

Site & Landscape Survey

Sloy Sub-Station Works Cultural Heritage Assessment







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Sloy Sub-station Works

Cultural Heritage Assessment

1 CULTURAL HERITAGE

1.1 Introduction

- 1.1.1 This chapter considers the likely effects on cultural heritage interests of the construction and operation of a replacement electricity substation for Loch Sloy Power Station, near Inveruglas, Argyll & Bute. The existing electricity substation is to be dismantled, a new smaller substation is to be constructed and several exisiting electricity towers/wooden poles are to be removed.
- 1.1.2 This assessment has been carried out by CFA Archaeology Ltd (CFA) using information provided by the West of Scotland Archaeology Service (WoSAS). The study has been conducted in accordance with the Institute for Archaeologist's Code of Conduct (IfA 2010), and Standard and Guidance for an Archaeological Desk-based Assessment (IfA 2009).
- 1.1.3 The specific objectives of the cultural heritage study were to:
 - Identify the cultural heritage baseline of the proposed development area;
 - Consider the proposed development area in terms of its archaeological and historic environment potential;
 - Assess the effects of the construction and operation of the proposed development on the baseline cultural heritage resource, within the context of relevant legislation and planning policy guide lines; and
 - Propose measures, where appropriate, to mitigate any predicted significant adverse effects.
- 1.1.4 Figure x. 1 depicts the proposed development layout and the locations of cultural heritage sites and features identified by the study. Appendix x.1 provides a gazetteer of these sites and features within the study area and an indication of the relative sensitivity of each.

1.2 Planning and Legislative Background

- 1.2.1 Scotland's historic environment contributes to the Scottish Government's strategic objectives and to the target of improving the state of Scotland's historic buildings, monuments and environment is identified as a national indicator and target under the National Performance Framework. The Scottish Historic Environment Policy (SHEP, 2009) sets out Scottish Ministers' policies for the historic environment, and provides policy direction for Historic Scotland and a framework that informs the day-to-day work of a range of organisations that have a role and interest in managing Scotland's historic environment. Through the implementation of the SHEP, Scottish Ministers wish to achieve three outcomes for Scotland's historic environment:
 - That the historic environment is cared for, protected and enhanced for the benefit of our own and future generations;
 - To secure greater economic benefits from the historic environment; and
 - That the people of Scotland and visitors to our country value, understand and enjoy the historic environment.
- 1.2.2 Cultural heritage resources include sites with statutory and non-statutory designations as set out in Scottish Planning Policy (SPP).

- 1.2.3 Sites with statutory designations include:
 - Scheduled Monuments;
 - Listed Buildings;
 - Conservation Areas; and
 - Designated Ship Wrecks.
- 1.2.4 Sites with non-statutory designations include:
 - World Heritage Sites;
 - Gardens and Designed Landscapes;
 - Historic Battlefields; and
 - Other Historic Environment Interests.
- 1.2.5 SPP requires that planning authorities ensure that development plans provide a framework for the protection, conservation and enhancement of the historic environment to allow the assessment of the impact of proposed development on the historic environment and its setting (para 112). PAN 2/2011 (2011) advises that, in determining planning applications, planning authorities should take into account the relative importance of archaeological sites (para 5). It also notes that in determining planning applications that may impact on archaeological features or their setting, planning authorities may on occasion have to balance the benefits of development against the importance of archaeological features (para 6). The desirability of preserving a monument (whether scheduled or not) is a material consideration and the objective should be to assure the protection and enhancement of monuments by preservation in situ, in an appropriate setting. When preservation in situ is not possible, recording and/or excavation followed by analysis and publication of the results may be an acceptable alternative (para 14).
- 1.2.6 Those relevant to the proposed development are: Other Historic Environment Interests.

Sites with Non-Statutory Designations

Other Historic Environment Interests

There is a range of other non-designated archaeological sites, monuments and areas of historic interest, including battlefields, historic landscapes, other gardens and designed landscapes, other battlefields, woodlands and routes such as drove roads that do not have statutory protection. Sites without statutory protection are curated by the local planning authority, and SPP and PAN 2/2011 provide national planning policy guidance and advice on the treatment of such resources.

Regional and Local Planning Policy Guidance

1.2.7 Cultural heritage resources are considered within the framework of the following planning policies:

Argyll and Bute Structure Plan (2002)

- 1.2.8 The Structure Plan aims to promote the safeguarding and the enhancement of the historic environment within Argyll and Bute.
- 1.2.9 Structure Plan Policy STRAT DC 9 (Historic Environment and Development Control) states that the protection, conservation, enhancement and positive management of the historic environment is promoted. Development that damages or undermines the historic, architectural or cultural qualities of the historic environment will be resisted; particularly if it would affect a Scheduled Monument or

its setting, other recognised architectural site of national or regional importance, listed building or its setting, conservation area or historic garden and designed landscape. More detailed policy and proposals for the historic environment will be set out in the Local Plan.

Argyll and Bute Local Plan 2009

- 1.2.10 Policy LP ENV 17 (Development Impact on Sites of Archaeological Importance), states that there is a presumption in favour of retaining, protecting, preserving and enhancing the existing archaeological heritage and any future discoveries found in Argyll and Bute. When development is proposed that would affect a site of archaeological significance, the following will apply:
 - The prospective developer will be advised to consult the Council and its advisers the West of Scotland Archaeology Service at the earliest possible stage in the conception of the proposal; and,
 - An assessment of the importance of the site will be provided by the prospective developer as part of the application for planning permission or (preferably) as part of the preapplication discussions.

When development that will affect a site of archaeological significance is to be carried out, the following will apply:

- Developers will be expected to make provision for the protection and preservation of archaeological deposits in situ within their developments, where possible by designing foundations that minimise the impact of the development on the remains; and
- Where the Planning Authority deems that the protection and preservation of archaeological deposits in situ is not warranted for whatever reason, it shall satisfy itself that the developer has made appropriate and satisfactory provision for the excavation, recording, analysis and publication of the remains.

Where archaeological remains are discovered after a development has commenced, the following will apply:

- The developer will notify the West of Scotland Archaeology Service and the Council immediately, to enable an assessment of the importance of the remains to be made; AND,
- Developers should make appropriate and satisfactory provision for the excavation, recording, analysis and publication of the remains. (Developers may see fit to insure against the unexpected discovery of archaeological remains during work).
- 1.2.11 National Park Plan (March 2007) Policy BH1 (Caring for our Built Heritage) states that the planning system will be used to protect the Park's built heritage (designated, undesignated and as yet unrecorded sites) from inappropriate development. In addition, Schedule 6, Objectives for Built Heritage (Archaeology Heritage), states that:
 - Appropriate recording, protection, management and maintenance of archaeological sites, their settings and the wider historic landscapes to prevent their damage or loss, prioritising those potentially 'at risk' will be encouraged;
 - Opportunities will be explored to enhance, and where appropriate restore, archaeological sites and their wider landscape settings;
 - Developer-funded research will be required as part of significant planning proposals that potentially affect archaeology, to inform planning decisions and ensure the safeguarding and / or recording of remains; and

- Land-use development and land management practices ensure that the protection and management of both recorded and as yet unrecorded archaeological remains, and both designated and undesignated sites are promoted.
- 1.2.12 Loch Lomond Local (Subject) Plan (February 1996) Heritage Conservation Paragraph 3.59 states that where major development is proposed, detailed surveys should be carried out to enable the impact of such development on the archaeological and historic resources and their relationship to the landscape to be fully assessed. Where appropriate the survey should be included in an Environmental Assessment.
- 1.2.13 The Loch Lommond Local (Subject) Plan is due to be replaced by the Loch Lommond and the Trossachs National Park Local Plan. A finalised Draft Plan was submitted to the Scottish Ministers in November 2010.

1.3 Methodology

Consultation

1.3.1 A consultation letter (25 July 2011) was sent to WoSAS by CFA seeking its views on any general or specific issues in respect of the proposed development. A summary of the consulation response is provided in Table x.1.

Table x.1: Summary of Consultation Responses.

Consultee	Issues Raised	Responses	
	Highlighted three sites of cultural heritage interest located around the eastern end of the Proposed development area:	The baseline characteristics of the proposed development area are	
WoSAS	Craigenarden Viaduct (WoSAS Pin 19927)	assessed in paras 1.4.1- 1.4.26	
consultation	Possible military bridge (WoSAS Pin 45738)	1.4.20	
response (27 July 2011)	 Tarbet to Crianlarich military road (WoSAS Pin 12423) 		
, ,	Noted that the military bridge (45738) appears to have been removed. Its original location is likely to be outwith the proposed development area and any surviving remains would not be affected by the development.		
	Satisfied that there would be:	No further response	
	 no impact upon Craigenarden Viaduct from the proposed development; and 	required.	
	 little new ground disturbance in the area where the proposed access route crosses the military road. 		
	Considered that there is a possibility of previously unrecorded sites to be indentified within the proposed development area, but given the small amount of ground disturbance required by the project, the potential for direct impacts upon these sites appears to be low.	The direct effects of the proposed development are discussed in paras 1.5.1-1.5.2	
	Noted that there would be a reduction in towers and that the substation location would be hidden by the surrounding landform, and suggested that the effect of the proposed development on the setting of more distant features is likely to be limited.	The indirect effects of the proposed development are discussed in para 1.5.3	

Data Collection

1.3.2 A desk-based study and a reconnaissance field survey were undertaken in order to assess the

potential cultural heritage sensitivity of the proposed development and surrounding area. No intrusive site investigation work was undertaken during the assessment.

Desk-based Study

- 1.3.3 Up-to-date information was obtained from appropriate sources on the locations and extents of cultural heritage sites with statutory protection and non-statutory designations within, or in the near vicinity of the proposed development.
- 1.3.4 Details of the locations and extents of Scheduled Monuments, Listed Buildings, Conservation Areas, and Gardens and Designed Landscapes and Historic Battlefields in GIS were obtained from the Historic Scotland Spatial Data Warehouse (Historic Scotland 2011).
- 1.3.5 Information on the character and condition of known archaeological sites and monuments features within the proposed development area was obtained from the online National Monuments Record of Scotland (NMRS) (RCAHMS 2011a) resource maintained by the Royal Commission on the Ancient and Historic Monuments of Scotland (RCAHMS). The information obtained from this resource has been augmented by further desk-based research and field survey.
- 1.3.6 Ordnance Survey maps and other historical early maps held by the Map Library of the National Library of Scotland were examined, to provide information on sites of potential archaeological significance and on the historic land-use development of the proposed development area.
- 1.3.7 An assessment was made of the most relevant vertical aerial photograph collection held by The Royal Commission on the Ancient and Historical Monuments of Scotland (RCAHMS), sorties dating from 1946 were examined. In addition, available modern online aerial photography images (GoogleTM 2011) were examined.
- 1.3.8 Bibliographic references were consulted to provide background and historical information. This included a previous Environmental Appraisal undertaken by CFA for the current Sloy Power Station (CFA 2010).
- 1.3.9 The online Historic Land-Use Assessment Data for Scotland (HLAMap) (RCAHMS 2011b), maintained by the RCAHMS was consulted for information on the historic land use character of the proposed development area.
- 1.3.10 The Scottish Palaeoecological Archive Database (SPAD) (Coles *et al* 1998) which records the distribution of known sites across Scotland was consulted for information on palaeoenvironmental data within or adjacent to the proposed development area.
- 1.3.11 A list of all sources consulted during the assessment is provided at the end of this report
- 1.3.12 Bibliographic references were consulted to provide background and historical information.

Reconnaissance Field Survey

- 1.3.13 A walk-over reconnaissance field survey equivalent to an RCHAMS Level 1 (RCHAMS 2004-9) field survey was undertaken of the proposed development area in order to:
 - Locate all visible cultural heritage sites, monuments and landscape features, both identified during the desk-based assessment and previously unrecognized, and record their character, extent and current condition;
 - Identify areas with the potential to contain unrecorded, buried archaeological remains, taking into account factors such as topography, geomorphology, and ground condition; and

- Inform the assessment of the possible effects of the proposed development on those features.
- 1.3.14 The proposed access route from the A82, was surveyed, together with the proposed footprintsof the new substation, temporary compound, and temporary and permanent access routes.
- 1.3.15 Identified sites were recorded on pro-forma monument recording forms and by digital photography, and their positions (and where appropriate their extents) were logged using a Global Positioning System (GPS).

Assessment of importance of cultural heritage features

- 1.3.16 Archaeological and built heritage sites and features represent a non-renewable resource that are often fragile and suffer from constant attrition, from both natural and human causes.
- 1.3.17 The effects of the proposed development on cultural heritage assets are assessed on the basis of their type (direct, indirect), nature (beneficial, neutral or adverse), and longevity (reversible, short-term or long-term; irreversible, permanent). Mitigation measures designed to prevent, reduce or offset significant adverse effects, are proposed.
- 1.3.18 The assessment of sensitivity of archaeological and heritage assets has been determined from the basis of the relative weight which statute and policy attach to them, principally as published in Scottish Planning Policy (SPP) and Scottish Historic Environment Policy (SHEP) (July 2009). Table x.2 summarises the relative sensitivity of relevant key cultural heritage resources.
- 1.3.19 The main thresholds of archaeological importance defined by SPP are sites of national importance, protected by statue, and sites with non-statutory designations of regional and local importance.
- 1.3.20 Sites of national importance/high sensitivity comprise those sites protected by scheduling under the 1979 Act, and sites of "schedulable quality". Scheduling is an ongoing process and not all sites of "schedulable quality" are currently scheduled. Sites of medium and low sensitivity are those that do not merit scheduling, but which have significance within a regional or local context. This may, for example, apply to their importance to regional or local history, or they may be the only local example of a monument type. A final category in Table x.2, sites of negligible sensitivity, covers those archaeological or historic environment features that are of little intrinsic cultural heritage value and the find-spots of artefacts now removed.
- 1.3.21 Listed buildings are categorised according to their relative importance (1997 Act: Section 1; SHEP) Category A Listed Buildings are of national or international importance. Category B Listed Buildings are of regional or more than lol sensitivity and Category C(S) Listed structures are of low sensitivity. Gardens and Designed Landscapes listed in the Inventory of Gardens and Designed Landscapes in Scotland are considered to be nationally important and of high sensitivity. Non-Inventory Gardens and Designed Landscapes are considered to be of regional importance and medium sensitivity.

Table x.2 Sensitivity of Cultural Heritage Assets

Sensitivity	Definition/Criteria								
	Sites of national or international importance, including:								
High	 World Heritage Sites Scheduled Monuments, and sites proposed for scheduling 								
	 Scheduled Monuments, and sites proposed for scheduling 								

	 Undesignated archaeological sites and areas of likely national importance identified in HERs/SMRs 								
	Category A Listed Buildings								
	 Gardens and Designed Landscapes (Inventory Sites) 								
	 Outstanding Conservation Areas 								
	Designated Wreck Sites								
	Sites of regional importance, including:								
	Archaeological sites and areas of distinctive regional importance								
Medium	Category B listed buildings								
	Conservation Areas								
	Sites of local importance, including:								
	 Archaeological sites of local importance 								
Low	 Category C(S) listed buildings 								
	 Unlisted historic buildings and townscapes with local (vernacular) characteristics 								
	Sites of little or no importance, including:								
	Sites of former archaeological features								
Negligible	 Unlisted buildings of minor historic or architectural interest 								
	 Poorly preserved examples of particular types of feature 								

Assessment of Effects

1.3.22 Criteria for assessing magnitude of effects, which measures the degree of change to the baseline condition of a feature that would result from the construction of one or more elements of the proposed development, are classified in Table x.3.

Table x.3 Magnitude of Effects

Level of fmagnitude	Definition
High	A major effect fundamentally changing the baseline condition of the heritage asset, leading to total or major alteration of character or setting.
Medium	A moderate effect changing the baseline condition of the receptor materially but not fundamentally, leading to partial alteration of character or setting.
Low	Minor detectable effects which do not alter the baseline condition of the receptor materially.
Imperceptible	A very slight and barely distinguishable change from baseline conditions.
None	No discernible change to the baseline condition of the character or setting of the heritage asset.

1.3.23 Sensitivity of the cultural heritage asset and magnitude of impact are then used to inform the professional judgement of the likely significance of the physical effect. Table x.4 summarises the

criteria for assigning significance of a physical effect. Major and moderate effects are considered to be significant in terms of the EIA Regulations. Sites of National Importance are more capable of absorbing low magnitude effects on their setting than they are low magnitude permanent and irreversible effects on their character. For that reason low magnitude direct effects on sites of National Importance are considered to produce moderate and significant effects, whereas low magnitude effects on settings of such sites are considered to produce minor and non-significant effects.

Table x.4 Significance of Effects

Magnitude of Effect	Sensitivity of Cultural Heritage Asset								
	High	Low	Negligible						
High	Major	Major	Moderate	Minor					
Medium	Major	Moderate	Minor	Negligible					
Low	Moderate/Minor	Minor	Negligible	Negligible					
Imperceptible	Minor	Negligible	Negligible	Negligible					
None	None	None	None	None					

1.4 Baseline Conditions and Analysis of Sensitivity

General

- 1.4.1 Thirteen heritage features have been identified within the study area. The location and extents of these are shown on Figure x.1, and details of their character and baseline condition are provided in Appendix x.1, together with an analysis of the sensitivity of each heritage feature.
- 1.4.2 Numbers in brackets in the following text, refer to site numbers depicted on Figure x.1 or listed in Appendix x.1.

Cultural heritage resources within the study area

- 1.4.3 There are no Scheduled Monuments or Listed Buildings within the study area, and no part of the development would lie within a Conservation Area or Garden and Designed Landscape.
- 1.4.4 The NMRS and SMR contain records for four heritage features within the study area.
- 1.4.5 Examination of historical maps identified five additional heritage features within the study area that are not recorded elsewhere, and provided further information on the study area itself. An additional site was identified from examination of aerial photographs from 1946.
- 1.4.6 Documentary Sources (Hastie, 2009) provided useful background information on the development area.
- 1.4.7 Field identified an additional three heritage features and provided further information on the baseline condition of known cultural heritage features.
- 1.4.8 The Scottish Palaeoecological Database (SPAD) provided no information on sites specific to the development area.
- 1.4.9 The HLAMap show that the area to the north of the access route, and the land in which the current, and replacement sub-station are situated, has seen little development other than the Loch Sloy sub-station itself, and consists of unimproved rough pasture from at least the 19th century. The

land to the south of the access route, following Inverulgas Water, consists of relict tracts of managed mixed woodland dating from the 18th to the 20th century. Recent 20th century forestry plantation can be seen further south of Inveruglas Water.

1.4.10 The cultural heritage features are discussed thematically below.

Roman Findspot

1.4.11 A Roman coin (1) was discovered during construction works for the Loch Sloy Power Station in 1946. At the time, the coin was found lying on a newly constructed access road and was probably brought to the site in building material from another location rather than being in situ. The findspot is of negligible sensitivity.

Medieval and Later Ancilliary Features

Shielings

1.4.12 A circular or horseshoe shaped turf-covered drystone structure (8) was identified on a small knoll north of Inverulglas Water. A circular hollow was present in the centre, and a possible entrance survives in the east side. The structure is possibly the remains of a shieling hut and is assessed as being of low sensitivity.

Sheepfolds

1.4.13 Two rectangular sheepfolds (2 and 12) were identified from historical map sources. The first, sheepfold (2), dates to the mid-19th century and no longer survives. The location of this sheepfold has been superseded by a later enclosure/sheepfold of mid-20th century date which appears to have been constructed using stone from the earlier structure. The second sheepfold (12) dates to the late-19th century and is associated with an earlier field boundary (12.1 – discussed below). Elements of the sheepfold still survive as mortared stone walls and are best preserved on its north and west sides. Both the sheepfolds are of negligible sensitivity.

Field boundaries

1.4.14 Two field boundaries (10 and 12.1) are depicted on the Ordnance Survey 1st Edition map (1864) and subsequent maps. A section of the western side of field boundary (10), as depicted on the 1976 Ordnance Survey map, still survives and demarcates an area of improved ground. Sections of another field boundary (12.1), associated with an enclosure (12), survive as a tumbled drystone wall that has been truncated by the road for the existing electricity substation. Both field boundaries are of negligible sensitivity.

Clearance cairn

1.4.15 A possible clearance cairn (9) was identified in an area of rough pasture on a natural terrace close to a modern quarry. The clearance cairn is of negligible sensitivity.

<u>Trackways</u>

1.4.16 A trackway (3) running from the former military road (4) at Port a' Chaipuill and adjacent to the Inveruglas Water is depicted on the Ordnance Survey 1st Edition map (1864). The trackway has been superseded by a later road that runs from Inveruglas to the current electricity sub-station and only a small section of the road, at its eastern end and south of sheepfold (12), still survives as a slight hollow-way. The trackway is of negligible sensitivity.

Quarries

1.4.17 Two quarries (11 and 13) were identified. A probable quarry face (11), heavily vegetated, was identified during the field survey. The quarry is not shown on any historical or later maps suggesting that it is relatively recent in date. A further large gravel pit (13), and probably dating to the late-19th century, is still extant today. The quarries were likely used as a source of stone in constructing field boundaries and ancilliary structures in the area and are of negligible sensitivity.

Infrastructure Features

- 1.4.18 The Tarbet to Crianlarich Military road (4) was constructed by Major Cauldfield between 1752 and 1754 to link the Inverarry road at Tarbet with the Fort William road through Crainlarich (Taylor 1996). There are very few visible remains surviving of the road today; a small section of the road survivies within woodland to the north of Loch Sloy Hydro-Electric Power Station, however, the majority of the road has been lost through the development of the West Highland Railway line and the current A82 public road. The road is of low sensitivity.
- 1.4.19 Inveruglas Viaduct (5) was opened in 1894 to carry the West Highland Railway over Inveruglas Water. It is the only arched viaduct along the route and still in use today. The viaduct is of low sensitivity.
- 1.4.20 The NMRS and SMR record the position of a former military road bridge (6) crossing Inveruglas Water. No remains of the bridge survive and it was probably destroyed during the construction of the current A82 public road bridge at this location. The bridge is of negligible sensitivity.

Modern Features

Sloy Power Station Construction Camp

1.4.21 The former construction camp (7) for the Loch Sloy Hydro-Electric Power Station was built during the late 1940's to house workmen for the construction of the power station. The camp was built in two parts on either side of the current A82 just south of the power station. The southern half of the camp no longer exists, the area now being occupied by a holiday caravan park. The camp is visible on aerial photographs from 1946 which shows at least seven blocks of grouped Nissan huts, several other structures / buildings, associated roads and an open area. The power station became operational in 1950 and aerial photographs from 1954 show that the construction camp was largely dismantled by this period. Following decommissioning of the camp the area was reestablished as farmland. Today, the construction camp is a rough pasture field used for sheep and cattle grazing. Field survey identified a number of well preserved rectangular concrete platforms and steps forming a series of terraces covering the majority of the former camp site. The camp is of low sensitivity.

Archaeological Potential of the development area

- 1.4.22 The proposed development consists principally of unimproved pature with an area of managed forestry present along the banks of the Inveruglas Water.
- 1.4.23 There is no evidence for any prehistoric remains or feature within the development area or surrounding area.
- 1.4.24 Examination of historic maps indicates that the area has been settled from at least the mid-18th century with three 'fermtouns' depicted on Roy's map (1747-55). Areas of rig and furrow cultivation around Inveruglas Water, are also shown on Roy's map. The remains of a possible shieling hut (8) and a clearance cairn (9) within the development area may be associated with these settlements.

- 1.4.25 The area is shown as unenclosed pastureland on the Ordnacne Survey 1st Edition map (1864) and has continued as pasturland, until the mid-20th century when the existing sub-station was constructed.
- 1.4.26 Taking into account the present historic environment record, the potential for the study area to contain buried remains of archaeological significance is assessed as being low.

1.5 Impacts and Mitigation

Direct (Construction) Effects

1.5.1 No direct effects upon cultural heritage features would result from the proposed development.

Uncertain Effects

1.5.2 There is some potential for ground disturbance during installation of the sub-station, temporary compound, and temporary access roads to disturb hitherto unknown buried archaeology present in the affected areas. Taking into account the limited extent of the proposed ground disturbance of the construction works, the likelihood of encountering remains of archaeological significance is considered to be low.

Indirect (Operational) Effects

1.5.3 There are no sites of statutory designation within 1km of the proposed substation location and there are no anticipated effects on the settings of such sites. No effects are predicted in relationship to the operation of the proposed development.

Mitigation

Construction

- 1.5.4 It is considered that no further work is merited in advance of the development.
- 1.5.5 If required by any planning condition, the scope of any archaeological mitigation would be drawn up in consultation with WoSAS and presented in a Written Scheme of Investigation (WSI). The mitigation would be carried out at an appropriate stage in the construction programme, as agreed with WoSAS. If required the WSI would make provision for appropriate post-excavation analysis and dissemination of the results of any discoveries made, as well as for archiving of the project materials and records.

1.6 References

Historical maps

Ordnance Survey 1st Edition (1864) Dumbartonshire Sheet VI Six inch to one mile

Ordnance Survey 2nd Edition (1899) Dumbartonshire, Sheet VI NW, Six inch to one mile

Ordnance Survey 3rd Edition (1923) Dumbartonshire, Sheet VI, six inch to one mile

Ordnance Survey 1976 Edition Sheet NN30NW 1:10,000

Ordnance Survey 2001 Loch Lommond North, Explorer 364, 1:25,000

Ross, C 1777 A map of the Shire of Dumbarton

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RCAHMS (2011b) Historic Land-Use Assessment for Scotland (HLAMap) [online], Available from http://www.rcahms.gov.uk Accessed September 2011.

Strathglass Heritage, The Hydro – www.glenaffric.org/heritage_hydro.ht

Aerial photographs

Sortie	Frame Run	Date	Scale
CPE/Scot/UK194	4342 - 4341	11.10.46	1:10000

58/RAF/1457	F21:0249 - 0248	01.06.54	1:10000
51188	075 - 074	08.06.88	1:24000
OS/99/936	674 - 675	26.07.99	1:16500

Appendix x.1: Gazetteer of Cultural Heritage Sites and Features

ID	Site	NMRS / SMR nos.	Easting	Northing	Source	Description	Sensitivity
1	Roman Coin (Findspot)	NN30NW 1/ 1820	23175	70930	NMRS; SMR	The NMRS records that a Roman bronze coin of Claudius (41-54 AD) was found at a spot nearthe Inveruglas Burn, lying on the new road being laid for the Hydroelectric power station in 1946. The coin is unlikely to have been in situ and was probably brought to the site along with other building material.	Negligible
2	Sheepfold		230815	709262	Historic maps; Field Survey	A rectangular sheepfold, aligned east to west, and with three compartments at its western end, is depicted on the Ordnance Survey 1 st , 2 nd and 3 rd Edition maps (1864-1923). The sheepfold is not shown on the 1976 Ordnance Survey 1:10,000 map, and has been replaced by a later structure.	Negligible
						Field survey identified the ruinous remains of an unroofed drystone walled sheepfold, aligned north to south, corresponding to the structure depicted on the 1976 Ordnance Survey map. No remains of the earlier sheepfold (as shown on the Ordnance Survey 1 st -3 rd Editon maps) were visible. It appears that the earlier sheepfold was dismantled and the stone re-used to build the current structure.	
3	Trackway		231613		Survey	A trackway is shown aligned east to west, on the Ordnance Survey 1 st Edition map (1864). The trackway runs from the military road (4) at Port a' Chapuill and through Inveruglas valley adjacent to Inveruglas Water.	Negligible
						A small section of the trackway was identified during the field survy. The trackway is aligned ENE-WSW and running from NN 31613 09259 to NN 31699 09291. It is defined as a grassy hollow-way measuring 1.5-2.5m wide by 0.2-0.3m deep at its eastern end, and 0.7m deep towards the western end. No other sections of the trackway survive having been superseded by a later road leading to the current electricity substation.	
4	Tarbert – Crianlarich Military Road	NN30NW 6/ 12423	232198	709913	NMRS, Historic maps; AP's; (Hastie 2009);	The NMRS records that periodic traces of an old military road running between Tarbert and Crianlarich are still visible, although much of the original road has been obliterated by the railway and modern road works.	Low
					Field Survey	A road following the alignment of the military road is depicted on Roy's Military Survey map of Scotland (1745-55) and later historical maps (Taylor & Skinner1776, Ross, 1777), and the Ordnance Survey 1 st Editon map (1864). The former course of the road runs from just north of Loch Sloy power station construction site (7) to the north for c.200m until it peters out at the current railway line.	
						A section of the road is visible at NN 3217 0990 to NN3223 0993 as a hollow-way, identified during a previous field survey (Hastie 2009), within an area of broad-leaved woodland immediately north of Loch Sloy power station. The road does not survive to the south of the fenced boundary of the power station, having been completely destroyed during construction works for the existing hydro	

ID	Site	NMRS / SMR nos.	Easting	Northing	Source	Description	Sensitivity
						electric scheme.	
						Field survey did not identify any visible remains of the military road within the proposed development area.	
5	Inveruglas /CraigenardenViaduc t	NN30NW8/ 19927	2317	7092	NMRS; SMR; Field Survey	The NMRS and SMR record that the Inveruglas viaduct was built by Formans & McCall of Glasgow (engineers) and Lucas & Aird of London (contractors) to carry the West Highland Railway (a subsidiary of the North British Railway) across the Inveruglas Water. It opened in 1894, and remains in use. The viaduct is constructed of blue whinstone with concrete arches and is the only arched viaduct on the line. Field survey identified the viaduct as described.	Low
6	Military Bridge (possible)	NN30NW6.1 / 12423	23178	70918	NMRS; SMR; Field Survey	The NMRS and SMR record that a former military road bridge was present at this location. Field survey carried out in 1973 by the Ordnance Survey did not find any remains of the bridge.	Negligible
						Recent field survey did not identify any visible remains of the bridge. A 19 th century single span road bridge (forming part of the current A82 public road) is now present at this location.	
7	Loch Sloy Hydro- electric construction camp.		231760	709256	AP's; Maps; Hastie (2009); Field Survey	The construction camp for the Loch Sloy Hydro-Electric Power Station is visible on aerial photographs from 1946, covering a large area to the south of the hydro scheme, on either side of the A82. At least seven blocks of grouped Nissan huts, several other structures / buildings, associated roads and an open area are visible. Aerial photographs from 1954 show that the construction camp was largely dismantled by this period. Only the area of the northern half of the campsite is still extant, the southern area is now occupied by a holiday caravan park.	Low
						Field survey identified a number of well preserved rectangular concrete platforms and steps forming a series of terraces covering the majority of the former camp site. The platforms measure approximately 35m by 6m, with six platforms placed 2m apart in groups of six to form blocks. Fragments of brick wall and other brick foundations are present between the concrete platforms and a network of onsite tracks is visible.	
8	Shieling hut (possible)		231560	709270	Field Survey	Field Survey identified a turf-covered, drystone walled structure on the summit of a small knoll on the north side of Inverulgas Water. The structure is circular / horseshoe shaped in plan and measures approximately 5m in diameter by 0.5m high. A circular hollow is present in the centre of the structure, measuring 2.5m in diameter by 0.7m deep and appears to have a partial stone base. A probable entrance exists to the east, measuring 1.2m wide. The feature is heavily vegetated and difficult to interpret, but it may be the remains of a shieling hut.	Low

ID	Site	NMRS / SMR nos.	Easting	Northing	Source	Description	Sensitivity
9	Clearance cairn/clearance dump		231409	709300	Field Survey	Field survey identified a small, sub-circular, turf-covered clearance cairn on a natural terrace. The cairn measures 4m in diameter by 0.5m high, with some stones visible through the turf.	Negligible
10	Field Boundary / Enclosure		230618	709253	Historic maps; APs; Field Survey	A sinuous field boundary is depicted on the Ordnance Survey 1 st and 2 nd Edition maps (1864, 1899). Sections of the same field boundary is depicted on the Ordnance Survey map, an subsequent maps, although the eastern side of the field boundary is no longer shown suggesting that this part of the field boundary no longer survives.	Negligible
						The section of field boundary, as shown on the 1976 Ordnance Survey map, is visible on modern aerial photography (Google TM) defining an area of improved ground.	
						Field survey identified the section of drystone field boundary as shown on the 1976 Ordnance Survey map surviving as a stone and turf bank. Nothing remains of the eastern section of the field boundary.	
11	Quarry		231445	709286	Field Survey	Field survey identified a heavily vegetated quarry adjacent to the road leading to the electricity substation. The quarry face measures approximately 20m in length by 2m high.	Negligible
12/12.1	Sheepfold/Enclosure ; Field Boundary;		231674	709501	Historic maps; Field Survey	A sinuous field boundary (12.1) is depicted on the Ordnance Survey 1 st Edition map (1864) and subsequent maps. By the Ordnance Survey 2 nd Edition map (1899) a rectangular enclosure (12), with two compartments, is shown attached to the field boundary. The same enclosure and sections of the field boundary are also depicted on the Ordnance Survey 3 rd Edition map (1923). The enclosure now comprises of four compartments and annotated as 'Sheepfold'.	Negligible
						Field survey identified the remains of a mortared, stone-walled enclosure (12) measuring 1.5m high in places. The wall is much tumbled but best preserved on its northern and western sides. A section of curving, turf-covered wall, which may have formed part of the south-east corner of the enclosure still survives, it measured approximately 15m in length by 1m wide by 0.4-0.5m high. No stonework was visible and the wall appears to trail off where it reaches a break of slope. A tumbled circular brick structure, possibly a well, was found located in the southern/central part of the enclosure. It measured approximately 1m in diameter. Remains of the field boundary (12.1), surviving as a tumbled drystone wall and measuring 1m high in places were also identified. The field boundary has been truncated by the road running to the existing electricity substation.	

ID	Site	NMRS / SMR nos.	Easting	Northing	Source	Description	Sensitivity
13	Gravel Pit		231729	709403		An oval gravel pit is shown on the Ordnance Survey 2nd Edition map (1899). The same gravle pit is recorded as 'disused' on the Ordnance Survey 3rd Edition (1923) and on subsequent maps. Field survey identified a large grassed over hollow.	Negligible

