13 Cultural Heritage

This chapter assesses the potential impacts of the proposed scheme on cultural heritage assets comprising archaeological remains, historic buildings and the historic landscape.

The study area was defined as the proposed scheme footprint plus a 200m buffer around it. The baseline conditions were established through consultation, desk-based assessment and site surveys. Statutorily designated assets which lay outside the study area but whose settings could be affected by the proposed scheme were included in the baseline. These studies identified 81 archaeological remains, 35 historic buildings, and nine historic landscape types, dating from the Neolithic period to the recent past.

All potential impacts on designated assets are discussed in full in this chapter. For undesignated assets, any potential impacts considered to be significant (of Moderate significance or above) are discussed in full, with details of non-significant impacts presented in Appendix A13.1 (Cultural Heritage: Additional Information).

Before mitigation, potential impacts on seven designated assets and potential significant impacts on 8 undesignated assets were identified as a result of construction of the proposed scheme. No potential significant impacts on designated or undesignated sites were identified as a result of operation of the proposed scheme.

Proposed mitigation includes a programme of archaeological evaluation comprising trial trenching, geophysical and earthwork survey, followed by archaeological recording in advance of or during construction, if required; for example, archaeological earthwork survey, historic building recording and photographic survey. Landscape planting to mitigate potential impacts on the settings of cultural heritage assets is also proposed.

After mitigation, no significant residual impacts are predicted. The significance of residual impact due to construction on 63 assets was predicted to be Slight adverse or Neutral, with no residual impact on the remaining 62 assets. The significance of residual impact during operation on 43 assets was predicted to be Slight or Neutral, with no residual impact predicted on the remaining 82 assets.

13.1 Introduction

- 13.1.1 This chapter presents the results of the cultural heritage assessment undertaken as part of the environmental inputs into the DMRB Stage 3 for the proposed scheme. Additional information to support this chapter is presented in the following appendices:
 - Appendix A13.1 (Cultural Heritage: Additional Information); and
 - Appendix A13.2 (Geophysical Survey Report).
- 13.1.2 The assessment was undertaken based on the guidance provided in DMRB Volume 11, Section 3, Part 2 Cultural Heritage (HA208/07) (Highways Agency et al., 2007). The chapter considers the impacts of the proposed scheme on cultural heritage under the three sub-topics of 'Archaeological Remains', 'Historic Buildings' and the 'Historic Landscape'. Simple Assessments (as defined in Chapter 5 of HA208/07) were undertaken for all three sub-topics.

13.2 Approach and Methods

Study Area

- 13.2.1 DMRB (HA208/07, paragraph 5.4.1, Annex 5) specifies that once route options have been identified the study area for impacts on archaeological remains should be assessed for an area extending for at least 200m in all directions from scheme options. For the purposes of this assessment, this approach was adopted for archaeological remains and also for the other two cultural heritage sub-topics.
- 13.2.2 Where potential for impacts from construction or operation of the proposed scheme to affect the setting of designated heritage assets outside the study area was identified, these assets were included in the baseline. The additional sites to be included through this process were agreed in consultation with Historic Scotland in April 2013, and are as follows:

- a standing stone east of Cramflat (Asset 9; Index No. 1527);
- standing stones 620m east-southeast of Gellybanks (Asset 22; Index No. 1548);
- a standing stone 100m west-southwest of Over Benchil (Asset 37; Index No. 1574);
- Court Hill Cairn (Asset 62; Index No. 1524); and
- Loak Standing Stone (Asset 63; Index No. 1562).

Data Gathering

13.2.3 Data gathering was undertaken by a combination of desk-based assessment, site walkovers, and consultation.

Desk-based Assessment

- 13.2.4 To obtain information for the cultural heritage baseline, the following sources of information were consulted:
 - The DMRB Stage 2 Assessment for the proposed scheme (Atkins, 2009);
 - Historic Scotland for information on designated sites comprising World Heritage Sites, Scheduled Monuments, Listed Buildings, Conservation Areas, sites included on the Inventory of Gardens and Designed Landscapes in Scotland, and the Inventory of Historic Battlefields;
 - information on heritage assets recorded on CANMORE by the Royal Commission on the Ancient and Historical Monuments of Scotland (RCAHMS) and the Perth & Kinross Historic Environment Record;
 - published, documentary, and photographic sources and aerial photographs held by the RCAHMS;
 - historic mapping held in the Map Library of the National Library of Scotland, available through the National Library Website; and
 - documentary, cartographic and published sources held by the National Archives of Scotland, the National Library of Scotland and available on line.
- 13.2.5 Please refer to Appendix A13.1 (Cultural Heritage: additional information) for full details of sources consulted.
- 13.2.6 Currently there are no Historic Land-use Assessment data available from the RCAHMS for the study area. In accordance with the guidance provided in Annex 7 of DMRB (HA208/07), a 'bottom-up' analysis of the historic landscape was undertaken based on the results of site map regression, documentary research and a walkover survey. Bottom-up analysis is an analytical approach to the study of the historic landscape which uses analysis of detailed information to form the basis of characterisation of the historic landscape.

Field Survey

- 13.2.7 Site walkovers were undertaken from 08 April 2013 to 16 April 2013 and on 05 September 2013. These comprised a visual survey of each field through which the proposed scheme passes and of the five designated assets identified above which are located outside the study area. Information from these walkover surveys is included in the gazetteer in Appendix A13.1 (Cultural Heritage: additional information).
- 13.2.8 A geophysical (magnetometer) survey was undertaken by Archaeological Services WYAS on behalf of Transport Scotland in October 2013. Geophysical survey was undertaken to enable a more robust and accurate assessment of the significance of impact of the proposed scheme on known assets. Geophysical survey was undertaken of the following assets:
 - Northleys Palisaded Enclosure (Asset 11);

- Northleys Cropmarks (Asset 18);
- Marlehall Enclosure (Asset 29);
- Ladner Possible Unenclosed Settlement (Asset 32);
- Newmill Possible Settlement and Souterrain (Asset 38);
- Ring Ditch west of Newmill Cottages (Asset (49); and
- Newmill Cottages Settlement and Souterrain (Asset 59).
- 13.2.9 A report on the results of the geophysical survey is provided in Appendix A13.2 (Geophysical Survey), the results of which were used to inform the baseline section presented in this chapter.

Consultation

- 13.2.10 Details of the consultation process are provided in Chapter 6 (Consultation and Scoping) with a summary of key issues raised through consultation provided in Appendix A6.3 (Summary of Key Issues). Consultations of particular relevance to this assessment included Historic Scotland and Perth & Kinross Council.
- 13.2.11 Historic Scotland was consulted through a meeting in February 2013 and exchange of letters in March 2013 to agree the scope and methodology for the assessment. Confirmation of Historic Scotland's acceptance of the proposed approach was provided in a letter dated 18 April 2013. In January 2014 Historic Scotland provided comment on a draft version of the chapter, including potential impacts and proposed mitigation.
- 13.2.12 Perth and Kinross Heritage Trust provided comment on a draft version of this chapter on behalf of Perth & Kinross Council, confirming on 03 February 2014 that the Trust was content with the results of the desk based assessment and field surveys to date and is in agreement with the mitigation measures proposed.

Legislative and Policy Context

- 13.2.13 In addition to DMRB guidance, other policy documents and published guidelines taken into account in the preparation of this chapter included:
 - Scottish Planning Policy (Scottish Government, 2010);
 - PAN 2/2011: Planning and Archaeology (Scottish Government, 2011);
 - Scottish Historic Environment Policy (SHEP) (Historic Scotland, 2011);
 - Managing Change in the Historic Environment: Setting (Historic Scotland, 2010);
 - Standard and Guidance for historic environment desk-based assessment (Institute for Archaeologists, 2012);
 - TayPLAN Strategic Development Plan 2012-2032 (2012);
 - the draft Perth Local Development Plan (Perth & Kinross Council (2012); and
 - Perth & Kinross Local Plan (1995, adopted 2000).

Legislation

13.2.14 Scheduled Monuments are by definition of national importance and are protected by law under the Ancient Monuments and Archaeological Areas Act 1979 (as amended by the Historic Environment (Amendment) (Scotland) Act 2011). Consequently, it is a criminal offence to damage a Scheduled Monument, and Consent must be obtained from the Scottish Ministers before any works affecting a Scheduled Monument may take place.

- 13.2.15 Listed Buildings are protected under the Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997 (as amended by the Historic Environment (Amendment) (Scotland) Act 2011), and are recognised to be of special architectural or historic interest. Under the Act, planning authorities are instructed to have special regard to the desirability of preserving a Listed Building, its setting, or any features of special architectural or historic interest which it possesses (Planning (Listed Buildings and Conservation Areas) Act, Section 66(1)). Designation as a Listed Building confers additional controls over demolition and alteration through the requirement for Listed Building Consent to be gained before undertaking alteration or demolition.
- 13.2.16 The Town and Country Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997 (as amended by the Historic Environment (Amendment) (Scotland) Act 2011) imposes a duty on local planning authorities to designate and protect 'areas of special architectural or historic interest the appearance or character of which it is desirable to preserve or enhance' as Conservation Areas. Designation provides control over demolition of unlisted buildings through the requirement for Conservation Area Consent, limit permitted development rights, and provides the basis for planning policies to further preserve and enhance the area's special character.
- 13.2.17 The Historic Environment (Amendment) Scotland Act (2011) made it a statutory duty for Historic Scotland to compile and maintain an Inventory of Gardens and Designed Landscapes on behalf of Scottish Ministers. Under the Town and Country Planning (Development Management Procedure) (Scotland) Regulations 2008, local authorities are required to consult Historic Scotland on development proposals considered to affect an Inventory Garden or Designed Landscape.
- 13.2.18 The Scottish Minister's policies for gardens and designed landscapes are set out in Scottish Historic Environment Policy (SHEP) (Historic Scotland, 2011).

Planning Policy

- 13.2.19 Paragraphs 110-124 of the Scottish Planning Policy (SPP), (Scottish Government, 2010) deal with the Historic Environment, which is defined to include ancient monuments; archaeological sites and landscape; historic buildings; townscapes; parks; gardens and designed landscapes; and other features. When significant elements of the historic environment are likely to be affected by development proposals, developers are required by the SPP to take the preservation of this significance into account in their proposals (SPP Paragraph 112).
- 13.2.20 Paragraph 113 of the SPP states that with regard to Listed Buildings there is a presumption against demolition or other works that would adversely affect a Listed Building or its setting. With regards to Scheduled Monuments, paragraph 118 states that development which would have an adverse impact on a Scheduled Monument or the integrity of its setting should not be permitted unless there are exceptional circumstances. Change to Gardens and Designed Landscapes is controlled under Paragraph 122, which states significant elements of these assets which justify the designation are protected or enhanced.
- 13.2.21 Paragraph 123 states that archaeological sites and monuments are a finite and non-renewable resource and that they should be protected and preserved in situ wherever feasible. If preservation in situ is not feasible then developers are required to undertake excavation, recording, analysis and publication. It further states that if archaeological discoveries are made during any development, a professional archaeologist should be given access to inspect and record them.
- 13.2.22 The Scottish Historic Environment Policy (SHEP) document sets out Scottish Ministers' policies for the Historic Environment and provides a framework for management of the historic environment. SHEP is a relevant document in the statutory planning, EIA and SEA process. The SHEP sets out the Scottish Ministers' policies on the designation of Ancient Monuments through scheduling, buildings and other structures through listing and the designation of Conservation Areas, Historic Marine Protected Areas, Gardens and Designed Landscapes and Historic Battlefields. It details the system of controls for works directly affecting designated assets through the requirement for consents from the Scottish Ministers, and the management of Historic Marine Protected Areas. It

also provides guidance to planning authorities on planning applications affecting sites on the Inventory of Gardens and Designed Landscapes and the Inventory of Battlefields.

- 13.2.23 Planning Advice Note (PAN) 2/2011: Planning and Archaeology (Scottish Government, 2011), provides advice on archaeological remains within the planning process. The PAN sets out the requirement to protect archaeological remains in a manner which is proportionate to the relative value of the remains and of the developments under consideration.
- 13.2.24 Policy 3 of TayPlan (June 2012), the regional Structure Plan covering Perth, sets out the requirement to understand and respect regional distinctiveness through the safeguarding of landscapes, parks, townscapes, archaeology, historic buildings and monuments, and allow development where it does not adversely impact upon or preferably enhances these assets.
- 13.2.25 The draft Perth Local Development Plan (Perth & Kinross Council, 2012) is currently under examination. Key policies relevant to this assessment comprise:
 - Policy HE1A: there is a presumption against development which would have an adverse effect on the integrity of a Scheduled Monument and its setting, unless there are exceptional circumstances.
 - Policy HE1B: the Council will seek to preserve sites of known archaeological interest and their settings. A strong presumption in favour of preservation of archaeological remains in situ is set out. Where this is not feasible, the developer will be required to make provision for survey, excavation, recording and analysis of threatened features prior to the start of development. If archaeological remains are discovered during development, the works should be suspended and mitigation measures agreed with the local authority.
 - Policy HE2: sets the presumption in favour of the retention and sympathetic restoration, maintenance and sensitive management of Listed Buildings. Any alterations or adaptations to the building should not affect its special interest and should sustain or enhance its beneficial use. Development which may affect a Listed Building or its setting should be appropriate in layout, materials, scale, siting and use to the building's character, appearance and setting.
 - Policy HE3: the Council will seek to protect and enhance the integrity of sites included on the current Inventory of Gardens and Designed Landscapes.
- 13.2.26 Currently, local planning policies are provided by the Perth & Kinross Local Plan (1995, adopted 2000). Key policies relevant to this assessment comprise:
 - Policy 21: the settings and archaeological landscapes associated with Scheduled Monuments will be safeguarded.
 - Policy 22: the District Council will seek to protect non-designated sites. There will be a strong presumption in favour of preservation *in situ* for non-designated assets affected by development or the developer will be required to excavate and record threatened features prior to development commencing.
 - Policy 23: where it is likely that archaeological remains may exist, the developer will be required to undertake an archaeological evaluation before the planning application is determined.
 - Policy 25: there will be a presumption against the demolition of Listed Buildings and in favour of the sympathetic restoration of Listed Buildings or other buildings of architectural value. The setting of Listed Buildings will also be safeguarded.

Assessment of Sensitivity/value

13.2.27 Based on the guidance provided by DMRB, cultural heritage was considered under the sub-topics of 'Archaeological Remains', 'Historic Buildings' and 'Historic Landscape'. For all three sub-topics, an assessment of the sensitivity ('value') of each heritage asset was undertaken on a six-point scale of Very High, High, Medium, Low, Negligible and Unknown, based on professional judgement, guided by the criteria provided in DMRB and presented in Tables 13.1 to 13.3.

Value	Criteria	
Very High	World Heritage Sites (including nominated sites).	
	Assets of acknowledged international importance.	
	Assets that can contribute significantly to acknowledged international research objectives.	
High Scheduled Monuments (including proposed sites).		
	Undesignated assets of schedulable quality and importance.	
	Assets that can contribute significantly to acknowledged national research objectives.	
Medium	Designated or undesignated assets that contribute to regional research objectives.	
Low	Designated and undesignated assets of local importance.	
	Assets compromised by poor preservation and/or poor survival of contextual associations.	
	Assets of limited value, but with potential to contribute to local research objectives.	
Negligible	Assets with very little or no surviving archaeological interest.	
Unknown	The sensitivity of the site has not been ascertained.	

Table 13.1: Criteria to Assess the Value of Archaeological Remains

Table 13.2: Criteria to Assess the Value of Historic Buildings

Value	Criteria		
Very High	Structures inscribed as of universal importance as World Heritage Sites.		
veryrligii	Other buildings of recognised international importance.		
	Scheduled Monuments with standing remains.		
	Category A Listed Buildings.		
High	Other listed buildings that can be shown to have exceptional qualities in their fabric or historical associations not adequately reflected in the category.		
	Conservation Areas containing very important buildings.		
	Undesignated structures of clear national importance.		
	Category B Listed Buildings.		
Ma divers	Historic (unlisted) buildings that can be shown to have exceptional qualities in their fabric or historical associations.		
Medium	Conservation Areas containing buildings which contribute significantly to their historic character.		
	Historic Townscape or built-up areas with important historic integrity in their buildings, or built settings (e.g. including street furniture and other structures).		
	Category C Listed Buildings.		
Low	Historic (unlisted) buildings of modest quality in their fabric or historical association.		
LOW	Historic Townscape or built-up areas of limited historic integrity in their buildings, or built settings (e.g. including street furniture and other structures).		
Negligible	Buildings of no architectural or historical note; buildings of an intrusive character.		
Unknown	Buildings with some hidden (i.e. inaccessible) potential for historic significance.		

Table 13.3: Criteria to Assess the Value of Historic Landscape types

Value	Criteria
Very High	World Heritage Sites inscribed for their historic landscape qualities. Historic landscapes of international value, whether designated or not. Extremely well preserved historic landscapes with exceptional coherence, time-depth, or other critical factors.
High	Designated historic landscapes of outstanding interest. Undesignated landscapes of outstanding interest. Undesignated landscapes of high quality and importance, and of demonstrable national value. Well preserved historic landscapes, exhibiting considerable coherence, time-depth or other critical factors.
Medium	Designated special historic landscapes. Undesignated historic landscapes that would justify special historic landscape designation, landscapes of regional value. Averagely well-preserved historic landscapes with reasonable coherence, time-depth or other critical factors.
Low	Robust undesignated historic landscapes. Historic landscapes with importance to local interest groups. Historic landscapes with value limited by poor preservation and/or poor survival of contextual associations.
Negligible	Landscapes with little or no significant historical interest.

Effects on Setting

- 13.2.28 In accordance with the guidance provided by Managing Change in the Historic Environment: Setting (Historic Scotland, 2010), a three-stage process was undertaken to assess the effect of the proposed scheme on the setting of historic assets:
 - Stage 1: Designated and undesignated heritage assets that might be affected by the proposed scheme were identified. The potential for impacts on designated assets in the wider landscape due to potential intervisibility with the proposed scheme was also determined though desk-based review and site visits, as noted in paragraph 13.2.3 and 13.2.4 above.
 - Stage 2: The setting of all baseline heritage assets was defined by establishing how the surroundings contribute to the ways in which the asset is understood, appreciated and experienced.
 - Stage 3: The way in which the proposed development would impact upon setting was then assessed for all baseline assets.

Impact Magnitude

- 13.2.29 Magnitude of impact is the degree of change that would be experienced by an asset as a result of the proposed scheme, as compared with a 'do nothing' situation. Magnitude of impact is assessed without reference to the value of the receptor, and may include physical impacts upon the asset, or impacts upon its setting or amenity value.
- 13.2.30 Assessment of magnitude with and without mitigation was based on professional judgement informed by DMRB methodology and criteria for archaeological remains, historic buildings and the historic landscape, set out in Tables 13.4 to 13.6. Unless otherwise stated, all impacts are adverse.

Magnitude	Criteria
Major	Change to most or all key archaeological materials, such that the resource is totally altered. Comprehensive changes to setting.
Moderate	Changes to many key archaeological materials, such that the resource is clearly modified. Considerable changes to setting that affect the character of the asset.
Minor	Changes to key archaeological materials, such that the asset is slightly altered. Slight changes to setting.
Negligible	Very minor changes to archaeological materials, or setting.
No Change	No change.

Table 13.4: Defining Magnitude of Impact for Archaeological Remains

Table 13.5: Defining Magnitude of Impact for Historic Buildings

Magnitude	Criteria		
Major	Change to key historic building elements, such that the resource is totally altered. Comprehensive changes to the setting.		
Moderate	Change to many key historic building elements, such that the resource is significantly modified. Changes to the setting of an historic building, such that it is significantly modified.		
Minor	Change to key historic building elements, such that the asset is slightly different. Change to the setting of an historic building, such that it is noticeably changed.		
Negligible	Slight changes to historic building elements or setting that hardly affect it.		
No Change	No change to fabric or setting.		

Table 13.6: Defining Magnitude of Impact for the Historic Landscape

Magnitude	Criteria		
Major	Change to most or all key historic landscape elements, parcels or components; extreme visual effects; gross change of noise or change to sound quality; fundamental changes to use or access; resulting in total change to historic landscape character unit.		
Moderate	Changes to many key historic landscape elements, parcels or components, visual change to many key aspects of the historic landscape, noticeable differences in noise or sound quality, considerable changes to use or access; resulting in moderate changes to historic landscape character.		
Minor	Changes to few key historic landscape elements, parcels or components, slight visual changes to few key aspects of historic landscape, limited changes to noise levels or sound quality; slight changes to use or access: resulting in limited changes to historic landscape character.		
Negligible	Very minor changes to key historic landscape elements, parcels or components, virtually unchanged visual effects, very slight changes in noise levels or sound quality; very slight changes to use or access; resulting in a very small change to historic landscape character.		
No Change	No change to elements, parcels or components; no visual or audible changes; no changes arising from amenity or community factors.		

Impact Significance

13.2.31 For all three sub-topics, the significance of impact with and without mitigation was determined as a combination of the value of the asset and the magnitude of impact. This is achieved using professional judgment informed by the matrix illustrated below in Table 13.7. Five levels of significance of impact are defined which apply equally to adverse and beneficial impacts.

Magnitude Value	No Change	Negligible	Minor	Moderate	Major
Very High	Neutral	Slight	Moderate or Large	Large or Very Large	Very Large
High	Neutral	Slight	Moderate or Slight	Moderate or Large	Large or Very Large
Medium	Neutral	Neutral or Slight	Slight	Moderate	Moderate or Large
Low	Neutral	Neutral or Slight	Neutral or Slight	Slight	Slight or Moderate
Negligible	Neutral	Neutral	Neutral or Slight	Neutral or Slight	Slight

Table 13.7: Significance of Impacts Matrix

Limitations to Assessment

- 13.2.32 This assessment has been prepared based on the results of desk-based research and walkover surveys only, supplemented with geophysical survey of specific areas. No intrusive archaeological investigation has been undertaken. This is line with the approach which was established in consultation with Historic Scotland during the Stage 2 environmental assessment (Atkins, 2009) and confirmed as part of the Stage 3 EIA process in February 2013.
- 13.2.33 To the north of the proposed scheme, the land largely comprises densely-planted conifer plantations of modern date. Due to the difficulty of accessing these areas and the low potential of these areas for unknown archaeological remains (due to previous disturbance or destruction of assets as a result of forestry operations), these areas were inspected from adjacent footpaths.

13.3 Baseline Conditions

13.3.1 This section describes the baseline conditions under the three sub-topics of Archaeological Remains, Historic Buildings and Historic Landscapes. Additional information in support of this chapter is presented in Appendix A13.1 (Cultural Heritage: Additional Information) and Appendix A13.2 (Geophysical Survey).

A9 Dualling: Strategic Environmental Assessment (SEA)

13.3.2 As detailed in Chapter 2 (Need for the Scheme), and SEA has been undertaken for the A9 dualling programme SEA Environmental Report (Halcrow, 2013). In the SEA the following strategic considerations for the historic environment were identified:

'A9 dualling should...

As far as possible, ensure road alignments avoid direct impacts on heritage assets and archaeological features.

Ensure effective consideration of battlefield sites, including their setting, vertical and horizontal alignments and topography issues, to avoid or minimise effects which may impact battlefield setting, context or interpretation.

Establish detailed survey, evaluation and recording of those sites directly affected by preferred route alignments, prior to construction work commencing.

Target archaeological monitoring in the form of watching briefs during construction at archaeologically sensitive locations.'

Archaeological Remains

13.3.3 A total of 76 archaeological remains are located within the study area. A further five assets, comprising Scheduled Monuments located outside the study area, were included in the baseline due to the potential for impacts on their setting, taking the total number of archaeological remains assessed to 81. These are shown on Figure 13.1 and presented in Table 13.8.

Asset Number	Asset Name	Designation	Value
1	Luncarty Station (site of)	None	Negligible
2	Luncarty Bridge Cropmarks	None	Medium
3	Railway Turntable (site of)	None	Negligible
6	Battleby Mill Lead	None	Negligible
9	Standing Stone east of Cramflat	Scheduled Monument (Index No. 1527)	High
11	Northleys Palisaded Enclosure	None	Medium
15	Ordie Mill (site of)	None	Low
17	Ordie Mill Lead	None	Low
18	Northleys Cropmarks	None	Medium
19	Northleys (site of)	None	Low
21	Northleys Gravel Pit (site of)	None	Negligible
22	Standing Stones 620m ESE of Gellybanks	Scheduled Monument (Index No. 1548)	High
23	Marlehall Pit Alignment	None	Negligible
24	Benchil burn Possible Pit Alignment	None	Negligible
25	Northleys Footpath and Footbridge	None	Negligible
26	Marlehall Cottage (site of)	None	Low
28	Milestone (site of)	None	Negligible
29	Marlehall Enclosure	None	Low
30	Perth Dunkeld Turnpike	None	Low
32	Ladner Possible Unenclosed Settlement	None	Medium
33	Strathord Tile Works and Brick Field	None	Negligible
34	Marlehall Enclosure and Possible Souterrain	None	Medium
36	Newmill Hammerstone	None	Negligible
37	Standing Stone 100m WSW of Over Benchil	Scheduled Monument (Index No. 1574)	High
38	Newmill Possible Settlement and Souterrain	None	Medium
40	Possible Pit Alignment, Tophead	None	Medium
41	Possible Ring Ditch, Tophead	None	Medium
42	Unenclosed Settlement, Newmill	None	Negligible
43	Newmill Souterrain	None	Negligible
44	Domed Quernstone, Bankfoot	None	Negligible

A9 Dualling: Luncarty to Pass of Birnam

DMRB Stage 3 Environmental Statement Chapter 13: Cultural Heritage

Asset Number	Asset Name	Designation	Value
45	Beaker Burial at Newmill	None	Negligible
46	Strathord Building and Pathway	None	Low
47	Kilburns Possible Enclosure	None	Low
48	Newmill Mill Lead	None	Low
49	Ring Ditch west of Newmill Cottages	None	Medium
51	Bankfoot Branch Line (Site of)	None	Low
52	Five Mile Wood Quarry Scoop	None	Negligible
53	Newmill Cottages Findspot	None	Negligible
54	Newmill Farm Quern Findspot	None	Negligible
55	Double Ring Ditch west of Newmill Cottages	None	Medium
56	Newmill Cottages Pit Alignment	None	Medium
57	Ring Ditch northwest of Newmill Cottages	None	Medium
58	Kinvaid Pit Alignment	None	Medium
59	Newmill Cottages Settlement and Souterrain	None	Medium
60	Milestone (site of)	None	Negligible
62	Court Hill Cairn, Loak	Scheduled Monument (Index No. 1524)	High
63	Loak Standing Stone	Scheduled Monument (Index No. 1562)	High
64	Court Hill Possible Pit Circle	None	Medium
66	Loak Pit Alignment	None	Medium
67	Westwood Building and Well (site of)	None	Low
68	Loak Footpath (site of)	None	Negligible
69	Loak Mill Lead	None	Low
70	Loakmill Possible Settlement	None	Medium
73	Gall Mill Dam and Lade	None	Low
74	Milestone (site of)	None	Negligible
76	Hilton Quarry (site of)	None	Negligible
77	Lower Gauls Possible Barrow	None	Medium
78	Lower Gauls Footpath & Footbridge (site of)	None	Negligible
81	Upper Gauls Footbridge 1 & Footpath (site of)		
84	New Inn (site of)	None	Negligible
85	Auchtergaven Building (site of)	None	Negligible
86	Craig Quarry (site of)	None	Negligible
87	Craig Quarry Trackway (site of)	None	Negligible
88	Bankfoot Station (site of)		
92	Bankfoot Building (site of)	None	Negligible Low
96	Newlea Building (site of)	None	Negligible
97	Cairnleith Building 1 (site of)	None	Low
98	Gelly to North Barns Footpath (site of)	None	Negligible
99	Coltrannie Clearance Cairn 1	None	Negligible
100	Cairnleith Building 2 (site of)	None	Negligible
101	Coltrannie Clearance Cairn 2	None	Negligible
102	Coltrannie Clearance Cairn 3	None	Negligible
103	Coltrannie Clearance Cairn 4	None	Negligible
104	East Mains plantation (site of)	None	Low
105	South Barns Fermtoun (site of)	None	Low
111	Saddle stone (site of)	None	Negligible
112	Well (site of)	None	Low
113	Byres of Murthly Saw Mill (site of)	None	Low
115	Newbiggin (site of)	None	Low
116	Bankfoot building (site of) 2	None	Low
117	Bankfoot building (site of) 3	None	Negligible

13.3.4 Due to the high number of archaeological remains present in the study area, only those for which the potential for an impact to occur was identified are described below, with all others described in full in Appendix A13.1 (Cultural Heritage: Additional Information).

- 13.3.5 Five Scheduled Monuments have been included in the baseline. These assets comprise individual or paired standing stones: Assets 9 (Index No. 1527), 22 (Index No. 1548), 37 (Index No. 1574), and 63 (Index No. 1562), and a round barrow: Asset 62 (Index No. 1524). The standing stones are thought to have been erected during the Neolithic (4000–2500BC) or Bronze Age (2500 800BC) and while these are located between 1.1km and 2km apart, Assets 9, 22 and 37 are distantly intervisible. It is likely that intervisibility was deliberate and related to the function of these assets and therefore this contributes to our understanding of them. Court Hill Cairn (Asset 62) is thought to be a round barrow (or burial mound) of Bronze Age date and comprises a large turf-covered mound 4-5m in height and over 40m in diameter. Whilst not intervisible with Assets 9, 22 and 37, Assets 62 and 63 are located only 138m apart which may indicate an association between the two monuments. In consideration of their potential to contribute to our understanding of prehistoric religious and funerary activity and their designation as Scheduled Monuments, these assets have been assessed to be of high value.
- Evidence of settlement during the Bronze Age (2500-800BC) and Iron Age (800BC AD500) is 13.3.6 provided by the remains of, a palisaded enclosure, open settlements, enclosures, and souterrains (Assets 11, 18, 32, 34, 38, 41, 49, 55, 57 and 59) identified from aerial photographs. While no archaeological remains associated with Asset 11 were identified by the geophysical survey, a number of anomalies interpreted as archaeological features (including a possible enclosure, a possible souterrain, and possible pits, post holes and spreads of burning) were identified at Asset 18 (refer to Appendix A13.2). The results of the geophysical survey at Assets 32 and 38 were less conclusive; at Asset 32 a large anomaly was identified which may be of archaeological origin but may also be a gravel extraction pit, while some of the anomalies identified at Asset 38 were tentatively identified as being the possible remains of a ditch and enclosure. However, it should be noted that at Asset 38 the nature of the superficial geology led to poor to average results being obtained by the survey. The geophysical survey did not identify any remains associated with Asset 49, while the possible remains of a ditch were identified at Asset 59. While the geophysical survey confirmed the presence of archaeological remains at Asset 18, the presence of archaeological remains at the other assets (Assets 11, 32, 38, 49 and 59) cannot be conclusively ruled out, as the superficial geology is not conducive to the formation of easily interpretable geophysical anomalies. The interpretation of these assets is therefore based on the results of the desk based assessment and their value is derived from their potential to provide evidence of prehistoric settlement and activity, and group value resulting from their physical and temporal relationship. The value of Assets 11, 18, 32, 34, 38, 41, 49, 55, 57 and 59 has been assessed to be medium.
- 13.3.7 Assets 40, 56 and 58 are pit alignments. The function of these assets is unclear, however, is generally believed to be ritual, with the act of creating the pits thought to be as important as any subsequent activity associated with them. Whilst the orientation of the pit alignments is likely to be important, it is not known if they were aligned on particular features within the prehistoric landscape or why they were built in certain locations. The value of these assets is derived from their potential to provide evidence of prehistoric religious activity, and group value resulting from their physical and temporal relationship to each other and to other sites within the landscape. Therefore the value of these assets has been assessed to be medium.
- 13.3.8 Assets 29 and 47 comprise undated enclosures identified from aerial photography: Marlehall Enclosure (Asset 29) and Kilburns Possible Enclosure (Asset 47). Asset 29 is visible in aerial photographs held by the RCAHMS as a dark sub-spherical area distinct from the surrounding land in front of Marlehall Farm. While the geophysical survey identified no evidence for Asset 29, as the superficial geology is not conducive to the formation of easily interpretable geophysical anomalies the presence of archaeological remains associated with this site cannot be conclusively ruled out. The assessment of the value of this asset is therefore based on the results of the desk based assessment and it has been assessed to be of low value. The identification of Asset 47 is more challenging. The aerial photograph held by RCAHMS shows an anomaly suggesting a former watercourse to the north of the asset, however, detail in the area of Asset 47 itself is less distinct, and it is difficult to identify the enclosure recorded by RCAHMS and the HER. No structures have been identified within this enclosure. In consideration of its limited potential to increase our knowledge, this asset has been assessed to be of low value.

- 13.3.9 The Perth-Dunkeld Turnpike (Asset 30) was constructed in the late 18th century, providing an important communication route linking Perth to the north. Tolls were charged for the use of the road, and the site of a now demolished toll cottage (Asset 26) has been identified. Further improvement of communications is evidenced by the former route of the Bankfoot Branch Line (Asset 51), a railway line erected in the early 20th century which remains visible today as a cutting and embankment. Industrial development is represented by Ordie Mill (Asset 15), a small-scale bobbin mill dating from the early 19th century, now demolished, and Asset 48 a mill lade which powered machinery at Newmill Farm (Asset 35). In consideration of their contribution to our understanding of the development of the study area in the post-medieval period, these five assets have been assessed to be of low value.
- 13.3.10 Assets 6, 21, 25, 85, 87, 98, 105 and 115 are of post-medieval date identified from historic mapping. Comprising a buried mill lade, gravel pits and quarries, footpaths and the sites of buildings of post-medieval date removed by later development, these assets have been assessed to be of Negligible value due to their limited historic interest and potential to contribute to our understanding of post-medieval archaeology.

Potential for Unknown Archaeological Remains

- 13.3.11 Aerial photography has revealed considerable evidence for prehistoric activity in the area to the north of Luncarty, indicating a high potential for the presence of unknown archaeological remains in this area. Whilst little cropmark evidence has been identified further to the north in the area of Bankfoot, this may reflect the heavier soils in this area which make it more difficult for archaeological remains to be identified from aerial photography, rather than an absence of archaeological remains. The potential for unknown archaeological remains to be present within the study area between Luncarty and Bankfoot has been assessed to be high.
- 13.3.12 To the north of Bankfoot, the potential for the presence of unknown archaeological remains is likely to have been reduced by deep ploughing for modern forestry, and has therefore been assessed to be low within these forested areas.
- 13.3.13 Areas of archaeological potential are shown on Figure 13.3.

Historic Buildings

- 13.3.14 A total of 35 historic buildings have been identified within the study area. These are shown on Figure 13.1, listed below in Table 13.9 and described in full in Appendix A13.1.
- 13.3.15 Due to the high number of assets in the study area, only those assets for which the potential for an impact to occur are described below, with all others described in full in Appendix A13.1. No Conversation Areas have been identified within the study area or in its immediate vicinity.

Asset Number	Asset Name	Designation	Value
4	Station House, Luncarty	None	Low
5	Luncarty graveyard and Old Parish Church (site of)	None	Medium
7	Perth to Inverness Rail Line	None	Low
8	South Viaduct, Downhill	None	Low
10	Luncarty Post Office	Category C Listed Building	Low
12	Glenordie	None	Low
13	North Viaduct, Downhill	None	Low
14	Ordie Cottage	None	Low
16	Northleys Farm	None	Low
20	Cottage	None	Low
27	Marlehall Culvert	None	Low
31	Marlehall Farmstead	None	Low

Table 13.9: Historic Buildings in the Study Area

Asset Number	Asset Name	Designation	Value
35	Newmill	None	Low
39	Newmill bridge	None	Low
50	Newmill Cottages	None	Negligible
61	East Mains smithy		
65	Westwood Farm		
71	Loak Mill	None	
72	Gall Corn Mill	None	Low
75	Hilton Cottage	None	Negligible
79	Bankfoot building 1	None	Low
82	Ardonachie Farmstead	None	Low
83	Bankfoot building 2	None	Low
89	Auchtergaven Parish Church burial ground	None	Medium
90	Auchtergaven Parish Church	Category B Listed Building	Medium
91	South Barns	None	
93	Bankfoot building 3	None	
94	Bankfoot building 4	None	Low
95	Broompark	None	Low
106	Luncarty Bridge	None	Low
107	North Barns	None	Low
108	Coltrannie steading	None	Low
109	Coltrannie farmhouse	None	Low
110	Gelly	None	Low
114	Byres of Murthly Farmstead	None	Medium

- 13.3.16 Auchtergaven Church (Asset 90; a Category B Listed Building) is a gothick style building, erected in the early 19th century as a parish church for the village of Bankfoot. Set within a hilltop burial ground (Asset 89), the church tower forms a notable local landmark. A second burial ground (Asset 5) is located at the south end of the study area, to the east of the A9. This is formed by a walled enclosure and contains a number of historic gravestones. There is no church at this site, however, a mort house dating from the early 19thcentury is present which was used for the storage of bodies prior to burial. In consideration of their historic and architectural interest, Assets 5, 89 and 90 have been assessed to be of medium value.
- 13.3.17 Northleys Farm, Marlehall Farm, Newmill, Westwood Farm, North Barns, Coltrannie Farmhouse and Coltrannie Steading (Assets 16, 31, 35, 65, 107, 108 and 109) comprise farmsteads dating from the 18th and 19th centuries. All five assets include a two-storey farmhouse of 'polite' design with farm buildings to the rear, arranged either around a central farmyard or as a compact grouping of buildings, enabling efficient movement of crops and animals. 'Polite design' architecture is generally taken to comprise buildings which are architect-designed and / or adopt the architectural style of the court or aristocracy, in contract to vernacular styles.
- 13.3.18 Of more modest scale is the small scale steading of Broompark (Asset 95), comprising an improved cottage with single-storey outbuildings arranged to the rear of the cottage. Gelly (Asset 110) is similarly a small-scale steading complex. Located close to the former Perth-Dunkeld Turnpike, Gall Corn Mill and Loak Mill (Assets 72 and 71) comprise a now ruinous water-powered corn mill and miller's house. These assets have been assessed to be of low value, due to their historic and architectural interest as evidence of the design and development of rural buildings during the improvement era.
- 13.3.19 Glenordie and Ordie Cottages (Assets 12 and 14) were erected in the 19th century for the owners of the now demolished Ordie Mill (Asset 15). In consideration of their historic interest arising from their association with Ordie Mill, Assets 12 and 14 have been assessed to be of low value.
- 13.3.20 Assets 27 and 39 are a culvert constructed to carry the Perth-Dunkeld Turnpike over a small watercourse and a bridge to carry a local road over Ordie Burn. As evidence of the development of communications at a local level, these assets have been assessed to be of low value.

13.3.21 The 1st edition 25" Ordnance Survey map of 1867 depicts a smithy (Asset 61) and cottages (Assets 50 and 75) which are still present today. These buildings have been subject to significant alteration, which detracts from their historic and architectural interest. Therefore these three assets have been assessed to be of negligible value.

Historic Landscape

13.3.22 A total of nine historic landscape types (HLT) have been identified within the study area. These are shown on Figures 13.2 and 13.4, listed in Table 13.10, and discussed below.

Historic Landscape	Historic Landscape Type Name	Designation	Value
HLT1	19th century-present Amalgamated Field	None	Negligible
HLT2	Late 20th century-Present Road	None	Negligible
HLT3	19th century-present urban area	None	Low
HLT4	18th-19th century Rectilinear Fields	None	Low
HLT5	20th century Conifer Plantation	None	Negligible
HLT6	18th to 20th century Woodland	None	Low
HLT7	20th century-present drained rough grazing	None	Low
HLT8	17th-19th century Policies and Parkland	None	High
HLT9	Murthly Castle Designated Landscape	Inventory of Gardens & Designed Landscapes	High

Table 13.10: Historic Landscape Types in the Study Area

- 13.3.23 Historic Landscape Type (HLT) 9 is an extensive designed landscape associated with Murthly Castle. The castle itself is a 16th century tower house, possibly incorporating earlier fabric, which was extended and remodelled from the early 17th century onwards. The setting of the castle is formed by the surrounding designed landscape and wider estate (HLT9 and HLT8). The castle is completely screened from the proposed scheme, is therefore not been included in the baseline.
- 13.3.24 The designed landscape associated with Murthly Castle was developed from the 17th century onwards (HLT9). Whilst it was re-designed in the 19th century by John Wallace, the landscape retains significant elements of the earlier design. Included on the Inventory of Gardens and Designed Landscapes, HLT9 comprises gardens, parks and extensive woodlands, and contains a number of Listed Buildings. The 17th-19th century Policies and Parkland type (HLT8) comprises elements of Murthly Castle Estate not included on the Inventory of Gardens and Designed Landscapes but associated with it. This type is characterised by the presence of features such as woodland plantations, the boundaries of which are defined by stone-lined ditches. A pair of ornamental gatepiers is also present. Within the study area, both HLT8 and HLT9 are already severed by the existing A9 corridor. In consideration of their historic interest as parts of a designed landscape, both HLT8 and HLT9 have been assessed to be of high value.
- 13.3.25 Four historic landscape types of low value have been identified within the study area. These comprise 19th century to present urban area (HLT3), 18th-19th rectilinear fields (HLT4), 18th to 20th century woodland (HLT6) and 20th century-present Drained Rough Grazing (HLT7). In consideration of their historic interest and legibility, the value of these four types has been assessed to be low.
- 13.3.26 HLT1, HLT2 and HLT5 comprise 19th century-present Amalgamated Field, Late 20th century-Present Road and 20th century Conifer Plantation. These types have been created, or significantly altered in the 20th century. In consideration of their limited time depth and lack of rarity these types have been assessed to be of negligible value.

13.4 Potential Impacts

13.4.1 The tables at the end of each sub-topic assessment provide the overall number of potential impacts. As agreed with Historic Scotland, any potential impact (significant or non-significant) on a

designated asset is discussed in full, and any potential *significant* impact on an undesignated asset (i.e. of Moderate significance or above) is also discussed in full. All remaining potential impacts are non-significant impacts on undesignated assets which are therefore presented in Appendix A13.1.

13.4.2 Chapter 18 (Policies and Plans) provides an assessment of compliance with heritage policies.

Archaeological Remains

Construction

13.4.3 Potential significant construction impacts have been identified for six undesignated archaeological remains. For designated archaeological remains, potential construction impacts were identified for five assets, though none of these were considered to be significant. These are described below in paragraphs 13.4.4 to 13.4.11.

Undesignated Archaeological Remains

13.4.4 Construction of the proposed scheme would have potential significant impacts on six undesignated archaeological remains, as listed in Table 13.11 below.

Asset			Potential Impacts		
number	Asset name	Value	Magnitude	Significance	
18	Northleys Cropmarks	Medium	Moderate	Moderate	
26	Marlehall Cottage (site of)	Low	Major	Moderate	
32	Ladner Possible Unenclosed Settlement	Medium	Moderate	Moderate	
38	Newmill possible settlement and souterrain	Medium	Moderate	Moderate	
49	Ring ditch located west of Newmill Cottages	Medium	Major	Large	
115	Newbiggin steading (site of)	Low	Major	Moderate	

Table 13.11: Undesignated Archaeological Remains: Potential Significant Construction Impacts

- 13.4.5 Construction of the Tullybelton/Stanley Junction would remove archaeological remains of the ring ditch located to the west of Newmill Cottages (Asset 49) present within the proposed scheme footprint. This asset has previously been impacted by the construction of the Bankfoot Branch Line (Asset 51). The value of Asset 49 has been assessed to be Medium. In consideration of the large area affected, the impact has been assessed to be major magnitude and of Large significance.
- 13.4.6 Construction of the proposed scheme would remove archaeological remains associated with Northleys Cropmarks (Asset 18). The magnitude of this impact has been assessed as moderate and the significance of impact has been assessed to be Moderate. Construction would also result in the removal of archaeological remains located within the proposed scheme footprint of the medium value assets of Ladner Possible Unenclosed Settlement (Asset 32) and Newmill possible settlement and souterrain (Asset 38), and the low value assets of Marlehall Cottage (site of) (Asset 26) and Newbiggins steading (site of) (Asset 115). In consideration of the proportion of these assets which would be removed, the magnitude of impact on Assets 26 and 115 has been assessed to be major, and moderate adverse on Assets 32 and 38. The impact on all four assets has been assessed to be of Moderate significance.
- 13.4.7 Non-significant potential impacts (of Slight and Neutral significance) are predicted on a further 23 undesignated archaeological sites, as described in A13.1 (Cultural Heritage: additional information).

Designated Archaeological Remains

13.4.8 Construction of the proposed scheme would have potential impacts on five designated archaeological remains, as listed in Table 13.12.

Asset			Potential Impacts		
number	Asset name	Value	Magnitude	Significance	
9	Standing stone east of Cramflat	High	Negligible	Slight	
22	Standing Stones 620m ESE of Gellybanks	High	Negligible	Slight	
37	Standing Stone 100m WSW of Over Benchil	High	Negligible	Slight	
62	Court Hill Cairn, Loak	High	Negligible	Slight	
63	Loak Standing Stone	High	Negligible	Slight	

Table 13.12: Designated Archaeological Remains: Potential Construction Impacts

- 13.4.9 The Standing stone east of Cramflat (Asset 9) is located on a plateau approximately 265m from the existing A9. Construction of the proposed scheme and new overbridge would be visible in limited views to the east and north-east and therefore would not form a prominent or intrusive element within these views. Intervisibility between Assets 37, 22 and 9 would be maintained as would the stone's importance as evidence of prehistoric ritual activity. The impact on this asset of high value has been assessed to be of negligible magnitude and Slight significance.
- 13.4.10 The existing A9 is visible running on embankment approximately 670m to the east of the Standing stones 620m east-south-east of Gellybanks (Asset 22). Construction of the Tullybelton/Stanley Junction would introduce a new intrusive element into the setting of the stones which would be visible in long views to the north-east. Temporary intrusion in views eastwards from the stones would result from construction activities such as the creation of the dual carriageway and bulk earthworks operations for the junction. Intervisibility between Assets 37, 22 and 9 would be maintained, as would the stone's value as evidence of prehistoric ritual activity. The impact on this asset of high value has been assessed to be of negligible magnitude and Slight significance.
- 13.4.11 The standing stone 100m west-south-west of Over Benchil (Asset 37) is located on a hilltop approximately 860m from the existing A9. Construction of the proposed scheme would be visible from the asset in sweeping views across the surrounding landscape as a distant linear feature and would not form a prominent or intrusive element within these views. Intervisibility between Assets 37, 22 and 9 would be maintained, as would the stone's importance as evidence of prehistoric ritual activity. The impact on this asset of high value has been assessed to be of negligible magnitude and Slight significance.
- 13.4.12 Construction of the proposed scheme would result in the widening of the existing road corridor to the east, away from Court Hill Cairn and Loak Standing Stone (Assets 62 and 63). Construction would be located approximately 260m to the north-east of Asset 62 at its closest point, and views from Assets 62 and 63 towards the proposed scheme would be screened to a large extent by intervening topography and vegetation. The relationship between the cairn and standing stone would not be affected by the proposed scheme, and their value as evidence of prehistoric ritual activity would be maintained. In consideration of the temporary visual intrusion on the asset's setting resulting from construction of the proposed scheme, the impact on these assets of high value has been assessed to be of negligible magnitude and Slight significance.

Operation

13.4.13 No potential significant operational impacts have been identified for undesignated archaeological remains. For designated archaeological remains, potential operational impacts were identified for 5 assets, though none of these was considered to be significant. These are described below in paragraphs 13.4.14 to 13.4.16.

Undesignated Assets

13.4.14 No potential significant impacts are predicted on any undesignated archaeological remains during operation of the proposed scheme. Non-significant potential impacts (of Slight significance) are predicted on 13 undesignated archaeological remains, as described in Appendix A13.1.

Designated Archaeological Remains

- 13.4.15 The Tullybelton/Stanley Junction would form a distant new element within the rural landscape setting of the standing stones approximately 620m east-south-east from Gellybanks (Asset 22) and the standing stone approximately 100m west-south-west of Over Benchil (Asset 37). The junction would be visible in long views from the monuments to the north-west and north-east respectively, slightly increasing intrusion from modern infrastructure on their rural setting. Views between Assets 22 and 37, and the standing stone east of Cramflat (Asset 9) would be maintained, as would the importance of the assets as evidence of prehistoric ritual activity. The value of both assets has been assessed to be high. The impact has been assessed to be of minor magnitude and Slight significance for Assets 22 and 37.
- 13.4.16 Moving traffic on the A9 is currently visible from the standing stone east of Cramflat (Asset 9), Court Hill Cairn (Asset 62) and Loak Standing Stone (Asset 63). During operation of the proposed scheme, moving vehicles would continue to be visible from these assets, and the cutting to the north of Westwood Farm would also be visible from Assets 62 and 63. This would be similar to existing views from the assets towards the A9, and would not detract from their understanding or value. The value of all three assets has been assessed to be high. The impact has been assessed to be of negligible magnitude and Slight significance.

Summary of Potential Impacts - Archaeological Remains

13.4.17 Table 13.13 shows the significance of all potential impacts on archaeological remains.

Significance	Number of Assets			
Significance	Construction	Operation		
Large adverse	1	0		
Moderate adverse	5	0		
Slight adverse	21	18		
Neutral	7	0		
TOTAL	34	18		

Table 13.13: Summary of Potential Impacts on Archaeological Remains

Historic Buildings

Construction

13.4.18 Potential significant construction impacts have been identified for two undesignated historic buildings. For designated historic buildings, potential construction impacts were identified for one asset, though this was not considered to be significant. These are described below in paragraphs 13.4.19 to 13.4.22.

Undesignated Historic Buildings

- 13.4.19 Construction of the proposed scheme would remove Marlehall Culvert and Newmill Bridge (Assets 27 and 39), both of which have been assessed to be of low value. The impact on both assets has been assessed to be of major magnitude and Moderate significance
- 13.4.20 Non-significant potential impacts (of Slight or Neutral significance) are predicted on an additional 17 undesignated historic buildings, as described in Appendix A13.1.

Designated Historic Buildings

13.4.21 Potential impacts on the setting of one designated (i.e. listed) historic building are described below. Although not designated, its graveyard is also described due to the association between the two. 13.4.22 Auchtergaven Parish Church and burial ground (Asset 90 Category B Listed Building, and Asset 89) are sited on a hilltop above Bankfoot, forming a local landmark visible from the surrounding landscape. The existing A9 runs in a deep cutting to the east of these assets, and is largely screened from them by topography and, further to the south by existing planting. Construction of the proposed scheme would result in the widening of the existing road cutting away from the church and burial ground. There would be temporary intrusion on the assets' setting from construction activities such as site clearance and excavation; however, the existing character of the assets' setting would be maintained. The relationship of the building to the village of Bankfoot and the role of the church tower as a local landmark would remain unchanged. The value of Auchtergaven Church and burial ground has been assessed to be medium. In consideration of the temporary intrusion on the setting of the church and burial ground during construction, the impact has been assessed to be of minor magnitude and Slight significance for both assets.

Operation

13.4.23 No potential significant operational impacts were identified for undesignated historic buildings. For designated historic buildings, potential operational impacts were identified for one asset, though this was not significant. These are described below in paragraphs 13.4.24 to 13.4.26.

Undesignated Historic Buildings

13.4.24 No significant impacts are predicted on historic buildings during operation of the proposed scheme. Non-significant potential impacts (of Slight and Neutral significance) are predicted on 15 undesignated assets, as described in Appendix A13.1.

Designated Historic Buildings

- 13.4.25 Potential impacts on the setting of Auchtergaven Parish Church (Asset 90) and its associated burial ground (Asset 89) are described below.
- 13.4.26 During operation the proposed scheme would be located within cutting to the west of Auchtergaven Parish Church (Asset 90) and the associated graveyard (Asset 89). The presence of the widened cutting would not materially alter the existing character of the asset's setting, or detract from their architectural or historic interest. The role of the church tower as a landmark would not be affected by the proposed scheme. The value of both assets has been assessed to be medium. The impact has been assessed to be of negligible magnitude and Neutral significance for both assets.

Summary of Potential Impacts - Historic Buildings

13.4.27 Table 13.14 shows the significance of all potential impacts on historic buildings.

Table 13.14: Summary of Potential Impacts on Historic Buildings

Significance	Number of Assets			
	Construction	Operation		
Large adverse	0	0		
Moderate adverse	2	0		
Slight adverse	9	3		
Neutral	10	14		
TOTAL	21	17		

Historic Landscape

Construction and Operation

13.4.28 No potential significant impacts were identified for historic landscape types during construction or operation. For designated landscapes, potential impacts were identified for one asset (Murthly

Castle Garden and Designed Landscape (HLT9)), though this was not considered to be significant. These impacts are described below in paragraphs 13.4.29 to 13.4.34. While the Policies and Parkland type (HLT8) is not designated it is described below due to its association with HLT9.

Undesignated Assets

13.4.29 No significant potential impacts are predicted on the historic landscape types as a result of construction or operation of the proposed scheme. Non-significant potential impacts (of Slight or Neutral significance) are predicted on six other historic landscape types during construction and operation, as described in Appendix A13.1.

Designated Assets

- 13.4.30 Potential impacts on Murthly Castle Garden and Designed Landscape (HLT9), and the 17th-19th century Policies and Parkland type (HLT8) both of which formed part of the estate landscape associated with Murthly Castle are described below.
- 13.4.31 Although currently excluded from the designated area of Murthly Castle Garden and Designed Landscape (HLT9), 17th-19th century Policies and Parkland type (HLT8) formed part of the estate landscape associated with Murthly Castle. As can be seen from Figure 13.4 construction of the proposed scheme would introduce a new access track, drainage pond and bridge embankments into the type. The access track would be constructed through an area of pine plantation close to the existing A9, and require the partial removal of a stone-lined ditch defining the plantation. The pond and track would form intrusive elements within this type, but have been designed to run parallel to the existing A9, reducing their prominence as far as possible. HLT8 has been assessed to be of high value. Taking account of the potential impact on the character of this historic landscape type, the impact has been assessed to be of minor magnitude and Slight significance.
- 13.4.32 Construction of the proposed scheme would result in widening of the existing A9 through HLT9, Murthly Castle. Construction works would be located mainly inside the existing highway boundary, however, a small area of land-take would occur along the eastern edge of the proposed scheme (please refer Figure 13.4). Extending to a maximum width of approximately 7m from the existing highway boundary, construction would result in the removal of trees within the proposed scheme footprint, comprising plantations predominantly of 20th century origin, and would reinforce existing severance of the designed landscape resulting from the presence of the A9. There would be a small area of land-take for the abutments of the accommodation bridge. This has the potential to result in a small physical impact on a stone-lined ditch around a small tree plantation, however this ditch has previously been impacted by construction of the existing track and forestry works. An access track to the northwest of the bridge would be resurfaced with compacted gravel/stone, similar in character to the existing track surface. The purpose of this trackways is to provide access to Gelly Cottage. The value of HLT9 has been assessed to be high. The impact has been assessed to be of minor magnitude and Slight significance.
- 13.4.33 Impacts on 17th-19th century Policies and Parkland (HLT8) resulting from the removal of historic landscape features and the introduction of the track and pond would continue during operation of the proposed scheme. The value of HLT8 has been assessed to be high. The impact has been assessed to be of minor magnitude and Slight significance.
- 13.4.34 Similarly, the increased severance of Murthly Castle Garden and Designed Landscape (HLT9) resulting from the widening of the A9 corridor would continue during the operation phase. The value of the type has been assessed to be high. The impact has been assessed to be of minor magnitude and Slight significance.

Summary of Potential Impacts - Historic Landscape

13.4.35 Table 13.15 shows the significance of all potential impacts on Historic Landscape types.

Significance	Numbe	r of Assets
	Construction	Operation
Large adverse	0	0
Moderate adverse	0	0
Slight adverse	3	3
Neutral	5	5
TOTAL	8	8

Table 13.15: Summary of Potential Impacts on the Historic Landscape

13.5 Mitigation

- 13.5.1 Proposed mitigation for potential significant impacts and impacts on designated assets is described below. The mitigation proposed, including archaeological recording and landscape planting, may also reduce non-significant potential impacts as reported in Appendix A13.1 (Cultural Heritage: additional information). Proposed mitigation for cultural heritage is also shown on Figure 13.1.
- 13.5.2 Landscape proposals referred to below is described further in Chapter 11 (Landscape), and is shown on Figure 11.2.

Archaeological Remains

- 13.5.3 Archaeological remains (and other cultural heritage assets) are non-renewable resources and the preferred mitigation option for archaeological sites is to preserve them *in situ*. However, where this is not feasible, the alternative is preservation by record (**Mitigation Item CH1**). Preservation by record comprises recording works in advance of or during construction and the dissemination of the results of these works to provide a permanent record of the affected archaeological remains. While the advances in understanding that may be gained from recording should not be seen as a positive aspect to offset any adverse impacts, (Highways Agency 2001, Paragraph 2.9) effective investigation, analysis and interpretation can ameliorate the loss (Highways Agency 2007, 5.11.2). In this way recording can reduce the magnitude of impact that would otherwise occur if a site were to be damaged or destroyed unrecorded.
- 13.5.4 To mitigate potential physical impacts on known and potential unknown archaeological remains, a programme of archaeological works will be implemented in consultation with Perth and Kinross Heritage Trust (**Mitigation Item CH2**). This will comprise a staged programme of evaluation followed by detailed mitigation. The aims of evaluation works would be to:
 - identify any unknown archaeological remains that may be affected by the proposed scheme and identify appropriate mitigation; and
 - confirm the proposals for the mitigation of impact on known archaeological remains.
- 13.5.5 Evaluation works will comprise geophysical survey of areas of the proposed scheme footprint where appropriate and where ground conditions are suitable, followed by trial trenching targeted at known assets or identified features, or in blank areas where no assets or features have been identified. In addition, an earthwork survey will be undertaken for those assets with upstanding remains which will be physically impacted by the proposed scheme. The exact nature, scope and scale of the programme of archaeological evaluation will be designed and agreed with Perth and Kinross Heritage Trust.
- 13.5.6 The results of evaluation works will aid the design of detailed mitigation measures. The construction programme will provide sufficient time to allow evaluation and subsequent mitigation to be completed. Possible options for archaeological mitigation can include any of the following:
 - Detailed archaeological excavation: where particularly significant, complex or denselyconcentrated archaeological remains are expected to be present, a detailed archaeological excavation in advance of construction would be undertaken (**Mitigation Item CH3**).

- Strip map and sample: 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, map and sample works may be appropriate. Topsoil would be stripped over relatively large, defined areas using methods designed to maximize archaeological visibility, followed by inspection to define the scope of any archaeological recording works that might be required (Mitigation Item CH4).
- Archaeological recording during construction ('watching brief'): where there is some potential for as yet unidentified 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 identified (Mitigation Item CH5).
- 13.5.7 When mature, landscape planting will reduce the visual impact by integrating the new road with its surroundings. Landscape mitigation is shown on Figure 11.2. It is predicted that this integration will also reduce the visual impact of the road on the setting of the following assets:
 - Standing stone east of Cramflat (Asset 9; Index No. 1527);
 - Standing stones 620m ESE of Gellybanks (Asset 22; Index No. 1548); and
 - Standing stone 100m WSW of Over Benchil (Asset 37; Index No. 1574).
- 13.5.8 Historic Scotland will be consulted during the development of the Indicative Landscape Mitigation Plan (refer to mitigation in Chapter 11: Landscape).

Historic Buildings

- 13.5.9 To mitigate the potential impact on Marlehall Culvert (Asset 27) and Newmill Bridge (Asset 39), a photographic survey will be undertaken in accordance with the guidance provided in Understanding Historic Buildings: a guide to good recording practice (English Heritage, 2006) (Mitigation Item CH6). This guidance is cited as they provide recognised standards for the recording of historic buildings, which is applicable UK-wide.
- 13.5.10 The survey will provide a permanent visual record of the buildings in their current form and condition, achieving preservation by record for the assets.
- 13.5.11 Measures to reduce potential impacts on historic buildings have been incorporated into the design throughout its development (**Mitigation Item CH7**). These measures include:
 - design of earthworks to avoid an overly engineered appearance and enable as much land as possible to be returned to agriculture;
 - avoidance of loss or damage to landscape features such as mature trees, walls, water features or field systems as far as possible; and
 - retention of existing trees and vegetation where possible and incorporation with new planting proposals.
- 13.5.12 Mitigation planting, as shown on Figure 11.2, will be put in place during the construction phase to aid the integration of the proposed scheme into the landscape. Planting will initially provide relatively limited screening, but will mature and become more effective overtime. Landscape mitigation is proposed to mitigate potential impacts on the setting of Newmill Farm (Asset 35) and Broompark (Asset 95).

Historic Landscape

13.5.13 Measures to reduce potential impacts on the historic landscape have been incorporated into the proposed scheme design throughout its development, as described at paragraph 13.5.11 above. Landscape mitigation, including planting, is proposed to mitigate impacts on 18th-19th century Rectilinear Fields (HLT4).

- 13.5.14 To mitigate the potential impact of the proposed scheme on HLT8: 17th-19th century Policies and Parkland and HLT9: Murthly Castle, the following measures are proposed (**Mitigation Item CH8**).
 - archaeological earthwork survey, including photographic survey, of the impacted ditches and walls defining the woodland plantations to Level 2 standards (English Heritage, 2007);
 - a photographic survey of the Historic Landscape Type in its current form and condition;
 - landscape planting around the drainage pond and on the overbridge embankments to aid the integration of these features into the surrounding landscape; and
 - use of high quality materials and consistent application across A9 dualling programme (see para 13.5.15 below).
- 13.5.15 As explained in Chapter 11 (Landscape), the landscape design has been developed in line with the SEA Landscape and Access Environmental Design Principles and the detailed design of structures will be informed by strategic guidance currently being prepared for the overall A9 programme.

13.6 Residual Impacts

13.6.1 The section below presents the assessment of the significance of residual impact for those assets identified in Section 13.4 above. For full details of residual impacts on other heritage assets, please refer to Appendix A13.1.

Archaeological Remains

Undesignated Archaeological Remains

13.6.2 After mitigation, no significant impacts on undesignated archaeological remains are predicted (please refer to Table 13.16 below).

Table 13.16:	Undesignated	Archaeological F	Remains - Residua	I Impacts (with mitigation)
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Asset	Asset Name	Value	Proposed Mitigation	Residu	ual Impact
No.				Magnitude	Significance
Constr	uction				
18	Northleys Cropmarks	Medium	Detailed excavation (extent informed by geophysical survey and trial trenching).	Negligible	Neutral
26	Marlehall Cottage (site of	Low	Watching brief.	Negligible	Neutral
32	Ladner Possible Unenclosed Settlement	Medium	Detailed excavation (extent informed by geophysical survey and trial trenching).	Negligible	Neutral
38	Newmill Possible Settlement and Souterrain	Medium า	Detailed excavation (extent informed by trial trenching).	Negligible	Neutral
49	Ring Ditch west of Newm Cottages	II Medium	Detailed excavation (extent informed by geophysical survey and trial trenching).	Negligible	Neutral
115	Newbiggin steading (site of)	Low	Watching brief.	Negligible	Neutral
Operat	ion				
n/a	No residual impacts durin	g operation are	e predicted for any undesignated arch	naeological remai	ns.

13.6.3 Assets 26 and 115 are the site of a cottage and the site of a steading both of which date to the Post Medieval period. Remains associated with these well-understood assets are unlikely to be complex and therefore the record made as part of a watching brief, and subsequent dissemination and archiving of this record, is considered appropriate to reduce the potential magnitude and significance of impact. 13.6.4 While Assets 18, 32, 38 and 49 are not as well understood, and archaeological remains associated with archaeological sites of this type have the potential to increase our understanding of the Prehistoric period, the results of the desk-based assessment and the geophysical survey indicate that remains associated with these assets (where they are present within the footprint of the road) are fragmentary, and there is limited changes to setting or context of these assets by removal of remains. It is considered that detailed excavations, appropriate publication of the results of these excavations, preparation of an ordered archive and submission of that archive to an appropriate repository is appropriate to reduce the potential magnitude and significance of impact.

Designated Archaeological Remains

13.6.5 No measures are proposed to mitigate impacts during construction. The significance of residual impact is presented in Table 13.17.

Asset	Asset Name	Value	Proposed Mitigation	Residu	al Impact
No.	Asset Name	value	Proposed Miligation	Magnitude	Significance
Constr	uction				
9	Standing stone east of Cramflat (Index No. 1527)	High	Landscape planting	Negligible	Slight
22	Standing Stones 620m ESE of Gellybanks (Index No. 1548)	High	Landscape planting	Negligible	Slight
37	Standing Stone 100m WSW of Over Benchil (Index No. 1574)	High	Landscape planting	Negligible	Slight
62	Court Hill Cairn, Loak (Index No. 1524)	High	None proposed	Negligible	Slight
63	Loak Standing Stone (Index No. 1562)	High	None proposed	Negligible	Slight
Operat	ion		·		
9	Standing stone east of Cramflat (Index No. 1527)	High	Landscape planting	No change	Neutral
22	Standing Stones 620m ESE of Gellybanks (Index No. 1548)	High	Landscape planting	Negligible	Slight
37	Standing Stone 100m WSW of Over Benchil (Index No. 1574)	High	Landscape planting	Negligible	Slight
62	Court Hill Cairn, Loak (Index No. 1524)	High	None proposed	Negligible	Slight
63	Loak Standing Stone (Index No. 1562)	High	None proposed	Negligible	Slight

Table 13.17: Designated Archaeological Remains - Residual Impacts (with mitigation)

- 13.6.6 Landscape mitigation proposed as part of the design is considered to be effective in reducing the potential operational impact of the proposed scheme on the setting of the standing stone east of Cramflat (Asset 9; Index No. 1527). Based on professional judgement, the residual impact has been assessed to be no change and of Neutral significance.
- 13.6.7 Whilst landscape planting will aid the integration of the proposed scheme into the setting of the Standing Stones 620m ESE of Gellybanks (Asset 22; Index No.1548) and the Standing stone 100m WSW of Over Benchil (Asset 37; Index No. 1574), the Tullybelton/Stanley Junction would remain visible and diminish the rural character of the asset's setting. After mitigation, the residual impact has been assessed to be of negligible magnitude and Slight significance.
- 13.6.8 The Tullybelton/Stanley junction would remain visible and diminish the rural character of the Court Hill Cairn, Loak (Asset 62; Index No. 1524) and Loak Standing Stone (Asset 63; Index No. 1562). The residual impact on these assets has been assessed to remain as of negligible magnitude and Slight significance.

Historic Buildings

Undesignated Historic Buildings

13.6.9 Residual impacts on undesignated historic buildings are presented in Table 13.18.

Table 13.18: Residual Impacts on Undesignated Historic Buildings (with mitigation)

Asset	Asset Name	Value	Value Proposed Mitigation		Residual Impact		
No.				Magnitude	Significance		
Constru	iction						
27	Marlehall Culvert	Low	Photographic survey	Negligible	Neutral		
39	Newmill Bridge	Low	Photographic survey	Negligible	Neutral		
89	Auchtergaven Parish Church burial ground	Medium	None proposed	Minor	Slight		
Operati	on				•		
89	Auchtergaven Parish Church burial ground	Medium	None proposed	Negligible	Neutral		

13.6.10 Assets 27 and 39 are not architecturally complex and are well understood. Photographic survey is considered appropriate to reduce the magnitude and significance of impact on these assets.

Designated Historic buildings

13.6.11 No measures are proposed to mitigate the impacts during construction and operation on the setting of Auchtergaven Parish Church (Asset 90). The predicted significance of residual impact is presented in Table 13.19 below.

Table 13.19: Residual Impacts on Designated Historic Buildings (with mitigation)

Asset	Asset Name	Value	Proposed Mitigation	Residual Impact		
No.				Magnitude	Significance	
Constru	Construction					
90	Auchtergaven Parish Church	Medium	None proposed	Minor	Slight	
Operatio	Operation					
90	Auchtergaven Parish Church	Medium	None proposed	Negligible	Neutral	

Historic Landscapes

Undesignated Historic Landscapes

13.6.12 Whilst historic landscape recording will provide a permanent documentary record 17th-19th century Policies and Parkland historic landscape type (HLT8) in its current form and condition, it is not considered that this or proposed landscape planting would fully mitigate the impact of reinforced severance from the proposed scheme. After mitigation, the residual impact has therefore been assessed to remain of Slight significance during construction and operation, as per Table 13.20.

Table 13.20: Residual Impacts on Undesignated Historic Landscapes (with mitigation)

Asset	Asset Name	Value Proposed mitigation		Residual Impact				
No.				Magnitude	Significance			
Construction and Operation								
HLT8	17th-19th century Policies and Parkland	High	Archaeological earthwork survey & photographic survey, Landscape Planting	Minor	Slight			

Designated Historic Landscapes

13.6.13 Whilst historic landscape recording will provide a permanent documentary record of Murthly Castle (HLT9) Designed Garden and Landscape in its current form and condition, it is not considered that this or proposed landscape planting would fully mitigate the impact of reinforced severance resulting from the proposed scheme. After mitigation, the residual impact has therefore been assessed to remain of Slight significance during construction and operation, as per Table 13.21.

Table 13.21: Residual Impacts on Designated Historic Landscapes (with mitigation)

Asset	Asset Name	t Name Value Proposed mitigation		Residual Impact					
No.				Magnitude	Significance				
Construction and Operation									
HLT9	Murthly Castle Historic Landscape	High	Archaeological earthwork survey & photographic survey.	Minor	Slight				

Assessing Significance of Effects on the Overall Cultural Heritage Resource

13.6.14 After mitigation, the overall impact on archaeological remains and historic buildings has been assessed to be Neutral and the overall impact on the historic landscape has been assessed to be Slight. The overall impact on the cultural heritage resource has been assessed to be Slight.

13.7 References

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