

Scottish Water Solutions:

Storr Forrest Mains Water Pipe Renewal




Archaeological and Built Heritage Desk-based Assessment and Walkover Survey

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Contents

1	Introduction	1
1.1	General	1
2	Planning and Legislative Background	2
3	Methodology	4
3.1	General	4
3.2	Aims and Objectives	4
3.3	Assessment of Sensitivity of Cultural Heritage Sites	4
3.4	Predicted Impacts	6
3.5	Assessment of Significance of Effects	7
4	Archaeological and Historical background	8
5	The Archaeology and Built Heritage of the Study Area	12
5.1	Desk-based assessment	12
6	Assessment of Impacts	14
6.2	General	165
7	Mitigation Proposals	16
7.2	Acknowledgements	16
8	References	17
8.1	Bibliographic References	17
8.2	Cartographic References	17
8.3	Aerial Photographs (Verticals)	17

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List of Tables

Table 1	Cultural Heritage Importance	5
Table 2	Criteria to Assess Magnitude of Impact on Archaeology and Historic Buildings	6
Table 3	Significance of Effects Matrix	7
Table 4	Sites identified by Chronological period	12
Table 5	Summary of Assessment of Sensitivity of Identified Heritage Sites	14
Table 6	Assessment of Potential Impacts during construction	14

List of Figures

Figure 1.1:	Location of Sites of Cultural Heritage Interest
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1.1 General

- 1.1.1 Jacobs Engineering UK Ltd has been commissioned by Scottish Water Solutions to undertake an archaeological and built heritage desk-based assessment and walkover survey to assess the potential impacts of construction of a replacement water mains pipeline within the township of Achachork, located to the north of Portree on the Isle of Skye. The pipeline extends from (NGR: NG 47005 46321 to NGR: NG 48905 45402), a distance of about 2km (Figure 1).
- 1.1.2 Jacobs Engineering UK Ltd conforms to the standards of professional conduct outlined in the Institute for Archaeologists Code of conduct, and relevant Standards and Guidance documents. Jacobs Engineering UK Ltd is a Registered Organisation (RO) with the Institute for Archaeologists (IfA). This status ensures that there is regular monitoring and approval by external peers of our internal systems, standards and skills development.
- 1.1.3 Data gathering and assessment was undertaken in accordance with the Institute for Archaeologists *Standard and Guidance on Archaeological Desk-Based Assessments* (1999).

- 2.1.1** World Heritage Sites are described by The United Nations Educational, Scientific and Cultural Organization (UNESCO) as exceptional places of 'outstanding universal value' and 'belonging to all the peoples of the world, irrespective of the territory on which they are located'. UNESCO seeks to protect and preserve such sites through an international treaty called the [Convention concerning the Protection of the World Cultural and Natural Heritage](#), drawn up in 1972. Scottish Ministers identify and put forward sites to the Department for Culture, Media and Sport for nomination and are also responsible for ensuring compliance with the UNESCO Convention in relation to sites in Scotland. Historic Scotland undertakes this role as part of its wider responsibility towards the historic environment¹
- 2.1.2** Some archaeological sites enjoy statutory protection as Scheduled Ancient Monuments (SAMs), protected under the Ancient Monuments and Archaeological Areas Act 1979, and are by definition of National importance. Without the prior written consent of the Scottish Ministers, known as Scheduled Monument Consent (SMC), it is an offence to undertake any works which would have the effect of demolishing, destroying, damaging, removing, repairing, altering, adding to, flooding or covering up a Scheduled Monument. Under article 15 (1) of the Town and Country Planning (General Development Procedure) (Scotland) Order 1992 notification to Historic Scotland of any planning application affecting a Scheduled Monument is also required
- 2.1.3** Buildings of special architectural or historic interest may also enjoy statutory protection as Listed Buildings (Graded Category A, B or C(s)) under the terms of the Town and Country Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997 and Listed Building consent must be obtained where proposals will alter the character of the Listed Building. It is a criminal offence to undertake such works without this consent. Any object or structure which is fixed to a listed building, or which falls within the curtilage of such building and, although not fixed to the building, has formed part of the land since before 1 July 1948, is treated as part of the building and also listed. Some buildings of lesser interest may be protected under Local Plan policies (see below).
- 2.1.4** The Town and Country Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997 imposes a duty on local planning authorities to designate and protect the historic character and appearance of some areas through their designation as Conservation Areas. These are areas of special architectural or historic interest, the character or appearance of which it is desirable to preserve or enhance. The main implication of designation is that consent will be required for specific types of development that would not

¹ <http://www.historic-scotland.gov.uk/index/heritage/worldheritage/what-is-a-world-heritage-site.htm>

otherwise require it. 'Conservation area consent' is used for applications to demolish unlisted buildings in conservation areas.

- 2.1.5 Parks and gardens included on the Inventory of Gardens and Designed Landscapes in Scotland are protected under Section 15(1)(j)(iv) of The Town and Country Planning (General Development Procedure) (Scotland) Order 1992 (the GDPO) which requires planning authorities, prior to granting planning permission, to consult Scottish Ministers on 'development which may affect a historic garden or designed landscape'.
- 2.1.6 Central government guidance on archaeology in the planning process is given in SPP 23 and Planning Advice Note 42, Archaeology (PAN 42). Key tenets of these documents are the desirability of preserving a monument (whether scheduled or not) and its setting and this is considered to be a material consideration in determining a planning application, and that while preservation *in situ* is the preferred option for mitigating impacts on the cultural heritage resource, where this is not feasible then preservation by record is an acceptable alternative.
- 2.1.7 SPP 23 outlines the Government's advice to developers and local authorities etc. in their consideration of development proposals affecting amongst others Listed Buildings and their setting, Conservation Areas and other historic buildings. Paragraph 32 of SPP 23 states that "The primary consideration for planning authorities in the determination of applications for listed building consent is the desirability of preserving the building or its setting, or any features of special architectural or historical interest which it possesses. While there is a presumption against development that adversely affects the character of a listed building or its setting, each case should be judged on its own merits. In general, listing should not prevent sympathetic adaptation and innovative solutions may be appropriate providing the special interest of the building is protected.
- 2.1.8 Guidance given in SPP 23 and PAN 42 is expanded in the Finalised Highland Structure Plan (2001) Policies BC1 Preservation of archaeological sites BC3 Archaeological Heritage Areas.

3.1 General

3.1.1 In order to define the cultural heritage baseline for the development, a study corridor of 200m around the proposed pipeline route(s) was defined. The following sources of information were consulted for this study area:

- *National Monuments Record of Scotland (NMRS);*
- *Aerial Photograph Collection held by the Royal Commission on Ancient and Historical Monuments of Scotland (RCAHMS);*
- *Highland Council Archaeology Unit (HCAU) Local Sites and Monuments Record (SMR);*
- *Early editions of Ordnance Survey and earlier mapping held by the Map Library of the National Library of Scotland and the National Archives of Scotland;*
- *Published and unpublished archaeological reports, articles journals and books;*
- *A walkover survey undertaken on the 17th of December 2008.*

3.1.2 Additional information was gathered and examined for the wider surrounding area to place the baseline information in its local and regional context, and to assess the potential for unknown and buried archaeological remains. All site numbers in the text are highlighted in bold and are in parentheses.

3.1.3 Sites of cultural heritage interest identified from these sources are shown on Figure 1 and details are given in appendix A.

3.2 Aims and Objectives

3.2.1 The objective of this study is to identify the archaeological and built heritage resource of the study area. The evidence presented, and the conclusions reached, aim to offer a comprehensive basis for further decisions regarding the future of the sites and the formulation of a strategy for mitigation of impact, should this be required.

3.3 Assessment of Sensitivity of Cultural Heritage Sites

3.3.1 An assessment of the degree of sensitivity to change of each cultural heritage receptor within the study area has been made on a five-point scale of Very High, High, Medium, Low, Negligible and Unknown, according to the criteria given in Table 1 below. Existing statutory and non-statutory designations will be taken into account in the assessment of sensitivity.

Table 1: Cultural Heritage Importance

Sensitivity	Criteria
Very High	World Heritage Sites or other sites of acknowledged international importance.
High	<p>Scheduled Ancient Monuments (SAM), Category A or B Listed Buildings;</p> <p>Other listed buildings that can be shown to have exceptional qualities not adequately reflected in the listing grade;</p> <p>Sites proposed for Scheduling or Listing;</p> <p>Conservation Areas containing very important buildings;</p> <p>Parks and gardens included on the Inventory of Gardens and Designed Landscapes in Scotland and</p> <p>Site is not Scheduled or Listed, but meets the criteria used in Scottish Historic Environment Policy 2 (SHEP2) for the designation of SAMs or criteria used in their designation of Listed Building categories (Memorandum of Guidance on Listed Buildings and Conservation Areas, Historic Scotland 1998. In general, these sites will be rare and in outstanding condition.</p>
Medium	<p>Category C (s) Listed Buildings;</p> <p>Conservation Areas containing buildings that contribute significantly to its historic character;</p> <p>Historic Townscape or built-up areas with important historic integrity in their buildings or built settings;</p> <p>Site is a non-statutory archaeological site or standing structure that contributes significantly to the Cultural Heritage resource of the local area or, to a lesser extent, the county as a whole; and,</p> <p>Site is of low sensitivity, but has wider value as part of a group of sites.</p>
Low	Site is a non-statutory archaeological site or standing structure that contributes to the Cultural Heritage of the parish/local area; and
Negligible	<p>Site is a non-statutory archaeological site with no surviving remains;</p> <p>Buildings of no architectural or historical note; and</p> <p>Buildings of an intrusive character.</p>
Unknown	The sensitivity of the site cannot be ascertained.

- 3.3.2** Setting is a material consideration in government planning policy for the historic environment, as defined in SPP 23 and PAN42, and is recognised often to form an intrinsic part of a site's special interest. Impacts upon setting therefore have the potential to affect the understanding and appreciation of a cultural heritage site.

3.3.3 There is currently no statutory guidance for the assessment of setting or impacts upon the setting of a site, designated or otherwise. The following assessment has therefore been undertaken against the criteria laid out below. For each site, the elements which contribute to its setting are identified against the following criteria:

- *Physical relationship with or characteristics of the site;*
- *Demonstrable former relationship or*
- *Perceptual non-physical relationship (e.g. public perceptions of the site, historical associations etc).*

3.3.4 The sensitivity of each element is then assessed on a three point scale of Low, Medium and High in order to define its level of contribution to the setting of the site as a whole.

3.4 Predicted Impacts

3.4.1 Criteria for the assessment of the magnitude of impact are set out in Table 2.

Table 2 - Criteria to Assess Magnitude of Impact on Archaeology and Historic Buildings

Magnitude	Criteria
Major	<p>Complete or nearly complete demolition or truncation of most or all key elements of a site;</p> <p>Development will be visible from the site and/or a significant viewpoint and will change several landscape elements, important to the understanding of the site; and,</p> <p>Development would physically sever one element of the site from another regardless of its visual intrusion.</p>
Moderate	<p>Demolition or truncation of many key elements of a site;</p> <p>Development will substantially alter the setting of a historic building, transforming its character, removing or altering significant elements within this, to affect the understanding and appreciation of the structure; and,</p> <p>Development will be visible from the site and/or a significant viewpoint and will alter several small, or a single large landscape element, which may affect our understanding of the site. The development may interrupt views from a site, or change the function of landscape elements, and the interactions between them, important to the understanding of the site.</p>
Minor	<p>Demolition or truncation of key elements of a site;</p> <p>Development will be visible from the site and/or a significant viewpoint and does not represent a change in overall character of the landscape setting;</p>

Magnitude	Criteria
	<p>A small change to an element of the landscape character. Typically this would be physically removed from the site and affect only a small proportion of its surrounding landscape; and,</p> <p>Development represents a change to landscape elements which are visible from the site, but which are of very minor or no importance to the understanding of the site.</p>
Negligible	<p>Change to or loss of minor elements of a site;</p> <p>Elements of the scheme will be barely visible from the site and/or from a significant viewpoint to the site, and does not represent an overall change to the character of the landscape; and,</p> <p>The scheme will change historic landscape elements of little relevance to the understanding of a site.</p>
No Change	<p>No observable loss of site elements; and,</p> <p>The scheme is not visible from the site and/or from a significant viewpoint, and will only change historic landscape elements of no relevance to the understanding of a site.</p>

3.5 Assessment of Significance of Effects

- 3.5.1** Significance of effect is determined as a combination of the site sensitivity and impact magnitude. Five levels of significance were defined which apply equally to beneficial and adverse impacts:

Table 3 Significance of Effects Matrix

Sensitivity	Magnitude				
	No Change	Negligible	Minor	Moderate	Major
Very High	None	Slight	Moderate / Large	Large / Very Large	Very Large
High	None	Slight	Moderate / Slight	Moderate / Large	Large / Very Large
Medium	None	Neutral / Slight	Slight	Moderate	Moderate / Large
Low	None	Neutral / Slight	Neutral / Slight	Slight	Slight / Moderate
Negligible	None	Neutral	Neutral / Slight	Neutral / Slight	Slight

- 4.1.1 Human occupation of Scotland began with the arrival of hunter-gatherer groups in the Mesolithic period (c.8000 – 4000BC). Mesolithic activity is mainly represented by scatters of flint fragments and tools, largely along coastlines, raised beaches and rivers.
- 4.1.2 With the introduction of agriculture in the Neolithic period (c.4500 – 2500BC), communities became more settled and land was cleared for farming. Peat accumulation on the West Highland Atlantic seaboard has obscured most Neolithic settlement sites, so the majority of evidence for the Neolithic occupation of this area comes from ritual monuments and communal burial mounds.
- 4.1.3 Chambered tombs are large mounds of stone and earth with one or more chambers, accessed via a central passage. Entry to the passage is often denoted by an opening within a forecourt, which can vary in form. Within Scotland chambered tombs have been classified into several groups such as Clyde-Carling, Hebridean and Bookan. Rather than individual burials, excavations have revealed that the dis-articulated bones of a number of individuals were placed within the chambers, possibly following exposure to the elements. Most chambered tombs appear to have gone out of use in the succeeding Bronze Age Period (c.2500 BC to 800 BC).
- 4.1.4 Stone circles and standing stones began to be erected by about 2500 BC, towards the end of the Neolithic period, possibly for ritual activities associated with the lunar, stellar and solar cycles. Such an example can be found at Clahan Erisco (NGR; NG 4519 4801), within the township of Borve. Only three stones remain upstanding in this stone circle, standing to a maximum height of 1.8m.
- 4.1.5 The occupation of some sites dating to the Early and Middle Bronze Ages have been found to continue into the Late Bronze Age when more substantial stone and timber built roundhouses were constructed. People began to live a more settled life as farming and the domestication of animals required a more permanent presence. This resulted in the construction of what are known as hut circles (roundhouses). Excavations of these sites have revealed that they were mainly constructed from timber with a ring/foundation of stone and earth forming the external base measuring up to 9m in diameter. An internal ring of post holes indicate that the roof timbers were supported forming a conical shaped roof, fixed to a central post. The roof covering would have been formed from readily available organic material such as turf, heather, thatch or even animal skins. Cooking was done on an open hearth within the centre of the dwelling. There is also evidence for external hearths and threshing areas associated with agricultural activities. As indicated these sites are often associated with prehistoric field systems and often the surrounding area is dotted with clearance cairns and turf boundary banks. To the south of Portree at Lon A' Ghleannain there is an area containing four hut circles, measuring up to 12m

in diameter. Evidence of prehistoric agricultural activity in this area is indicated by the remains of a boundary wall that passes close to the huts. In addition, 100m to the east of the first hut, an artificially flat mound has been noted which has some stones visible on the surface. It has been indicated that this may be the remains of a cairn associated with the hut circle settlement.

- 4.1.6 These structures appear to have been occupied successively for long periods. It is likely that this building style influenced the development of the classic Atlantic roundhouses (Brochs and Duns) which characterise the Early and Middle Iron Age (800BC – AD400). Atlantic roundhouses are monumental circular or sub-circular drystone buildings often with cells or galleries between inner and outer walls such as the ruinous example of Dun Beag (NGR: NG 339 387) near Struan. These structures vary considerably in architectural complexity and while this may be partly a chronological development, it could also derive from variations in the wealth or status of the occupants. While they may appear initially to be defensive structures, they were all probably primarily fortified farmhouses. By around the start of the 1st millennium AD, a new type of house appears. These ‘wheelhouses’ are characterised by semi-subterranean construction with a circular outer wall often revetted into beach sand with radial internal divisions. There was considerable overlap in the occupation of these building types, often occupying the same location with no apparent break in occupation.
- 4.1.7 Buildings constructed in the ruins of Atlantic roundhouses continued to be occupied into the Late Iron Age/Early Historic/Pictish Period (AD 400 – 900), and these often have a characteristic ‘figure of 8’ or ‘jelly baby’ shape. The evidence for high quality metal working recovered from these sites suggests that people were expressing their status through portable artefacts rather than monumental buildings.
- 4.1.8 Like many areas of Scotland, the Isle of Skye was subject to settlement by Norse invaders/settlers from the late 8th century onwards. The Vikings arrived from Norway by way of Shetland and Orkney, and they soon began to settle many coastal areas. Caithness, the coastal areas of Sutherland and Wester Ross, and the Hebrides all came under Norse control and this is primarily evident through toponymy (place-name evidence) which maintains a distinct combination of Scandinavian and Celtic origin. Place names such as Kyleakin, named after Kyle of Haco and Toravaig, said to mean Thor’s Bay.
- 4.1.9 In 1098 the dominance and political power of the Norse ultimately forced the Scottish Kings to surrender the lordship of the Outer Hebrides, which became part of the Norse Kingdom of ‘Man and the Islands’. In the mid 12th century Somerled revolted against the Kingdom of Man and Alexander III’s victory over the army of King Haakon IV of Norway in 1263 at the Battle of Largs, resulted in power being returned to the Kingdom of Scotland.
- 4.1.10 The Lordship of the Isles was forfeited in 1493. The power of clan leaders was traditionally based on the size of his retinue, especially the number of fighting men, and conspicuous consumption of agricultural produce and

system of land rental was designed to support this. In return for nominal rents, lands were rented by clan chiefs to tacksmen, usually their relations, whose principal function was to provide military men rather than cash income. Chiefs tried to maximise the social product of the land, rather than cash returns from it. The short land tenure offered by this system not only led to short lived settlement patterns but also offered little security to tenants or incentives to improve the land. It is possible that the early dispersed settlement pattern were replaced in this period with the bailtean system of irregular clusters of houses known as clachans or baises, surrounded by open land and runrig cultivation (where strips of land were apportioned on a regular basis and arable farmed jointly (Dodgshon 1993), although in some areas this only developed in the 19th century (ibid).

- 4.1.11 After 1745, laws designed to end this military power resulted in the status of a chief becoming more dependent on his monetary wealth rather than his men. Cash crops were required more than traditional tributes. While money was initially raised by the sale of black cattle, it later came from the production of wool and kelp (industrial raw material made by burning seaweed) and to maximise production (and therefore profit) there needed to be a direct tenurial contact between the landlord and his tenants. To achieve this, land was apportioned (lotted) into parcels, known as crofts, with one tenant occupying each croft and paying cash rent directly to the landlord. The size of these crofts was small, not only to maximise their number, but also to ensure that tenants needed to gather kelp in order to pay their rent. Landlords could afford to pay as little as possible for their labour and, as they owned the seaweed, profits were maximised further. Thus while the price of kelp increased, especially during the Napoleonic war when demand increased and the traditional sources of supply were disrupted, the cost of the raw materials and labour did not (Grey 1951, 203).
- 4.1.12 Kelping therefore led to reorganisation of the settlement pattern with the old run-rig system of joint holdings broken up in favour of crofts occupied by a single tenant.
- 4.1.13 The basic form of vernacular house seen within the Hebridean Islands during this period was the traditional Blackhouse, a single storey, dry stone constructed croft with central doorway and thatched roof.
- 4.1.14 The decline in the price of kelp which occurred after the end of the Napoleonic Wars highlighted the unsustainable nature of the kelping system. As tenants could pay part of their rents with money derived from labour, kelp made it possible for them to live on smaller amounts of land (Grey 1951, 206) but also made them wholly dependent on it. Landlords shared in this dependency as they required the kelp not only to generate rent but also additional profits. The fall in the price of kelp therefore had disastrous consequences for both landlord and tenants, as the tenants had small crofts with not enough arable or pasture to pay the rent (inflated due to the kelp) or provide a reserve of food to prevent famine, while the landlords lost their rental income and profits. Landlords turned to sheep farming which required not only less labour but also machair lands for grazing. This resulted in

clearance of these crofts and creation of larger farms, mainly for sheep. The most notorious examples of this type of clearance took place on the Sutherland estates of the Stafford family and on Skye resulted in the Battle of the Braes (1882) where the local crofters forced the eviction notices to be burnt.

- 4.1.15 It was not until the late 19th or early 20th century that the Congested Districts Boards or Board of Agriculture divided some of these farms into the regular pattern of crofts that are visible today, often with modern houses built to patterns provided by the Department of Agriculture and Fisheries.

5.1 Desk-based assessment

5.1.1 Eleven sites of cultural heritage interest were identified within the study area. The locations of these sites are shown on Figure 1 and information on these sites is presented in Appendix A.

Table 4 – Sites identified by Chronological period:

Period	Number of Sites	Site Numbers
Neolithic	0	
Bronze Age	0	
Iron Age	1	1
Norse	0	
Medieval	0	
Post Medieval	10	2, 3, 4, 5, 6, 7, 8, 9, 10, 11
Modern	0	
Unknown	0	
Total	11	

5.1.2 Site (1) is believed to date from the Iron Age and comprises an oval shaped enclosure sited on top of a prominent rocky knoll. The NMRS records that the site measures internally 51.2m in length and 30.5m at its widest point. Although most of the stonework had been destroyed, there are indications of fine drystone walling. Internally there are traces of sub-divisions in the form of enclosures, a small oval structure and a number of small stone buildings.

5.1.3 The cultural heritage of the study area is characterised by sites dating to the Post medieval period. Ten sites date to this period, and can be divided into four broad functional categories:

- *Category 1: agricultural sites, eight in number –including field systems, field boundaries (turf dykes, stone and turf dykes, stone walls), clearance cairns, rig and furrow, enclosures;*
- *Category 2: settlement sites, one in number, farmsteads, blackhouses, cottages, farmhouses, hotels, schools. Wells have also been included in this category;*
- *Category 3: industrial sites, none,, the majority of which are related to extractive industries – quarries and gravel pits;*
- *Category 4: transport and communication sites, one in number – roads, bridges and associated sites, including benchmarks and milestones.*

5.1.4 Within the study area, one of the sites in the agricultural category is the remains of the head dyke (3). The head dyke (3) was noted on the first edition Ordnance Survey map (Isle of Skye, sheet 23, 1:10560, 1881) as a

large horseshoe shaped boundary on the northern side of the township. During the field walkover it was noted that the substantial bank is composed of stone and turf, measuring up to 1.3m in height. The upstanding bank is in moderately good condition. Site (4) was also noted on the 1st edition Ordnance Survey map (Isle of Skye, sheet 23, 1:10560, 1881) as the farmstead of "Achachork". Elements of this site are still indicated on the current edition of the Ordnance Survey map (1968, 1:10560) as a series of enclosures.

- 5.1.5 Sites (6-11) also fall into Category 1 and comprise a series of enclosures (6, 7, 10 and 11), within which, evidence of cultivation survives in the form of rig and furrow. Sites (8 and 9) were noted on the Aerial Photographs and are small rectilinear structures, possibly stores/barns associated with the town head dyke (3).
- 5.1.6 Site (2) falls into category 2, and is a Blackhouse, first noted on the 1st edition Ordnance Survey map (Isle of Skye, sheet 23, 1:10560 1881). The remains of the Blackhouse were recently cleared to allow for the construction of a new domestic residence.
- 5.1.7 Although Site (3) is classified as belonging to category 1, it also falls within category 2 due to the township. The township named Maligan on the 1st edition Ordnance Survey map (Isle of Skye, sheet 23, 1:10560, 1881) was noted to be composed of a cluster of fifteen unroofed structures, five enclosures, a sheepfold, two fields and a head dyke. Currently the crofting township named Achachorck extends along a single track road, encompassing the former township of Maligan and is comprised of modern single storey houses.
- 5.1.8 Only one site falls into category 4 (transport), the site of the Post Medieval trackway (5), noted on the 1st edition Ordnance Survey map (1881, sheet 23). This track passed through the township of Maligan (3) and there is no visible trace of this feature.

- 6.1.1 An assessment was made of the importance of the sensitivity of each site following the methodology described in Section 3. The assessment of sensitivity for each sites is included in Appendix A and is summarised in the table below:

Table 5 – Summary of Assessment of Sensitivity of Identified Heritage Sites

Assessment of Sensitivity	Number of Sites
High	1
Medium	1
Low	7
Negligible	2
Unknown	0
Total	11

- 6.1.2 Potential for direct impacts would occur during the construction phase of the proposed scheme. Of the eleven cultural heritage sites identified within the study area, there are potential direct impacts on five sites by the proposed route to the immediate north of the township of Achachork. The significance of the impact on these sites with potential impact has been assessed as Neutral/slight. These are summarised in Table 6 below:

Table 6 – Assessment of Potential Impacts during construction;

Site No.	Site Name	Description of Impact	Site Sensitivity	Impact Magnitude	Impact Significance
10	Achachork; Enclosure	The proposed route directly passes twice through this enclosure and an area of rig and furrow.	Low	Negligible	Neutral/Slight
6	Achachork; Enclosure	The proposed route directly passes twice through this enclosure and an area of rig and furrow.	Low	Negligible	Neutral/Slight
3	Maligan township and head dyke	The proposed route directly passes twice through this enclosure.	Medium	Negligible	Neutral/Slight
7	Achachork; Enclosure	The proposed route passes, directly through this enclosure and an area of rig and furrow	Low	Negligible	Neutral/Slight
8	Achachork; Structure	The proposed route passes within 20m of this site	Low	No Change	None

6.2 General

- 6.2.1** The proposed route for the new mains water pipeline at Achachork passes through an area that has clearly been used extensively for agricultural purposes. The proposed pipeline will pass directly through four sites within the study area, sites **(3, 6, 7 and 10)**, impacting directly upon them. The pipeline will also pass close to site **(8)**, which comprises a rectilinear structure located to the south of the head dyke. The archaeological potential for this development is deemed moderate in relation to the level of agricultural activity in the area and the proximity of the Scheduled Ancient Monument, Dun Gerashader **(1)** to the proposed route.

- 7.1.1 The preferred mitigation option for any site or archaeological deposit affected by the proposed scheme is to preserve the remains *in situ* and it may be possible to achieve this through slight alterations to the route of the pipeline. However, where preservation *in situ* is not feasible, then preservation by record would be the appropriate alternative mitigation strategy.
- 7.1.2 It is advisable to create a clearly defined buffer zone around the remains of the structure at site (8), to highlight its location to the ground crew carrying out the works and so to protect the site from accidental damage through tracked machinery.
- 7.1.3 In regards to the enclosure boundaries (Sites 3, 6, 7 and 10), it is proposed that a topographic survey is undertaken prior to excavation of the pipe trench and that during excavation for the pipe trench detailed sections are drawn of the enclosure boundaries to ensure a detailed record is made of the archaeological features. It is also recommended that to prevent and minimise damage to these upstanding sites that tracked machinery or geotextile membrane is used to protect the ground surface.
- 7.1.4 The proposed route of the water pipeline at the township of Achachork passes through an area with a number of upstanding archaeological sites. In addition, the presence of peat across the area proposed for the pipeline suggests that archaeological remains and deposits may survive below the surface. Consequently the area has been assessed as having moderate archaeological potential. It is therefore proposed that, in addition to the detailed works outlined in 7.1.3, archaeological monitoring take place where all groundbreaking works are undertaken within the study area, particularly where the proposed route close to site (8).
- 7.1.5 Any final decision on the requirement for archaeological mitigation will be taken by Highland Councils Archaeological Unit.

7.2 Acknowledgements

Jacobs wish to thank the NMRS, Kevin Maclaren of RCAHMS and the Map Librarians at the National library of Scotland for their assistance in data gathering for this assessment.

8.1 Bibliographic References

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- Dodgshon RA. 1993 'West Highland and Hebridean settlement prior to crofting and the Clearances' Proceedings of the Society of Antiquaries of Scotland 123 (1993), 419 – 38.
- Grey M. 1951 'The Kelp Industry in the High-Lands and Islands' *The Economic History Review, New Series, Vol. 4, No. 2, 197-209.*
- MacDonald, C. 1834-45 The New Statistical Account of Scotland, Vol 14: Portree, County of Inverness, 218-236.

8.2 Cartographic References

County	Date	Sheet	Scale
Isle of Skye	1881	24	1:10560
Isle of Skye	1881	23	1:10560

8.3 Aerial Photographs (Verticals)

Sortie	Frames	Date	Scale	Lib
CPE/Scot/UK175	4078-4073	7/10/46	1:10,000	B125
OS/64/051	098-108	3/6/64	1:10,000	
64288	168-167	20/10/88	1:24,000	C259
OS/98/554	082-085 079-076 010-008	11/5/98	1:16,400	

Appendix A - Gazetteer

Site No.	Site Name	Site Type	NGR	NMRS /SMR No.	Source	Designation	Sensitivity	Description
1	Dun Gerashader	Fort	NG 4892 4527	NG 44 NE 3, MHG 5146	NMRS, SMR, Maps, field survey	SAM	High	<p>The NMRS records...the ruins of Dun Gerashader (Name Book 1877), once a fort of great strength. The enceinte, oval in shape, measures internally 51.2 m NNW-SSE, and 30.5 m at it's widest from ENE-WSW, and has been surrounded by a well-built stone wall. This wall has been erected along the edge of the ridge on the eastern and western flanks and round the northern end, but at the S end of the enclosure it is carried transversely across the ridge, about its highest point and near the middle of its length, as a massive structure, measuring 4.3 m thick and rising about 4.6 m above the level of the enceinte. The mass of tumbled stones at the base of the inner side of this wall is 3 m wide and 2.75 m high, and above this the face exhibits fine drystone building. Much of the walling is almost obliterated, but at several places the foundations can be traced. Outside the south wall are the remains of 3 lines of obstructions, in rows of large boulders up to 1.5 m in length, set on edge across the ridge. Immediately behind the inner line at its southwest angle is an enclosure 8.5 m in length and 3.97 m in breadth. There has also been a small oval structure 3 m long by 2.14 m broad on the inside of the second wall near its eastern end.</p> <p>The entrance to the dun is near the middle of the eastern flank, where the foundations of a gateway 2.6 m wide are to be seen. The approach is difficult as this part of the ridge is rocky but a narrow ledge towards the south may have formed the roadway. Between the entrance and the southern end of the enceinte there has been an opening, the northern jamb remaining in position. Within the fort are the foundations of a number of small stone-walled structures, the majority of them now difficult to trace and as to their origin and purpose nothing definite can be said. Against the north eastern side are the foundations of a semicircular enclosure about 10.4 m in diameter internally, with a wall 1.1 m thick, and along the western wall are indications of a somewhat similar building. There is evidence of an entrance towards the south end of the</p>

Site No.	Site Name	Site Type	NGR	NMRS /SMR No.	Source	Designation	Sensitivity	Description
								west side and a narrow track leads down the slopes southwards from this point. Noted on the 1 st edition Ordnance Survey Map (Inverness-shire, Isle of Skye, 1881 1:10560, sheet 23) as Dun Gerashader. Not visited during the walkover survey (Dec 2008).
2	Achachorck, Croft 9	Blackhouse	NG 482 457	NG 44 NE 24, MHG 49772	NMRS, SMR, Maps	None	Negligible	The NMRS records that a ruinous Backhouse and associated features were recorded in February 2005 prior to their removal for erection of a new house. Noted on the 1 st edition Ordnance Survey Map (Inverness-shire, Isle of Skye, 1881 1:10560, sheet 23) as a rectilinear structure orientated north east – south west.
3	Maligan	Head Dyke, Township	NG 482 458	NG 44 NE 18, MHG 27725	NMRS, SMR, Maps, field survey	None	Medium	The NMRS notes a township comprising fifteen unroofed buildings, five enclosures, a sheepfold, two fields and part of a head-dyke depicted on the 1st edition Ordnance Survey map (Inverness-shire, Isle of Skye, 1881, 1:10560, sheet 23). A crofting township (Achachorck) now occupies this site as shown on the current edition of the Ordnance Survey map (1:10560, 1968). During the walkover survey (Dec 2008) the remains of the head dyke were noted comprising a substantial turf and stone bank, up to 1.3m high and 2m wide at its base, in moderately good condition. The township comprises modern houses along a single track main road.
4	Achachorck	Farmstead, Field System	NG 474 461	NG 44 NE 13, MHG 27720	NMRS, SMR, Maps	None	Low	The NMRS records a farmstead comprising of one roofed and two unroofed buildings, two enclosures and a field-system as depicted on the 1st edition Ordnance Survey map (Inverness-shire, Isle of Skye 1881, 1:10560, sheet 23). The two enclosures and the field system can still be traced on the current edition of the Ordnance Survey Map (1:10560, 1968). On the AP's (CPE/Scot/UK175 4078, OS/64/051 99) the enclosures and field system that form this site are in moderate condition with traces of rig and furrow. Not visited during the walkover survey (Dec 2008).
5	Achachorck	Trackway	NG 48342 45774		Maps	None	Negligible	Noted on the 1 st edition Ordnance Survey Map (Inverness-shire, Isle of Skye, 1881 1:10560, sheet 23) as a trackway running north-south, passing through the township of Maligan. Not noted during the walkover survey (Dec 2008) or on the AP's.
6	Achachorck	Enclosure	NG 482 459		Maps, walkover survey, AP's	None	Low	Noted on the current edition of the Ordnance Survey Map (1:10560, 1968) as a horse shoe shaped enclosure. During the walkover survey (Dec 2008) it was noted that this enclosure

Site No.	Site Name	Site Type	NGR	NMRS /SMR No.	Source	Designation	Sensitivity	Description
								comprises a substantial turf and stone bank, measuring 2m wide at the base and 1.5m high and in good condition. On the AP's (CPE/Scot/UK175 4076, OS/64/051 101) it can be seen that the interior of the enclosure has traces of rig and furrow in a northeast-southwest direction.
7	Achachorck	Enclosure	NG 489 454		Maps, walkover survey, AP's	None	Low	Noted on the current edition of the Ordnance Survey Map (1:10560, 1968) as a sub-oval shaped enclosure on the eastern bank of River Chracaig. On the AP's it can be seen that the interior of the enclosure has traces of rig and furrow in a north south -east west direction.
8	Achachorck	Structure	NG 484 458		Maps, AP's	None	Low	Noted on the current edition of the Ordnance Survey Map (1:10560, 1968) as a small rectilinear structure orientated east-west. On the AP's (CPE/Scot/UK175 4077, OS/64/051 101) the roofless remains of a structure can be seen. Not noted during the walkover survey (Dec 2008).
9	Achachorck	Structure	NG 482 458		Maps, AP's	None	Low	Noted on the AP's as a roofless rectilinear structure oriented north-east by south-west. Not noted during the walkover survey (Dec 2008).
10	Achachorck	Enclosures	NG 478 462 (centred)		Maps, AP's	None	Low	Visible on the current edition of the Ordnance Survey Map (1:10560, 1968) as a series of sub-oval shaped enclosure. Also visible on AP's (CPE/Scot/UK175 4076, OS/64/051 100) the enclosures retain traces of rig and furrow within the interior, oriented predominantly north- south.
11	Achachorck	Enclosure			Maps, AP's	None	Low	Visible on the current edition of the Ordnance Survey Map (1:10560, 1968) as a section of field boundary wall possibly forming an enclosure with the adjacent burns. Not visited during the walkover survey

Appendix B - Photographic Plates



Plate 1: Site (1), Dun Gerashader Achlighness Farmstead: from West



Plate 2: View along the first section of the pipeline: from Southeast - Northwest



Plate 3: View along the first section of the pipeline, including site (3) running along the middle of the photograph: from southeast - Northwest

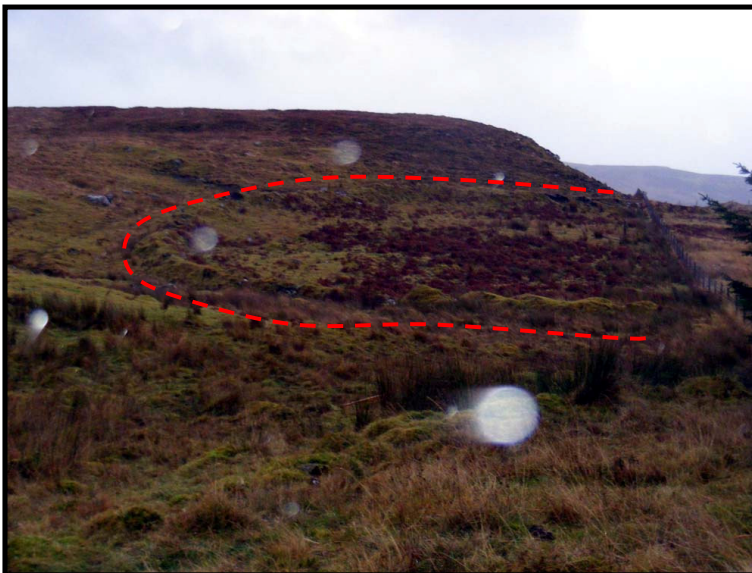


Plate 4: Site (6) horse shoe shaped enclosure: from West

Appendix C - DES Entry

LOCAL AUTHORITY:	Highland Council
PROJECT TITLE/SITE NAME:	Storr Forest Water Treatment Works
PROJECT CODE:	B0570000/034350
PARISH:	Portree
NAME OF CONTRIBUTOR:	Claire Shaw
NAME OF ORGANISATION:	Jacobs Engineering UK
TYPE(S) OF PROJECT:	Desk-Based Assessment and Walkover Survey
NMRS NO(S):	N/A
SITE/MONUMENT TYPE(S):	N/A
SIGNIFICANT FINDS:	N/A
NGR (2 letters, 8 or 10 figures)	NG 47005 46321 – NG 48905 45402
START DATE (this season)	December 2008
END DATE (this season)	January 2009
PREVIOUS WORK (incl. <i>DES</i> ref.)	
MAIN DESCRIPTION: (May include information from other fields)	<p>(NARRATIVE)</p> <p>A desk-based assessment and walkover survey was conducted to assess the potential impacts upon the Archaeology and Cultural Heritage resulting from the proposed replacement water mains, within the township of Achachork (NGR: NG 47005 46321 to NG: 48905 45402). It is likely that the proposed works will impact directly upon some remains of archaeological features present within the study corridor.</p> <p>Eleven sites were identified within 200m of the proposed route of the new pipeline from a desk-based assessment and walkover survey. There is an indication that this area was occupied and exploited from as early as the Iron Age period. One site has been identified that dates to the Iron Age period, the remains of Dun Gerashader (SAM).</p> <p>The presence of several sites within the study area suggests that there is a moderate potential for archaeological remains to occur ranging from the early medieval period to the post medieval period.</p>
PROPOSED FUTURE WORK:	Archaeological Monitoring and buffer zones
CAPTION(S) FOR ILLUSTRS:	N/A
SPONSOR OR FUNDING BODY:	Scottish Water Solutions
ADDRESS OF MAIN CONTRIBUTOR:	Jacobs UK , 95 Bothwell Street Glasgow G2 7HX
EMAIL ADDRESS:	Claire.shaw@jacobs.com
ARCHIVE LOCATION	NMRS