Forrest Estate,

St. John's Town of Dalry, Dumfries and Galloway

Archaeological Survey and Assessment: May 2014

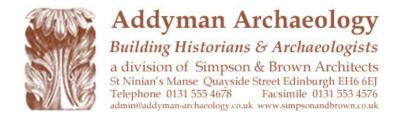
for

DGA Forestry

May 2014



Cairn on the summit of the Forrest Lodge site area



Forrest Estate

St. John's Town of Dalry, Dumfries and Galloway

Archaeological Survey and Assessment: May 2014

Data Structure Report

AA 2114

by Ross Cameron

edited by

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Forrest Estate

St. John's Town of Dalry, Dumfries and Galloway

Archaeological Survey and Assessment: April – May 2014

Executive Summary

Addyman Archaeology were contacted by DGA Forestry in order to undertake an archaeological survey and Desk Based Assessment (DBA) of the area known as Forrest Estate near St. John's Town of Dalry in Dumfries and Galloway.

Through an analysis of readily available historical records; historic and current aerial images; and a detailed cartographic regression, the Desk Based Assessment identified a total of fourteen possible sites within the boundaries of the development. Nine of these were subsequently located during the walkover survey, with an additional five further sites recorded, bringing the overall total of identified sites to nineteen. Almost without exception these sites relate to the agricultural and pastoral history of the development area and the majority are deemed to be of low, or negligible significance.

It is recommended that all sites identified on the ground are avoided during the planting process, with the limits of the sites physically marked out by a team of qualified archaeologists. Two preimprovement farmsteads noted during the DBA were located during the walkover and identified as of moderate significance. Mitigation measures will be required to ensure these remain unaffected by the development. Where planting is anticipated in these areas, it is recommended both sites are more thoroughly recorded through a process of topographical survey.

A record of the assessment has been deposited with the Online Access to the Index of Archaeological Investigations (OASIS) website hosted by the Archaeological Data Service (OASIS ID addymana1-179906) and with Discovery and Excavation in Scotland (DES), the annual publication of fieldwork by Archaeology Scotland.

1. Introduction

i. General

Addyman Archaeology were contracted by DGA Forestry (contacts William Allen and Sandy Anderson) to undertake a Desk-Based Assessment and walkover survey in advance of a proposed woodland creation scheme at Forrest Estate near St. John's Town of Dalry in Dumfries and Galloway.

An initial Desk Based Assessment (DBA) was undertaken prior to the walkover survey in order to identify any known archaeological sites or other features of cultural heritage interest within the proposed development area. The DBA also included consultation of historic maps and aerial photographs. This research was completed by assessing known cultural heritage sites immediately beyond the proposed development boundary. The assessed sites are detailed in *Table 3* and *Table 4* below.

A walkover survey of Forrest Estate was undertaken on 12th May 2014 by Ross Cameron. Weather conditions were variable, with warm sunshine interspersed with showers and hail. The site is no longer grazed and as a result vegetation in places was high, but it is not felt this affected ability to locate and pinpoint archaeological features.

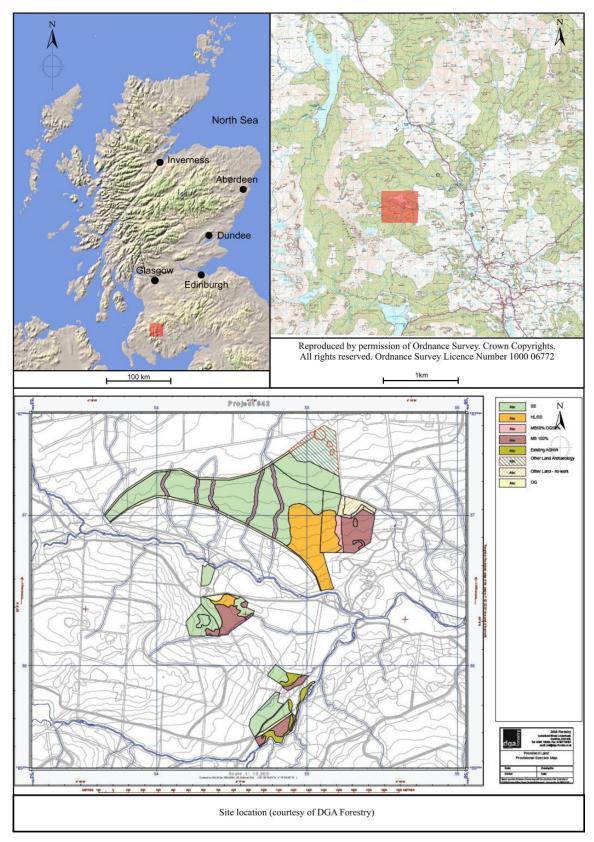


Figure 1 Site location

The walkover survey aimed to assess the character, extent and condition of any sites, monuments and landscape features identified by the DBA, but also aimed to identify any other features of cultural heritage interest not originally detected by the desk-based study.

All of the findings and conclusions in this report consider and adhere to all relevant legislation as well as the UK Forestry Standard (UKFS) as laid out by the Forestry Commission.

This report contains several maps reproduced by permission of the Trustees of the National Library of Scotland (NLS). To view these maps online, see www.nls.uk.

This report is prepared in accordance with standard Addyman Archaeology procedures and in line with guidelines as established by the Institute for Archaeologists (*IfA*).

ii. Setting and geology¹

Located to the north west of St. John's Town of Dalry in Dumfries and Galloway, the proposed woodland development at Forrest Estate is a fragmented site split over four unequal, geographically separated areas on the eastern edge of the Galloway Forest Park. With an overall area of roughly 1km², the main areas can be taken as centred on NX 54688 87073 for the main northern section to the north west of Forrest Lodge; NX 54314 86337 for the two smaller areas around Fore Bush; and NX 54751 85651 for the two areas of land either side of Burnhead. All five sites are entirely surrounded by coniferous plantations.

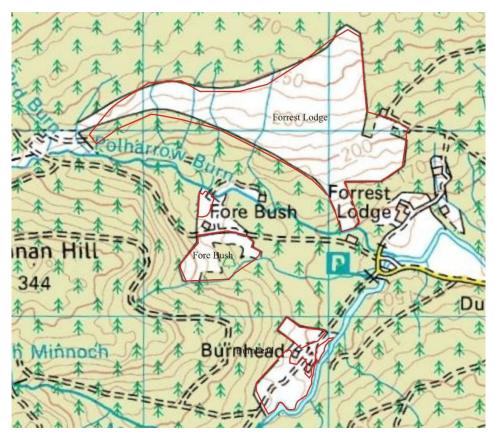


Figure 2 Detailed plan of the site showing the names assigned to each site area for ease of discussion. Addyman Archaeology after Ordnance Survey. Reproduced by kind permission of the Ordnance Survey. Crown copyrights. All Rights reserved. Ordnance Survey Licence Number 1000 06772

¹ Geological information taken from http://mapapps.bgs.ac.uk/geologyofbritain/home.html - 25/04/14

a. Forrest Lodge

The larger northern area (hereafter for ease of description called Forrest Lodge) slopes from the north and is bordered by a series of field boundaries and 20th century coniferous plantations. It is also crossed by a number of southwards running, but nameless burns feeding into the Polharrow Burn. The south east arm of the area is steep and runs down towards the fast flowing Polharrow Burn.



Figure 3 Looking south of the Forrest Lodge site

The underlying bedrock geology is predominantly wacke or sandstone of the Portpatrick Formation. This sedimentary bedrock formed approximately 451 to 461 million years ago in the Ordovician Period in a local environment dominated by deep seas. The sandstone is crossed by two bands of mudstone of the Moffat Shale Group. These deposits formed approximately 428 to 461 million years ago in the Silurian and Ordovician Periods.

The overlying superficial geology comprises Devensian, hummocky glacial deposits across the southern portion of the Forrest Lodge site, with an area of Devensian till to the north. Both deposits formed up to two million years ago in the Quaternary Period in an environment previously dominated by ice age conditions.

b. Fore Bush

Two small development areas are located around Fore Bush, one to the north of the farmstead and the other to the south. Both are bordered by field boundaries. The northern area is very small, with high vegetation cover, and in many places wet underfoot. The southern of the two is an undulating area of land with occasional rocky outcrops, sloping to the north and containing a quantity of indigenous woodland. These two sites will be recorded subsequently as Fore Bush.



Figure 4 General view of the Fore Bush site, with the current Bush farmstead in the background

Like the Forrest Lodge area, the underlying bedrock geology at Fore Bush consists of wacke of the Portpatrick Formation crossed with mudstone of the Moffat Shale Group. A small deposit of lavapillowed basalt of the Crawford Group is recorded in the area to the north of the Fore Bush farmstead. This would have formed around 451 to 479 million years ago in the Ordovician Period. The southern limit of the southern area is crossed by igneous bedrock of quartz-diorite of the Burnhead Intrusion. This formed 398 to 444 million years ago in the Devonian and Silurian Periods.

The overlying superficial geology comprises Devensian, hummocky glacial formed up to two million years ago in the Quaternary Period.

c. Burnhead

The final two areas are located around the farmstead of Burnhead, and will be categorised under this name. The larger of the two areas lies mainly to the south of the farm buildings, bordered on the south and west by field boundaries. The eastern edge is formed by the Burnhead Burn, with a narrow, irregular band of land to be planted continuing along the side of the burn to the north of Burnhead Farm. This area contains a small number of indigenous woodland trees. The second area is located very close to the first, immediately to the north and east Burnside Farm. This area too is predominantly enclosed by field boundaries, with a band of indigenous woodland across the southern perimeter.



Figure 5 The west side of the Burnhead site looking north

The bedrock geology across the two Burnhead sites is almost entirely wacke of the Shinnel Formation. This sedimentary bedrock formed between 444 and 461 million years ago in the Ordovician Period. In the northern of the two site areas, the wacke of the Shinnel Formation is crossed by granitic rock of the South of Scotland Granite Suite. This is 398 to 423 million years old, dateable to the Devonian and Silurian Periods in a local environment previously dominated by intrusions of silica-rich magma. The southern of the two site areas is bordered to the west by porphyritic microdiorite of the North Britain Siluro-devonian Calc-alkaline Dyke Suite. This deposit is dateable from 359 to 444 million years ago in the Devonian and Silurian Periods.

United Kingdom Forestry Standard² iii.

The United Kingdom Forestry Standard (UKFS) defines a series of established standards and guidelines to ensure that forests and woodlands in the United Kingdom are properly and sustainably planned and managed. Written and developed by the Forestry Commission in Great Britain and the Forest Service within Northern Ireland, the UKFS addresses potential Historic Environment impacts by providing a series of requirements or standards which must be met when planning or maintaining woodland. These are complimented by a set of guidelines which set out how the requirements can be met and point to sources of practical guidance.

The UKFS identifies the following requirements and legislation which must legally be covered and adhered to by any forestry or woodland scheme:

| UKFS Reference | Level of Requirement | Relevant Legislation | Standard | |
|----------------|----------------------|--|---|--|
| 1 | Legal Requirement | The Ancient Monuments and Archaeological Areas Act 1979 | Scheduled Monuments must not be damaged and consent must be obtained from the relevant historic environment authority for any works that have the potential to damage the monument. | |
| 2 | Legal Requirement | Treasure Trove system. All treasure trove - which comprises any portable antiquity and not just those incorporating precious metals - are the property of the Crown at Scots common law. | The historic environment authority must be informed if objects are found that come within the scope of the law covering archaeological finds. Metal detectors must not be used where legally restricted or on a Scheduled Monument site. | |
| 3 | Legal Requirement | Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997 | Listed building consent must be obtained from the local authority or relevant historic environment authority to demolish a listed building or structure or any part of it, or to alter it in any way which would affect its character, inside or out. | |

Table 1 UKFS requirements covered by legislation

In addition to those legal requirements covered by legislation outlined in Table 1, the UKFS also provides a list of required standards as justified by 'good forestry practice'. These are outlined in Table 2 as follows:

² The Forestry Commission 2011, The UK Forestry Standard: The Government's approach to sustainable forestry

| UKFS Reference | Level of Requirement | Standard |
|----------------|------------------------|--|
| 1 | Good forestry practice | Forests should be designed and managed to take account |
| | requirement | of the historical character and cultural values of the |
| | | landscape. |
| | | • |
| | | |
| 2 | Good forestry practice | Forests should be designed and managed to take account |
| | requirement | of policies associated with historic landscapes, |
| | | battlefield sites, historic parks and gardens, and |
| | | designed landscapes of historic interest. |
| 3 | Good forestry practice | Steps should be taken to ensure that historic features, |
| | requirement | which may be adversely affected by forestry, are known |
| | | and evaluated on an individual site basis, taking advice |
| | | from the local historic environment services. |

Table 2 Relevant UKFS requirements as required by good forestry practice

This archaeological survey and assessment incorporates and factors all the relevant UKFS guidelines.

2. Desk Based Assessment

i. General

An analysis of readily available sources was undertaken to identify sites of cultural heritage significance. These included:

- The Dumfries and Galloway Council Historic Environment Record (HER)
- The National Monuments Record of Scotland (NMRS)
- Historic Scotland database of Listed Buildings
- Historic Scotland database of Scheduled Monuments
- The Inventory of Gardens and Designed Landscapes in Scotland
- The Inventory of Historic Battlefields in Scotland
- Aerial imagery as held by the National Collection of Aerial Photography (NCAP), the National Library of Scotland (NLS) and online platforms
- Map resources available from the NLS including all available Ordnance Survey (OS) maps
- www.parksandgardens.org this website is the largest online repository for facts and information relating to historic parks and gardens
- www.aircrashsites-scotland.co.uk this website is working towards providing comprehensive coverage of air-crash sites in Scotland

Four known sites were identified within the development area (*Figure 6*) as recorded in the National Monument Record of Scotland (NMRS) and Dumfries and Galloway Council Historic Environment Record (HER). These sites can be identified with their unique NMRS or HER numbers as detailed in *Table 3*.

The following Desk Based Assessment extensively covers all the known cultural heritage sites within the boundaries of, and thus directly affected by the proposed woodland development. Where relevant other monuments in the immediate vicinity of the site boundaries are discussed within the text and included in *Table 4*.

ii. Statutory Designations

The following section outlines how the assessment meets the legal requirements and standards as outlined by the UKFS.

a. Scheduled Monuments

A Scheduled Monument is a monument that has been categorised as of national importance and is legally protected under the Ancient Monuments and Archaeological Areas Act 1979.

There are no Scheduled Monuments recorded within the boundaries or directly adjacent to the proposed Forrest Estate woodland development scheme.

b. Listed Buildings

Listing is the recognition through the Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997 that a building or structure is of 'special' interest whether architecturally or historically.

There are no Listed Buildings within the boundaries of the proposed development.

The Category B Listed Building, Forrest Lodge (Ref: 9726) lies a short distance to the east of the site boundary. Category B Listed Buildings are those considered as of regional, or greater than local importance. Forrest Lodge is not directly impacted by the proposed woodland scheme. As the building is already located within a deeply wooded landscape, it is on the whole already screened from any new impact upon its setting that would be caused by the proposed planting.

c. Designed Gardens and landscapes

The Historic Scotland Inventory of Gardens and Designed Landscapes lists a series of sites that have been considered as of national importance in accordance with the criteria outlined in the Scottish Historic Environment Policy 2011.

There are no designated Gardens or Designed Landscapes recorded by Historic Scotland either within, or directly adjacent to the proposed site area.

d. Inventory of Battlefields

The Inventory of Battlefields held by Historic Scotland is a list of nationally important historic battle sites that have been selected as meeting the criteria as outlined in the Scottish Historic Environment Policy 2011.

There are no battlefield sites recorded by Historic Scotland in the Inventory either within, or directly adjacent to the site boundary.

e. Treasure Trove

Any artefacts or objects recovered either during mitigation work associated with the development, or during the groundworks associated with the planting, will be reported to the Queen's and Lord Treasurer's Remembrancer through the Treasure Trove process.

iii. The History of the development area

a. General

Whilst there are no sites within the boundaries of the proposed development that are protected by statutory legislation, there are four sites which are recorded on both the National Monuments Record Scotland (NMRS) and the Historic Environment Record (HER) of Dumfries and Galloway Council. These can be viewed in *Table 3* and *Figure 6*.

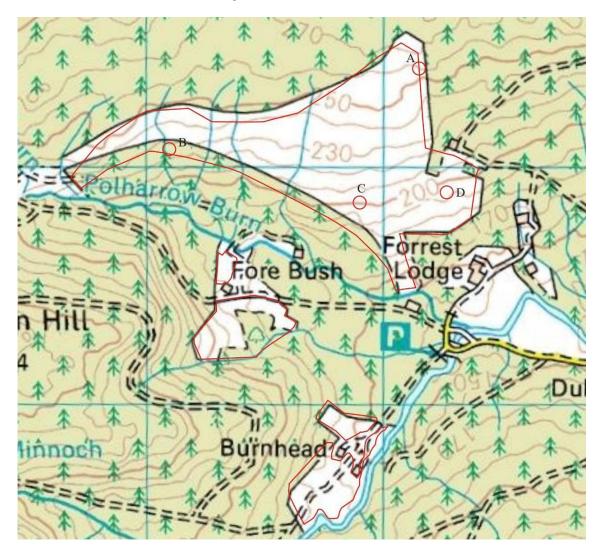


Figure 6 Indicative locations of sites (marked by red circles) within the development area as taken from NMRS and Dumfries and Galloway HER. Note the outline of the development area provided by DGA Forestry – the modern OS map is inaccurate as to the outline of the Forrest Lodge site. (Addyman Archaeology after Ordnance Survey © Crown copyright. All rights reserved. Licence number 1000 06772).

b. Prehistoric

There are no sites recorded within the site boundaries which are considered of prehistoric origin.

However, within those sites recorded in the immediate vicinity of the development (*Table 4*) a Class IV type Middle Bronze Age spearhead (CANMORE ID: 63827) was discovered in April 1967 by a

farm worker on Bennan Hill, a short distance to the west of the site. The Middle Bronze Age in Scotland can be dated to around c.1700-1150 BC,³ and evidence for metalworking and settlement is becoming more prominent in the archaeological record of that period, with seemingly more intensive farming than previously.⁴

The NMRS record for this findspot also records the existence of two further bronze spearheads and two bronze daggers recovered from the general vicinity. One of the spearheads was recovered in c.1792 in Glen Kens, while the other is recorded as from Kells, and has been in the possession of Kirkcudbright Museum since at least 1887. The bronze daggers are also considered of Middle Bronze Age date, classified as Group II, and also traceable to Kells.

Although the provenance of the daggers has been recorded as from Bennan Hill alongside the spearhead from 1967, it is clear from the imprecise nature and wide ranging dates of their recovery, that these objects may have originated in the wider area. Such a concentration of artefacts is rare and indicates human activity in this wider area in the Bronze Age.

c. Medieval

None of the sites located thus far in the development area can be firmly dated to the medieval period. However, the landscape around the development area is rich in pre-improvement agricultural activity, some of which may have its origins in the medieval period.

d. Post-Medieval

All of the sites detailed in both *Table 3* and *Figure 6* are likely to be post-medieval. When considered in the context of the sites in the wider area (*Table 4*) as well as the wider landscape to the east around Knockreoch and Craig Knuckle, it is clear that the area is rich in pre-improvement agricultural activity. This is shown by the series of small farmsteads or fermtouns, irregular field systems and enclosures that indicate the pastoral subsistence economy of the area. The lack of recorded clearance cairns in the vicinity of the development site indicates that the farming economy may have been more focussed on the rearing of livestock than the growing of crops, although evidence for rig and furrow has been recorded.

The Statistical Account of 1791-99 gave a detailed breakdown of the parishes of Scotland, including their demographics, population, occupations etc. The entry for the parish of Kells describes a declining population, encouraged by 'the practice of uniting several farms into one'. The entry also describes the land as barren, and formerly characterised by a large forest, 'although two farms retain the name of Upper and Nether Forest'.

The farms of both Upper and Nether Forrest are recorded in Francis Groome's 1896 Gazetteer for Scotland entry for the parish of Kells.⁷ Few other farm sites are mentioned, and while no other information is given other than to describe the survival of patches of ancient forest, the fact that both farms were considered important (and perhaps prosperous) enough to be mentioned, is interesting.

³compare 1550-1150 BC after Needham et al. 2010 Table 1 and Needham 1996 Fig 3 for the Southern British Bronze Age (http://www.scottishheritagehub.com/content/125-summary-chronology-and-associated-artefacts; accessed: 27/05/14).

⁴ www.scottishheritagehub.com/content/middle-bronze-age-c-17001600%E2%80%93c-12th-century-period-5 accessed: 21/05/14.

⁵ Gillespie, J. 'The Parish of Kells' in *The Statistical Account of Scotland – Castletown, County of Roxburgh. Account of 1791-99, Volume 4*, 264

⁶ *Ibid*. 266

⁷ Groome, F. H. 1896 Ordnance Gazetteer of Scotland, 342

The Category B Listed Forrest Lodge (LB ref: 9726, CANMORE ID: 209973) is recorded as having been rebuilt in 1910, but the origins of the building are unclear.

To the south of Forrest Lodge, waste from an iron bloomery (CANMORE ID: 63825) is recorded as having been donated to Dumfries Museum in 1971. This is indicative of small scale industrial usage of the Forrest Lodge area.

⁸ http://data.historic-scotland.gov.uk/pls/htmldb/f?p=2200:15:0::::BUILDING:9726

| Site | Name, feature | OS Grid Reference | E | N | Reference ⁹ | Designation | Period |
|-------|---|-------------------|--------|--------|------------------------|-------------|---|
| No. | | | | | | | |
| Table | Table 1: Cultural heritage sites within the development area located in the DBA | | | | | | |
| A | Forrest (Structure) | NX 5520 8744 | 255200 | 587440 | ID: 176920 | NMRS, | Post-medieval? Shown on 1 st |
| | | | | | MDG15343 | HER | edition |
| В | Polharrow (Enclosure) | NX 5412 8710 | 254120 | 587100 | ID: 176928 | NMRS, | Post-medieval? Shown on 1st |
| | | | | | MDG15351 | HER | edition as 'old fences' |
| C | Polharrow Burn (Field System) | NX 5493 8686 | 254930 | 586680 | ID: 176926 | NMRS, | Post-medieval? Shown on 1st |
| | | | | | MDG15349 | HER | edition as 'old fences' |
| D | Nether Forrest, Forrest Lodge, | NX 5530 8690 | 255300 | 586900 | ID: 176914 | NMRS, | Post-medieval? Shown on 1st |
| | Upper Forrest (Farmstead, | | | | MDG15337 | HER | edition with depiction 'old |
| | Field System) | | | | | | fence' |

Table 3 Cultural Heritage Sites within the boundary of the proposed woodland creation scheme

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⁹ Canmore ID from NMRS (ID), HER Number (MDG)

| Site No. | Name, feature | OS Grid Reference | E | N | Reference ¹⁰ | Designation | Period |
|-------------|---|------------------------------|------------------|------------------|--|---|--|
| Table | 2: Cultural heritage sites immedia | ately adjacent to the de | evelopment | area | | | |
| n/a | Forrest (Enclosure) | NX 5527 8760 | 255270 | 587600 | ID: 176919 MDG15342 | NMRS, HER | Post-medieval? Shown on 1 st edition as 'old fences' |
| n/a | Polharrow (Field System, Structure) | NX 5395 8702 | 253950 | 587020 | ID: 176929 MDG15352 | NMRS, HER | Post-medieval? Shown on 1 st edition as 'old fence' and 'old sheep ree' |
| n/a | Polharrow (Field System) | NX 5418 8685 | 254180 | 586850 | ID: 176927 MDG15350 | NMRS, HER | Post-medieval? Shown on 1 st edition as 'old fences' |
| n/a | Polharrow Burn (Field System) | NX 5455 8674 | 254550 | 586740 | ID: 176937 MDG15360 | NMRS, HER | Post-medieval? Shown on 1 st edition as 'old fence' |
| n/a | Forrest (Enclosure, Sheepfold) | NX 5561 8686 | 255610 | 586680 | ID: 176916 MDG15339 | NMRS, HER | Post-medieval? Depicted on 1 st edition as 'Sheep Ree' |
| n/a | Knockans (Farmstead, Field System) | NX 5625 8673 | 256250 | 586730 | ID: 176915 MDG15338 | NMRS, HER | Post-medieval? Shown on 1 st edition as 'old fences' |
| n/a | Nether Forrest, Forrest Lodge, Ringreoch (Farmstead) | NX 5535 8666 | 255350 | 586660 | ID: 176913 MDG15336 | NMRS, HER | Post-medieval? Annotated 'ruin' on the 1 st edition |
| n/a | King's Holm (Sheepfold, Field system) | NX 5590 8655 | 255900 | 586550 | ID: 176917 MDG15340 | NMRS, HER | Post-medieval? Shown on 1 st edition as 'old fences' and 'sheep ree' |
| n/a | Forrest Lodge of Kells (Building) | NX 551 864 NX 55401 86536 | 255405 255401 | 586538 586536 | LB: 9726 ID: 209973 MDG20721 MDG23189 | Category B Listed Building, NMRS, HER | Category B Listed Building inscribed rebuilt 1910 |

¹⁰ Listed Building Ref (LB), Canmore ID from NMRS (ID), HER Number (MDG)

| Site No. | Name, feature | OS Grid Reference | E | N | Reference ¹⁰ | Designation | Period |
|-------------|---|-------------------|--------|--------|-------------------------|--------------|--|
| n/a | Forrest Lodge (Bloomery) | NX 554 865 | 255400 | 586500 | ID: 63825 MDG3423 | NMRS, HER | Waste from an iron bloomery donated to Dumfries Museum in 1971 |
| n/a | Highlander Memorial, Forrest Lodge | | 255313 | 586396 | MDG21564 | HER | Post-medieval. Ship's figurehead converted into a memorial |
| n/a | Dulieston (Field System, Head Dyke) | NX 5567 8573 | 255670 | 585730 | ID:176953 MDG15376 | NMRS, HER | Post-medieval? Shown on 1 st edition as 'old fences' |
| n/a | Bennan Millyea, Glenkens (Findspots) (Dagger(s) (Bronze), Spearhead(s) (Bronze)) | NX 5360 8637 | 253600 | 586370 | ID: 63827 MDG3425 | NMRS, HER | Prehistoric/Bronze Age - A Middle Bronze Age spearhead (Class IV), found in clay by a farm-worker on Bennan Millyea. Two similar spearheads are on record from this approximate area |
| n/a | White Hill (Enclosure(s), Field Boundary(s)) | NX 5450 8585 | 254500 | 585850 | ID: 176949 MDG15372 | NMRS, HER | Post-medieval? Shown on 1 st edition as 'old fences' |
| n/a | White Hill (Enclosure) | NX 5382 8577 | 253820 | 585770 | ID: 176952 MDG15375 | NMRS, HER | Post-medieval? Shown on 1 st edition as 'hay ree' |
| n/a | White Hill (Sheepfold) | NX 5394 8570 | 253940 | 585700 | ID: 176951 MDG15374 | NMRS, HER | Post-medieval? Shown on 1 st edition as 'Old Sheep Ree' |
| n/a | White Hill (Sheepfold) | NX 5420 8568 | 254200 | 585680 | ID: 176950 MDG15373 | NMRS, HER | Post-medieval? Shown on 1 st edition as 'old fence' |
| n/a | Altiebeastie Burn (Farmstead, Field System) | NX 5490 8535 | 254900 | 585350 | ID: 176948 MDG15371 | NMRS, HER | Post-medieval? Shown on 1 st edition as 'old fence' |

Table 4 Cultural Heritage Sites immediately adjacent to the proposed woodland creation scheme

3. Map Regression

i. General

A large number of maps were consulted in order to assess the development of the site itself and pinpoint any features that may previously have gone unrecorded. A summary of maps consulted can be viewed in *Appendix A*.

Where new sites were located that had not been previously noted in the earlier desk based research, these were assigned a new letter, continuing alphabetically from the last recorded site in the DBA. Where sites were seen to be the same as those already recorded, the original numbers were used. A list of all sites recorded can be viewed in the Gazetteer, *Section 6*.

ii. Pre-Ordnance Survey maps of the area

The earliest detailed maps of Scotland and the Forrest Estate area were drawn by Timothy Pont who lived from the 1560s until c.1615. It is known that Pont compiled a map which would encompass this area, but his manuscript does not survive.

However, in the early to mid 17th century the importance of Pont's work was recognised and the Dutchman Joan Blaeu used Pont's existing maps as the basis for his *Atlas Novus*, published in 1654. Blaeu engraved reproductions of the surviving Pont manuscripts and engaged Robert Gordon of Straloch to re-work seven of Pont's maps which had become illegible, while producing three more maps to ensure complete coverage of Scotland.¹¹ It is clear that many of these 17th century manuscripts retain 16th century information.



Figure 7 Extract from 'Praefectura Kircubriensis quae Gallovidiae maxime orientalis pars est. The Stuartrie of Kircubright, the most easterlie part of Galloway / auct. Tim. Pont' by Joan Bleau, published in 1654. Note the map is skewed from normal convention, with east to the top of the image. This map shows the Loch of Forrest, with the settlements 'Buss' and 'Burnhead' to the south. NLS

Three maps of the proposed development area were reproduced in *Atlas Novus*, and all three are accredited to Timothy Pont. All three depict a body of water named the Loch of Forrest, to the south of which a settlement or township named 'Buss'. This almost certainly corresponds with the area now named 'Fore Bush', located adjacent to the development area. Blaeu's map of Kirkcudbright

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¹¹ Fleet C., Wilkes M. & Withers, C. 2011 Scotland – Mapping the Nation, 63

(*Figure 7*) is the only one of the three which also shows a settlement named 'Burnhead' to the south east of the Loch of Forrest. This site corresponds with the location of modern structures named Burnhead. The Loch of Forrest itself likely relates to misreading of the nature of the various bodies of water located to the west of the site, as well as the earlier, pre-improvement waterlogged nature of the area itself.



Figure 8 Extract from 'The Middle Part of Galloway: Contains The West P. of Kirkcudbright Shire' by Hermann Moll, published in 1745, showing 'Buss' south of the Loch of Forrest (NLS)

Following Blaeu's *Atlas Novus* it is almost one hundred years until another Dutch cartographer, Herman Moll, drew 'The Middle Part of Galloway: Contains The West P. of Kirkcudbright Shire' (*Figure 8*). Although Moll died in 1732, the map was published in 1745. Moll's map may be based on Blaeu's and still shows 'Buss' south of the Loch of Forrest.

William Roy's *Military Survey of Scotland* conducted 1747-1756 (*Figure 9*) revolutionised map making in Scotland, containing a lot more terrain detail. Although the map was the result of 'rapid reconnaissance rather than a measured topographic survey' the various inaccuracies can be forgiven in providing us with the first cartographic view of Scotland with any level of detail – a snapshot of mid 18th century Scotland.

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¹² Fleet C., Wilkes M. & Withers, C. 2011 Scotland – Mapping the Nation, 88.

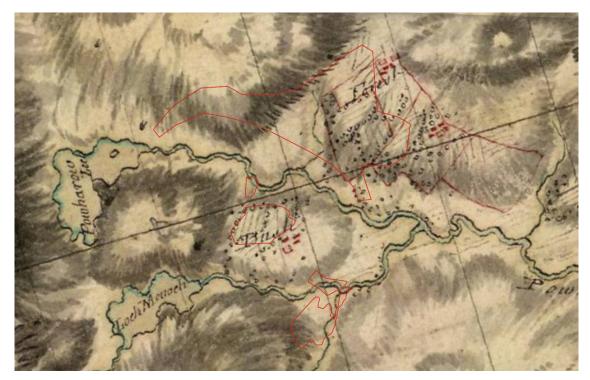


Figure 9 William Roy's 'Military Survey of Scotland. Lowland of Scotland' surveyed between 1752 and 1755with the modern site outline placed on top. This gives an indicative idea as to the location of sites. © The British Library Board. All Rights Reserved (Roy Military Survey of Scotland)

Roy's maps of Forrest Estate shows a remarkably busy farming landscape around both the Forrest Estate site, and Fore Bush, although the area around Burnhead is shown as free from human occupation.

A cluster of up to four buildings, represented by red blocks is depicted under the title 'Forrest'. This is located to the north of a series of irregular field boundaries, each of which appear to be further divided by trees or hedgerows and are clearly shown by Roy as being currently under plough. Another cluster of four or five buildings is shown within the field boundaries to the east of Forrest.

The 'fermtoun' and complex of fields around 'Bush' is smaller than those shown at 'Forrest', with only two or three being worked, and bordered by tree lines. Three or four structures are also shown.

The omission of Burnhead from Roy's map is curious. This is especially true when John Ainslie clearly depicts Burnhead alongside the three sites shown by Roy in his map of 1797 (*Figure 10*).



Figure 10 Extract from John Ainslie 'The Stewartry of Kirkcudbright' produced in 1797 with the outline of the site indicated red. NLS

Ainslie's map corresponds remarkably well with modern topography, and while it does not have the detail of Roy, it can be considered the first to show the accurate locations of the fermtouns within and around the development area. The two sites shown by Roy as Forrest are now clearly labelled as 'Upper Forrest' and 'Nether Forrest'. The latter located within the site boundary, while the former clearly equates with Forrest Lodge visible to the east of site today. Burnhead and Bush are also shown near their accepted modern locations.

Later maps of the proposed development area confirm the locations of Upper Forrest, Nether Forrest, Bush and Burnhead, but provide no further detail of human activity within the site boundaries.

iii. Ordnance Survey maps

The earliest Ordnance Survey maps of this area were surveyed in 1849-50 and provide the first truly accurate cartographic evidence for the development of the site. Unfortunately, the 1st edition 25 inch to 1 mile maps do not extend across the proposed woodland area. However, the site is covered by the 6 inch to 1 mile versions published in 1853.

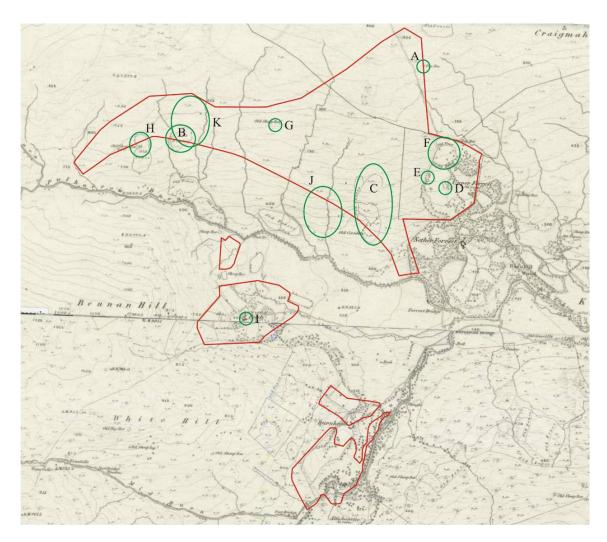


Figure 11 Indicative locations of sites identified during the map regression 9indicated green) using extracts from the OS 6 inch to 1 mile Kirkcudbrightshire Sheet 9, surveyed in 1849-50 and Kirkcudbrightshire Sheet 15, surveyed in 1850 as the base. The limits of the proposed development are indicated red. Note, sites J and K are not visible on this map, although their locations are shown. Addyman Archaeology after NLS

The six inch to one mile OS maps (*Figure 11*) confirm the impression provided by Roy, that the site area is clustered around a number of small farms or fermtouns, each surrounded to a greater or lesser degree with a series of irregular fields and boundaries.

The cluster of buildings referred to as Upper Forrest (Site D) lies within the site boundaries, and is clearly annotated as 'in ruins'. It sits within a large enclosure which also encompasses what appears to be an animal enclosure to the west (Site E), and an irregularly enclosed area described as 'old fence' (Site F) to the north. A further series of dotted lines recorded as 'old fences' lie across the Forrest Lodge site area to the west (Site B, Site C and Site H), with an animal enclosure labelled 'old sheep ree' also visible (Site G). A Hay Ree (Site A) sits directly on the boundary in the north east of the site, but does not appear to be inside the boundary. An 'old cornkiln' lies just south of the boundary, and a further 'hay ree' to the north east.

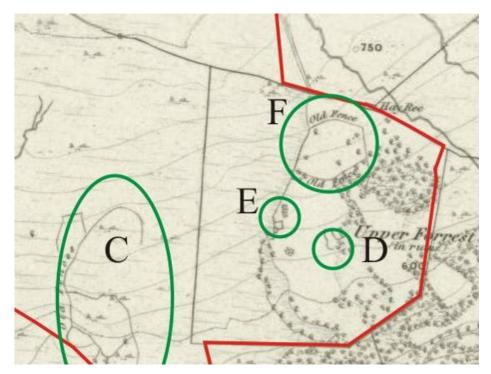


Figure 12 Detail of the 6 inch to 1 mile OS map showing Upper Forrest within the site boundary and some of the 'old fences' to the west. Addyman Archaeology after NLS.

At the area defined as Fore Bush, the farmstead 'Bush' (Site I) itself sits within the development area. This is shown as two roofed structures with a small number of walls and field boundaries.

No sites are noted within the boundaries of Burnhead.

When the second edition of the OS is produced, the 25 inch to 1 mile maps cover Forrest Estate, providing the best detailed coverage of the site thus seen. Surveyed in 1894, the 2nd edition shows no additional sites or significant changes within Burnhead, and only two large, sparsely forested compounds at the southern limits of Forrest Lodge (Sites J and K). However, there has been a significant change at the Fore Bush site (see *Figure 13*) where the buildings noted in 1849 (Site I presumably representing those recorded from at least the 18th century), have been demolished and replaced with a new farm located a short distance to the north.

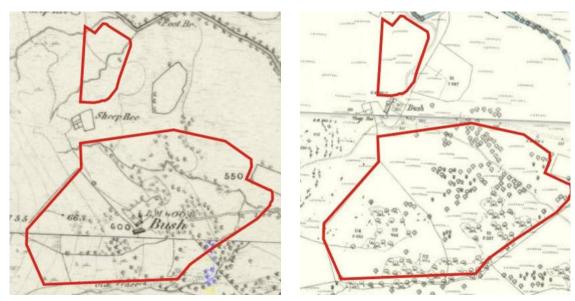


Figure 13 Detailed view of the Fore Bush site from the 6 inch 1st edition (surveyed 1849) and the 25 inch 2nd edition (surveyed 1894). Note the movement northwards of Bush. NLS

No further sites are recorded in later editions of the OS maps.

iv. Summary

The cartographic research of the proposed woodland planting scheme at Forrest Estate revealed a landscape characterised by small scale subsistence farming and fermtouns, the origins of which can be dated back to at least the 16th century. The township named 'Buss' was recorded on Joan Blaeu's map of 1654, which itself uses the data of the 16th century mapmaker Timothy Pont. William Roy's Great Map of c.1750 reveals the farm of Upper Forrest with a landscape of irregular enclosed fields and ploughed fields, some of which extend into the development area.

The remains or sites of two pre-improvement farmsteads at Upper Forrest and Bush are both located within the boundaries of the site, and it is to be expected that across site remnants of rig and furrow will accompany the sheep rees and animal enclosures identified in the OS maps.

4. Aerial Photographs

i. General

Aerial photographs of the proposed development area were consulted in order to assess the potential for previously unrecorded archaeological features to survive within the boundary. The photographic coverage of the site was extensive, with each available image requiring detailed analysis in order to assess for archaeological survival.

A wide variety of vertical aerial photographs were consulted with varying degrees of usefulness. A number of factors are important in revealing features on the ground in aerial photographs. The weather, cloud cover, time of day, time of year and height of the flight are all important factors affecting the usefulness of the picture, making it very important to view and assess as many images as possible. In addition the image itself may not be of great quality or sharpness, perhaps due to issues when the picture was taken or due to the conditions in which the photograph was subsequently stored.

From the National Collection of Aerial Photography (NCAP) held by the Royal Commission on the Ancient and Historical Monuments of Scotland (RCAHMS), Addyman Archaeology consulted the following aerial images:

| Sortie | Date | Frames |
|--------------|----------|-----------------|
| 106G_UK_0150 | 16/08/46 | 5015-5016 |
| 106G_UK_0172 | 27/08/46 | 3110 |
| 540_A_0382 | 19/05/48 | 5006 |
| 541_A_0525 | 13/05/50 | 3284-3286, 4345 |
| 541_A_0529 | 14/05/50 | 3008-3010 |
| OS_74_148 | 23/06/74 | 288-290 |
| 39_4719 | 22/05/75 | 037-038 |
| 39_4720 | 28/05/75 | 025-027 |
| ASS_622_88 | 10/06/88 | 072-073 |

In addition, readily available aerial views online were also analysed from both www.bing.com, and www.google.co.uk. Google Earth also provided an aerial view dated 24/01/06.

ii. Forrest Estate

The earliest flown sortic recorded across Forrest Estate was undertaken in 1946 and the site was photographed continually from the late 1940s right through until 1988 as first the Royal Air Force and subsequently the Ordnance Survey sought to gain comprehensive coverage of the area. The satellite images available on the internet bring the coverage to the present day.

The aerial images showed a site significantly different from that visible today. The images from the 1940 and 1950s show an area free of extensive forestation, with only two enclosed wooded areas at the southern perimeter of the Forrest Lodge site, both of which were first visible in the 2nd edition OS maps from the 1890s. The area to the north of both Burnhead and Fore appears much darker, presumably richer actively farmed land. Only the eastern edge of the Forrest Lodge site, around Upper Forrest is a clearly defined boundary visible today, although the shape of both Fore Bush and Burnhead are discernible. The aerial images confirm the site as predominantly moorland and rough grazing.

By the 1970s forestry work has begun around the site. In 1974 the trees have been removed from the two enclosed areas at the southern side of the Forrest Lodge site, while in 1975 planting has clearly begun south of the Polharrow Burn. In 1988, both Burnhead and Fore Bush have essentially achieved there near current shape, surrounded by bands of planted forestry. The Forrest Lodge site however, remains much larger than it is today, running right down to the Polharrow Burn before meeting forestry and encompassing a larger area to the north.

The aerial images revealed four possible sites in total, three of which (Sites J, K and L) had not been recorded in the DBA or map regression. Although the sites recorded during the historical research and map regression were visible, only those new sites, or those where additional information was provided by the aerial views, are discussed below. Newly identified sites were assigned letter identifiers continuing from the last recorded site during the map regression.

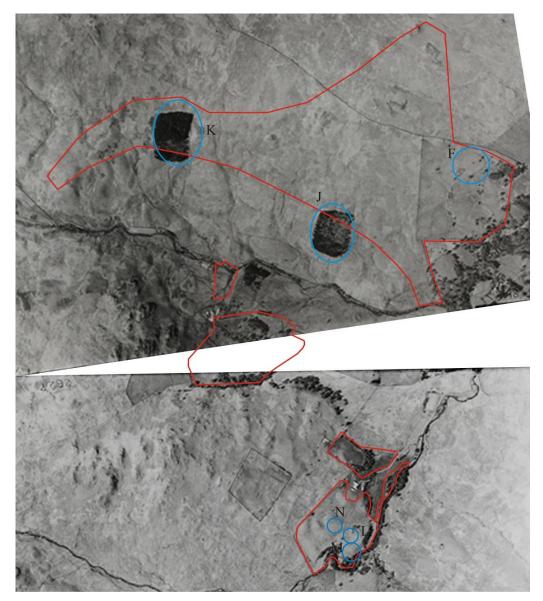


Figure 14 Indicative plan of sites identified by aerial photography as plotted on a composite of aerial images 4345 (top) and image 3285 (bottom) from sortie 541_A_0525 in 1950. Note wooded Sites J (right centre) and Site K (left centre) in the Forrest Lodge area (Addyman Archaeology after NCAP / ncap.org.uk)

a. Site L

The 1950s aerial images seemed to show some degree of cultivation, or land management south of Burnhead, with a faint 'L' shape discernible. It was felt this was likely to be a fenceline or land boundary, but was identified for further investigation on the ground.

b. Site M

Two parallel linear banks aligned WNW-ESE were noted in the 1950 images to the south of Site J. These too, are likely to relate to land boundaries or management.

c. Site N

In 1975, a large passing place had been quarried adjacent to the south west running road that crosses the Burnhead site.

d. Site F

Site F had already been recorded during the map regression as an area enclosed by 'old fences', but this area was noted in 1974 as undergoing extensive cultivation, seemingly the only part of the site to contain a crop.

e. Sites J and K

Sites J and K were shown on the OS 2nd edition as enclosed areas of sparse woodland. These were shown by 1950 to be the only areas of densely enclosed woodland in, or around the development area.

iii. Summary

Only three new sites were revealed by the analysis of aerial imagery. These images showed the development of the site areas, defined by the forestry around them, but showed no new sites in Fore Bush or Forrest Lodge. In Forrest Lodge, Site F was shown to be heavily planted in 1974 both Sites J and K were seen to be heavily forested areas, defined by either fences or walls.

In the Burnhead site, three potential sites were noted. Of these, Site N is of limited interest, with the quarry/passing place almost certainly relating to road construction work associated with forestry. Sites L and M are both felt to be related to agricultural usage of the area south of Burnhead.

5. Walkover Survey

i. General

The walkover survey was designed to provide comprehensive cover of the site whilst specifically targeting those areas identified from earlier research as being of potential archaeological significance.

Undertaken over one day, the locations of sites identified in the walkover were plotted to within 3m accuracy by hand-held GPS and their dimensions recorded along with any other relevant impressions. Each site recorded was digitally photographed.

Where sites recorded during the Desk-Based Assessment (DBA), analysis of aerial photographs and map regression were allocated a letter, those noted during the walkover were assigned a number. Where a site recorded in the DBA, aerial photography or map regression was noted in the walkover, the two are combined, i.e. Site 3N.

A detailed record of each site and additional images can be viewed as part of the Gazetteer included as Section 6 within this report.

ii. Summary and Discussion

A total of fourteen sites were recorded during the walkover survey (*Figure 15*). Of these, five were previously unrecorded.



Figure 15 Map showing indicative locations of sites from the walkover survey (indicated black) (Addyman Archaeology after www.google.co.uk)

a. Forrest Lodge

Across the Forrest Lodge Area, a total of eight sites were recorded, of which only one was previously unrecorded - Site 7, a cairn located uphill at the northern tip of the site.

The remainder comprised enclosures, drystone walls and sheepfolds, all recorded to some degree during the desk based research.

Likewise the farmstead at Upper Forrest (Site 12 and Site D from DBA) was already known, but was shown by the walkover to be extensive, complex and well preserved. One clear, sub-rectangular structure measuring 12m NW-SE by 3m NE-SW lies on the northern limits of a large enclosure measuring some 20m W-E by 30m N-S. Although no direct evidence for field boundaries or field systems could be discerned in the vicinity, the area to the west looks to have been improved, appearing greener and less boggy than the surrounding landscape.



Figure 16 Looking south across Site 12D

b. Fore Bush

Three sites were recorded at the Fore Bush site. Of these, a sheepfold recorded as Site 4 seems to lie just outside the northern boundary of the site and Site 5 is a much degraded and overgrown drystone field boundary running eastwards down the slope of Bennan Hill.

Site 6 was previously recorded as Site I, the pre-improvement farmstead 'Bush' which fell out of use between 1850 and 1894 with the farm being moved northwards as seen in the map regression. One clear sub-rectangular structure was visible, with wall alignments surviving up to 0.40m high. Aligned roughly NE-SW, the structure measured 7m by 3m, with a clear entrance on the SE side. Another possible structure could be seen 10m to the east, but it was not possible to make out the entire alignment, with only c.10m of wall aligned N-S visible, with a return of over 1m running west from the southern end.



Figure 17 Looking SW over Site 6

Many of the trees in the area around Site 6 had clearly been coppiced and managed at some point in the past.

c. Burnhead

Three sites were recorded across the Burnhead Site area. Located directly north of the current Burnhead House, Site 1 was a small drystone structure or shieling, measuring 3m across, located to the south of a small tributary running into the Mid Burn.



Figure 18 Site 1 looking east

The sites visible on the aerial photographs in the south east of the Burnhead site area were not visible. A large scale landscaping event involving the installation of pipes (*Figure 19*) had been completed in recent times, removing any evidence of the earlier landscape.



Figure 19 View looking north across the east side of the Burnhead site and showing the extent of the landscaping

iii. Potential for the survival of unknown buried heritage assets within the development area

Although only four recorded sites lie within the development boundary, the landscape is characterised by evidence of pre-improvement agricultural settlement. No clear field systems, or rig and furrow were noted during the walkover survey, but it must be expected that these survive, specifically in the vicinity of Upper Forrest (Site 12D) and perhaps around Bush (Site 6I). Around both of these sites, it is also possible that further farming structures and outbuildings will exist. Such field systems could stretch back from post-medieval, to medieval and even into prehistoric times.

The history and topography of many of the site makes it, however, unlikely that any features other than those related to farming will survive across the site.

Any groundbreaking activities related to the proposed woodland development scheme would have a detrimental impact on buried and upstanding features.

6. Gazetteer – Baseline Survey

i. Introduction

The following table provides an overview of the cultural heritage sites identified in the various exercises as part of the desk based assessment and the walkover survey. It also assesses the significance of each of these sites and their possible sensitivity to development impacts together with an assessment of the type and magnitude of the proposed impact.

The categories of assessing the significance of the site are:

- Negligible
- Low
- Moderate
- High

Where the significance could not be assessed due to lack of information, this was identified as:

• Unknown (in combination with the most likely assessment)

The categories of assessing the magnitude of the proposed impact are:

- Negligible
- Low
- Moderate
- High

The sites are discussed in the following order:

- Sites with numbers as identified on the ground during the walkover survey
- Sites with letters as identified during the desk based assessment (including the map regression and aerial imagery assessment)

Where the two site types overlap, i.e. when a site identified in the walkover survey corresponds with a site identified during the desk based assessment, the site has been labelled with a walkover number and the corresponding letter code from the DBA added, e.g. Site 3N. To avoid duplication in the assessment, these sites are discussed within the walkover survey section of the table only.

The proposed tree planting scheme is not yet firmly established, but at the moment sets aside areas for mixed broadleaf, Sitka Spruce and open ground. The project will also retain ancient semi-natural existing woodland. Whilst it is generally recommended that all sites recorded in the DBA and the walkover survey are avoided during the planting process, it is recognised additionally that the planting of Sitka Spruce in particular has significant potential to disrupt sites located within these areas. As a result the impact on sites affected by Sitka Spruce planting has been assessed as High.

As the assessment is primarily concerned with sites that survive above ground, on the whole those identified in the preliminary research but not noted during the walkover are assigned unknown significance. As a result, in keeping with UKFS guidelines, these are not considered subject to mitigation.

ii. Gazetteer of sites located during the assessment

Table 3: Gazetteer of sites located during the assessment

| Site No. | Site name | NGR | Located | NMRS/ SMR site no. | Site type | Description | Significance | Type of Impact | Magnitude of Impact |
|-------------|-----------------------------|----------------------|--------------------|--------------------------|-----------|--|--------------|---|---------------------|
| 1 | Unknown. Burnhead (?) | NX 54851 85861 | Walkover Survey | N/A | Sheiling? | Fragmentary remnants of a small drystone structure on the south side of the burn, east of the burn head. Measures over 3m in length by 3m in width. Rudimentary in nature, it has the appearance of large natural boulders moved into place. Very overgrown with no bonding. | Low | Located within an area proposed for Mixed Broadleaf | Moderate |

| Site No. | Site name | NGR | Located | NMRS/ SMR site no. | Site type | Description | Significance | Type of Impact | Magnitude of Impact |
|-------------|-----------|--|---|--------------------------|-------------------|--|--------------|--|---------------------|
| 2 | Unknown | NX 55041 85875 | Walkover Survey | N/A | Revetting Wall | Small section of revetting wall lining the side of the burn. Drystone construction of medium to large angular blocks, 5-6 courses in height. Measures 4m in length by 1m in height, with a width of 0.5m. | Negligible | Located in an area of existing Ancient Semi Natural Woodland | Negligible |
| 3N | Unknown | A- NX 54736 85665 B- NX 54743 85687 | Walkover Survey Aerial Imagery | N/A | Quarry | Large quarry pit, likely related to the construction of the adjacent road. Roughly quarried / built up trackway leads east towards the road. Quarry measures 9m by 4m, with a 3m depth, with 4m wide trackway. | Negligible | Located in an area of proposed Sitka Spruce planting | High |

| Site No. | Site name | NGR | Located | NMRS/ SMR site no. | Site type | Description | Significance | Type of Impact | Magnitude of Impact |
|-------------|--------------------------------|--|--------------------|--------------------------|---------------------|---|--------------|--|---------------------|
| 4 | Unknown. Fore Bush (?) | NX 54322 86670 | Walkover Survey | N/A | Animal Enclosure | Large square animal enclosure of drystone construction with small to large rounded boulders and angular stones. Measures 13mx13m, and revetted to SW. Possibly located just outside the site boundary. | Low | Located in an area of proposed Sitka Spruce planting | High |
| 5 | Unknown. Bennan Hill (?) | A- NX 54267 86254 B- NX 54206 86257 | Walkover Survey | N/A | Field Boundary | Line of old, overgrown field boundary made up of large angular stones. Aligned W-E, meanders 66m in length, has a width of 1m and stands less than 0.15m in height. Likely pre-improvement. | Low | Located in an area of proposed Sitka Spruce planting | High |

| Site No. | Site name | NGR | Located | NMRS/ SMR site no. | Site type | Description | Significance | Type of Impact | Magnitude of Impact |
|-------------|-----------|--|---|--------------------------|-----------|--|--------------|--|---------------------|
| 61 | Bush | A- NX 54428 86352 B- NX 54440 86338 | Walkover Survey Map Regression | N/A | Farmhouse | Small, overgrown remnants of a structure. Site A has entrance on SE side with Drystone walls approx 0.75m in width and up to 0.40m in height. Made up of medium to large rounded stones. House approx 7m in length by 3m in width, with 12m long L-shaped stone alignment 10m to the East. Recorded on 1st edition OS. | Moderate | Located in the area between proposed Sitka Spruce and proposed Mixed Broadleaf | High/Moderate |
| 7 | Unknown | NX 55095 87560 | Walkover Survey | N/A | Cairn | Tall, thin, modern cairn of irregular, medium angular stones. Measures 1.6m in height, with a 0.8m diameter base. | Negligible | Located in an area of proposed open ground. No direct impact. | Negligible |

| Site No. | Site name | NGR | Located | NMRS/ SMR site no. | Site type | Description | Significance | Type of Impact | Magnitude of Impact |
|-------------|-----------|----------------------|---|--------------------------|--|--|--------------|--|---------------------|
| 8G | Unknown | NX 54567 87167 | Walkover Survey Aerial Photograph Map Regression | N/A | Drystone Wall/ Animal enclosure | T-shaped drystone wall. Main arms run NW-SE to a length of 36m, with small arm on NE side aligned NE-SW to a length of 15m. Survives to a height of 1.2m. Recorded on modern OS. | Low | Located in an area of proposed Sitka Spruce planting | High |

| Site No. | Site name | NGR | Located | NMRS/ SMR site no. | Site type | Description | Significance | Type of Impact | Magnitude of Impact |
|-------------|-------------------|----------------------|--|----------------------------|--------------------------------------|--|--------------|---|---------------------|
| 9C | Polharrow Burn | NX 54902 86825 | Walkover Survey NMRS HER Map Regression | ID: 176926 MDG 15349 | Field System Wall Alignment | Linear wall alignments. Made up of large irregular boulders, heavily overgrown. N-S alignment over 10m in length, with two secondary sections of 5m and under, projecting eastwards from southern terminus and southern-midpoint. Wall measures 0.5m in width, surviving to a height of less than 0.15m. Recorded on 1st edition OS as 'old fence'. | Low | Located in an area of mixed hybrid larch and sitka spruce | High/Moderate |

| Site No. | Site name | NGR | Located | NMRS/ SMR site no. | Site type | Description | Significance | Type of Impact | Magnitude of Impact |
|-------------|-------------------|--|--|----------------------------|-------------------------------------|---|--------------|---|---------------------|
| 10C | Polharrow Burn | A- NX 55013 86896 B- NX 55003 86440 | Walkover Survey NMRS HER Map Regression | ID: 176926 MDG 15349 | Field System Boundary Wall | Overgrown remnants of a boundary wall. Made-up predominantly of large bounded stones. Runs N-S for 10m before kinking towards the SE for 30m. Wall width approximately 1m, with a surviving height of less than 0.20m. Recorded on 1st edition OS. East side of Site 9C. | Low | Located in an area of mixed hybrid larch and sitka spruce | Moderate |

| Site No. | Site name | NGR | Located | NMRS/ SMR site no. | Site type | Description | Significance | Type of Impact | Magnitude of Impact |
|-------------|-----------|----------------------|--|--------------------------|-----------|---|--------------|---|---------------------|
| 11E | Unknown | NX 55216 86922 | Walkover Survey Aerial photograph Map Regression | N/A | Sheepfold | Irregular sheepfold of drystone wall construction, utilising large irregular stones. Aligned NE-SW, a large rectangular structure with an entrance to the SW and a secondary square cell in the western corner. Interior measures 18m in length, with a width of over 8m. Square cell measures approximately 4mx4m. Survives to a height of 1.2m in places. | Low | Located in an area of 50% mixed broadleaf and 50% open ground | Moderate |

| Site No. | Site name | NGR | Located | NMRS/ SMR site no. | Site type | Description | Significance | Type of Impact | Magnitude of Impact |
|-------------|---|--|---|--------------------------|-----------|---|--------------|--|---------------------|
| 12D | Nether Forrest, Forrest Lodge, Upper Forrest Upper Forrest Farm | A- NX 55296 86893 B- NX 55305 86911 | Aerial Photograph Map Regression Walkover Survey | N/A | Farmstead | Complex farm structure aligned roughly NW-SE. One clear structure to the East, has dipped interior and obvious walls. Entrance located to the NW between two compartments in North extent. No obvious entrance to the compartments. Western compartment is mounded high, presumably with collapse. Site is surrounded to the south by a low, curvilinear compound. Land immediately to the west and north has an improved look, but no field systems apparent. Site covers an area 30mx26m. Recorded on 1st edition OS. | Moderate | Located in an area of proposed mixed broadleaf | Moderate |

| Site No. | Site name | NGR | Located | NMRS/ SMR site no. | Site type | Description | Significance | Type of Impact | Magnitude of Impact |
|-------------|-----------|----------------------|---|-------------------------------|-----------|---|------------------------|--|---------------------|
| 13K | Unknown | NX 54098 87706 | Aerial Photograph Map Regression Walkover Survey | N/A | Enclosure | Large drystone enclosure measuring some c.175m by c.110m, surviving up to 0.80m high in places, but on the whole much degraded with an average height of c.0.20m. Constructed from irregular rounded field stones. Recorded on 2 nd edition OS. | Low | Located in an area of proposed Sitka Spruce | High |
| 14J | Unknown | NX 54710 86868 | Aerial Photograph Map Regression Walkover Survey | N/A | Enclosure | Large irregular enclosure protruding from S perimeter of Forrest Lodge site. Clearly continues beyond this into the existing woodland. Measures 110m W-E by >45m N-S. Recorded on 2 nd edition OS. | Low | Located in an area of proposed Sitka Spruce | High |
| A | Forrest | NX 5520 8744 | NMRS HER Maps | ID: 176920 MDG1534 3 | Structure | Recorded on the 1 st edition OS as a Hay Ree. Located directly on the boundary of the site and may fall outwith the development area. Not located during the walkover survey. | Unknown/ Negligible | Located in an area of proposed open ground | Negligible |

| Site No. | Site name | NGR | Located | NMRS/ SMR site no. | Site type | Description | Significance | Type of Impact | Magnitude of Impact |
|-------------|-----------------------------------|----------------------|--|----------------------------|-------------------------------|---|------------------------|---|---------------------|
| В | Polharrow | NX 5412 8710 | NMRS HER Maps | ID: 176928 MDG 15351 | Enclosure | Recorded on the 1 st edition OS as 'old fences'. Located directly on the boundary of the site and likely to fall outwith the development area. Not located during the walkover survey. | Unknown/ Negligible | Located in an area of proposed open ground, or outwith site | Negligible |
| F | Unknown. Forrest(?) | NX 55209 87051 | Map regression Aerial imagery | N/A | Enclosure/ Field system | Visible as 'old fences' on the 1 st edition OS. Recorded as an area of intense cultivation in aerial imagery. Visible as an improved area during the walkover, but not recorded as a site. | Unknwon/Low | None. Located in an area free from proposed planting. | Negligible |
| Н | Unknown. Polharrow Burn (?) | NX 53863 87103 | Map regression | N/A | Enclosure/ Field system | Visible as 'old fences' on the 1 st edition OS. Not located/visible during the walkover survey. | Unknown/ Negligible | None. Located in an area free from proposed planting. | Negligible |
| L | Unknown. Mid Burn (?) | - | Aerial imagery | N/A | Unknown. Field system? | 'L' shaped visible in the 1950s aerial images. Likely to be part of a field system. Removed by subsequent landscaping. | Unknown/ Negligible | None. The site is already removed. | None |
| M | Unknown. Mid Burn (?) | - | Aerial imagery | N/A | Unknown. Field system? | Two parallel linear features visible in the 1950s aerial images. Likely to be part of a field system. Removed by subsequent landscaping. | Unknown/ Negligible | None. The site is already removed. | None |

iii. Assessment of Significance and development impacts - Conclusion

Assessment of the cultural heritage sites identified in the comprehensive desk based assessment and walkover survey has shown the majority of these to be of negligible/low significance. In line with UK Forestry Standard guidelines, the landowner is required to take into account all *upstanding* remains within the boundaries of the site. This emphasis will not be to the detriment of identified, buried archaeological remains. However as a result, those sites not identified during the walkover survey and thus not visible on the ground will on the whole been assessed as of unknown significance.

The landscape is clearly one dominated by pastoral farming and the majority of the sites relate to this activity. Amongst these, two potentially more significant sites survive – Site 6I, the pre-improvement farmstead of Bush, and Site 12D, a similar site at Upper Larriston. These have origins before the 16th and 18th century respectively, both becoming abandoned in the mid to late 19th century. These are considered of moderate significance.

Accurate grid references could not be provided for those sites identified only by map regression, or through aerial photographs. Where provided, these can be used as a guide only.

Further details on the development impact and recommended archaeological mitigation are detailed in Table 4 in the 'Impact Assessment and Mitigation' section of the cultural heritage report.

7. Impact Assessment and Mitigation

i. Impacts within the development area

The magnitude of development impacts on the sites of heritage value has been assessed according to their degree of sensitivity as outlined below.

| | | Magnitude o | of Impact | | |
|--------------|------------|-------------|------------|------------|------------|
| | | High | Moderate | Low | Negligible |
| Significance | High | Major | Major | Moderate | Negligible |
| | Moderate | Major | Moderate | Minor | Negligible |
| | Low | Moderate | Minor | Minor | Negligible |
| | Negligible | Negligible | Negligible | Negligible | Negligible |

This is summarised using this format in the table below. The assessment of the impact on the site includes consideration of the impact upon the setting of the site. Any development impact that had already been identified as of negligible magnitude has not been included below. Those sites that could not be accurately located during the walkover survey have also been omitted from the table as locating such sites may be problematic.

It is advised that all archaeological sites should be avoided when planting trees.

For the sites assessed as receiving development impact the following additional mitigations are recommended:

| Table 4: | Table 4: Summary of Impacts on sites within the development area | | | | |
|----------|--|---|---|--|---------------------------------------|
| Cultura | l Heritage and Archaeology | Impact/ Proposed planting | (Significance / Magnitude of Impact) Assessment / Categorisation of Impact | Mitigation to achieve minor or negligible adverse effect | Significance of residual impact |
| 1 | Unknown. Burnhead Shieling (?) | Mixed Broadleaf planted | Low/Moderate Minor | Identified and marked out by qualified archaeologists avoidance during planting with suitable buffer around the monument | Negligible |
| 4 | Unknown. Fore Bush animal enclosure (?) | Sitka Spruce planting | Low/High Moderate | Identified and marked out by qualified archaeologists avoidance during planting with suitable buffer around the monument | Negligible |
| 5 | Unknown. Bennan Hill field boundary | Sitka Spruce planting | Low/High Moderate | Identified and marked out by qualified archaeologists avoidance during planting with suitable buffer around the monument Current level of recording is considered sufficient to record monument | Negligible |
| 61 | Bush Farmstead | Sitka spruce and Mixed Broadleaf planting | Moderate/Moderate Moderate | Identified and marked out by qualified archaeologists avoidance during planting with suitable buffer around the monument | Minor |
| | | | | Topographic and detailed photographic survey to better understand the extent of the monument and nature of any surrounding field systems. | |
| 8G | Unknown. Animal enclosure | Sitka Spruce planting | Low/High Moderate | Identified and marked out by qualified archaeologists avoidance during planting with suitable buffer around the monument | Negligible |

| Table 4: Summary of Impacts on sites within the development area | | | | | |
|--|---|---|---------------------------------------|--|-----------------------|
| | | | (Significance / Magnitude of Impact) | | Significance |
| Cultural | l Heritage and Archaeology | Impact/ Proposed planting | Assessment / Categorisation of Impact | Mitigation to achieve minor or negligible adverse effect | of residual impact |
| 9C | Polharrow Burn Field system/ wall alignment | Sitka spruce and mixed hybrid larch | Low/High | Identified and marked out by qualified archaeologists avoidance during planting with suitable buffer around the monument. | Negligible |
| | | | Moderate | Current level of recording is considered sufficient to record monument | |
| 10C | Polharrow Burn Field system/wall alignment | Sitka spruce and mixed hybrid larch | Low/Moderate | Identified and marked out by qualified archaeologists avoidance during planting with suitable buffer around the monument Current level of recording is considered sufficient to record monument | Negligible |
| | | | Minor | | |
| 11E | Unknown. Sheepfold | 50% Mixed broadleaf and 50% open ground | Low/Moderate Minor | Identified and marked out by qualified archaeologists avoidance during planting with suitable buffer around the monument | Negligible |
| 12D | Upper Forrest Farm | Mixed broadleaf planting | Moderate/Moderate Moderate | Identified and marked out by qualified archaeologists avoidance during planting with suitable buffer around the monument | Minor |
| 13K | Unknown. Enclosure | Sitka spruce planting | Low/High | Identified and marked out by qualified archaeologists avoidance during planting with suitable buffer around the monument | Negligible |
| 14j | Unknown. Enclosure | Sitka spruce planting | Moderate Low/High | Identified and marked out by qualified archaeologists avoidance during planting with | Negligible |
| | | | Moderate | suitable buffer around the monument | |

ii. Summary of impact assessment and mitigation

It is recommended that all sites are avoided during the planting process, and that these are identified and marked out on the ground by a qualified archaeologist prior to work commencing. Avoiding these sites will be easier to factor in areas where open ground or even mixed broadleaf, or hybrid larch are currently planned as part of the proposal, but a buffer of 5m around each monument should be sufficient to protect it from any damage.

Although a significant number of the sites will have a high magnitude direct impact as a result of the proposed planting of particularly Sitka Spruce, the significance of these sites is on the whole categorised as low or negligible. Avoiding these sites during the planting process will be sufficient to reduce the impact on these monuments to a negligible one.

An area to the north of the site was left as open ground for archaeological reasons according to the tender documents. The archaeological assessment failed to identify any sites of archaeological significance in this area. Whilst recommending the layout of the forest and the species planted goes beyond the remit of this paper, it is recommended, if feasible, that planting be allowed to proceed in this area. The placement of trees in this area could perhaps be used to offset the removal of trees from the area around Upper Forrest (Site 12D). Although no features were noted in addition to the farmstead during the walkover, it is expected that remnants of field systems as depicted in Roy may survive in this area. If removing planting from the Upper Forrest area is not feasible, a topographic survey to better record and understand both Upper Forrest (Site 12D) and Bush (Site 6I) could be employed to offset the effects of the planting.

8. Overall Conclusion and Recommendations

The DBA and associated research identified 14 known sites within the boundaries of the proposed Forrest Estate Woodland scheme. A number of these were also located during the walkover, where a further 5 previously unknown sites were recorded, giving a total of 19 identified cultural heritage sites within the boundaries of the proposed development. These were of varying cultural heritage significance and the vast majority will be impacted by the development to some degree. The site is characterised as an upland one with the majority of sites associated with pastoral farming activity.

It is recommended that the planting avoids all visible, above ground sites recorded during the walkover, and care is taken where possible to avoid those not visible above ground. The known sites will be marked out on the ground by a qualified archaeologist prior to site works commencing.

Two pre-improvement farmsteads (Sites 6I and 12D) noted during the DBA were located during the walkover and identified as of moderate significance. Mitigation measures will be required to ensure these remain unaffected by the development. Where planting is anticipated in these areas, it is recommended both sites are more thoroughly recorded through a process of topographical and detailed photographic survey.

9. Archiving

Both a hard copy and a digital copy of this report in its final draft form will be submitted to the NMRS as held by the RCAHMS. This will be accompanied by the project archive including select email correspondence, site records and digital copies of all site photographs.

A copy of the report will also be submitted to Dumfries and Galloway Council for inclusion on their Historic Environment Record.

An entry has been created on the online OASIS platform to ensure public access to the research and an entry will be submitted to *Discovery and Excavation in Scotland*, the annual journal produced by Archaeology Scotland charting fieldwork completed across Scotland.

Acknowledgements

Addyman Archaeology were commissioned to complete the project by William Allen and Sandy Anderson of DGA Forestry. Both William and Sandy deserve our gratitude for their organisation and commitment to ensuring the archaeological resource is adequately protected.

Thanks are also due to the staff on Forrest Estate for their help in facilitating access to the site.

Abbreviations

DBA Desk Based Assessment

DES Discovery and Excavation Scotland HER Historic Environment Record

HS Historic Scotland LB Listed Buildings

NMRS National Monuments Record Scotland

OASIS Online Access to the Index of Archaeological Investigations

OS Ordnance Survey

RCAHMS Royal Commission on the Ancient and Historical Monuments of Scotland

Bibliography

Documents consulted include

Fleet C., Wilkes M. & Withers, C. 2011 Scotland - Mapping the Nation, Edinburgh

The Forestry Commission 2011, The UK Forestry Standard: The Government's approach to sustainable forestry

Groome, F. H. 1896 Ordnance Gazetteer of Scotland, London

Robertson, J. G. and Baker, F. 2009 An Archaeological Survey of Burnhead, Forrest Estate, St. John's Town of Dalry, Dumfries and Galloway (Grey Literature Report)

Gillespie, J. 'The Parish of Kells' in *The Statistical Account of Scotland - Castletown, County of Roxburgh. Account of 1791-99, Volume 4*, pages 259-273

Maitland, J. 'The Parish of Kells' in *The Statistical Account of Scotland - Castletown, County of Roxburgh. Account of 1834-45, Volume 4*, pages 108-117

Websites consulted include

www.aircrashsites-scotland.co.uk www.bing.com/maps/ www.bgs.ac.uk www.google.co.uk/maps/ www.historic-scotland.gov.uk www.nls.uk www.parksandgardens.org www.rcahms.gov.uk

Appendix A: Maps consulted; Forrest Estate - Archaeological Desk Based Assessment and Walkover Survey

Maps consulted included:

Robert Gordon (1580-1661)

- 'Cuningham'. Imprint c.1636-52
- 'A map of the coast from Loch Ryan nearly to the head of Solway'. Imprint c.1636-52

Joan Blaeu (1596-1673)

- 'Gallovidia, vernacule Galloway / auct. Timoth. Pont.' Published 1654
- 'Gallovidiae pars media quae Deam et Cream fluvios interjacet, [vulgo], The Middle part of Galloway, which lyeth betweene the rivers Dee and Cree / auct. Timoth. Pont.' Published 1654
- 'Praefectura Kircubriensis quae Gallovidiae maxime orientalis pars est. The Stuartrie of Kircubright, the most easterlie part of Galloway / auct. Tim. Pont.' Published 1654

John Adair (1650-1722)

• 'A mape of the west of Scotland containing Clydsdail, Nithsdail, Ranfrew, Shyre of Ayre, & Galloway / authore Jo. Adair.' Imprint 1685

Hermann Moll (d.1732)

- 'Galloway: Contains The Shires of Wigton and Kirkcudbright'. Published 1745
- 'The Middle Part of Galloway : Contains The West P. of Kirkcudbright Shire'. Published 1745
- 'The South Part of the Shire of Air [i.e. Ayr], containing Kyle and Carrick' Published 1745

William Roy (1726-1790)

• 'Military Survey of Scotland. Lowland of Scotland' 1752-1755

John Ainslie (1745-1828)

- 'The Stewartry of Kirkcudbright' 1797
- 'Ainslie's Map of the Southern Part of Scotland' 1821

John Thomson (1777-1840)

• 'Kirkcudbright-Shire' 1821

Ordnance Survey (1857 – present)

- 25 inch to 1 mile, Kirkcubrightshire 012.11. Surveyed 1894. Published 1895
- 25 inch to 1 mile, Kirkcubrightshire 012.15. Surveyed 1894. Published 1895
- 25 inch to 1 mile, Kirkcubrightshire 012.11. Surveyed 1907. Published 1909
- 25 inch to 1 mile, Kirkcubrightshire 012.15. Surveyed 1907. Published 1909
- 6 inch to 1 mile, Kirkcudbrightshire Sheet 9. Surveyed 1849-50. Published 1853
- 6 inch to 1 mile, Kirkcudbrightshire Sheet 15. Surveyed 1849. Published 1853
- 6 inch to 1 mile, Kirkcudbrightshire Sheet XII.SE. Revised 1894. Published 1895
- 6 inch to 1 mile, Kirkcudbrightshire Sheet XII.SE. Revised 1907. Published 1910
- 1;25,000, NX58. Revised 1951. Published 1953

Appendix B: Photographic Thumbnails; Forrest Estate - Archaeological Desk Based Assessment and Walkover Survey









Appendix C: Provisional Discovery and Excavation Scotland (DES) entry; Forrest Estate – Archaeological Desk Based Assessment and Walkover Survey

| LOCAL AUTHORITY: | Dumfries and Galloway | |
|---|--|--|
| PROJECT TITLE/SITE NAME: | Forrest Estate | |
| PROJECT CODE: | AA 2114 | |
| PARISH: | Kells | |
| NAME OF CONTRIBUTOR: | Ross Cameron | |
| NAME OF ORGANISATION: | Addyman Archaeology | |
| TYPE(S) OF PROJECT: | Archaeological Desk Based Assessment and walkover survey | |
| NMRS NO(S): | - | |
| SITE/MONUMENT TYPE(S): | - | |
| SIGNIFICANT FINDS: | None | |
| NGR (2 letters, 8 or 10 figures) | NX 54688 87073, NX 54314 86337 & NX 54751 85651 | |
| START DATE (this season) | 12 th May 2014 | |
| END DATE (this season) | 12 th May 2014 | |
| PREVIOUS WORK (incl. DES ref.) | - | |
| MAIN (NARRATIVE) DESCRIPTION: (May include information from other fields) | Addyman Archaeology were contacted to undertake an archaeological survey and Desk Based Assessment (DBA) of the area known as Forrest Estate near St. John's Town of Dalry in Dumfries and Galloway. Through an analysis of readily available historical records; historic and current aerial images; and a detailed cartographic regression, the Desk Based Assessment identified a total of fourteen possible sites within the boundaries of the development. Nine of these were subsequently located during the walkover survey, with an additional five further sites recorded, bringing the overall total of identified sites to nineteen. Almost without exception these sites relate to the agricultural and pastoral history of the development area and the majority are deemed to be of low, or negligible significance. It is recommended that all sites identified on the ground are avoided during the planting process, with the limits of the sites physically marked out by a team of qualified archaeologists. Two pre-improvement farmsteads noted during the DBA were located during the walkover and identified as of moderate significance. Mitigation measures will be required to ensure these remain unaffected by the development. Where planting is anticipated in these areas, it is recommended both sites are more thoroughly recorded through a process of topographical survey. | |
| PROPOSED FUTURE WORK: | - | |
| CAPTION(S) FOR ILLUSTRS: | - | |
| SPONSOR OR FUNDING BODY: | DGA Forestry | |
| ADDRESS OF MAIN CONTRIBUTOR: | St. Ninian's Manse, Quayside Street, Edinburgh, EH6 6EJ | |
| EMAIL ADDRESS: | admin@addyman-archaeology.co.uk | |

| ARCHIVE LOCATION | Archive and report to be deposited with RCAHMS and Dumfries and Galloway HER. |
|----------------------|---|
| (intended/deposited) | |