

15 Cultural Heritage

15.1 Introduction

- 15.1.1 This Chapter presents a Design Manual for Roads and Bridges (DMRB) Stage 3 Environmental Impact Assessment (EIA) for Cultural Heritage. It considers the potential construction and operational impacts of the Proposed A9 Dualling Scheme for Project 8, Dalwhinnie to Crubenmore. The Proposed Scheme alignment under assessment is described in **Chapter 5**.
- 15.1.2 This EIA has been prepared in accordance with guidance provided by the DMRB, Volume 11, Section 3, Part 2 'Cultural Heritage' (HA 208/07).
- 15.1.3 Cultural heritage has been considered under the following three sub-topics, as outlined in DMRB:
- Archaeological Remains - the material remains of human activity from the earliest periods of human evolution to the present. These may be buried traces of human activities, sites visible above ground or moveable artefacts. Archaeological Remains can encompass the remains of buildings, structures, earthworks and landscapes, human, animal or plant remains or other organic material produced by or affected by human activities or their settings
 - Historic Buildings - standing historical structures that are usually formally designated or have some architectural presence. These may include structures that have no aesthetic appeal or structures not usually thought of as 'buildings', such as milestones or bridges
 - Historic Landscape - landscape is an area, as perceived by people, whose character is the result of the action and interaction of natural and/ or human factors
- 15.1.4 A cultural heritage asset is an individual archaeological site or building, a monument or group of monuments, a historic building or group of buildings or an historic landscape which, together with its setting (where relevant), can be considered as a unit for assessment.

15.2 Legislation

- 15.2.1 Relevant legislation to cultural heritage within this assessment includes:
- Historic Environment Scotland Act 2014. This Act established Historic Environment Scotland which took over the functions of Historic Scotland and the Royal Commission on the Ancient and Historical Monuments of Scotland (RCAHMS). The Act also changed processes for the designation of sites and buildings (by scheduling and listing) and for Scheduled Monuments, Listed Buildings and Conservation Areas Consent.
 - Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997. Listed Buildings and Conservation Areas are protected under this Act and are recognised to be buildings or areas of special architectural or historic interest, the character or appearance of which is desirable to preserve or enhance. Planning authorities are required to have special regard to the desirability of preserving a Listed Building, its setting and to designate areas of special architectural or historic interest as Conservation Areas.
 - Ancient Monuments and Archaeological Areas Act 1979. This act defines sites that warrant protection due to their being of national importance as 'ancient monuments'. These can be either Scheduled Ancient Monuments or "any other monument which in the opinion of the Secretary of State is of public interest by reason of the historic, architectural, traditional,

artistic or archaeological interest attaching to it. Scheduled Monuments are by definition of National Importance and are protected by law under this act. It is a criminal offence to damage a Scheduled Monument, and Scheduled Monument Consent must be obtained from the Secretary of State before any works affecting a Scheduled Monument may take place. This Act also requires Scottish Ministers to compile and maintain an inventory of gardens and designed landscapes and an inventory of battlefields.

15.3 Approach and Methods

Scope and Guidance

- 15.3.1 At the earlier design and assessment stage (DMRB Stage 2), the assessment of potential cultural heritage impacts of the Proposed Scheme determined that a Detailed Assessment, as defined in Volume 11, Section 3, Part 2, Annex 5 of HA208/07, was justified at DMRB Stage 3 for the archaeological remains and historic buildings subtopics. A Simple Assessment was found to be justified for the historic landscape sub-topic, and has been undertaken in accordance with HA208/07, Annex 6 and Annex 7.
- 15.3.2 The assessments have been undertaken in accordance with guidance provided by the DMRB, the Chartered Institute for Archaeologists' (CifAs) '*Standard and guidance for historic environment desk-based assessment*' (CifA 2014a) and The Highland Council's (THC's) '*Standards for Archaeological Work*' (2012). Settings assessments were undertaken in accordance with Historic Environment Scotland's '*Managing Change in the Environment: Setting*' (2016).

Study area

- 15.3.3 The study area is defined as the Proposed Scheme footprint plus a 200m area in all directions, as specified in DMRB HA208/07 (5.4.1) as shown in **Drawing 15.1**, contained within **Volume 3** of this report. The 200m study area is considered appropriate for archaeological remains, historic buildings and historic landscapes in this assessment.
- 15.3.4 Designated assets within a 1 km radius of the Proposed Scheme were also considered and assessed for potential impacts on their setting.

Baseline Data Sources

- 15.3.5 Data was gathered from the following sources:
- The Highland Council (THC) - Historic Environment Record
 - The Highland Archive Centre in Inverness
 - The National Library of Scotland – historical maps
 - Historic Environment Scotland (HES) – information on designated heritage assets
 - Cultural heritage assets recorded on Canmore
 - Walkover surveys undertaken by AB Heritage in August 2015
 - An asset inspection survey undertaken by the CH2M Fairhurst Joint Venture (CFJV) in February 2017
 - HLAmap (Scotland's Historic Land-use Assessment)
- 15.3.6 The numbering of cultural heritage assets in this chapter is prefixed with the A9 Dualling project number (8) for archaeological remains and historic buildings; and with HLT for historic landscapes.

Assessment Methodology

Assigning Sensitivity

- 15.3.7 Each identified cultural heritage asset is assigned a sensitivity (value) against a six-point scale, defined based on professional judgement, but guided by the criteria provided in DMRB, as presented in **Table 15-1** below.
- 15.3.8 Note that reference has been made to **Chapter 13, Landscape** to ensure that there is consistency in the assessment of historic landscape value, where relevant.

Table 15-1: *The value of cultural heritage assets*

Value	Criteria
Very High	<ul style="list-style-type: none"> World Heritage Sites (including Nominated Sites) Structures inscribed as of universal importance as World Heritage Sites World Heritage Sites inscribed for their historic landscape qualities Assets of acknowledged international importance Assets that can contribute significantly to acknowledged international research objectives Other buildings of recognised international importance Historic landscapes of international value, whether designated or not Extremely well-preserved historic landscapes with exceptional coherence, time-depth, or other critical factor(s)
High	<ul style="list-style-type: none"> Scheduled Monuments (including proposed sites) and those with standing remains Undesignated assets of schedulable quality and importance Category A Listed Buildings Other Listed Buildings that feature exceptional quality of their fabric or historical associations not adequately reflected in the category Conservation Areas containing very important buildings Undesignated structures of clear national importance Archaeological assets that can contribute significantly to acknowledged national research objectives 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 factor(s)
Medium	<ul style="list-style-type: none"> Category B Listed Buildings Historic (unlisted) buildings that can be shown to have exceptional qualities in their fabric or historical associations Conservation Areas containing buildings which contribute significantly to their historic character Designated or undesignated assets that contribute to regional research objectives Historic Townscape or built-up areas with important historic integrity in their buildings, or built settings (e.g. including street furniture and other structures) 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 factor(s)

Value	Criteria
Low	<ul style="list-style-type: none"> • Category C Listed Buildings • 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 • Historic (unlisted) buildings of modest quality in their fabric or historical association • Historic Townscape or built-up areas of limited historic integrity in their buildings or built settings (e.g. including street furniture and other structures) • Robust undesignated historic landscapes • Historic landscapes with importance to local interest groups • Historic landscapes whose value is limited by poor preservation and/ or poor survival of contextual associations
Negligible	<ul style="list-style-type: none"> • Assets with very little or no surviving archaeological interest • Buildings of no architectural or historic note or buildings of an intrusive character • Landscapes with little or no significant historical interest
Unknown	<ul style="list-style-type: none"> • The importance of the site has not been ascertained • Buildings with some hidden (i.e. inaccessible) potential for historic significance

Assigning Magnitude of Impact

- 15.3.9 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 potential impacts upon its setting or amenity value.
- 15.3.10 Assessment of magnitude with, and without, mitigation is based on professional judgement informed by DMRB methodology and criteria for archaeological remains, historic buildings and the historic landscape, as set out in **Table 15-2**. Unless otherwise stated, all potential impacts are adverse.

Table 15-2: *Magnitude of impact on cultural heritage assets*

Magnitude	Factors in the Assessment of Magnitude of Impact
Major	<ul style="list-style-type: none"> • Change to most or all key archaeological materials, such that the resource is totally altered • Change to key historic building elements, such that the resource is totally altered • 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 • Comprehensive changes to setting
Moderate	<ul style="list-style-type: none"> • Changes to many key archaeological materials, such that the resource is clearly modified • Changes to many key historic building elements, such that the resource is significantly modified • 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 • Considerable changes to setting that affect the character of the asset

Magnitude	Factors in the Assessment of Magnitude of Impact
Minor	<ul style="list-style-type: none"> Changes to key archaeological materials, such that the asset is slightly altered Changes to key historic building elements, such that the asset is slightly different 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 Slight changes to setting
Negligible	<ul style="list-style-type: none"> Very minor changes to archaeological materials, or setting Slight changes to historic buildings elements or setting that hardly affect it 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	<ul style="list-style-type: none"> No change to elements, parcels or components; no visual or audible changes no changes arising from in amenity or community factors

Assigning Significance of Impacts

15.3.11 For all three sub-topics, the significance of impact with, and without, mitigation is determined by considering the value/ sensitivity of the asset and the magnitude of impact. This is achieved using professional judgement informed by the matrix illustrated below in **Table 15-3**. Five levels of significance are defined, which could apply equally to adverse and beneficial impacts. This is as per Table 5.4 of DMRB Volume II Section 3 Part 2 HA208/07 Annex 5.

Table 15-3: Significance of Impacts

Significance of Impact					
Magnitude of Impact	Value / Sensitivity				
	Very High	High	Medium	Low	Negligible
Major	Very Large	Large/ Very Large	Moderate/ Large	Slight/ Moderate	Slight
Moderate	Large/ Very Large	Moderate/ Large	Moderate	Slight	Neutral/ Slight
Minor	Moderate/ Large	Moderate/ Slight	Slight	Neutral/ Slight	Neutral/ Slight
Negligible	Slight	Slight	Neutral/ Slight	Neutral/ Slight	Neutral
No Change	Neutral	Neutral	Neutral	Neutral	Neutral

15.3.12 For the purpose of this assessment, effects on cultural heritage assets of moderate adverse significance, are taken to be significant.

15.3.13 Impacts have been assessed to be temporary or permanent. Temporary impacts would be short-term and normally not last beyond the construction period; permanent impacts would be irreversible. Permanent impacts on cultural heritage assets can occur during construction and operation and are regarded as requiring mitigation as cultural heritage is a non-renewable source and requires “*preservation by record*” (THC 2012: 27) if impacts are irreversible, appropriate to the value of the asset.

Limitations to Assessment

15.3.14 This assessment has been prepared based on the results of desk-based research and walkover surveys only. No intrusive archaeological investigation has been undertaken.

15.4 Baseline Conditions

- 15.4.1 A total of 27 cultural heritage assets have been identified within the 200m study area; consisting of 11 archaeological remains, 9 historic buildings and six historic landscape types (see **Drawings 15.1-15.5** in **Volume 3**). Full details of all cultural heritage assets are presented in **Appendix 15.1**, within **Volume 2** of this report. There is one designated asset within the 1km study area – Dalwhinnie Distillery and Bonded Warehouse (Asset 8.5; LB6898), a Category B Listed Building.
- 15.4.2 An assessment of the value of the 27 cultural heritage assets identified, as shown on **Drawings 15.1-15.5**, is presented in **Table 15-4** below.

Table 15-4: Cultural heritage assets within the study area

Asset No	Chainage	Asset Name	Designation	Value
8.1	20,630	General Wade's Military Road	None	Low
8.2	20,770	Cisteachan Bridge	None	Low
8.3	21,200	Wade Bridge	Category B Listed Building	Medium
8.4	21,415	Bhacain Bridge	None	Low
8.5	22,330	Dalwhinnie War Memorial	None	Low
8.6	22,100	Possible march boundary between Cuaich and South Drumochter	None	Low
8.7	22,650	Dalwhinnie Distillery and Bonded Warehouse	Category B Listed Building	Medium
8.8	24,621	Truim Aqueduct	None	Low
8.9	25,230	Lechden Shielings	None	Medium
8.10	26,530	Enclosure	None	Low
8.11	27,580	Dalannach Farmstead	None	Low
8.12	29,970	Crubenmore Bridge – Old Coach Road from Stirling to Inverness	None	Low
8.13	30,940	Crubenmore Old Bridge	Category B Listed Building	Medium
8.14	31,050	Crubenmore New Bridge	Category C Listed Building	Medium
8.15	22,150	Dam (1)	None	Low
8.16	23,300	Dam (2)	None	Low
8.17	27,700	Turf bank (1)	None	Negligible
8.18	28,000	Turf bank (2)	None	Negligible
8.19	28,280	Stone dwelling	None	Low
8.20	29,180	Track, platform	None	Negligible
8.21	29,200	Allt Garbh aqueduct	None	Low
HLT1	22,400	Rough grazing	None	Low
HLT2	21,900	Reservoir	None	Negligible
HLT3	21,600	Plantation	None	Negligible
HLT4	27,500	Rectilinear fields and farms	None	Low
HLT5	30,700	Designed landscape	None	Low
HLT6	20,400	Motorway	None	Negligible

Archaeological remains of very high or high value

- 15.4.3 No archaeological remains of very high or high value were identified within the study area.

Archaeological remains of medium value

- 15.4.4 One site of archaeological remains of medium value has been identified within the study area.

15.4.5 The Lechden Shielings (Asset 8.9) are evidence of transhumance agriculture in Glen Truim, which comprises of a group of 16 shieling-type huts constructed of varying combinations of wood, stone and turf which may have been depopulated since approximately 1940. The site includes a farmstead, sheep fold and shieling huts and mounds. The use of shielings seems to vary locally and seasonal exploitation of land can change with improved forms of land exploitation (Dalglish and Tarlow 2012). In consideration of the complex's good preservation and due to its ability to aid our understanding of the varying seasonal exploitations of land locally, this asset has been assessed to be of medium value (as per **Table 15-4** above).

Archaeological remains of low value

15.4.6 A total of seven archaeological remains of low value were identified within the study area.

15.4.7 General Wade's Military Road (Asset 8.1) follows the existing A9 road closely at the southern end of the study area until it reaches Wade Bridge (Asset 8.3), with a number of confirmed locations also located to the north. The road may have been destroyed in places by previous construction of the A9 and the Highland Mainline (HML) railway. As remains of a military road, this asset can aid our understanding of the Jacobite period, the subsequent mid-18th century military organisation of the area and the later opening up of the Highlands (Dalglish and Tarlow 2012). However, given the limited archaeological information likely to be gained from surviving remains, this asset has been assessed to be of low value (as per **Table 15-4** above).

15.4.8 The remains of a possible march boundary between Cuaich and South Drumochter (Asset 8.6) is marked as an alignment of stones and cairns on the 1st Edition Ordnance survey map and is currently marked on the land by a modern fence. Due to its ability to contribute to our understanding of post medieval land divisions and ownership boundaries locally, this asset has been assessed to be of low value.

15.4.9 An enclosure (Asset 8.10) is depicted on the 1st Edition Ordnance Survey map and on modern mapping. In consideration of its ability to contribute to an understanding of local land segregation and agricultural practices, this asset has been assessed to be of low value.

15.4.10 Dalannach Farmstead (Asset 8.11) is recorded as the footings of four buildings, two enclosures, and the remains of a sheepfold built of railway sleepers. It was depopulated in the early 1920s. The remains of a stone built rectangular dwelling (Asset 8.19) were identified during the walkover survey. The dwelling, which is shown on modern Ordnance Survey (OS) mapping, is located on a raised area in the floodplain of the River Truim. This dwelling is an example of abandoned Highland housing, which may have been abandoned during or after the Clearances. These assets are considered to be of low value due to their ability to contribute to our knowledge of local 19th century rural Highland settlement within the Cairngorms National Park.

15.4.11 Crubenmore Bridge – Old Coach Road from Stirling to Inverness (Asset 8.12) relates to the conjectured line of the Old Coach Road of 1860, from Stirling to Inverness, which has the same alignment as a modern path line to just south of the Bridge of Etteridge. Two sections were excavated in 1974 across the line of the old coach road. Due to the ability of any surviving remains to add to our knowledge of 19th century infrastructure across this area of the Highlands, this asset has been assessed to be of low value.

15.4.12 A channel which may have formed an overflow aqueduct for Allt Garbh (Asset 8.21) was identified during the walkover survey. This possible aqueduct may have been constructed when the railway was built in the later 19th century. Due to its ability to contribute to our understanding of 19th century land modification and local aqueduct engineering methods, this asset has been assessed to be of low value.

Archaeological remains of negligible value

- 15.4.13 A total of three archaeological remains of negligible value have been identified during the walkover survey within the study area. These consist of two turf banks (Assets 8.17 and 8.18) and a track and platform (Asset 8.20). Due to the limited archaeological information likely to be retrieved from these assets, these assets have been assessed to be of negligible value.

Archaeological remains of unknown value

- 15.4.14 No archaeological remains of unknown value were identified within the study area.

Potential for Unknown Archaeological Remains

- 15.4.15 The area around the A9 has considerable evidence of small-scale agricultural settlements and enclosures, boundary markers and 18th century and later roads and bridges. There is the potential for previously unknown post medieval agricultural and settlement remains within the study area.
- 15.4.16 The area from Dalwhinnie through to Crubenmore was heavily used for hill pastures and shielings. Taking this into account, there is potential for buried archaeological remains associated with shieling settlements to be present, as evidenced at Lechden and Dalannach. The line of General Wade's Military Road also runs through the study area, and the potential exists for as yet unrecorded archaeological remains associated with it to survive where there has been little or no previous disturbance or development.

Historic buildings of very high and high value

- 15.4.17 No historic buildings of very high or high value were identified within the study area.

Historic buildings of medium value

- 15.4.18 A total of three historic buildings of medium value have been identified within the study area and one has been identified outside the study area.
- 15.4.19 Wade Bridge (Asset 8.3; **Photograph 15-1**) is a Category B Listed Building located south of Dalwhinnie. The restored single span pinned rubble bridge over the River Truim formed part of the infrastructure created by General Wade in the 1730s, as part of the military formalisation of the Highlands following the Jacobite rebellion of 1715.
- 15.4.20 The bridge was formerly designated as a Scheduled Monument, but was de-scheduled on 4th May 2016 due to the double designation as a Scheduled Monument and a Listed Building being in error. The bridge is situated in a low-lying position over the River Truim and predominantly screened from the A9 by the road embankment. The bridge sits between confirmed locations of General Wade's military road (Asset 8.1) to the south and the section of the road north of the bridge to Dalwhinnie. In consideration of its historic importance as a good example of an 18th Century military road bridge, and due to its designation as a Category B Listed Building, this asset has been assessed to be of medium value.



Photograph 15-1: Wade Bridge (Asset 8.3) looking south

- 15.4.21 Dalwhinnie Distillery and Bonded Warehouse (Asset 8.7, **Photograph 15-2**) is a Category B Listed Building located within Dalwhinnie, which was built in approximately 1890 and repaired after fire damage in 1919.
- 15.4.22 The complex comprises of a pair of malt kiln, malt barn, tun room, still house, bonded warehouses and associated structures. This asset has been assessed to be of medium value due to its designation as a Category B Listed Building and to being a well-preserved example of a late 19th Century Scotch whisky distillery.



Photograph 15-2: Dalwhinnie Distillery and Bonded Warehouse (Asset 8.7)

- 15.4.23 Crubenmore Old Bridge (Asset 8.13; **Photograph 15-3**) is a Category B Listed Building which spans the River Truim north of Crubenmore Lodge, at the northern end of the study area. The bridge was constructed between 1800 and 1810 as part of re-alignments and alterations to the mid-18th

century military route and is a substantial double span rubble bridge. The bridge is located at the lowest point of an open valley and views of it are partially obscured by riverside planting and rough grazing. Views from the bridge to the existing A9 are obscured by planting and the higher elevation of the A9. Due to its designation as a Category B Listed Building, this asset has been assessed to be of medium value.



Photograph 15-3: Crubenmore Old Bridge (Asset 8.13), taken looking south from Crubenmore Bridge

- 15.4.24 Crubenmore New Bridge (Asset 8.14; **Photograph 15-4**) is a Category C Listed Building. The bridge is a double arched concrete Modern Movement bridge located less than 500m north along the River Truim from Crubenmore Old Bridge (Asset 8.13). The bridge is one of eight bridges along the A9 designed and built by Sir Owen Williams and Maxwell Ayrton. Sir Owen Williams was the principal engineer for some of the key modernist buildings and a pioneer in the development of concrete architecture. Maxwell Ayrton was a Scottish architect who designed bridges, hospitals and other large structures, such as Wembley Stadium. Due to its association with the celebrated architects, its group value and its special and historic interest as a locally listed building, this asset has been assessed to be of medium value.



Photograph 15-4: Crubenmore New Bridge (Asset 8.14), taken looking north

Historic buildings of low value

- 15.4.25 A total of six historic buildings of low value have been identified within the study area.
- 15.4.26 Two bridges of local interest are located within the study area – Cisteachan Bridge (Asset 8.2) and Bhacain Bridge (Asset 8.4). These bridges could provide information to local infrastructure and construction method research and therefore have been assessed to be of low value.
- 15.4.27 Dalwhinnie War Memorial (Asset 8.5) is a First World War and Second World War memorial now located in Dalwhinnie, at the junction between the A889 and a minor road leading to the railway station. It is likely to have been relocated to its current location. This asset is of importance to the local community as a commemoration memorial and has therefore been assessed to be of low value.
- 15.4.28 The Truim Aqueduct (Asset 8.8) was built by Balfour Beatty in 1928 and forms part of the SSE hydro-electric generation network. Due to its local interest as part of the hydro-electric management, this asset has been assessed to be of low value. Two stone and concrete dams (Assets 8.15 and 8.16) were identified during the walkover survey which appear to be associated with the Truim Aqueduct. Due to their association with the Truim Aqueduct, these assets have also been assessed to be of low value.

Historic buildings of negligible and unknown value

- 15.4.29 No historic buildings of negligible or unknown value were identified within the study area.

Historic landscapes of very high, high and medium value

- 15.4.30 No historic landscapes of very high value, high or medium were identified within the study area.

Historic landscapes of low value

- 15.4.31 A total of three historic landscapes of low value have been identified within the study area.
- 15.4.32 Moorland rough grazing (HLT1) is the most extensive historic landscape type within the study area and within the Cairngorms National Park. Most of Scotland's moorlands are used as areas of rough grazing with some areas managed for stalking and grouse shooting. The heather moorlands have evolved as a result of woodland clearance, muirburn (planned programme of burning moorland), grazing and farming and some may have been drained in the past. These landscapes contain pre-19th century agriculture and settlement, and archaeological landscapes are likely to survive within this landscape type due to lack of development or large scale improvements. In consideration of the limited potential for buried archaeological remains and a robust historic landscape with importance to local interest groups, but lack of rarity within the region, this asset has been assessed to be of low value.
- 15.4.33 Rectilinear fields and farms (HLT4) evolved from the enclosure of arable land and building of slate roofed farm steadings and associated buildings, as part of agricultural improvements in the 18th and 19th centuries. This landscape type and its buildings would aid our understanding of agricultural changes and settlement within the region and therefore this asset has been assessed to be of low value.
- 15.4.34 Designed landscapes (HLT5) around country houses and castles have been developed since the 17th century for pleasure and/ or productive purposes. This historic landscape type was identified within the study area as part of the formal gardens around Crubenmore Lodge. This historic landscape type could aid our understanding of the formalising and redevelopment of estate

gardens and grounds since the 17th century locally, and therefore this asset has been assessed to be of low value.

Historic landscapes of negligible value

- 15.4.35 A total of three historic landscapes of negligible value were identified within the study area.
- 15.4.36 A reservoir water body (HLT2) was identified within the study area as a dam on the River Truim west of Loch Ericht reservoir, south of Dalwhinnie. This asset is a well-understood feature with little significant historical interest and therefore has been assessed to be of negligible value.
- 15.4.37 Forestry plantation (HLT3) has been a feature of Scotland’s landscapes since the establishment of the nation’s Forestry Commission in 1919. Modern plantation is well-understood with limited time depth and therefore this asset has been assessed to be of negligible value.
- 15.4.38 Motorway (HLT6) is part of the late 20th century and early 21st century transport broad type and the modern A9 is shown along the study area. Due to the limited historical significance of this historic landscape type, this asset has been assessed to be of negligible value.

Historic landscapes of unknown value

- 15.4.39 No historic landscapes of unknown value were identified within the study area.

15.5 Potential Impacts

- 15.5.1 The potential impacts during the construction phase of the Proposed Scheme can be physical, such as removal or partial removal of an asset, or severance of an asset, or non-physical, such as noise or visual intrusion and other changes to the setting of an asset.
- 15.5.2 The impacts during the operational phase of the Proposed Scheme can be non-physical, such as noise or visual intrusion and other changes to the setting of an asset. All impacts are adverse unless otherwise stated.
- 15.5.3 Throughout the DMRB Stage 3 design process, a number of environmentally led workshops considered each aspect of the developing design and made recommendations for certain features to be included in the next design iteration. These features have been defined as ‘embedded mitigation’ and, where they are included in the Proposed Scheme design, they are considered within the context of the impact assessment as providing mitigation to avoid or reduce environmental impacts, and in some cases, provide environmental benefits.
- 15.5.4 With respect to the topics under consideration in this Chapter, the relevant features of embedded mitigation include:
- Reduction of embankment size at Wade’s Bridge (Asset 8.3)
 - Design and materials sympathetic to the existing aqueduct have been incorporated into the new structure in order to lessen the impact and help integrate the new diverted section of the aqueduct with the historical aqueduct
 - Alignment informed by consideration of proximity to, and setting of, local heritage features
 - Reinstatement of vegetation, or consideration of non-total removal of vegetation, screening the A9 from Crubenmore Old Bridge (Asset 8.13)

Archaeological Remains

Construction Impact Assessment

- 15.5.5 Construction of the Proposed Scheme will disturb/ remove surviving remains of General Wade’s Military Road (Asset 8.1) that lie within the Proposed Scheme extents. Remains of this road have been recorded south of Dalwhinnie, and the road follows the modern existing tarmac road that runs north through Dalwhinnie. Any remains found are likely to be of Low value. In consideration of the small portion of the surviving archaeological remains that could potentially be removed by the Proposed Scheme, the magnitude of the permanent construction impact has been assessed to be Moderate and the significance of impact has been assessed to be **Slight**.
- 15.5.6 Construction of the Proposed Scheme will partially remove surviving remains of the possible march boundary between Cuaich and South Drumochter (Asset 8.6), either where it survives beneath the modern A9 or through the cutting of embankments on either side. In consideration of the small area of the asset that will be removed, the magnitude of the permanent impact has been assessed to be Moderate and the significance of impact has been assessed to be **Slight**.
- 15.5.7 The full extent of Lechden Shielings (Asset 8.9) is unknown and it is possible that remains associated with it could extend to the Proposed Scheme. If construction of the Proposed Scheme does remove partially surviving remains, the majority of the shielings would survive outside of the Proposed Scheme area. In consideration of this, the magnitude of the permanent impact has been assessed to be Minor and the significance of impact has been assessed to be **Slight**.
- 15.5.8 The full extent of Dalannach Farmstead (Asset 8.11) is unknown and it is possible that remains associated with it could extend to be within the Proposed Scheme. If construction of the Proposed Scheme does partially remove surviving remains, it is likely that part of the farmstead would still survive outside of the Proposed Scheme. In consideration of this, the magnitude of the permanent impact has been assessed to be Moderate and the significance of impact has been assessed to be **Slight**.
- 15.5.9 The exact location of the old coach road from Stirling to Inverness (Asset 8.12) is unclear and no above ground remains were observed during the walkover survey. If construction of the Proposed Scheme does partially remove surviving remains, it is likely that a small area of the coach road would be removed. In consideration of this, the magnitude of the permanent impact has been assessed to be Minor and the significance of impact has been assessed to be **Slight**.
- 15.5.10 The cutting of the road and the raising of embankments for the Proposed Scheme and the creation of Sustainable Drainage Systems basin 277 (SuDS 277) will partially remove archaeological remains associated with the turf bank Asset 8.17. As the majority of the turf bank will remain outside of the Proposed Scheme, the magnitude of the permanent impact has been assessed to be Moderate and the significance of impact has been assessed to be **Slight**.
- 15.5.11 The Proposed Scheme is likely to partially remove a possible track and platform (Asset 8.20). As the majority of the asset will survive outside of the Proposed Scheme, the magnitude of the permanent impact has been assessed to be Minor and the significance of impact has been assessed to be **Slight**.
- 15.5.12 The creation of embankments for the Proposed Scheme will partially remove or compress remains of the Allt Garbh aqueduct (Asset 8.21). In consideration of the partial removal or compression of the asset, the magnitude of the permanent impact has been assessed to be Moderate and the significance of impact has been assessed to be **Slight**.

Operational Impact Assessment

- 15.5.13 No potential impacts are predicted for archaeological remains during the operation of the Proposed Scheme.

*Historic Buildings**Construction Impact Assessment*

- 15.5.14 The access road for SuDS 207 will remove Cisteachan Bridge (Asset 8.2), which is a modern concrete culvert. Due to the removal of the entire cultural heritage asset, the magnitude of the permanent impact has been assessed to be Major and the significance of impact has been assessed to be **Slight**.
- 15.5.15 The Proposed Scheme will cause visual and noise impacts on the setting of Wade Bridge (Asset 8.3; Category B Listed Building) through the temporary construction works and machinery. In addition to the construction machinery on the A9 itself, the temporary works boundary lies less than 30m east of the asset and construction traffic on the access road has potential to cause further visual and noise intrusion to the asset's setting. The temporary use of General Wade's Military road north of the bridge as an access road for construction machinery and traffic would result in the severance of the bridge with its associated historic context. This would change the experience of travellers walking the Wade route.
- 15.5.16 Although the construction of the dual carriageway will impact on the setting of the asset, it will not affect our ability to understand and appreciate the bridge. The lower elevation of the bridge separates it slightly from the Proposed Scheme and the widened A9 would not cause a detracting from the asset; therefore, the magnitude of the temporary impact has been assessed to be Moderate and the significance of impact has been assessed to be **Moderate**.
- 15.5.17 The Proposed Scheme, including the access road for SuDS 213, will be constructed east of Bhacain Bridge (Asset 8.4). The excavation for the proposed road cutting and raising of embankments will create a visual impact in the asset's landscape and an increase in noise levels through the operation of construction plant. The presence of construction machinery will not be prominent in views from the asset as the bridge underlies the A889 and is at a lower level than the A9. As the construction of the Proposed Scheme will not detract from our ability to understand and appreciate Bhacain Bridge, the magnitude of the temporary impact has been assessed to be Minor and the significance of impact has been assessed to be **Neutral**.
- 15.5.18 A section of the Truim Aqueduct (Asset 8.8) east of the present A9 will be diverted as part of the Proposed Scheme. This will change the morphology and design but it would not affect the function of the aqueduct or our understanding of the cultural heritage asset. In consideration of this, the magnitude of the permanent impact has been assessed to be Moderate and the significance of impact has been assessed to be **Slight**.
- 15.5.19 The Proposed Scheme will be constructed approximately 50m east of Crubenmore Old Bridge (Asset 8.13; Category B Listed Building). The construction plant and machinery during construction of the Proposed Scheme will detract from the asset's visual setting as some of the existing vegetation will be removed and the plant machinery and works will likely be visible from the bridge. There is also a proposed access track leading to SuDS 306 which although it will not cause physical damage to the asset it may detract from the visual setting of the asset and create temporary increased noise on the rural setting. In consideration of this, the magnitude of the temporary impact has been assessed to be Minor and the significance of impact has been assessed to be **Slight**.

- 15.5.20 The Proposed Scheme will be constructed approximately 270m southeast of Crubenmore New Bridge (Asset 8.14; Category C Listed Building). The construction plant and machinery during construction of the Proposed Scheme will detract from the asset's visual setting as some of the existing vegetation will be removed and the plant machinery and works will likely be visible from the bridge but at a distance and with limited sightlines. In consideration of this, the magnitude of the temporary impact has been assessed to be Minor and the significance of impact has been assessed to be **Slight**.

Operational Impact Assessment

- 15.5.21 The Proposed Scheme will result in visual impacts on the setting of Wade Bridge (Asset 8.3; Category B Listed Building) through changes to the junction of the A9 and A889 (General Wade's Military Road) north of the bridge and road embankments. The location of Sustainable Drainage Systems basins (SuDS) 213 and 214 are less than 100m from the asset but should not be visible due to the lower elevation of Asset 8.3.
- 15.5.22 Although the operation of the Proposed Scheme will introduce new elements into the landscape of Wade Bridge by introducing higher embankments, it will not affect our ability to understand and appreciate the asset as the relationship of the bridge with the historical military route will be maintained. In consideration of this, the magnitude of the permanent impact has been assessed to be Minor and the significance of impact has been assessed to be **Slight**.
- 15.5.23 Crubenmore Old Bridge (Asset 8.13; Category B Listed Building), although close to the current A9, is on a lower elevation and currently screened from the A9 by existing vegetation. The operation of the Proposed Scheme may detract from the asset's setting visually as some of the existing vegetation will be removed. This is likely to introduce the widened A9 into its landscape but it will not affect our ability to appreciate and understand the old road bridge as the line of the modern A9 and the line of the historical 18th / early 19th century military infrastructure will remain as two distinct transport routes. The magnitude of the permanent impact has been assessed to be Minor and the significance of impact has been assessed to be **Slight**.

Historic Landscapes

Construction Impact Assessment

- 15.5.24 The Proposed Scheme will remove parts of rough grazing (HLT1) and plantation (HLT3). However, it will not reduce the legibility of these landscapes or cause severance. The magnitude of the permanent impact has been assessed to be No change and the significance of impact has been assessed to be **Neutral**.

Operational Impact Assessment

- 15.5.25 No potential impacts are predicted for historic landscapes during the operation of the Proposed Scheme.

15.6 Mitigation

15.6.1 This impact assessment has established that the construction of the Proposed Scheme is likely to have:

- adverse Moderate significance of impacts on one cultural heritage asset
- adverse Slight significance of impacts on 12 cultural heritage assets
- Neutral significance of impact on three cultural heritage assets

15.6.2 This assessment has established that the operation of the Proposed Scheme is likely to have adverse **Slight** significance of impacts on two cultural heritage assets.

15.6.3 Mitigation proposals to be implemented for individual cultural heritage assets are outlined in **Table 15-5**. A summary of mitigation proposals is provided in the following sections.

Archaeological Remains

15.6.4 To mitigate potential impacts on previously unknown archaeological remains, archaeological works and recording shall be implemented in consultation with THC's Historic Environment Team and Historic Environment Scotland (HES).

15.6.5 A watching brief shall be undertaken in the vicinity of archaeological remains which may partially lie within the Proposed Scheme in order to identify and record archaeological remains. This shall be in accordance with *'ClfA's Standard and Guidance for an archaeological watching brief'* (ClfA 2014b). A watching brief shall be carried out on the following assets:

- General Wade's Military Road (Asset 8.1)
- Possible march boundary between Cuaich and South Drumochter (Asset 8.6)
- Dalannach Farmstead (Asset 8.11)
- The Old Coach Road from Stirling to Inverness (Asset 8.12)

15.6.6 To record its form before construction of the Proposed Scheme, an analytical earthwork survey to Historic England Level 3 (Historic England 2017) is required for Turf bank 1 (Asset 8.17) and a date should be retrieved from the bank material. Historic England guidance is cited as they provide recognised standards for the recording of earthworks, which is applicable UK-wide.

15.6.7 To record their form before construction of the Proposed Scheme, analytical surveys to Historic England Level 3 (Historic England 2017) are required for Lechden Shielings (Asset 8.9), track and platform (Asset 8.20) and Allt Garbh Aqueduct (Asset 8.21) and a watching brief is required during construction, which would be carried out in accordance with ClfA's *'Standard and Guidance for an archaeological watching brief'* (ClfA 2014b). This would allow a detailed record to be made of their form before construction of the Proposed Scheme and preserve the site by record.

Historic Buildings

15.6.8 Although the Cisteachan Bridge (Asset 8.2) will be removed as part of the Proposed Scheme, this is a modern concrete culvert bridge with limited historical interest and so mitigation is not required on it.

15.6.9 To mitigate potential impacts on the setting of Wade Bridge (Asset 8.3; Category B Listed Building), sensitive design of embankments is essential. Historic Building Recording (Basic) shall be carried out in line with *Historic Building Recording Guidance* (ALGAO: Scotland 2013) and in

accordance with *Understanding Historic Buildings: a guide to good recording practice* (Historic England 2016) in order to record the existing setting of the asset. Historic England guidance is cited as they provide recognised standards for the recording of historic buildings, which is applicable UK-wide.

- 15.6.10 The diversion of the Truim Aqueduct (Asset 8.8) will alter the shape of the cultural heritage asset. Design and materials sympathetic to the existing aqueduct will lessen the impact and help integrate the new diverted section of the aqueduct with the historical aqueduct. Historic Building Recording (Enhanced) will be carried out in line with *Historic Building Recording Guidance* (ALGAO: Scotland 2013) and in accordance with *Understanding Historic Buildings: a guide to good recording practice* (Historic England 2016) in order to preserve the existing structure by record.
- 15.6.11 To mitigate potential impacts on the setting of Crubenmore Old Bridge (Asset 8.13; Category B Listed Building) and Crubenmore New Bridge (Asset 8.14), tree planting where possible along the Proposed Scheme will reduce the impact of the scheme on the assets. Historic Building Recording (Basic) shall be carried out in line with *Historic Building Recording Guidance* (ALGAO: Scotland 2013) and in accordance with *Understanding Historic Buildings: A guide to good recording practice* (Historic England 2016) in order to record the existing setting of the assets. Consideration should also be given to erecting fencing at Crubenmore Old Bridge (Asset 8.13) in order to protect it due to the close proximity of the temporary access route.
- 15.6.12 Although no vibration impacts on Listed Buildings have been identified, the Contractor shall review piling locations once the construction programme is finalised to consider whether piling locations will be within 100m of Listed Buildings. If so, assessment shall be undertaken in order to assess the potential impacts of vibration on the structures, and to inform the adopted piling methodology such that vibration causing significant harm to the structures is avoided (see **Chapter 17**).

Historic Landscape

- 15.6.13 Landscape planting will be carried out along the Proposed Scheme to aid its integration into the surrounding landscape and reduce its visual impact. Such mitigation and/ or compensatory planting will mature during the operation of the scheme and, will reduce the significance of impact on the historic landscape.

Monitoring Requirements

- 15.6.14 No monitoring is required.

Table 15-5: Cultural Heritage Specific Mitigation Requirements

Item Ref.	Approximate Chainage/ Location	Timing of Measure	Description	Mitigation Purpose/ Objective	Specific Consultation or Approval Required
Standard A9 Mitigation					
SMC – CH1	Throughout the Proposed Scheme	Construction	The Contractor will consult with the relevant local authority and Transport Scotland's historic environment advisor should any archaeological or cultural heritage finds or sites be discovered or revealed during construction to enable appropriate measures to be implemented to mitigate potential impacts.	To enable appropriate mitigation measures to be implemented to mitigate impacts on assets found during construction.	Transport Scotland's cultural heritage advisor HES if affecting Scheduled Monument, Category A Listed Building, Historic Battlefield or Garden & Designed Landscape
Embedded Mitigation					
P08 – CH1	Asset 8.3 and the Dalwhinnie Junction	Design Construction / Operation Phase	Sensitive slope design and planting with input from a Landscape Architect is proposed at Dalwhinnie Junction as outlined in P08-LV1 and P08-LV3 in Chapters 13 and 14. Planting shall be as specified on Environmental Mitigation Plan Drawings 6.1 to 6.11 in Volume 3 .	To reduce and mitigate visual impacts on Wade's Bridge	
P08 – CH2	Truim Aqueduct (Asset 8.8)	Design and construction	To reduce the impact of the new structure of Truim Aqueduct, design of the new structure has been sympathetic to the historical structure. The materials of the new structure shall be sympathetic to the historical structure, such as concrete. The detail of the materials will be decided prior to construction stage in liaison with Scottish and Southern Energy.	To mitigate the partial loss of the aqueduct and reduce the visual impact on the historical structure	Scottish and Southern Energy (SSE)
P08 – CH3	ch.30, 000 and 31,050	Design Construction / Operation Phase	To reduce the visual impact of the Proposed Scheme on Crubenmore Old Bridge (Asset 8.13) and Crubenmore New Bridge (Asset 8.14), any trees lost between ch. 30,800 and 31,050 due to the Proposed Scheme shall be replaced if possible as outlined in P08-LV6 in Chapters 13 and 14 and as detailed on Environmental Mitigation Plan Drawings 6.1 to 6.8 in Volume 3 .	To reduce the visual and physical impacts on the assets	
Project Specific Mitigation					
P08 – CH4	Throughout scheme	Pre-construction and construction	The preferred mitigation for archaeological remains is preservation <i>in situ</i> . The preferred mitigation for historic buildings is non-destructive. Where this is not feasible, a programme of preservation by record must be undertaken.	To ensure heritage assets are mitigated appropriately.	
P08 – CH5	Throughout scheme	Pre-construction or construction	To mitigate potential impacts on previously unknown archaeological remains, archaeological works and recording shall be implemented in consultation with THC's Historic Environment Team and Historic Environment Scotland (HES).	To ensure unknown archaeological assets are mitigated appropriately.	The Highland Council Historic Environment Team

Item Ref.	Approximate Chainage/ Location	Timing of Measure	Description	Mitigation Purpose/ Objective	Specific Consultation or Approval Required
P08 – CH6	Assets 8.1, 8.6, 8.11 and 8.12	Construction	The areas defined as requiring an archaeological watching brief shall be determined in consultation with The Highland Council Historic Environment Team.	Preserve assets by record.	The Highland Council Historic Environment Team
P08 – CH7	Assets 8.9, 8.17, 8.20 and 8.21	Pre-construction or construction	To mitigate the impacts on these assets, topographic surveys shall be undertaken in accordance with the guidance provided in <i>Understanding Historic Landscapes: A Guide to Good Recording Practice</i> (Historic England 2017). A watching brief shall be undertaken for Assets 8.9, 8.20 and 8.21. The areas defined as requiring an archaeological watching brief shall be determined in consultation with The Highland Council Historic Environment Team.	Preserve assets by record.	The Highland Council Historic Environment Team
P08 – CH8	Assets 8.3, 8.13 and 8.14	Construction	To mitigate the impacts on the settings of Wade Bridge (Asset 8.3) and Crubenmore Old Bridge (Asset 8.13) and Crubenmore New Bridge (Asset 8.14), Historic Building Recording (Basic) shall be carried out in line with <i>Historic Building Recording Guidance</i> (ALGAO: Scotland 2013) and in accordance with <i>Understanding Historic Buildings: a guide to good recording practice</i> (Historic England 2016). Fencing should be erected at Crubenmore Old Bridge (Asset 8.13).	Preserve the assets setting by record.	
P08 – CH9	Asset 8.8	Pre-construction or construction	To mitigate the impact on Truim Aqueduct (Asset 8.8), Historic Building Recording (Enhanced) shall be carried out in line with <i>Historic Building Recording Guidance</i> (ALGAO: Scotland 2013) and in accordance with <i>Understanding Historic Buildings: a guide to good recording practice</i> (Historic England 2016).	Preserve the asset by record.	
P08 – CH10	Assets 8.3, 8.13 and 8.14	Pre-construction or construction	The Contractor shall review piling locations once the construction programme is finalised to consider whether piling locations will be within 100m of Listed Buildings. If so, assessment shall be undertaken in order to assess the potential impacts of vibration on the structures, and to inform the adopted piling methodology such that vibration causing significant harm to the structures is avoided.	Protect the asset.	

15.7 Residual Impacts

- 15.7.1 The residual impacts of the Proposed Scheme on cultural heritage assets after mitigation are outlined in **Table 15-6** and **Table 15-7**. Assets where no impact is predicted have been omitted for clarity.
- 15.7.2 After mitigation, no significant impacts on cultural heritage assets are predicted. The significance of residual impact during construction of the Proposed Scheme is predicted to be:
- Slight on four cultural heritage assets
 - Neutral on 12 cultural heritage assets
- 15.7.3 No residual impacts are predicted for the remaining cultural heritage assets.
- 15.7.4 The significance of residual impact during operation of the Proposed Scheme is predicted to be Neutral on two cultural heritage assets, with no residual impact predicted for the remaining cultural heritage assets.

Table 15-6: Predicted residual construction impacts on cultural heritage assets

Asset Number	Asset Name	Value	Significance of Impact	Mitigation	Magnitude of Residual Impact	Significance of Residual Impact
8.1	General Wade's Military Road	Low	Slight	Watching brief	Minor	Neutral
8.2	Cisteachan Bridge	Low	Slight	None proposed	Major	Slight
8.3	Wade Bridge	Medium	Moderate	Historic Building Recording (Basic)	Negligible	Slight
8.4	Bhacain Bridge	Low	Neutral	None proposed	Minor	Neutral
8.6	Possible march boundary between Cuaich and South Drumochter	Low	Slight	Watching brief	Minor	Neutral
8.8	Truim Aqueduct	Low	Slight	Historic Building Recording (Enhanced) and sensitive design	Minor	Neutral
8.9	Lechden Shielings	Medium	Slight	Earthwork survey and watching brief	Negligible	Neutral
8.11	Dalannach Farmstead	Low	Slight	Watching brief	Minor	Neutral
8.12	Crubenmore Bridge – Old Coach Road from Stirling to Inverness	Low	Slight	Watching brief	Negligible	Neutral
8.13	Crubenmore Old Bridge	Medium	Slight	Historic Building Recording (Basic)	Minor	Slight
8.14	Crubenmore New Bridge	Medium	Slight	Historic Building Recording (Basic)	Minor	Slight
8.17	Turf bank	Negligible	Slight	Topographic survey and dating	Negligible	Neutral
8.20	Track, platform	Low	Slight	Earthwork survey and watching brief	Negligible	Neutral
8.21	Allt Garbh aqueduct	Low	Slight	Earthwork survey and watching brief	Minor	Neutral
HLT1	Rough Grazing	Low	Neutral	Landscape and Planting	No change	Neutral
HLT3	Plantation	Negligible	Neutral	None proposed	No change	Neutral

Table 15-7: Predicted residual operational impacts on cultural heritage assets

Asset Number	Asset Name	Value	Significance of Impact	Mitigation	Magnitude of Residual Impact	Significance of Residual Impact
8.3	Wade Bridge	Medium	Slight	Historic Building Recording (Basic) and sensitive design of signage and embankments	Negligible	Neutral
8.13	Crubenmore Old Bridge	Medium	Slight	Planting	Negligible	Neutral

15.8 References

Association of Local Government Archaeological Officers UK (ALGAO): Scotland, 2013, *Historic Building Recording Guidance for Curators, Consultants and Contractors*

Chartered Institute for Archaeologists, 2014a, *Standard and guidance for historic environment desk-based assessment*

Chartered Institute for Archaeologists, 2014b, *Standard and Guidance for an archaeological watching brief*

Dalglish and Tarlow (Eds.), 2012, "Modern Scotland: Archaeology, the Modern past and the Modern present". Scottish Archaeological Research Framework (ScARF)

Historic England, 2017, *Understanding Historic Landscapes: A Guide to Good Recording Practice*

Historic England, 2016, *Understanding Historic Buildings: a guide to good recording practice*

Historic Environment Scotland, 2016, *Managing Change in the Environment: Setting*

The Highland Council, 2012, *Standards for Archaeological Work*

Transport Scotland, 2015, A9 Dualling – Crubenmore to Kincaig DMRB Stage 2 Scheme Assessment Report - Chapter 14 – Cultural Heritage