigation works, if required. The aims of the evaluation works would be to:
 - identify any unknown archaeological remains that may be affected by the scheme;
 - enable a more confident assessment of the impact of construction of the scheme on archaeological remains;

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- enable the identification and design of any measures that may be necessary to mitigate the impact of the scheme on newly-identified archaeological remains; and
- enhance available information about known archaeological remains, where existing information is insufficient to enable a full assessment of impact or the design of mitigation measures.
- 28.5.4 To address these aims, it would be necessary to undertake evaluation works both in relation to known archaeological sites and in areas of archaeological potential. The pre-construction programme of works is likely to involve non-intrusive surveys applied to relatively large areas, followed by intrusive techniques targeted on specific areas. Some level of evaluation would be required within all areas in which ground disturbance would take place (such as drainage, service re-routing, and areas of ecological or landscape planting).
- 28.5.5 There is a wide range of evaluation techniques available, which may be applied separately or in combination, or as part of a staged programme. Potentially suitable methods could include a combination of any of the following, although this list is not exhaustive:
 - · palaeoenvironmental assessment of present/previous areas of bog;
 - field walking (i.e. the systematic search for artefacts on the surface of ploughed fields);
 - magnetometer survey or magnetometer scanning followed by survey in selected areas;
 - magnetic susceptibility survey;
 - resistivity survey;
 - watching brief during any planned geotechnical ground investigations; and
 - intrusive trial trenching, trial pitting and/or borehole/auger surveys. This could be targeted at sites and features identified by the methods outlined above or in blank areas where no sites have been identified.
- 28.5.6 Historic Scotland have indicated that they would design any evaluation programme and commission a suitably qualified archaeological contractor to undertake it on behalf of the Scottish Executive. However, in liaison with Historic Scotland and Council Archaeologists the following specific evaluation needs have been provisionally identified for the scheme:
 - Burnhead Cropmark (Site 122): geophysical survey followed by trial trenching;
 - Hare Moss Wetland (Site 153): inspection/assessment by a palaeoenvironmental specialist, followed (if necessary) by coring/palaeoenvironmental sampling, analysis and dating;
 - Maryculter Bridge Cropmarks (Site 202): geophysical survey followed by trial trenching;
 - Waterside Cropmark (Site 238) and Waterside Enclosure (Site 239): geophysical survey followed by trial trenching of the land-take adjacent to these sites;
 - Milltimber Arrowhead find-spots 1 and 2 (Site 273 and Site 277): fieldwalking, geophysical survey followed by trial trenching;
 - Westfield Farm Flints (Site 347): fieldwalking and geophysical survey followed by trial trenching (note that the nature of the remains here may limit the use of powered excavation plant);
 - Beans Hill Rig (Site 349): topographic survey followed by trial trenching; and
 - Sunnyside Field System (Site 496): topographic survey followed by trial trenching.
- 28.5.7 Given the high potential for the presence of unknown archaeological remains, trial trenching is recommended within the proposed land-take in the following areas:
 - Valley of the River Dee; and
 - Beans Hill.

Approach to Mitigation

- 28.5.8 The results of the evaluation programme described above would enable Historic Scotland to determine the nature, scope and scale of mitigation works required in advance of, or during, construction. The preferred mitigation option for any sites or archaeological deposits affected by the scheme would be to preserve the remains *in situ*. However, where preservation *in situ* is not feasible, then preservation by record would be the appropriate alternative mitigation strategy. This may be achieved by a combination of the following techniques:
 - No further action: in some cases, the results of any evaluations may provide sufficient information to mitigate any impact.
 - Detailed archaeological excavation: where particularly significant, complex or denselyconcentrated archaeological remains are expected to be present, and the occurrence of an impact cannot be avoided, then a detailed archaeological excavation in advance of construction would be undertaken.
 - Strip and record: where archaeological remains of relatively low significance and/or complexity are expected to be present, and particularly where they are expected to be spread over a large area at low density, then strip and record works may be appropriate. Topsoil/overburden would be stripped over relatively large, defined areas using methods designed to maximise archaeological visibility, followed by inspection to define the scope of any archaeological recording works that might be required.
 - Archaeological watching brief: where there is some potential for archaeological remains to be
 present, but the risk is considered to be low, then archaeological monitoring of the main
 topsoil/overburden stripping operations, and other excavation works as appropriate, would be
 applied, followed by appropriate archaeological investigation and recording of any remains that
 are identified.
 - Building recording: where Listed Buildings or other buildings of historic interest would be demolished, damaged or altered as a result of construction, then recording works in advance of construction would be required. The appropriate level of detail in which recording would be undertaken may vary from site to site and would be determined by, or in consultation with, Historic Scotland. Guidance on appropriate levels of recording is available in an English Heritage publication (RCHME 1999 Recording Historic Buildings: A Descriptive Specification. Third Edition, HMSO). Historic Scotland's Memorandum of Guidance on listed buildings and conservation areas (1998) would also be taken into account. Sites of cultural heritage importance close to land subject to construction activities should be adequately protected by fencing and marked-off with warning signs for the duration of the works.
- 28.5.9 As with the archaeological evaluation programme, any necessary mitigation works will be undertaken by a suitably qualified Archaeological Contractor appointed and managed by Historic Scotland, on behalf of the Scottish Executive. Any archaeological works at either evaluation or mitigation stage would include an element of post-excavation/fieldwork analysis and report-writing. This could include a requirement for the publication of a report in an academic journal.
- 28.5.10 'Special Requirements', which are likely to be provided by Historic Scotland, will be incorporated into the Contract Documents and implemented during construction. These provide a mechanism by which works can be monitored by Historic Scotland. Details of the procedure to be followed if any unexpected remains are encountered would also be provided by Historic Scotland.

Mitigation of Direct Impacts on Known Sites

- 28.5.11 While Burnhead Standing Stone (Site 120) has previously been removed, strip and record in advance of construction is recommended in this area.
- 28.5.12 It was not possible to gain access to Blaikiewell Cairns (Site 121) during the walkover survey due to the presence of livestock. No cairns were observed during an archaeological watching brief on geotechnical trial pits. Strip and record in advance of construction in this area is recommended

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- 28.5.13 Auchintoul Croft (Site 129) would be removed by the proposed scheme. Topographic survey, including the preparation of a written and photographic record, followed by sample excavation is recommended.
- 28.5.14 A watching brief during construction is recommended to mitigate the potential impact on the Great South Road (Site 145) and on any previously identified elements of the Kingcausie House Designed landscape (Site 156).
- 28.5.15 A total of 13 consumption dykes (Sites 190, 205, 212, 222, 225, 230, 236, 242, 441, 443, 450, 460 and 520) would be affected by the proposed scheme. Recording works for these sites in advance of construction are recommended. Such recording works would take the form of:
 - topographic survey of the entire site, including completion of a written, drawn and photographic record; and
 - sample excavation and further recording of the affected sections of the site.
- 28.5.16 Building recording is proposed to mitigate the impact of the scheme on Deeside Railway (Site 246), Kingcausie Bridge (Site 514), Kingcausie Mill Building and Lade (Site 515), Kingcausie Building (Site 516), Kingcausie Shed (Site 518) and Silverburn Bridge (Site 522).
- 28.5.17 Topographic survey, including preparation of a written and photographic record, is recommended to mitigate the potential impact of the scheme on Nether Beanshill Sheepfold (Site 519), Nether Beanshill Sheepfold 1 (Site 285), Nether Beanshill Well (Site 286), Nether Beanshill Sheepfold 2 (Site 287), Nether Beanshill Pen 1 (Site 346).
- 28.5.18 Strip and Record in advance of construction is recommended to mitigate the impact on the site of Croft of Hatton (Site 429) and in the vicinity of Spoutwells Croft (Site 432).
- 28.5.19 A watching brief is recommended on Charlestown Farmstead (Site 209).
- 28.5.20 The recording works that have been undertaken as part of the ES are considered adequate to mitigate the impact for Sites 154, 164, 174, 192, 196, 493, 497. No further mitigation works are recommended. A summary of the proposed evaluation and mitigation works are provided below in Table 28.11.

Site No.	Site Name	Significance of Impact	Proposed Evaluation and or Mitigation
120	Burnhead Standing Stone (Site of)	Slight	Strip and Record
121	Blaikiewell, Cairns (1)	Slight	Strip and Record
			Geophysical survey.
122	Burnhead Cropmark	Slight	Trial trenching.
			Topographic survey.
129	Auchintoul Croft	Moderate	Trial trenching.
145	Great South Road	Slight	Watching brief during construction
			Palaeoenvironmental assessment.
153	Hare Moss Wetland	Unknown	Palaeoenvironmental coring, analysis and reporting as required
156	Kingcausie House Designed Landscape	Moderate	Watching brief during construction
			Topographic survey.
190	Dyke, South Of Gordon	Moderate	Sample excavation.
			Geophysical survey
202	Maryculter Bridge Cropmarks	Unknown	Trail trenching
			Topographic survey.
205	Hillhead, Charleston - Consumption Dyke	Slight	Sample excavation.

Table 28.11 – Summary of Proposed Evaluation and Mitigation Works

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Site No.	Site Name	Significance of Impact	Proposed Evaluation and or Mitigation
209	Charlestown Farmstead	Slight	Watching brief during construction
			Topographic survey.
212	Charleston - Consumption Dyke	Slight	Sample excavation.
			Topographic survey.
222	West Charleston Dyke (3)	Slight	Sample excavation.
			Topographic survey.
225	Lochview Croft Dyke (2)	Slight	Sample excavation.
			Topographic survey.
230	West Charleston Dyke (4)	Slight	Sample excavation.
			Topographic survey.
236	Lochview Croft Dyke (1)	Slight	Sample excavation.
			Geophysical survey.
238	Waterside Cropmark	Unknown	Trial trenching.
			Geophysical survey.
239	Waterside Enclosure	Unknown	Trial trenching.
			Topographic survey.
242	West Charleston Dyke (5)	Slight	Sample excavation.
246	Deeside Railway	Slight	Building Recording
			Fieldwalking
			Geophysical survey.
273	Milltimber, Arrowhead	Slight	Trial trenching.
			Fieldwalking
			Geophysical survey.
277	Milltimber Arrowhead	Slight	Trial trenching.
285	Nether Beanshill Sheepfold (1)	Slight	Topographic survey
286	Nether Beanshill Well	Slight	Topographic survey
287	Nether Beanshill Sheepfold (2)	Slight	Topographic survey
346	Beans Hill Pen (1)	Slight	Topographic survey
			Fieldwalking
			Geophysical survey.
347	Westfield Farm Flints	Substantial	Trial trenching.
			Topographic survey
349	Beans Hill Rig (4)	Slight	Trial trenching
429	Croft Of Hatton	Slight	Strip and record
432	Spoutwells Croft	Unknown	Strip and record
			Topographic survey.
441	West Hatton Dyke (2)	Slight	Sample excavation.
			Topographic survey.
443	West Hatton Dyke (1)	Slight	Sample excavation.
			Topographic survey.
450	Denhead Of Cloghill Dyke (3)	Slight	Sample excavation.
			Topographic survey.
462	Cloghill - Consumption Dyke	Slight	Sample excavation.
			Topographic survey.
496	Sunnyside Field System	Slight	Trial trenching.
514	Kingcausie Bridge	Moderate	Building survey
515	Mill building and Lathe	Moderate	Building survey
516	Kingcausie Building	Slight	Building survey

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Site No.	Site Name	Significance of Impact	Proposed Evaluation and or Mitigation
518	Kingcauise Shed	Slight	Building survey
519	Nether Beanshill Sheep Fold	Slight	Topographic survey
			Topographic survey
520	Nether Beanshill Dyke	Moderate	Sample excavation
522	Silverburn Bridge	Moderate	Building survey

Mitigation of Indirect Impacts on Setting

28.5.21 Mitigation proposals for the mitigation of indirect impacts on the setting of visually sensitive cultural heritage sites are outlined in Chapter 26 (Landscape) and Chapter 27 (Visual).

28.6 Residual Impacts

Direct Impacts

- 28.6.1 The proposed scheme would have a potential impact during construction on 49 known sites, or groups of sites, of cultural heritage significance in the Southern Leg section of the AWPR. It is considered that all impacts can be mostly mitigated by the archaeological recording works proposed in the mitigation section above. In the case of Beans Hill Rig 4 (Site 349) and Kingcausie House Designed Landscape (Site 156), severance of elements of this site would result in a Slight residual impact. Partial removal of Burnhead Cropmark (Site 122) and Sunnyside Field System (Site 496) would also result in Slight residual impacts.
- 28.6.2 Residual impacts taking into account proposed mitigation are summarised in Table 28.12 below.

Table 28.12 – Residual Impacts (Direct)

Site No.	Site Name	Potential Impact Significance	Residual Impact Significance
120	Burnhead Standing Stone (Site of)	Slight	None
121	Blaikiewell, Cairns (1)	Slight	None
122	Burnhead Cropmark	Slight	Slight
129	Auchintoul Croft	Moderate	None
145	Great South Road	Slight	None
153	Hare Moss Wetland	Unknown	Unknown
154	Mound East Of Great South Road	None	None
156	Kingcausie House Designed Landscape	Moderate	Slight
164	Greengate Boundary Stone (2)	None	None
174	Bothie Bridge, Quarry	None	None
190	Dyke, South Of Gordon	Moderate	None
192	South Of Gordon - Quarry (2)	None	None
196	South Of Gordon - Quarry (1)	Slight	None
202	Maryculter Bridge Cropmarks	Unknown	Unknown
205	Hillhead, Charleston - Consumption Dyke	Slight	None
209	Charlestown Farmstead	Slight	None
212	Charleston - Consumption Dyke	Slight	None
222	West Charleston Dyke (3)	Slight	None
225	Lochview Croft Dyke (2)	Slight	None
230	West Charleston Dyke (4)	Slight	None
236	Lochview Croft Dyke (1)	Slight	None
238	Waterside Cropmark	Unknown	Unknown

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Site No.	Site Name	Potential Impact Significance	Residual Impact Significance
239	Waterside Enclosure	Unknown	Unknown
242	West Charleston Dyke (5)	Slight	None
246	Deeside Railway	Slight	None
273	Milltimber, Arrowhead	Slight	None
277	Milltimber Arrowhead	Slight	None
285	Nether Beanshill Sheepfold (1)	Slight	None
286	Nether Beanshill Well	Slight	None
287	Nether Beanshill Sheepfold (2)	Slight	None
346	Beans Hill Pen (1)	Slight	None
347	Westfield Farm Flints	Substantial	None
349	Beans Hill Rig (4)	Slight	Slight
429	Croft Of Hatton	Slight	None
432	Spoutwells Croft	Unknown	Unknown
441	West Hatton Dyke (2)	Slight	None
443	West Hatton Dyke (1)	Slight	None
450	Denhead Of Cloghill Dyke (3)	Slight	None
462	Cloghill - Consumption Dyke	Slight	None
493	Marywell Stone Walls	None	None
496	Sunnyside Field System	Slight	Slight
497	Sunnyside Field Clearance	None	None
514	Kingcausie Bridge	Moderate	None
515	Mill building and Lathe	Moderate	None
516	Kingcausie Building	Slight	None
518	Kingcauise Shed	Slight	None
519	Nether Beanshill Sheep Fold	Slight	None
520	Nether Beanshill Dyke	Moderate	None
522	Silverburn Bridge	Moderate	None

28.6.3 Table 28.13 compares the potential direct impacts with the anticipated residual direct impacts:

Table 28.13 – Comparison of Potential Impacts (Direct) and Residual Impacts

Significance of Impact	Totals	Residual Impact	Totals
Very Substantial	0	Very Substantial	0
Substantial	1	Substantial	0
Moderate	7	Moderate	0
Slight	30	Slight	4
None	6	None	40
Unknown	5	Unknown	5
Total	49	Total	49

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Indirect Impacts

28.6.4 The proposed scheme would result in a permanent change to the setting of, as well as views to and from, 18 cultural heritage sites within the Southern Leg of the AWPR. The significance of the potential impacts ranges from None to Substantial. Specific mitigation measures have not been designed, and therefore it is not possible to assess the residual impact of these measures on a site by site basis. However, it is it is envisaged that once measures for the mitigation of indirect impacts have been designed and implemented, these should lead to a reduction in the residual impact of the proposed scheme on the settings of sensitive cultural heritage.

28.7 References

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Aerial Photographs

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