



Pow Burn Restoration, River South Esk, Angus: Archaeological Desk-Based Assessment

Prepared for EnviroCentre Ltd



PROJECT SUMMARY SHEET

Client EnviroCentre Ltd

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Summary

This desk based assessment has considered the potential for impacts on cultural heritage assets from the proposed Pow Burn restoration.

A desk based study, has been carried out to identify known cultural heritage assets within the area and the potential for previously unrecorded cultural heritage assets.

There is one scheduled monument, Powmouth, settlement 400m E of Haughs of Kinnaird (SM6400), 12 Listed buildings and seven undesignated assets within a 500m buffer of the stretch of Pow Burn proposed for restoration.

There is moderate to high potential for previously unrecorded cultural heritage assets to survive within the Study Area.

No works can take place within the scheduled monument area without first contacting Historic Scotland and getting Scheduled Monument Consent.

There are no other significant effects predicted from the restoration any impacts could be effectively mitigated. Such mitigation will depend on the finalised details of the restoration.

1 Introduction

1.1 Planning background

The Esk Rivers and Fisheries Trust (ERFT) is bringing forward proposals for restoring a section of the Pow Burn, a tributary of the River South Esk near Netherton, Angus. As EFRT's consultants EnviroCentre Ltd commissioned Headland Archaeology Ltd to produce this desk-based assessment.

The Pow Burn is currently considered to be in an unsatisfactory condition in terms of its ecological status and risk of flooding, as a result of past modifications. An options appraisal has been carried out by JBA Consulting, on behalf of ERFT, to inform the restoration proposals¹. This appraisal identifies potential restoration measures for the future management of the two reaches affected by the current proposals (5802/2 and 5802/3, described in pages E-105 to E-114 of the options appraisal). Some of these potential measures have potential to impact on archaeological remains. Site description

¹ JBA Consulting 2014 Restoration and natural flood management project: River South Esk

The development area is a 3.5km stretch along the course of the Pow Burn from Farnell to the River South Esk. The burn runs through arable farmland on the flat flood plains of the River South Esk. The development is in Farnell Parish in the County of Angus.

1.2 Consultation

The Aberdeenshire Council Archaeologist as advisor to Angus Council was consulted and agreed to the scope of this assessment on the 9th September 2015. The Council Archaeologist agreed that in this instance a desk based assessment without a walkover survey would be acceptable.

2 Aims and objectives

The assessment has been carried out according to the *Standards and Guidance for archaeological desk-based assessment* published by the Chartered Institute for Archaeologists (CIfA 2014), and aims to:

- Collate all available written, graphic, photographic and electronic information relevant to the development site;
- Describe the cultural heritage resource potentially affected by the development, with regard to its presence/absence, character, extent, date, integrity and state of preservation, including both known and potential heritage assets;
- Assess the cultural significance of any heritage assets identified, in their local, regional, national or international context as appropriate;
- Identify potential impacts on the cultural heritage resource, and formulate a strategy for their mitigation.

A heritage asset defined as any element of the historic environment which is of sufficient cultural significance to merit consideration in the planning process. The historic environment includes elements of the built heritage (ancient monuments, archaeological sites and landscapes, historic buildings, townscapes, parks, gardens and designed landscapes, marine heritage); patterns in the landscape such as the layout of fields and roads; and the context or setting of historic features including their historical, artistic, literary, linguistic and scenic associations (Scottish Historic Environment Policy, Historic Scotland 2011, 5). The cultural heritage assessment includes both designated and undesignated assets. Designated assets comprise Scheduled Monuments, Listed Buildings, World Heritage Sites, Conservation Areas, Inventory Gardens and Designed Landscapes, Inventory Historic Battlefields and Historic Marine Protected Areas. The majority of heritage assets are not designated:

Some undesignated assets are recorded in Historic Environment Records or Sites and Monuments Records (HERs/SMRs) maintained by local authorities and other agencies. Others are recorded in the National Monuments Record of Scotland (NMRS) which is maintained by the Royal Commission on the Ancient and Historical Monuments of Scotland (RCAHMS). The information contained in HERs, SMRs and NMRS is not definitive, however, since they may include features which, for instance, have been entirely removed, or are of uncertain location, dubious identification, or negligible cultural significance; while some heritage assets are currently unrecorded. The identification of heritage assets is therefore largely a matter of professional judgement.

3 Policy and guidance

The assessment has been undertaken with reference to relevant legislation, National Planning Policy and Guidance, and Regional and Local Planning Policy relating to Cultural Heritage.

3.1 Legislation

Scheduled Monuments and Listed Buildings are protected by statute.

Legislation affecting Scheduled Monuments is contained within The Ancient Monuments and Archaeological Areas Act 1979. Under this legislation it is an offence to carry out works which affect the fabric of a Scheduled Monument without the prior written consent of the Secretary of State. The 1979 Act does not apply to the settings of Scheduled Monuments, which are protected through the planning process.

Legislation affecting Listed Buildings is contained in The Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997. Under this legislation it is an offence to carry out works which affect the fabric of a Listed Building without the prior written consent of the Secretary of State. The 1997 Act also places a duty on the planning authority with respect to Listed Buildings and Conservation Areas. Section 59 of the 1997 Act states (in part):

"In considering whether to grant planning permission for development which affects a listed building or its setting, a planning authority or the Secretary of State, as the case may be, shall have special regard to the desirability of preserving the building or its setting or any features of special architectural or historic interest which it possesses."

Section 64 states:

"In the exercise, with respect to any buildings or other land in a conservation area, of any powers under any of the provisions in subsection (2), special attention shall be paid to the desirability of preserving or enhancing the character or appearance of that area."

Technical amendments to both Acts are contained in The Historic Environment (Amendment) (Scotland) Act 2011.

3.2 National Planning Policy and Guidance

The Scottish Government's planning policies in relation to the historic environment are set out in paragraphs 135-151 of *Scottish Planning Policy* (SPP) (The Scottish Government, June 2014). The historic environment is defined as "the physical evidence for human activity that connects people with place, linked with the associations we can see, feel and understand" and includes "individual assets, related settings and the wider cultural landscape". The policy principles are stated in paragraph 137:

"The planning system should:

- promote the care and protection of the designated and non-designated historic environment (including individual assets, related settings and the wider cultural landscape) and its contribution to sense of place, cultural identity, social well-being, economic growth, civic participation and lifelong learning; and
- enable positive change in the historic environment which is informed by a clear understanding of the importance of the heritage assets affected and ensure their future use.
 Change should be sensitively managed to avoid or minimise adverse impacts on the fabric and setting of the asset, and ensure that its special characteristics are protected, conserved or enhanced."

The SPP applies these principles to all designated assets (paragraphs 141-149). In particular, it states that:

- Regarding developments affecting Listed Buildings, "special regard must be given to the importance of preserving and enhancing the building, its setting and any features of special architectural or historic interest";
- Proposals "which will impact on its appearance, character or setting [of a Conservation Area], should preserve or enhance the character and appearance of the conservation area";
- "Where there is potential for a proposed development to have an adverse effect on a Scheduled Monument or on the integrity of its setting, permission should only be granted where there are exceptional circumstances";
- "Where a development proposal has the potential to affect a World Heritage Site, or its setting, the planning authority must protect and preserve its Outstanding Universal Value";
- "Planning authorities should protect and, where appropriate, seek to enhance gardens and designed landscapes included in the Inventory of Gardens and Designed Landscapes and designed landscapes of regional and local importance"; and
- "Planning authorities should seek to protect, conserve and, where appropriate, enhance the key landscape characteristics and special qualities of sites in the Inventory of Historic Battlefields".

The SPP also requires planning authorities to protect archaeological sites and monuments, preserving them in situ where possible, or otherwise ensure "appropriate excavation, recording, analysis, publication and archiving before and/or during development" (paragraph 150). "Non-designated historic assets and areas of historical interest, including historic landscapes, other gardens and designed landscapes, woodlands and routes such as drove roads" should also be preserved in situ wherever feasible (paragraph 151).

Scottish Historic Environment Policy (SHEP) (Historic Scotland 2011) complements the SPP and provides further policy direction. In particular, it provides more detailed policy on historic environment designations and consents.

Planning Advice Note 2/2011: Planning and Archaeology provides technical advice to planning authorities and developers on dealing with archaeological remains. Among other issues it covers the balance in planning decisions between the preservation of archaeological remains and the benefits of development; the circumstances under which developers can be required to provide further information, in the form of a field evaluation, to allow planning authorities to reach a decision; and measures that can be taken to mitigate adverse impacts.

Historic Scotland provide guidance on how to apply the policies set out in SPP and SHEP in a series of documents entitled *Managing Change in the Historic Environment*.

3.3 Regional and Local Planning Policy

The TAYplan Strategic Development Plan 2012-32 (Approved June 2012) covers the historic environment within *Policy 3: Managing TAYplan's Assets*, which states "Land should be identified through Local Development Plans to ensure responsible Management of TAYplan's assets by: Understanding and respecting the regional distinctiveness and scenic value of the TAYplan area through... safeguarding... archaeology, historic buildings and monuments and allow development where it does not adversely impact upon or preferably enhances these assets"

Of relevance to this assessment in the current Angus Local Plan Review (Adopted 2009) is *Policy ER19: Archaeological Sites of Local Importance* which states:

"Where development proposals affect unscheduled sites of known or suspected archaeological interest, Angus Council will require the prospective developer to arrange for an archaeological evaluation to determine the importance of the site, its sensitivity to development and the most appropriate means for preserving or recording any archaeological information. The evaluation will be taken into account when determining whether planning permission should be granted with or without conditions or refused.

"Where development is generally acceptable and preservation of archaeological features in situ is not feasible Angus Council will require through appropriate conditions attached to planning consents or through a Section 75 Agreement, that provision is made at the developer's expense for the excavation and recording of threatened features prior to development commencing."

The proposed Angus Local Development Plan (February 2015) is currently published for representation and when adopted, will replace the Angus Local Plan Review (Adopted 2009). It covers archaeology in the Policy Framework *Part 2 – Protected and Valued* under the title *Built Environment*. Of relevance to this assessment within *Policy PV8 Built and Cultural* is the following statement:

"National Sites

Development proposals which affect Scheduled Monuments, Listed Buildings and Inventory Gardens and Designed Landscapes will only be supported where:

- the proposed development will not adversely affect the integrity of the site or the reasons for which it was designated;
- any adverse effects on the site and its setting are outweighed by social, environmental or economic benefits of national significance; and
- appropriate measures are provided to mitigate any identified adverse impacts.

"Regional and Local Sites

Development proposals which affect local historic environment sites as identified by Angus Council (such as Conservation Areas, sites of archaeological interest) will only be permitted where:

- supporting information commensurate with the site's status demonstrates that the integrity of the historic environment value of the site will not be compromised; or
- the economic and social benefits significantly outweigh the historic environment value of the site."

4 Methodology

4.1 Study area

The Study Area extends to a 500m buffer on the length of the Pow Burn where restoration works are proposed. Within this area all designated and undesignated cultural heritage assets are considered for potential impacts and to inform the potential for previously unrecorded cultural heritage assets within the route of the burn restoration.

4.2 Data sources

The assessment has been based on a study of all readily available documentary sources, following the CIfA Standards and Guidance (CIfA 2014). The following sources of information were referred to:

- Spatial datasets and lists and descriptions of designated assets from the website of Historic Scotland (downloaded on 22.07.15)
- National Monuments Record of Scotland (NMRS);
- The Angus Historic Environment Record (HER) (data received 09.09.15)
- Vertical aerial photographs held by the Royal Commission on the Ancient and Historical Monuments of Scotland (RCAHMS);
- Maps held by the National Library of Scotland;
- Ordnance Survey Name Books
- Geological data from the British Geological Survey (http://mapapps.bgs.ac.uk/geologyofbritain/home.html accessed 12.08.15)
- Relevant internet resources, including http://pastmap.org.uk/
- Readily accessible published sources and unpublished archaeological reports.

4.3 Defining the historic environment resource

4.3.1 Known heritage assets within the Study Area

Undesignated heritage assets within the Study Area have been labelled in Figure 1 with the Angus HER reference numbers or heritage asset number (HA) if identified during the course of the assessment. Scheduled Monuments are labelled with the Index number assigned to them by Historic Scotland.

4.3.2 Potential for unknown heritage assets within the Study Area

The likelihood that significant undiscovered heritage assets may be present within the Study Area is referred to as *archaeological potential*. Overall levels of potential can be assigned to different landscape zones, following the criteria in Table 1, while recognising that the archaeological potential of any zone will relate to particular historical periods and types of evidence. The following factors are considered in assessing archaeological potential:

- The distribution and character of known archaeological remains in the vicinity, based principally on an appraisal of data in the Angus Historic Environment Record;
- The history of archaeological fieldwork and research in the surrounding area, which may give an indication of the reliability and completeness of existing records:

- Environmental factors such as geology, topography and soil quality, which
 would have influenced land-use in the past and can therefore be used to
 predict the distribution of archaeological remains;
- Land-use factors affecting the survival of archaeological remains, such as ploughing or commercial forestry planting; and
- Factors affecting the visibility of archaeological remains, which may relate to both environment and land-use, such as soils and geology (which may be more or less conducive to formation of cropmarks), arable cultivation (which has potential to show cropmarks and create surface artefact scatters), vegetation, which can conceal upstanding features, and superficial deposits such as peat and alluvium which can mask archaeological features.

Table 1: Archaeological potential

Potential	Definition
High	Undiscovered heritage assets are almost certainly present, and these are likely to include assets of high or medium importance.
Moderate	Undiscovered heritage assets are likely to be present, and it is possible, though unlikely, that these may include assets of high or medium importance.
Low	The study area may contain undiscovered heritage assets, but these are unlikely to be numerous and are highly unlikely to include assets of high or medium importance.
Negligible	The study area is highly unlikely to contain undiscovered heritage assets of any level of importance.
Nil	There is no possibility of undiscovered heritage assets existing within the study area.

4.4 Assessment of cultural significance and importance

The importance of a heritage asset reflects its statutory designation or, in the case of undesignated assets, is a matter for the professional judgement of the assessor (Table 2). Assets of national importance and international importance are assigned a high and very high level respectively. The criterion for Listing is that a building is of 'special architectural or historic interest'; while SHEP does not define the relative importance of Category A, B and C Listed Buildings, this assessment follows the *Guide to the Protection of Scotland's Listed Buildings: what listing means to owners and occupiers published by Historic Scotland* (2011) which identifies Category A with 'national or international importance', Category B with 'regional or more than local importance' and Category C with 'local importance' or group value. Conservation

Areas are defined as 'areas of special architectural or historic interest' by SHEP, but are not defined as being of national importance. A historic feature which is not important enough to be a material factor in the planning process is not considered to be a heritage asset; it may also be said to have negligible heritage importance.

Table 2: Criteria for Assessing the Importance of Heritage Assets

Importance of the asset	Criteria
Very high	World Heritage Sites and other assets of equal international importance
High	Category A Listed Buildings, Scheduled Monuments, Inventory Gardens and Designed Landscapes, Inventory Historic Battlefields, Historic Marine Protected Areas and undesignated assets of national importance
Medium	Category B Listed Buildings, Conservation Areas, and undesignated assets of regional importance
Low	Category C Listed Buildings and undesignated assets of lesser importance

An assessment of cultural significance is given for all known heritage assets that are potentially affected by the development. Cultural significance is defined in SHEP Annex 1, Section 3 as a quality "inherent in the monument itself, its fabric, setting, use, associations, meanings, records, related monuments and related objects"; and is characterised by reference to its intrinsic, contextual or associative characteristics, in accordance with SHEP Annex 1, Section 5. These characteristics are identified and weighted according to how much they contribute to the overall cultural significance of the asset. Characteristics which cannot be compromised without considerable loss of cultural significance are referred to as 'key characteristics'.

The cultural significance of a heritage asset derives both from its physical fabric and from its setting. Setting is defined by Historic Scotland (2010, paragraph 2.1) as 'the way in which the surroundings of a historic asset or place contribute to how it is experienced, understood and appreciated' and accounts for much of the contextual character of an asset. The extent to which setting contributes to the overall significance of heritage assets varies widely. Setting may not be among the key characteristics that contribute to an asset's significance, and even where it is, only certain attributes of that setting will be relevant. A list of factors that can contribute to setting, included in Historic Scotland's guidance note (Historic Scotland 2010, paragraph 3.1), is referred to in characterising an asset's setting. Characteristics of setting that contribute to an asset's significance may be localised and limited to its

immediate surroundings, or may also include more distant visual relationships, especially where an asset is located at a prominent viewpoint or intended to form a conspicuous landmark.

5 Results

5.1 Previous investigations

About 1856, a cist burial was excavated at near Farnell (HER NO65NW0030), however no further archaeological investigations have been recorded in the study area. With the exception of standing buildings, the majority of assets recorded within the study area are as a result of the interpretation of aerial photographs.

5.2 Geology and geomorphology

The bedrock beneath the Pow Burn is sandstone, siltstone and mudstone belonging to the Dundee Flagstone Formation. These are sedimentary rocks formed during the Devonian Period (approximately 398 to 416 million years ago), which are found in local environments which were dominated by rivers and are formed by rivers depositing sand and gravel detrital material.

The superficial geology is Raised Marine Deposits – clay, silt, and sand. These deposits were formed up to 2 million years ago in the Quaternary Period, the local environment was previously dominated by shallow seas². These deposits have been left at higher levels than the present shoreline due to the general fall in sea levels during the early Holocence.

5.3 Prehistory

Two stone axes (HER NO65NW0020 & NO65NW0026, not shown on Figure 1) have been recorded in the area surrounding Farnell. The date of these axes is not recorded in the HER but it is presumed that they date to the Neolithic. These axes were not found in associated features, but appear to have been stray finds recorded in the early 20th century. It is therefore unclear how they arrived in this area; it is however presumed that they are local to the area and represent activity in this area during the Neolithic.

A stone cist inhumation (HER NO65NW0030), was recorded around 1856. No dating evidence is given in the HER or RCAHMS records of this site and it is probable that none was recorded. However it may be that this is a short cist burial which is typically Bronze Age in date.

The remaining evidence of prehistoric activity in the Study Area is recorded as cropmarks. These include the Scheduled Monuments, Powmouth, settlement 400m E of Haughs of Kinnaird (SM6400); and the undesignated cultural heritage asset, Little

² http://mapapps.bgs.ac.uk/geologyofbritain/home.html accessed 10.09.15

Carcary cropmark enclosure (HERNO65NW0032). These settlements have not been subject to intrusive archaeological investigation but from aerial photography appear likely to be of late prehistoric date. This date is assumed as the Scheduled Monument appears to be a series of ring ditch houses, large curving ditches and possible souterrains which are underground stone-lined passages/chambers, commonly dated to the Iron Age in Scotland. The undesignated cropmarks are not as clear but appear to be two enclosures suggesting a similar Iron Age date.

5.4 Medieval to Post Medieval

Within the Study Area and dating to the medieval period is Farnell Castle (HB11501) which is recorded in 1296 and was a Bishop's Palace until it was secularised in 1566. The castle was rebuilt shortly after 1570 and has seen subsequent renovations allowing the castle to still be in use to date³.

Also with origins in the medieval period are Kinnaird Castle (HB11508) and grounds which lie to the north west of the Study Area. The Carnegies are recorded as living at Kinnaird since 1401 and the estate and castle have seen subsequent rebuilding and renovations⁴.

The presence of these castles reflects the wealth of the area during the medieval period, however aerial photography and map evidence suggests that the area immediately surrounding the Pow Burn was agricultural land from the medieval period through to the present date.

Roy's Military Survey of 1747-52 (Plate 1) is the first map to show the study area in detail. The most noticeable feature being the designed grounds of Kinnaird Castle. The Pow Burn has not been rerouted at this stage and maintains a sinuous course through an area which appears to be slightly marshy ground. Roy depicts a settlement of approximately four buildings named *Bridge Fernal* on the south side of Pow Burn opposite the grounds of the Castle of Kinaird. This does not appear to be Fernell as this is also depicted on the map as is 'Careroy' – Carcary and an unnamed settlement which appears to be Little Carcary .This settlement is not shown on later maps and its exact location is unclear.

Ainslies map of 1794 shows Pow Mill, but there is no settlement named Bridge Fernal. The Pow Burn continues its sinuous course. However Ainslie's map shows that by this date there had been significant changes to the layout of Kinnaird Castle's grounds, including the apparent diversion of a stream passing through the grounds, which joins the Pow Burn at a point further downstream The First Edition Ordnance Survey shows the Scottish North Eastern Railway which runs through the Study Area. The First Edition Ordnance Survey appears to show the Pow Burn following its current routeAinslie's map shows a road crossing over *Pow Water* at Powmill. The

⁴ http://data.historic-scotland.gov.uk/pls/htmldb/f?p=2400:15:0::::GARDEN:GDL00245

³ http://canmore.org.uk/site/35736/farnell-castle accessed 11.09.15

Ordnance Survey first edition shows this area in greater detail with a foot bridge and a ford (HA1) crossing Pow Burn.

An undesignated cropmark (NMRS NO65NE0086) covers a large area of the fields at the northeast limit of the study area. This cropmark is of wide rig and is probably of medieval to post medieval date. As this area appears to have been under plough since at least the post-medieval period, it is unlikely that any early cultivation remains are well preserved. The large machinery of modern agriculture will have effectively removed much of the earlier cultivation remains.

6 Assessment of cultural significance

6.1 Known heritage assets within the Study Area

6.1.1 Scheduled Monuments

There is one Scheduled Monument in the Study Area, Powmouth, settlement, a cropmark site interpreted as a series of ring ditches and associated souterrains of probable Iron Age date. As a Scheduled Monument this asset is considered to be of high cultural heritage importance.

Table 4: Scheduled Monuments included in the assessment

Index no.	Name	Grid ref.	Importance
6400	Powmouth, settlement 400m E of Haughs of Kinnaird	364906, 757536	High

6.1.2 Listed Buildings

There are 12 Listed Buildings in the Study Area. Of these two are Category A listed; Farnell Parish Kirk (HB11497) and Farnell Castle (HB11501), seven are Category B listed and three are Category C listed.

Eight of the listed buildings relate to the settlement of Farnell, its castle (HB11501 &HB11502), its church (HB11497, HB11498, HB11499, HB11500) its Mill (HB11503) and its bridge (HB11505). While the castle has origins in the 13th century the remaining buildings date to the late 18th to early 19th century.

The remaining buildings include to farmhouses (HB11506 & HB11507) also dating to the late 18th and early 19th centuries.

There is also a 17th century private burial ground within Kinnaird Park (HB13766).

Table 5: Listed Buildings included in the assessment

HB	Name	Category	Grid ref.	Importance
no.				

			362738,	High
11497	Farnell Parish Kirk	A	755425	
			362685,	Medium
11498	Parish Kirk Manse	В	755401	
			362690,	Medium
11499	Manse - Sundial	В	755390	
			362663,	Medium
11500	Manse - Gatepiers	В	755415	
			362429,	High
11501	Farnell Castle	A	755488	
			362524,	Medium
11502	Farnell Castle - Doocot	В	755387	
			362624,	Medium
11503	Farnell Mill	В	755507	
			362888,	Medium
11505	Farnell Road Bridge over Pow Burn	В	755363	
			363357,	Low
11506	Powmill Farmhouse	С	755700	
			364558,	Low
11507	Haughs of Kinnaird Farmhouse	С	757454	
			362928,	Low
13765	Railway Bridge over Farnell Road	С	755295	
			363495,	Medium
13766	Kinnaird Park - Private Burial Ground	В	756336	

6.1.3 Inventory Gardens and Designed Landscapes

There is one Inventory Gardens and Designed Landscape, Kinnaird Castle, the southern edge of which is in the Study Area.

6.1.4 World Heritage Sites/Inventory Historic Battlefields/Conservation Areas

There are no further designated cultural heritage assets in the Study Area.

6.1.5 Undesignated Assets

There are seven undesignated cultural heritage assets within the Study Area. Powmill footbridge and ford (HA1) is recorded from Ainslie's map of 1794 and the First Edition Ordnance Survey (published 1865, surveyed 1861-65). It is not known to what extent the ford and footbridge survive, if at all. However as a common site type this asset is considered to be of no more than low cultural heritage importance.

The Scottish North Eastern Railway, survives as a stretch of dismantled railway (HA2) through the Study Area. This railway was built in the mid to late 19th century and may have been closed in the 1960s when the North British Railway route to Aberdeen via Dundee became the main route. This is a small stretch of a dismantled

railway – the extent to which it survives within the Study Area is unknown it is therefore considered to be of low cultural heritage importance.

Two undesignated assets are cropmark features: one is a cropmark of cultivation remains (HER NO65NE0086) of medieval to post medieval date which, as a poorly preserved example of a common site type, is considered to be of no more than low cultural heritage importance.

Little Carcary cropmark is a possible prehistoric enclosure (HER NO65NW0032). In an area of known prehistoric assets there is the potential that this is a significant site. It is often the case that cropmarks of features that have not been damaged extensively by ploughing do not show as clearly as features that have been more severely truncated, as in the former case more of the remains survive, blurring the shape in cropmarks. This asset is therefore considered to be of medium cultural heritage importance.

One asset is the site of a short cist (HER NO65NW0030). This asset is recorded from documentary records, its precise location is uncertain as this asset has probably been excavated and removed this location is considered to be of low cultural heritage importance.

Farnell War Memorial (HERNO65NW0090) is a small war memorial dedicated to local men who lost their lives in World War One. This is a common site type of local importance and as such is considered to be of low cultural heritage importance.

Mains of Farnell (HERNO65NW0090) is a farmstead depicted on the first edition Ordnance Survey Map which is still in use. This is also a common site type of local importance and is considered to be of low cultural heritage importance.

Table 3:	Cultural	Heritage	Assets in	the:	Studv	Area
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Reference No	Name	Grid ref.	Importance
HA1	Powmill footbridge and ford	363402, 755633	Low
HA2	Dismantled Railway		Low
		354837, 757800	Low
HERNO65NE0086	Barnhead cultivation cropmark		
HERNO65NW0092	Mains of Farnell Farmstead	354931, 757639	Low
HERNO65NW0090	Farnell War Memorial	354261, 758163	Low
HERNO65NW0030	Farnell site of cist	354600, 758500	Low
HERNO65NW0032	Little Carcary cropmark enclosure	354900, 758100	Medium to High

6.2 Archaeological potential of the Study Area

Most of the Study Area has remained under agricultural use throughout its known history. It may therefore be presumed that the uppermost levels of archaeological sites have been truncated by modern agricultural activity. However as the Study Area is on a floodplain, archaeological assets may also be deeply buried and hence both protected and masked by alluvium.

It is clear from cropmark evidence (SM6400 and HERNO65NW0032) there was prehistoric activity in the Study Area. While it may be presumed that as these assets show as cropmarks any other prehistoric assets would also show as cropmarks. However this is not necessarily the case, cropmarks depend largely on the soil and crop conditions when the photographs were taken. Discrete prehistoric assets (for example pits)are unlikely to show up as cropmark features. It is therefore possible that prehistoric assets survive unrecorded within the study area this potential will be greatest in the area immediately surrounding the recorded assets.

There is potentially an earlier settlement 'Bridge of Fernal' which is depicted on Roy's Map (1747-52) within the Study Area. However the limited accuracy of Roy's map does not allow this to be placed with any confidence, it is therefore not treated as an asset in this report although there is potential that the remains of this settlement survive subsurface within the Study Area.

The surrounding area has a rich medieval to post medieval past however with the exception of the settlement at Farnell and Kinnaird Castle IGDL, the Study Area appears to have been used principally for agriculture during the medieval to post medieval period. The archaeological potential relating to this period would therefore be for cultivation remains.

It is possible that structures associated with the use of the burn may survive unrecorded along its course such as bridges, fords or mills. Mapping evidence records the Powmill footbridge and ford (HA1) and it is possible that similar structures survive unrecorded along the length of the burn. Mapping evidence suggests the burn has been straightened and drainage ditches have been created across the floodplain. It is therefore considered that there is moderate to high potential for cultural heritage assets to survive unrecorded within the Study Area. The potential for associated prehistoric assets will be highest in the area immediately surrounding the Scheduled Monument Powmouth, settlement 400m E of Haughs of Kinnaird (SM6400) as it is probable that not all archaeological features related to this complex are visible as cropmarks. There remains moderate potential along the length of the burn related to further prehistoric assets, a medieval to post medieval settlement of Fernal Bridge and structures associated with the Burn.

7 Predicted effects of the development

7.1 Potential impacts

The proposals for the restoration of the Pow Burn are not finalised, however it is possible that they will involve creation of berms, flood storage areas or channels. The creation of these features would involve the excavation of ground along the course of the Pow Burn, this could remove or damage any cultural heritage assets along its route.

There are no setting effects predicted from this restoration.

7.2 Heritage Assets affected

It is possible that there will be a direct impact on the Powmill footbridge and ford (HA1). However the extent to which these features survive is unknown.

There is potential for an impact on the scheduled monument Powmouth, settlement 400m E of Haughs of Kinnaird (SM6400) from any works in its vicinity, as the south east edge of the scheduled monument is defined by the burn.

There is moderate to high potential for previously unrecorded cultural heritage assets within the Study Area; however the proposed Pow Burn Restoration is likely to affect a relatively small area, therefore risk of significant effects on currently unrecorded archaeology is very limited.

8 Conclusions

The Scheduled Monument; Powmouth, settlement 400m E of Haughs of Kinnaird (SM6400) is within the Study Area, the Pow Burn forms its southern extent. There are 12 listed buildings within the study area, these are all sufficiently removed from the Pow Burn to not be considered to be at risk of impacts from the proposed restorations. In addition to the designated assets there are seven undesignated assets within the Study Area, these include two cropmarks (HERNO65NE0086 & HERNO65NW0032) a bridge/ford (HA1), a dismantled railway (HA2), the site of a cist (HERNO65NW0030), a war memorial (HERNO65NW0090) and a farmstead (HERNO65NW0092). Having considered the known archaeology and topography of the surrounding area it is considered that there is moderate to high potential for previously unrecorded cultural heritage assets to survive within the Study Area.

No work can be done within the scheduled area of Powmouth, settlement 400m E of Haughs of Kinnaird (SM6400) without contacting Historic Scotland in advance and receiving Scheduled Monument Consent, such consent is not guaranteed to be given. There is potential for a construction impact on Powmill footbridge and ford (HA1), this could be removed if no work is carried out in this area. It is possible that further assets associated with the use of the burn will survive unrecorded along its length,

however the lack of mapping evidence and the historic modifications and improvements to the burn suggest there is low potential for such assets to survive.

Due to the relatively small footprint of the restoration and the moderate to high archaeological potential of the floodplain it is considered that there is low to moderate potential that previously unrecorded cultural heritage assets will be affected. This potential will be greatest in the area surrounding the Powmouth, settlement 400m E of Haughs of Kinnaird (SM6400). It is considered that any potential impacts could be satisfactorily mitigated through a programme of archaeological works, the nature of these works will depend on the detail of what is proposed.

9 References

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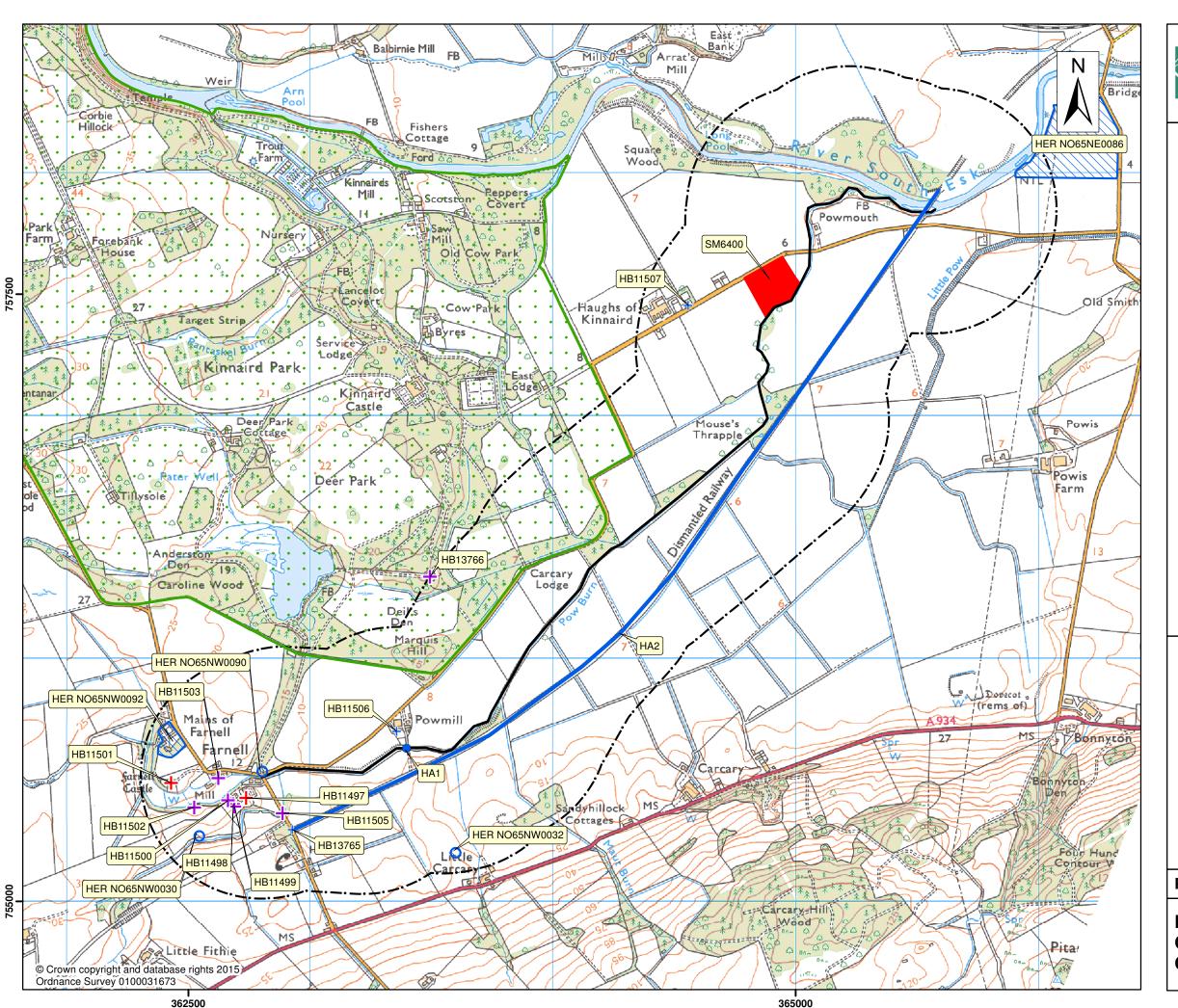
Ordnance Survey, Pub 1927, Sur 1922, Forfarshire Sheet XXXIV.SE (includes Craig; Farnell; Kinnell; Lunan; Maryton), 1:10560

Aerial Photographs

Table 6: Prints held in the National Collection of Aerial Photography, RCAHMS

Library Ref	Sortie	Date	Frame nos.

C_0143	106G_DY_0021	18.09.44	6003-6005
B_0128	CPE_UK_0128	25.06.47	3009-3011
			3019-3027
			4009-4011
			4014-4019
B_0604	540_1383	07.08.53	F22 043-047
B_0619	58_1366	02.03.54	F21 0249-0253
			F22 0249-0253
C_0215	82_1020	18.09.54	F21 0019-0025
			F21 0058-0054





Key

Scheduled monument

Category A listed building

Category B listed building

+ Category C listed building

Inventory garden and designed landscape

Undesignated cultural heritage asset

Undesignated cultural heritage asset

Undesignated cultural heritage asset

Burn Restoration Area

Study Area

500 m

Designed Landscape area information derived from Historic Scotland data dated 22.07.15 © Crown Copyright. All rights reserved 2015.

Listed Building data provided by Historic Scotland dated 22.07.15 © Crown Copyright (Historic Scotland)

Scheduled monument area information derived from Historic Scotland data dated 22.07.15 © Crown Copyright (Historic Scotland)

Historic Environment Record information derived from Angus Council data dated 0.09.15 © Crown Copyright (Angus Council)

Pow Burn Restoration

Figure1: Cultural Heritage Assets Considered in Assessment



Plate 1. Roy 1747-52, Military Survey of Scotland



Plate 2. Ainslie 1794, Map of the County of Forfar or Shire of Angus



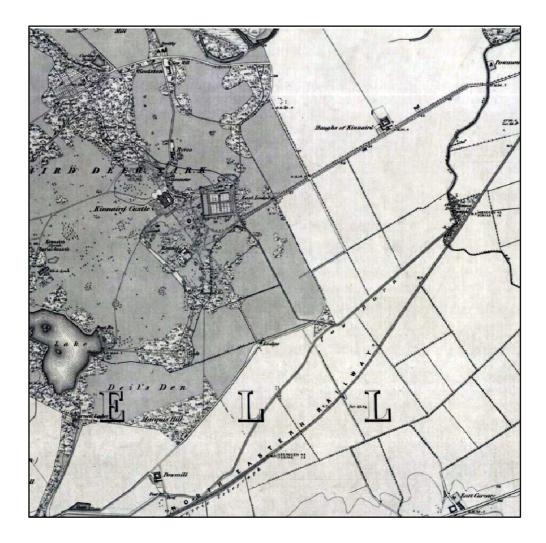


Plate 3. Ordnance Survey, Surveyed 1861-65, Published 1865

