



# **Glen Clova Woodland Creation Scheme**

Historic Environment Desk-Based Assessment  
and Walkover Survey

19 May 2021



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# Executive summary

Mott MacDonald were commissioned by Tihill Forestry to complete an archaeological desk-based assessment (DBA) in advance of a Woodland Creation Scheme in Glen Clova, north of Kirriemuir in Angus. Proposals involve planting conifers and native broadleaves within six geographically separate parcels covering around 944 hectares.

The DBA and walkover survey was designed to create an historic environment baseline for the parcels, identifying heritage assets with potential to be impacted by the proposed planting. This baseline information is used to provide recommendations designed to offset any impacts on the historic environment.

The DBA and walkover survey identified a large number of buildings and structures which indicated a once extensive occupation of Glen Clova. Many of these had been recorded by the Royal Commission on the Ancient and Historic Monuments of Scotland (RCAHMS) through a survey completed in the 1990s, but given the age of this survey, the results did not provide accurate locations of heritage assets. The present survey showed these to be extensive, but predominantly clustered in the base of the Glen, in the downslope parts of the parcels where the topography was flatter and more conducive to occupation.

The heritage assets recorded predominantly relate to pastoral occupation of the landscape, with earthen built buildings, or earth structures on stone foundations surviving clearly as sub rectangular mounds with dipped interiors. These may have had origins in the medieval period but continued into the post medieval period. Known as shielings, such buildings relate to seasonal occupation of the landscape for the purposes of grazing animals.

With the onset of agricultural improvements in the 18<sup>th</sup> century, the use of shielings declined and farming practices became more centralised within larger farms. Within the parcels a number of farmsteads and settlements survived into the 19<sup>th</sup> century and early modern period. The buildings and field systems survive, showing more regulated structure and more extensive use of stone.

There is one Scheduled Monument directly adjacent to Parcel D. Clova Castle (MM01) dates to the 16<sup>th</sup> century and is a factor during the design of the Glen Clova Woodland.

The archaeological potential of the parcels for significant previously undiscovered archaeological deposits is generally considered low, with the surveys having captured all significant upstanding remains, and any unrecorded archaeological deposits considered to be in close proximity to these assets.

The DBA recommends that the planting design is developed to ensure that heritage assets are avoided and left in situ with appropriate buffer zones maintained. The locations of these assets and the buffer zones recommended are provided as a GIS dataset. These assets will be physically delineated by a qualified heritage professional prior to planting work commencing. All staff operating on site will also be comprehensively briefed on the likelihood and nature of surviving archaeological deposits through a detailed toolbox talk.

A record of the archaeological assessment has been deposited with the Online Access to the Index of Archaeological Investigations (OASIS) website hosted by the Archaeological Data Service (OASIS ID mottmacd2-417645).

# 1 Introduction

## 1.1 Background

Mott MacDonald were commissioned by Tilhill Forestry to undertake an archaeological desk-based assessment (DBA) in Glen Clova, north of Kirriemuir, Angus. The assessment is required in advance of the proposed Glen Clova Woodland Creation Scheme (hereafter referred to as the 'Scheme') and is preceded by an archaeological walkover survey.

## 1.2 The Development

Tilhill Forestry are overseeing proposals to plant approximately 994 hectares of woodland across initially six separate parcels of land within Glen Clova. The preliminary forest design for the Scheme proposes mixed planting of Sitka spruce, Scots pine and native broadleaf trees, with five further areas identified for peatland restoration.

Extensive works on this scale have the potential to physically impact upon buried archaeological remains and upstanding heritage assets through the ground preparation and planting process, as well as through the growth of the trees themselves. Access roads, quad tracks and other infrastructure will also be created, all of which have the potential to impact upon heritage assets.

## 1.3 Scope

The aim of the DBA is to identify the presence or otherwise of potential heritage assets which may be impacted by planting as part of the Scheme, compiling a detailed historic environment baseline for those six geographic parcels identified for planting. This baseline is used to establish the archaeological potential of the parcels and provide appropriate recommendations to offset or avoid impact upon the historic environment where appropriate.

## 1.4 Site

### 1.4.1 Location

The Glen Clova Woodland Creation Scheme is located in northern Angus, north of Kirriemuir (Figure 1 - centred NO 30214 74459). It lies within the southern edge of the Cairngorms National Park and encompasses a large area on the northern slopes of the glen, and pockets of proposed planting along the southern slopes. Planting is proposed on either side of the River South Esk.

### 1.4.2 Setting – parcels

There are six geographically separate parcels of land proposed for planting as part of the Scheme within the wider Glen Clova Estate, each with a red line boundary agreed by the client and the landowner within which the woodland design will be developed. Each of these parcels is considered a study area.

The parcels are categorised as shown in Table 1.1 and can be viewed in Figure 1 in Appendix C. The names assigned to each parcel of land in Table 1.1 are based on prominent geographical features within these parcels.

**Table 1.1: Survey parcels or study areas**

Reference	Name	Area (ha)	Centre
A	The Scorrie	15.42	NO 27884 75704
B	Steel's Craig	36.07	NO 28761 74754
C	Corrie Kilbo	27.3	NO 26598 74364
D	Cairn of Barns	222.58	NO 31977 72206
E	The Laird's Chamber	614.04	NO 33309 73896
F	Coremachy Hill	77.94	NO 34066 70842

Source: Mott MacDonald and Tilhill Forestry

Parcel A lies at the northern end of Glen Clova, focussed on the rocky north-eastward facing slopes of an area known as 'The Scorrie'. Anchored on the land boundary and Glendoll Forest to the north, to the west the upper limits of the parcel are formed by the rocky slopes of The Scorrie. The parcel terminates at a minor tributary to the Burn of Gourack along the eastern side while the southern boundary appears arbitrary. The parcel lies on the slopes above the flat fertile land on the south side of the River South Esk and is generally steep and rocky.

Referred to as 'Steel's Craig' after the name applied to the land between the Burns of Gourack and the Burn of Farchal, Parcel B lies to the south-east of Parcel A, below the Corrie of Farchal on the lower slopes to the south of the River South Esk. The north-east facing boundary of the parcel is formed by the existing woodland plantation around the River South Esk, with the northern boundary defined along the Burn of Gourack. The western and southern boundaries of the parcel are defined by the topography of the landscape, which is generally very steep and rocky.

Parcel C is referred to as 'Corrie Kilbo' and is essentially defined by the steep upper slopes of the corrie itself, encompassing the Burn of Kilbo in the base of the corrie as well as the two existing woodland shelter belts within.



**Photo 1.1: View north-east across Parcel D towards MM20, with Clova in the distance**

Parcel D is located on the lower slopes (Photo 1.1) of the 769m AOD Cairn Inks and 651m AOD Cairn of Barns. Irregular in shape, the western and south-western boundaries of the parcel are formed by the rocky topography, extending westwards and uphill around the Minrie Burn. The south-eastern end of the parcel is anchored on the existing woodland plantation at Craigs of Inchdowrie, before returning north-westwards following existing land boundaries and the track to the Atton Farmstead (Photo 1.2). The topography is steep and rocky, but less so in the eastern end of the parcel and on the lower slopes south of Clova itself. Parcel C contains numerous small watercourses including the Burn of Lowie, all of which run downhill to the River South Esk.



**Photo 1.2: View north across Glen Clova, with Parcel D bordered by the Atton Farmstead in the foreground and Parcel E on the slopes opposite**

Parcel E (Photo 1.2) is the only one of the parcels located on the north side of the River South Esk, on the south-east facing slopes of the series of summits, ridges and corries which make up the north side of Glen Clova. Covering over 614ha, Parcel E is defined by the topography and upper slopes of the hills, the north-eastern boundary encompassing the Corrie of Bonhard, the Corrie of Clova, Brown Holm and the Corrie of Inchdowrie. The eastern edge is marked by a land boundary running along the west side of the Burn of North Inchdowrie. The eastern edge of the south boundary runs on the uphill side of the numerous small woodland plantations above the hotel and other buildings at Clova and Kirkton of Clova, before extending north-westwards along the northern side of the road through the glen. The nature of the landscape means that numerous small unnamed burns are contained within the parcel, running downslope to the River South Esk. In addition to these, the named Burn of Bonhard, Corrie Burn and Burn of Loch Brandy also run through Parcel E. The landscape comprises steeply sloping hillsides, flatter at the base of the parcel immediately north of the road (Photo 1.3).



**Photo 1.3: View north-west across MM40 in Parcel D**

At the southern end of the Glen Clova estate, Parcel F (Photo 1.4) is located on the lower slopes of the Coremachy Hill at the very edge of the Cairngorms National Park. It is defined along its southern and south-eastern edges by the existing land boundary and the woodland of Drums Plantation. The north-eastern and northern limits run along the edge of existing woodland and the Burn of South Inchdowrie, with the remainder defined by the upward slopes and topography of Coremachy Hill, the summit of which lies outwith Parcel F.



**Photo 1.4: View north-west across the heather moorland within Parcel F**

The landscape of the respective study areas can generally be categorised as sloping heather moorland and rough pasture of varying degrees of steepness, with large rocks and boulders, in some areas very densely concentrated.

## 2 Policy and guidance

### 2.1 General

This assessment was prepared with reference to all relevant statutory and planning frameworks for the historic environment as well as the 'United Kingdom Forestry Standard' (UKFS) and other relevant guidance.

### 2.2 United Kingdom Forestry Standard

The UKFS<sup>1</sup> 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 (from 2019 Scottish Forestry), the UKFS addresses potential historic environment impacts by providing a series of requirements which must be adhered to when planning or maintaining woodland. These are complemented by a set of guidelines which set out how the requirements can be met and provide 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:

**Table 2.1: UKFS Requirements as covered by existing legislation**

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.

In addition to those legal requirements covered by legislation outlined in Table 2.1, the UKFS also provides a list of required standards as justified by 'good forestry practice'. Some of these are outlined as follows:

<sup>1</sup> The Forestry Commission 2017, The UK Forestry Standard: The government's approach to sustainable forestry – [www.forestry.gov.uk/ukfs](http://www.forestry.gov.uk/ukfs)

**Table 2.2: Relevant UKFS requirements as defined by good forestry practice**

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

Source: United Kingdom Forestry Standard

The UKFS also provides a series of guidelines for the historic environment on how best to comply with the UKFS Requirements.

Tilhill Forestry have adhered to the UKFS in preparing the Glen Clova Woodland Creation Scheme, while this DBA and walkover survey incorporates all the relevant UKFS guidelines. The archaeological survey (DBA) is partly a response to UKFS Guideline 5, which states the developer will ‘commission specialist surveys where evidence is significant.’<sup>2</sup>

## 2.3 Guidance

In addition to the UKFS, Scottish Forestry have produced guidance documents to assist Forest Managers where a Woodland Creation Scheme has the potential to impact upon the historic environment. These include;

- Forests & historic environment: information and advice<sup>3</sup>; and
- The provision of archaeological information and advice in Scotland to meet the UKFS – Guidance Note.<sup>4</sup>

The walkover survey and DBA has been commissioned in accordance with the guidance in these documents.

Aberdeenshire Council Archaeology Service (ACAS) provide advice to Angus Council on all matters pertaining to the historic environment within the Angus Council area and provide comment on forestry applications following statutory consultation by Scottish Forestry where required. ACAS have outlined their expectations for assessment in advance of woodland creation through ‘Guidance for forestry archaeological walkover survey’.

The DBA is prepared in accordance with the Chartered Institute for Archaeologists (CIfA) ‘Standard and guidance for historic environment desk-based assessment’ by a qualified heritage professional adhering to the CIfA ‘Code of Conduct’.

<sup>2</sup> *Ibid.* 88 – Guideline 5

<sup>3</sup> Forestry Commission Scotland, available at - <https://forestry.gov.scot/publications/forests-and-the-environment/historic-environment/68-forests-and-historic-environment-information-and-advice>

<sup>4</sup> Forestry Commission Scotland, available at - <https://forestry.gov.scot/publications/135-guidance-note-the-provision-of-archaeological-information-and-advice-in-scotland-to-meet-the-ukfs/viewdocument>

## 3 Methodology

### 3.1 Aims and objectives

The objective of the DBA is to identify the archaeological and built heritage resources of the six study areas, specifically those parts proposed for planting. The DBA highlights known heritage assets, but also aims to identify previously undiscovered features should these be present.

The DBA provides evidence for any historic occupation or exploitation of the study areas, while forming a balanced judgement as to the likelihood of unrecorded archaeological deposits surviving within. Recommendations are made to mitigate the impact of the development on the historic environment. It is anticipated that these recommendations will be used by the client when designing and planning the Scheme.

### 3.2 Consultation

The Scheme is located within the Cairngorms National Park, in an area covered by Angus Council.

As advisers to Angus Council, ACAS were consulted upon commission of the project and provided a download from the Angus Historic Environment Record (HER).<sup>5</sup> ACAS confirmed they will not have an official role in signing off or agreeing the DBA, but that a copy would be submitted for inclusion in the HER. They also provided 'Guidance for Forestry Archaeological Walkover Survey', a document produced by ACAS which outlines the level and standard of survey expected for Woodland Creation Schemes in Angus.

The DBA will be submitted to the Online Access to the Index of Archaeological Investigations (OASIS) website hosted by the Archaeological Data Service (ADS) for approval by ACAS.

### 3.3 Desk-based assessment

The DBA is informed by accessing readily available historical and archaeological records. Sources consulted for this study include:

- Details of Scheduled Monuments and other designated sites as maintained by Historic Environment Scotland (HES), datasets downloaded February 2021;
- The National Record of the Historic Environment (NRHE) as maintained by HES, datasets downloaded February 2021;
- The Angus Council HER as maintained by ACAS, dataset purchased December 2020;
- Historic mapping available from the National Library of Scotland (NLS);
- Aerial imagery available from online platforms including the National Collection of Aerial Photography (NCAP) as held by HES;
- The British Geological Survey (BGS);
- The Historic Land-use Assessment map (HLAMap) as maintained by HES;
- Online resources including the ADS and other web-based resources; and
- Relevant published and unpublished documentary sources.

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<sup>5</sup> Dataset provided by the HER on 15/12/20



### 3.4 Walkover Survey

The DBA is complemented by a detailed and comprehensive walkover survey of the study areas (Section 4.9). This survey was designed to systematically assess the study areas for previously unrecorded heritage assets visible above ground.

In advance of the walkover survey, any features which were identified as anomalies or areas of interest during the DBA were transcribed in a GIS environment. In addition to these, the datasets from HES databases, the NRHE<sup>6</sup>, Angus HER and HLAMap were uploaded to ArcGIS Online, allowing us to use the ArcGIS Collector App on site. This app was then used by the survey team to track progress during the walkover through GPS and to visit the assets identified by the datasets, even while surveying the wider study areas for unrecorded assets. Details of heritage assets recorded during the walkover survey were captured through the ArcGIS Collector app with an accuracy of <5m as polygons or points, and relevant data inputted to create or update the records. Images of each asset recorded were geotagged and attached to the records made in the field.

### 3.5 Assumptions and Limitations

The NRHE and the HER plot the location of known or suspected archaeological assets, monuments and events. Where nothing of historic interest is shown in a particular area, this can be the result of a lack of research or investigation rather than an actual absence of assets. Conversely, heritage assets recorded on the NRHE or HER may be inaccurate, or relate to outdated records or assets which are no longer extant.

Cartographic evidence can provide important, detailed information pertaining to the development of a study area, but the accuracy and time lapse between the production of certain maps can lead to a false assumption that no development has occurred in an area.

Every effort was made to provide comprehensive cover of the study areas during the walkover survey. However, it is accepted that no walkover survey can provide complete coverage of a landscape and it is possible heritage assets visible at the surface may have gone unrecorded. However, the methodology employed was robust and the results are considered accurate. Near complete coverage of the study areas were maintained, although the steep, rocky nature of the upper slopes means there is a bias towards the lower flatter ground. MM35 in Parcel E uphill of the Burn of Bonhard was not visited due to health and safety concerns with the steepness and rocky nature of the slope.

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<sup>6</sup> Both the NRHE point dataset and the incomplete NRHE polygon dataset were downloaded. Both were used, but with preference for the polygons where possible.

## 4 Baseline

### 4.1 Overview

The historic environment baseline is established using the sources and methodology outlined in Section 3.

Where dates and periods are referred to in the baseline, these are based on those outlined in Table 4.1. It is accepted that these date ranges are subjective, but are supplied to ease discussion based on the Scottish Archaeological Research Framework<sup>7</sup> (ScARF) in conjunction with professional judgement.

**Table 4.1: Indicative archaeological and historical periods**

Prehistoric Period Dates		Historic Period Dates	
Palaeolithic	14,000 to 11,000 BC	(Roman	AD 77 to c.211) <sup>8</sup>
Mesolithic	11,000 to 4,100 BC	Early Medieval	AD 401 to 1100
Neolithic	4,100 to 2,500 BC	Medieval	AD 1101 to 1500
Chalcolithic and Bronze Age	2,500 to 800 BC	Post-medieval	AD 1501 to 1800
Iron Age	800 BC to AD 400	Early Modern	AD 1801 - 1900
		Modern	AD 1901 to present

Source: Mott MacDonald after ScARF

A full gazetteer of all heritage assets within the study areas is located in Appendix A, with figures showing their locations included as Appendix B. Each heritage asset is attributed a corresponding unique reference number prefixed by an abbreviation of Mott MacDonald (MM).

### 4.2 Heritage Assets

#### 4.2.1 Designated heritage assets

There are no heritage assets protected by statutory legislation<sup>9</sup> within the boundaries of the Scheme. However, the southern boundary of Parcel E is bordered by a Scheduled Monument immediately to the west of Parkhead Cottage:

- MM01: Clova Castle (SM6913)

Clova Castle (Photo 4.1) comprises the remains of a fortification of 16<sup>th</sup> century date and is protected under the Ancient Monuments and Archaeological Areas Act 1979. While located outwith the study area, the proximity of Clova Castle (MM01) and the designation as a Scheduled Monument means that it must be considered during the assessment and recommendations provided.

<sup>7</sup> <https://www.scottishheritagehub.com/node/1203-06/01/20>

<sup>8</sup> The period of Roman influence in Scotland runs concurrently with the Iron Age. While Roman involvement in Southern Scotland was extensive, this was primarily a military occupation which ebbed and flowed, leaving no evidence for independent domestic occupation.

<sup>9</sup> UNESCO World Heritage Sites, Scheduled Monuments, Listed Buildings, Conservation Areas, Gardens and Designed Landscapes included on the HES inventory, or Historic Battlefields.



**Photo 4.1: View west across the remains of Clova Castle (MM01)**

#### 4.2.2 Non-designated heritage assets within the study area

There are a further 57 heritage assets, or grouped heritage assets recorded by the HER and NRHE within the boundaries of the respective parcels. These are predominantly located within Parcels D and E, with only two assets recorded in Parcel A, one in Parcel B and none in either Parcel C or Parcel F.

The bulk of the assets recorded relate to the agricultural use of the parcels, and former pastoral farming occupation of Glen Clova. Numerous fermtouns<sup>10</sup>, farmsteads, buildings and shielings<sup>11</sup> have been recorded while there are also sheepfolds and animal enclosures.

#### 4.3 Previous archaeological assessment

The Royal Commission on the Ancient and Historic Monuments of Scotland (RCAHMS)<sup>12</sup> undertook a survey of Glen Clova from 1998 to 1999. Apart from the ruined Clova Castle (MM01), no previous heritage assets had been recorded within the Glen prior to the survey, but the RCAHMS project revealed a 'wealth of previously undiscovered sites'.<sup>13</sup> These heritage assets surveyed by the RCAHMS between 1998 and 1999 form the bulk of those recorded by the NRHE and cross over into those held by the HER. The full extent of this survey is not known.

There is no record of any previous commercial archaeological investigation or survey within the study areas of the proposed Scheme. In 2010, Scotia Archaeology completed a watching brief during works on a hydro scheme immediately north of the Clova Hotel. While works associated with the hydro scheme extended into Parcel D of the study area, the watching brief was maintained outwith this study area. No archaeological deposits were recorded.

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<sup>10</sup> A small concentration of dwellings associated with farming.

<sup>11</sup> A small dwelling of stone or turf, occupied on a seasonal basis by people tending animals on upland pastures.

<sup>12</sup> In 2015 RCHAMS merged with Historic Scotland to become Historic Environment Scotland

<sup>13</sup> <https://canmore.org.uk/event/1104018> - 02/02/21

## 4.4 Geology, soils and ground conditions

### 4.4.1 General

The Scottish Paleocological Database records the presence of raised mires in two locations around the six parcels. The first is located (centred NO 25100 75000) to the north-west of Parcel C,<sup>14</sup> and the second in the base of the glen (centred NO 33100 72800), south of Clova itself and between Parcels D and E.<sup>15</sup>

Raised mires occur on flood plains of mature river systems or in areas containing alluvial deposits. The upward growth of vegetation and the influence of climatic change meant that the vegetation in these areas became independent of ground water influence and remained waterlogged.

The British Geological Survey was consulted to record the underlying bedrock and superficial geology of the study areas.<sup>16</sup> The National Soil Map of Scotland was also consulted to better understand the nature of the topsoil and overlying superficial geology.<sup>17</sup> These are described below by area, with a summary of how the geology may impact on archaeological survival where relevant.

The British Geological Survey records no boreholes within the parcels.

### 4.4.2 Parcel A: The Scorie

The bedrock geology of Parcel A comprises Glen Doll Pluton – Dioritic Rock. This igneous bedrock formed approximately 393 to 427 million years ago in the Devonian and Silurian periods and is indicative of a local environment previously dominated by silica-poor magma.

Much of the overlying superficial geology has not been recorded by the BGS, but the eastern periphery of the study area contains Glaciofluvial Ice Contact Deposits of gravel, sand and silt. These deposits formed up to three million years ago in the Quaternary Period in an area dominated by Ice Age conditions. The national Soil Map records the areas as covered by peaty podzols.<sup>18</sup>

### 4.4.3 Parcel B: Steel's Craig

The bedrock geology of Steel's Craig Glen Effock Schist Formation, Sempelite and Semipelite and Micaceous Psammite. This is a metamorphic bedrock formed approximately 541 to 1000 million years ago.

The superficial geology is not recorded by the BGS across much of the upland parcel. The lower slopes contain the same Glaciofluvial Ice Contact Deposits of gravel, sand and silt, but also Till, Devensian – Diamicton, focussed on the Burn of Gourack. Both deposits are dated to the Quaternary Period, two to three million years ago. The National Soil Map records the topsoil as 'brown soils', perhaps indicating a degree of cultivation potential.

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<sup>14</sup> [https://www.geos.ed.ac.uk/~ajn/cgi-bin/spad\\_siteinfo1.pl?site=995](https://www.geos.ed.ac.uk/~ajn/cgi-bin/spad_siteinfo1.pl?site=995) – 25/01/21

<sup>15</sup> [https://www.geos.ed.ac.uk/~ajn/cgi-bin/spad\\_siteinfo1.pl?site=825](https://www.geos.ed.ac.uk/~ajn/cgi-bin/spad_siteinfo1.pl?site=825) – 25/01/21

<sup>16</sup> [www.bgs.ac.uk](http://www.bgs.ac.uk) – 20/01/21

<sup>17</sup> [http://map.environment.gov.scot/Soil\\_maps/?layer=1#](http://map.environment.gov.scot/Soil_maps/?layer=1#) - 11/02/21

<sup>18</sup> The James Hutton Institute describes a podzol is an acidic soil lacking in plant nutrients which is generally infertile and limiting for productive use.

#### 4.4.4 Parcel C: Corrie Kilbo

The bedrock geology of Corrie Kilbo is predominantly semipelite and micaceous psammite of the Glen Effock Schist Formation. This metamorphic bedrock formed approximately 541 to 1000 million years ago. In the northern limit of the study area the bedrock is dioritic rock of the Glen Doll Pluton formation datable from 393 to 427 million years ago in the Devonian and Silurian Periods. There are isolated strata of semipelite and psammite of the Glen Lethnot Grit Formation; igneous Late Caledonian Granodiorite bedrock; igneous bedrock of the North Britain Siluro-devonian calc-alkaline Dyke Suite; and amphibolite and hornblende schist of the Neoproterozoic Basic Minor Intrusion Suite.

The overlying superficial geology is not recorded by the BGS, but the National Soil Map records Parcel C as covered by peaty podzols, with an area of mineral podzols along the northern edge.

#### 4.4.5 Parcel D: Cairn of Barns

The recorded bedrock of Parcel D is varied, containing numerous small areas of strata.

The northern end of the study area contains semipelite and micaceous psammite of the Glen Effock Schist Formation.

The centre of Parcel D around Craigle Laigh is dominated by amphibolite and hornblende schist of the Neoproterozoic Basic Minor Intrusion Suite. These were initially igneous rocks, later altered by low grade metamorphism. Areas of psammite from the Glen Lethnot Grit Formation run down the slope of the hill, as do intrusions of Late Caledonian Granite. There is also an isolated area of psammite and semipelite of the Glen Lethnot Grit Formation.

At the southern end of the study area, the bedrock is predominantly gritty psammite and pelite of the Glen Lethnot Grit Formation, dated to between 541 to 1000 million years ago. This bedrock deposit is crossed by strata of amphibolite and hornblende schist and isolated areas of Late Caledonian Granite and metalimestone of the Glen Lethnot Grit Formation.

There is also a band of metalava and metatuff of the Southern Highland Group which crosses the centre of the parcel.

The overlying superficial geology across much of the study area has not been recorded by the BGS. Along the northern boundary of Parcel D, this comprises gravel, sand and silt of the Glaciofluvial Ice Contact Deposits which formed three million years ago in the Quaternary period in an environment previously dominated by Ice Age conditions.

The National Soil Map records the presence of brown soils across the lower edge of the parcel, with mineral podzols present south of Clova and in two geographically separate areas on the slopes of Cairn Inks and Cairn of Barns.

#### 4.4.6 Parcel E: The Laird's Chamber

The northern part of Parcel E is recorded as semipelite and micaceous psammite of the Glen Effock Schist Formation datable to 541 to 1000 million years ago. The area north and east of Atton in the centre of Parcel E is dominated by amphibolite and hornblende schist of the Neoproterozoic Basic Minor Intrusion Suite, mixed with psammite and pelite of the Glen Lethnot Grit Formation. There are also large areas of metalava and metatuff of the Southern Highland Group, predominantly located at the Corrie of Clova and the area north and east of Clova itself.

In the centre of the study area there is a large area of granite, gneissose of the Rough Craig Intrusion, dated from 444 to 485 million years ago in the Ordovician Period.

As across wider Glen Clova, large parts of Parcel E have no recorded superficial geology by BGS. The dominant deposit is gravel, sand and silt, Glaciofluvial Ice Contact Deposits formed three million years ago in the Quaternary Period. There are also two large areas of Peat recorded around the Corrie of Inchdowrie and also in the Corrie of Clova.

The National Soil Map records the lower slopes of the study area as mineral podzols with peaty podzols upslope. There are montane soils in the Corrie of Clova.

#### 4.4.7 Parcel F: Coremachy Hill

Bedrock geology for Parcel F is split between pelite of the Southern Highland Group; gritty psammite and pelite of the Glen Lehtnot Grit Formation; and amphibolite of the Neoproterozoic Basic Minor Intrusion Suite.

Superficial geology is not recorded across much of the study area by the BGS, with isolated areas of till, Devensian – diamiction dated to the Quaternary Period. The National Soil Map records the topsoil as mineral podzols.

#### 4.4.8 Conclusions

Raised mires are recorded in two locations close to the parcels. Raised mires have the potential to overlie and preserve archaeological deposits which existed before their formation, while the waterlogged conditions also have the potential to preserve any archaeological deposits or artefacts within. However, despite the proximity, it is unlikely such deposits will have formed within the sloping landscapes of the study area.

The recorded geological makeup of the study areas provides little information for the survival or potential presence of archaeological deposits. The National Soils map of Scotland can show areas where peat may be present, but it also shows where land may be unsuitable for agriculture or occupation, notably where podzols are present as this soil is generally infertile and limiting for productive use.

For the DBA, the key deposits to identify for an indication of archaeological potential are peat and alluvium.

The formation of peat in Scotland is generally associated with periods of worsening climate conditions from the end of the Neolithic c.2500 BC.<sup>19</sup> In this period existing Neolithic and Early Bronze Age settlements located above 200m AOD were abandoned due to worsening ground conditions associated with the change in climate, although some sites remained in use for agriculture and pasture into the medieval period.<sup>20</sup> The presence of peat has the potential to cover and preserve occupation remains which predate its formation.

Alluvium is a significant deposit in geoarchaeological terms as it has the potential to overlie prehistoric archaeological deposits or contain prehistoric artefacts which have been moved from their original locations.

Within Parcel E, two areas of peat were identified during the DBA. These have some degree of archaeological potential. There are no recorded deposits of alluvium within the six parcels, with those deposits in wider Glen Clova focused on the River South Esk in the base of the Glen.

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<sup>19</sup> Whittington, G., Edwards, K.J., 2003, 'Climate Change', in: Scotland after the Ice Age. Environment, Archaeology and History, 8000 BC – AD 1000, Edwards, K.J., Ralston, I.B.M., (eds.), Edinburgh University Press, Edinburgh, 21f

<sup>20</sup> Tipping, R., 2003, 'Living in the Past: Woods and People in Prehistory to 1000 BC', in: People and Woods in Scotland: A History, Smout, T.C. (ed.), Edinburgh University Press, Edinburgh, 14-39

## 4.5 Map regression

### 4.5.1 General

All relevant cartographic resources held by the NLS were consulted to identify the recorded development of the site as well as any additional features that may previously have gone unrecorded within the limits of the proposed development. A summary of consulted maps is listed in the Bibliography, Section 8.

### 4.5.2 Pre-Ordnance Survey maps

A number of early maps that cover the Scheme were consulted for any indication of historical occupation within the study areas. Maps which pre-date the Ordnance Survey (OS) were assessed for relevant information relating to the development of the six parcels. Due to the generally imprecise nature and lack of accuracy often apparent in these early maps, many of those which pre-date the first OS editions are of limited use in showing any detailed occupation of the study areas and only those that are relevant are discussed below.

#### 4.5.2.1 Timothy Pont

The earliest maps of the proposed development area were drawn by Timothy Pont between 1583 and 1596. Two maps survive which show the Glen Clova, 'Middle Strathmore' (also known as Pont 29) and 'North Esk, South Esk' (Pont 30). These maps are 'a unique source of knowledge of Scotland's past landscapes.'<sup>21</sup> While specific detail may be lacking in Pont's maps and they cannot be relied upon as accurate depictions of landscape and distance, the proposed development area can be clearly appreciated.

Pont 30 in particular shows the River South Esk with its numerous tributaries as it flows through Glen Clova. Clova itself is depicted, as is Kirkton of Clova, Clova Castle (MM01) and a mill, all in a tight cluster at the base of the Burn of Brandy. Acharn and Braedownie are also depicted at the northern end of the Glen, leaving two named fermtouns between the known points on the north side of the River South Esk which cannot be accounted for by modern settlement. The fermtouns named 'Berhard' likely corresponds with the township West Bonhard MM44, and neighbouring East Bonhard (MM58) which lies to the south-east in Parcel D. While not immediately recognisable by name, Whytemyre may correlate with the township of Clova itself or Langholme (MM45).

#### 4.5.2.2 Gordon and Blaeu 17th century maps

In the 17<sup>th</sup> century Robert Gordon was commissioned to undertake work on Timothy Pont's maps during the compilation of these into the 'Atlas of Scotland', completed by the Dutch Cartographer Joan Blaeu.

Robert Gordon's 'Map of Eastern Scotland' (Gordon 6) depicts Clova, 'Benherd' (this time south of the River South Esk) and 'Braedumy', but shows no occupation within the study areas. The 'Brae of Angus' (Gordon 42) shows the same settlements as Timothy Pont, but at the northern end of the Glen around Doll, two fermtouns are depicted, 'Bufs' and 'Wintey Bufs'. The latter of these may lie in the vicinity of Parcel A and may be related to winter occupation.

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<sup>21</sup> Stone, J 2001 'Timothy Pont: Three Centuries of Research, Speculation and Plagiarism' in *The Nation Survey'd: Timothy Pont's Maps of Scotland*, 23

#### 4.5.2.3 William Roy c.1747-55

William Roy's Military Survey of Scotland was conducted from 1747-55 and is the first map of the area which can be considered to have any real degree of accuracy. Roy's map is remarkable for its level of detail, including the naming of the hills which line Glen Clova, although the River South Esk is recorded as 'River Clova'. Numerous small fermtouns are depicted, with the base of the glen a patchwork of irregular field systems. The map was described by Roy himself as rather 'a magnificent military sketch than a very accurate map of the country',<sup>22</sup> but the scale and detail of the map is such that it allows the study area to be pinpointed.

Three fermtouns are depicted within Parcel D. The four buildings recorded as 'Atton' may relate to farmstead MM10, although this may also correspond with the site of the modern building recorded as Atton to the north and outwith the study area (MM09). One of these is likely to be 'Clayleith' MM18, probably that shown by Roy as two parallel lines of six buildings marked 'Clathick'. The unnamed group of four buildings north of this is likely the settlement also named 'Clayleith' and lying just outside the study area (NO37SW0107). West of MM18, four buildings are marked as 'Minrea'. It is assumed these relate to MM11 to MM14, buildings and features possibly close enough together to be considered a settlement.

Two fermtouns are depicted within Parcel E. Neither are named, but correspond with MM44 and MM45. MM44 is shown as a series of four buildings on the eastern side of a courtyard containing a further structure. To the east of this, MM45 is three smaller buildings. Upslope of these sites is depicted as wooded, with areas of cultivation in between the two.

#### 4.5.2.4 Thomson and Johnson c.1825

The 'Northern Part of Angus Shire' by John Thomson and William Johnson dates from c.1825 and shows a landscape with a significant level of occupation, and the majority of the fermtouns or farmsteads can be correlated with modern sites today. Those within or directly related to the respective study areas include:

- The farmstead at 'Hillocks' (NO27SE0001) is shown immediately east of Parcel B, although it is possible MM04 within Parcel B is associated with this.
- 'Burnlewie' is shown as two small buildings on the east side of the side of the Burn of Lowie, within Parcel D and corresponding with MM06.
- 'Clayleith' is shown, corresponding with MM18 in Parcel D.
- 'Menree' is marked, appearing to relate to MM20 within Parcel D.
- A fermtoun is marked at 'Bontyre' in Parcel E. This is situated in the general location of MM33 and MM34, and is likely to relate to the latter.
- Both 'W Bonhard' (MM38) and 'E Bonhard' (MM58) are recorded in Parcel E, either side of the Burn of Bonhard.
- 'Longholme' (MM44) is depicted in Parcel E.
- The buildings recorded as 'Mains' may relate to MM45 in Parcel E.

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<sup>22</sup> Fleet et al 2011 'Scotland; Mapping the Nation', 89



### 4.5.3 Ordnance Survey maps

#### 4.5.3.1 1<sup>st</sup> edition maps series

The OS began surveying Glen Clova in 1862, publishing the first detailed mapping of the landscape in 1865 at a scale of six inches to one mile. There is little within the 1<sup>st</sup> edition maps which have not already been recorded by the NRHE and HER.

The 1<sup>st</sup> edition reveals no notable heritage assets or features within Parcels A, B, C or F.

#### **Parcel D**

Within Parcel D, the 1<sup>st</sup> edition shows a number of the features recorded by the HER and NRHE. The farmstead at West Bonhard (MM38) is shown as a series of three rectangular buildings, all on the south side of the road and outwith the study area. An associated sheepfold extends north of the road. East Bonhard farm is not recorded within the study area by the HER or NRHE, but is shown on the 1<sup>st</sup> edition as straddling the main road and extending within the study area, but east of the Burn of Bonhard. The HER polygon covers the three to four buildings south of the road, but the two rectangular structures on the northern side of the road are omitted from this record with enclosed worked land to the north and east, lined with trees. This is recorded as MM58.

In contrast to West Bonhard (MM38) and East Bonhard (MM58), the farmstead of Langholme (MM44) to the east is shown as a series of unroofed buildings beside a 'sheep ree' (MM44b) and a sheepfold marked as 'ruins' (MM44a).

Enclosures and buildings associated with Arntibber (MM51 and MM52) are also shown as extending into the Parcel D study area, while sheepfolds shown on the 1<sup>st</sup> edition include MM36, MM37, and MM39. A 'sluice' (MM59) is recorded at the confluence of the Burn of Loch Brandy and a minor watercourse, possibly diverting water to run downhill to Kirkton of Clova.

#### **Parcel E**

Within Parcel E, the 1<sup>st</sup> edition reveals numerous sheepfolds (e.g. MM07 and MM17), all of which are already recorded by the HER and NRHE.

The extensive farmstead at Clayleith (MM18) is also shown as at least six roughly west to east aligned buildings with associated compounds and gardens, with a curvilinear trackway running through the settlement.

At Cadham (MM25), only one sub rectangular building is shown south of the road or within the study area, with a large sub rectangular enclosure to the east.

#### 4.5.3.2 2<sup>nd</sup> edition map series

The 2<sup>nd</sup> edition map series was surveyed at 6 inches to 1 mile in 1900 and published in 1902. These maps provide little additional information.

#### **Parcel D**

Within Parcel D, West Bonhard (MM38) and East Bonhard (MM58) are still shown, but both now appear unroofed.

Langholm (MM44) is no longer named specifically, and consists of two unroofed sub rectangular enclosures.

## Parcel E

In Parcel E, it is notable that 'Clayleith' (MM18) has also deteriorated and is no longer named. It is depicted as a series of linear field boundaries and enclosures with no buildings roofed.

### 4.5.3.3 Later maps

The later OS maps of Glen Clova are in excellent detail, produced in the 1940s and 1970, but do not provide coverage of all the parcels.

The maps from 1970 show that the coniferous plantations east of Parcel B have not been planted in 1970. The maps also show general locations of grouse butts, notably in Parcel D (including MM77 and MM78).

Modern OS maps depict a series of grouse butts in Parcel E (MM77 and MM78) and in Parcel F (MM66 and MM68).

## 4.6 Remote sensing

Historic and modern aerial images were consulted to provide a better understanding of the development of the study area, and to identify any previously unrecorded heritage assets or anomalies to be visited during the walkover survey. There is no lidar coverage available for Glen Clova. Details of the aerial images consulted can be viewed in Section 8.1.

The aerial images from the 1940s show elements of the 19<sup>th</sup> and 20<sup>th</sup> century agricultural landscape, including sheepfolds such as MM07, MM17, MM30 and drystone walls such as MM60. The track MM55 is also clearly visible.

Elements of the fermtouns at Clayleith (MM18) are possibly visible in aerial images such as image 3154 of Sortie 106G/Scot/UK/0062 from May 1946, but none of the aspects of the site are clear, masked to a degree by mature trees. Image 3049 of the same sortie appears to show sweeping rig and furrow around the edges of the MM18 fermtoun.

Both West and East Bonhard (MM38 and MM58) are visible in images such as 3436 from sortie 106G/Scot/UK/0056, but one of the only elements within the study area is a possible curvilinear enclosure immediately east of the Burn of Bonhard, within the area of East Bonhard (MM58) shown on the OS maps.

Image 3437 from sortie 106G/Scot/UK/0056 dated to 1946 clearly shows the Langolm (MM44) fermtoun. Animal enclosures (MM44a and MM44b) are both clearly visible, as are the overgrown foundations of numerous buildings which make up the core of the fermtoun, including MM44l and MM44m.

The same image also shows elements of the field systems and potential structures at MM45, recorded by the HER as Clova fermtoun. These features are not specific enough to be accurately pinpointed from the aerial image, but enclosure MM45b is clearly visible.

## 4.7 Historic landscape usage

Analysis of historic land-use was undertaken through HLAmap maintained by HES.<sup>23</sup> HLAmap provides additional information as to earlier use of the proposed development site or exploitation of the landscape. Landscape areas identified as notable from HLAmap were targeted during the walkover survey.

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<sup>23</sup> [www.hlamap.org.uk](http://www.hlamap.org.uk)

#### 4.7.1 Parcel A: The Scorrie

Recorded usage of Parcel A, The Storrie consists entirely of rough grazing with no indication of improvement. The parcel is bordered along the eastern side by the lower lying fertile ground around the River South Esk.

#### 4.7.2 Parcel B: Steel's Craig

The extreme northern corner of Parcel B is bordered by, and very slightly overlaps, an area of land in the base of the Glen around the River South Esk which is recorded as containing the remains of medieval and post medieval settlement and agriculture. The record indicates that this area could contain relict field systems and farm buildings which pre-date the agricultural improvements of the 18<sup>th</sup> and 19<sup>th</sup> centuries. Given the upland sloping nature of Parcel B, it is considered unlikely that any such remains would exist within this study area, although there is a degree of potential on the lower slopes.

The remainder Parcel B is recorded solely as rough grazing, heather moorland with no indication of previous land usage or management.

#### 4.7.3 Parcel C: Corrie Kilbo

Corrie Kilbo has no record of previous landscape usage with the entire parcel recorded as rough grazing, predominantly heather moorland with no evidence of recent improvement. It is notable however that two shelter belts of trees are planted within the Corrie. These were planted from 1951 to 1952 by Forest Research as a long-term experiment to trial species of tree at high elevations.<sup>24</sup>

#### 4.7.4 Parcel D: Cairn of Barns

Parcel D encompasses the lower slopes of Cairn Inks and Cairn of Barns and includes some flatter land at the base of the slopes, around the southern banks of the River South Esk. As such there is more recorded evidence for historic land usage and exploitation than in some of the other parcels.

The study area encompasses parts of seven different irregular areas of land recorded as having evidence for medieval settlement which pre-dates the agricultural improvements of the 18<sup>th</sup> and 19<sup>th</sup> centuries. Some of these are geographically separated and form a cohesive land parcel, while others lie adjacent to one another, contributing to a larger area of recorded settlement, some of which continues into the post medieval period. The plantation enclosure west of the Mintrie Burn is also dated to the post medieval period.

Today the bulk of Parcel D is recorded as rough grazing.

#### 4.7.5 Parcel E: The Laird's Chamber

The largest study area, Parcel E, contains three areas recorded as showing evidence for medieval settlements and agriculture, two below the Corrie of Bonhard and a larger area immediately west of Mains of Clova. In addition, there are three further areas which are recorded as showing evidence for medieval shielings.

There is no recorded land use in Parcel E in the post medieval period, although a number of the areas of woodland which line the study area along the southern and eastern sides are recorded as managed woodland in this period.

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<sup>24</sup> Information provided by Forest Research through the client.

From the 19<sup>th</sup> century the entire area of Parcel E has been used as rough grazing.

#### 4.7.6 Parcel F: Coremachy Hill

The only recorded land usage of Parcel F is as rough grazing from the 19<sup>th</sup> century.

### 4.8 Archaeological and Historical Development

The historic baseline in the following narrative is based on indicative archaeological and historical periods and compiled using information primarily collated from the NRHE and HER and the DBA. These historical periods are outlined in Table 4.1. Only the periods for which there is evidence for human occupation, involvement in the study areas or in the immediate landscape are discussed below.

#### 4.8.1 Prehistoric

Prehistoric occupation of the study area is attested by the recorded presence of a Late Bronze Age Hoard (MM16) found within Parcel D. Recovered prior to 1956, the hoard comprised a leaf shaped sword and two spearheads, all dated to the mid-8<sup>th</sup> century BC. Subsequent research visits to the area in the 1950s failed to reveal the exact location of the findspot, but one potential area was subsequently disrupted and a flint flake recovered.

Immediately south of the recorded hoard findspot (MM16), a prehistoric hut circle has been recorded (MM15). Tentatively dated to the Iron Age typologically, the hut circle measures 15m diameter and may be older than assumed, feasibly contemporary with the Bronze Age hoard (MM16).

A Burnt Mound (MM02) has also been recorded in Parcel A, the Scorrie. These monuments comprise mounds of fire cracked stone, assumed to be the locations where heated stones were used to boil water for cooking purposes.<sup>25</sup> They are considered to be characteristically Bronze Age.<sup>26</sup>

Within wider Glen Clova beyond the six parcels, there is little indication of extensive prehistoric occupation. A further burnt mound (HER: NO27NE0001) has been recorded north-west of Parcel E and again around Clova itself (HER: NO37SW60).

Immediately north-west of Parcel E, a possible fort has been recorded on Dun Mor (HER; NO27NE0014). While no date is suggested by the record, typologically a hillfort would be dated to the Iron Age.

#### 4.8.2 Historic

##### 4.8.2.1 Medieval – Post Medieval

The parishes of Clova and Cortachy were historically separate entities, yet were unified in 1608. Parcels A to E lie within the historic Parish of Clova, with Parcel F partially within Cortachy.

Clova Castle (MM01) is considered of 16<sup>th</sup> century date, which would place it in the post medieval period. However, this attribution is not certain and the castle may have had origins in the medieval period. The Statistical Account of 1845 (NSA) described how it was believed locally that Clova Castle (MM01) was destroyed by Oliver Cromwell, presumably in the 1650s.<sup>27</sup>

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<sup>25</sup> <https://canmore.org.uk/thesaurus/1/410/BURNT%20MOUND>

<sup>26</sup> <http://scarf.rcahms.gov.uk/content/331-burnt-mounds>

<sup>27</sup> Ogilvy, W 1842 'Parish of Cortachy and Clova, County of Forfar' in Statistical Account of Scotland (NSA) Volume X, 446

A story related in the Ordnance Survey Name Book compiled between 1857 and 1861, may also date to this possibly apocryphal 17<sup>th</sup> century episode. The Name Book records the presence of the 'Laird's Chamber' in the hills above Clova Castle (MM01), described as a 'small hollow in the South face of Ben Reid sheltered by large outcrop rocks'<sup>28</sup> where the Laird of the Castle sheltered when it was burned. No date is given for this event.

The Gallows Knowe (MM19) to the south of Clova Village is considered the place of execution for the Castle (MM01) and may have been used in the medieval period and into the post medieval period.

There was a cultural continuity in farming across the medieval and post medieval periods and it is not possible to easily distinguish the two. Many of the small turf walled buildings, shielings and even stone built farmsteads recorded throughout the study areas by the NRHE and HER will date from the post medieval period. A number of these may have origins in the medieval period, but based on professional judgement, the bulk are likely to be post medieval. These buildings developed organically in the landscape, placed where suitable for exploitation of the land through the rearing of animals or planting of small scale crops, or in proximity to one another as family units. The numerous shielings (such as MM03, MM04, MM05 etc.) in particular relate to a way of life which saw the small buildings occupied seasonally by families or individuals taking beasts to upland pasture in the summer months.

The use of shielings changed with the coming of agricultural improvements. The Improvement period commenced in Scotland in the mid-18<sup>th</sup> century, affecting estates differently depending upon the landscape as well as the motives, wealth and ideals of the landowners. The term 'Improvement' encompasses a range of activities designed to improve agricultural productivity and living conditions. Across Scotland this saw the formalisation of agricultural land and creation of larger rectilinear fields to replace the small-scale arrangement of subsistence, curvilinear field systems which had previously existed. These earlier field systems had developed over centuries, often following existing topography, resulting in fragmented and small-scale farm holdings known as pre-improvement farming. The agricultural improvements formalised farming to increase agricultural production. The low stone and turf dwellings of the farming population were often demolished and more formalised stone structures with squared corners built in their place. In many cases the land was seen as more valuable to support large numbers of sheep and the small, subsistence farming communities were removed from the land or consolidated into larger farmholdings. The introduction of sheep effectively ended the use of shielings and upland pasture for cattle in the summer months.

The Statistical Account of 1794 (OSA) describes a Glen where Improvement has already begun to take hold. The hills of Glen Clova are described as 'green, producing excellent grass, and well adapted for sheep'.<sup>29</sup> The account continues that the land along the banks of the river Esk is cultivated, with the remainder of the parish used for pasture where practical.<sup>30</sup>

It is clear from the record in the OSA that agricultural improvements are beginning to take place within the parish. While Glen Clova is not mentioned specifically, it says that 'considerable improvement has been made in agriculture' and describes rotation in cropping. The introduction of the 'English plough' is also mentioned and given the lack of cultivation in the parish outwith the area around the River South Esk, it is likely that Improvement may have been advancing

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<sup>28</sup> Ordnance Survey Name Book 1857-61, Forfarshire (Angus) Volume 15, OS1/14/15/42

<sup>29</sup> Haldane, W 1794 'Parish of Cortachy and Clova, County of Forfar' in Statistical Account of Scotland (OSA) Volume X, 569

<sup>30</sup> *Ibid.* 571

within Glen Clova itself. However, where sheep and cattle are ‘the staple commodity’, the advance of agricultural improvement has been slow.<sup>31</sup>

The Church in Clova is recorded as having been built in 1730.<sup>32</sup> It is also notable that peat is described as the principle fuel of the parish, although no specific source is mentioned and no peat cuttings are recorded.

#### 4.8.2.2 Early Modern

The Statistical Account of 1845 (NSA) describes the sloping hills of Glen Clova as grass covered, even to their summits and affording ‘excellent pasture to sheep and cattle’.<sup>33</sup> Programmes of woodland planting have also been recorded around the banks of the River South Esk and ‘several acres of land were planted... larch, spruce and Scots firs’ intended as shelter for deer.<sup>34</sup>

The pace of agricultural improvement has continued since the 18<sup>th</sup> century. The NSA records the improvement to farm buildings and that significant work has gone into enclosures, with drystone walls enclosing fields. Regular crop rotation, draining, enclosure and the application of lime is also commonplace.<sup>35</sup>

Clova Castle (MM01) is also recorded in the NSA. In 1845 the castle is described as comprising a lime mortar bonded wall with internal stairs.<sup>36</sup>

Clova itself is described as a ‘hamlet’ by Francis Groome’s Ordnance Gazetteer of Scotland in 1896, with an Inn, public school, church and Catholic Chapel. Clova Castle (MM01) is recorded as a seat of the Ogilvies, the primary landholding family in the area.<sup>37</sup>

#### 4.8.2.3 Modern

A tradition of planting in the Glen had already clearly been established in the 19<sup>th</sup> century (see Section 4.8.2.2), but this continued in the latter half of the 20<sup>th</sup> century, with extensive planting of conifers at the northern end of the Glen, adjacent to Parcel A and in the base of the Glen, particularly on the south bank of the River South Esk bordering Parcel D. Within Parcel D much of the hillside adjacent to the conifers was clearly prepared for planting, with extensive furrows running uphill on the same alignment (Photo 4.2), but no trees were planted here.

Stalking and shooting are an important part of the local economy, and pheasants are common, with shelter belts of trees and feeding stations located across the study areas. Large numbers of deer are also found throughout Glen Clova.

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<sup>31</sup> *Ibid.*

<sup>32</sup> *Ibid.* 574

<sup>33</sup> Ogilvy, 435

<sup>34</sup> *Ibid.* 441

<sup>35</sup> *Ibid.* 450

<sup>36</sup> *Ibid.* 446

<sup>37</sup> Groome, F 1896 Ordnance Gazetteer of Scotland, 267



**Photo 4.2: View of the hillside at the north-western end of parcel D, showing evidence for deep ploughing adjacent to the conifer plantation**

## 4.9 Walkover survey

### 4.9.1 Overview

The walkover survey was designed to investigate the assets identified during the documentary and cartographic analysis, while systematically assessing the parcels for previously unrecorded heritage assets.

Prior to the completion of the walkover, Parcel C, Corrie Kilbo was removed from the planting proposals and no walkover survey was completed in this area.

The walkover survey was completed across five days from 17<sup>th</sup> February to 1<sup>st</sup> March 2021. Weather conditions were generally bright and sunny, with limited snow cover in higher areas during the first visits. This did not detract from the survey.

With the exception of Parcel C, all study areas were systematically surveyed, although given the steep, rocky and unforgiving nature of the upper slopes the focus of the surveys was on the lower slopes, particularly where flatter areas were identified or along watercourses likely to be suitable for occupation or habitation.

The NRHE and HER revealed the presence of 58 individual heritage assets or grouped heritage assets and all of these were visited during the walkover where they could be located, with the exception of MM35 for which the steep rocky hillside proved to be challenging from a health and safety perspective. Anomalies or potential sites such as MM59 noted in the map regression or assessment of aerial images were also targeted.

The previous RCAHMS survey recorded numerous individual heritage assets under umbrella terms such as 'settlement', 'huts' or 'township', marking these on the NRHE solely by a point.

Given the density of heritage assets recorded during the present walkover survey, it was often difficult to ascertain where one RCAHMS record ceased and another began, or the extent of the 'settlement' recorded by the RCAHMS when the buildings continued over a wide area. Where individual features such as buildings and banks/drystone walls were recorded within proximity to an RCAHMS record in the Gazetteer, these were assigned a letter after their Gazetteer number. For example, all of the individual buildings recorded at the Braedownie (MM33) were recorded as MM33a, MM33b, etc. and are listed as such in the Gazetteer. Heritage assets which were considered previously unrecorded, were assigned unique identifiers chronologically following those previously identified.

The walkover survey did not record all individual grouse butts noted in the map regression, with these considered of negligible significance. Those visits which were undertaken, showed these to either comprise substantial and clear sections of linear drystone wall (MM66, MM72, MM77 and MM78 - Photo 4.3, and elements of MM68), or faintly discernible earthen structures which were unlikely to have been considered archaeological were it not for the cartographic record (MM68).



**Photo 4.3: View of grouse butt MM78b looking south-east**

Drystone walls were not recorded universally across the parcels, although records were made where these walls were considered relict or disused landscape features. Upcast mounds from drainage works were not recorded during the survey.

Details of all sites and records made during the walkover are recorded in the Gazetteer (Appendix A).

Notable heritage assets, or asset types visited by the walkover survey are discussed below. This section is not exhaustive.



#### 4.9.1.1 Assets of prehistoric date

Two heritage assets were recorded by the walkover survey which are considered prehistoric in date. Both were visible on the ground and had been identified in advance by the NRHE and HER.

The burnt mound (MM02) in Parcel A (Photo 4.4) was very clearly visible and conformed to the typical pattern of such heritage assets, with steep, crescent shaped banks around a hollowed centre, although burnt mounds are typically located close to watercourses there was no clear watercourse located nearby, although one is depicted on the modern OS.



**Photo 4.4: View of burnt mound MM02 looking north-west**

The hut circle MM15, was located in an overgrown area of rough grazing, but was clearly discerned as circular low earthen banks of c.10m diameter. There was a clear entrance on the south-east side, measuring c.2m across. This asset had the appearance of a hut circle as recorded by the NRHE, but an element of caution was provided by the presence of a number of phases of sheepfolds and animal enclosures nearby. These, MM17b, MM17c and MM17e, are located in an area of flat ground clearly well used for the corralling of animals and despite the interpretation, it is feasible MM15 could have a similar, later use.

#### 4.9.1.2 Shielings

The study areas contained large numbers of sub rectangular buildings, generally surviving as earthen footings or foundations with dipped interiors (Photo 4.5).



**Photo 4.5: View west across building MM40**

Many of these buildings shared certain characteristics, notably the sub rectangular shape with apparent rounded terminals; roughly north-west to south-east alignment (the natural alignment of the topography in Glen Clova following the slopes of the hills and the River South Esk); and general appearance of low earthen mounds forming a dipped interior.

While stone footings were often apparent forming the foundations of the structure (Photo 4.6), the buildings appear to have been almost entirely constructed from earth. Even in those cases where the abundant stones of Glen Clova were used to form foundations, these buildings would be predominantly of earth and turf construction, low dwellings with heather or grass thatch.



**Photo 4.6: View of the stone foundations of building MM95 looking north**

The majority of these buildings would have been shielings, or seasonal dwellings occupied by those tending the animals during the summer months. This is particularly true when the building is located in a more isolated setting (MM03, MM32, MM41 etc.), but is also likely to the purpose similar buildings concentrated together such as MM33.

The volume of buildings or shielings within the study areas indicates the exploitation of the land by a large population from the medieval and post medieval periods. However, while it is not possible to say how long each dwelling would be occupied for, it is unlikely that all would have been occupied simultaneously, and the shielings recorded represent centuries of seasonal occupation of Glen Clova prior to the agricultural improvements of the late 18<sup>th</sup> and 19<sup>th</sup> centuries.

#### 4.9.1.3 Fermtouns, settlements, townships and farmsteads

In a landscape as densely occupied as Glen Clova, it is difficult to disentangle those buildings which we can characterise as shielings, from those which show the remains of concentrated occupation and farming of the parcels.

The study areas contain a number of such fermtouns, settlements or townships, as well as farmsteads occupied in the 19<sup>th</sup> century.

The township recorded at Atton (MM10) revealed at least 11 individual structures (Photo 4.7) spread out along the base of the hillside above the River South Esk, with an enclosure, possible field system, and substantial earthen bank or head dyke.



**Photo 4.7: Working shot showing recording of MM10e looking north-west**

The settlement at Clayleith (MM18) was recorded by the RCAHMS and was depicted on William Roy's map of c.1750, remaining occupied in the 1860s when the OS first edition was compiled, but falling out of use by the 2<sup>nd</sup> edition c.1900. The remains at Clayleith (MM18) are substantial, complex and an outstanding example of post improvement farmstead where elements of pre-improvement occupation survives. At least eight buildings or possible buildings of varying sizes were recorded (including MM18j – Photo 4.10), with enclosures, clearance cairns, banks, land boundaries and drystone walls. A track was also recorded, crossing a possible ford and two clapper bridges (MM18a and MM18f – Photo 4.8 and Photo 4.9).



**Photo 4.8: View south-east across possible eroded clapper bridge MM18a**



**Photo 4.9: Surviving clapper bridge MM18f crossed by track MM18b, looking south-east**



**Photo 4.10: View south across building MM18j**

At Langholme (MM44), the buildings are more substantial (Photo 4.11) than the majority of the assets recorded. Clearly these buildings were constructed from stone with squared corners and are clearly laid out in relation to one another. In addition, there are sheepfolds (MM44a); enclosures (MM44d, MM44i, MM44n); drystone walls and banks (MM44f); and a revetted trackway (MM44g). The occupation of Langholme is recorded by Roy's map c.1750, but is marked as 'ruins' by the OS c.1860.



**Photo 4.11: View of farmstead MM44h and associated structures looking north**

## 5 Archaeological and historical potential

### 5.1 Overview

Collation of the historic environment baseline allows the archaeological and historical potential to be summarised, using the timescales outlined in Table 4.1, the Indicative archaeological and historical periods.

With the exception of the north-western end of Parcel D where preparation for planting has taken place, the study areas have not been subject to extensive agricultural improvement practiced from the end of the 18<sup>th</sup> century. This means that in many places pre-existing field systems have survived and deep ploughing has not occurred to disrupt existing historic features or archaeological deposits should these exist.

Those periods for which there is some evidence of occupation presented within the DBA are discussed below.

### 5.2 Prehistoric

The prehistoric evidence across the study areas is weak, with only the area around the possible hut circle (MM15) and findspot (MM16) in Parcel D, and to a lesser extent the burnt mound (MM02) in Parcel A showing some potential of unrecorded prehistoric occupation.

Outwith immediate proximity to these assets, the archaeological potential for upstanding archaeological remains dated to the prehistoric period across the study areas is considered **low**. It is possible that buried remains will survive, but there is no strong evidence of prehistoric occupation to support this and it is anticipated any buried prehistoric archaeological deposits are likely to lie in proximity to the assets identified.

### 5.3 Historic

#### 5.3.1 Medieval – Post Medieval

There are no heritage assets within the parcels which can be conclusively considered medieval. However, given the cultural continuity in farming practices and nature of rural occupation in Scotland between the medieval and post medieval periods, it is possible that some shielings, settlements and fermtouns recorded during the DBA have origins in the medieval period, although many would have remained in use, or been used exclusively during the post medieval period.

The landscape of the parcels was clearly heavily exploited by a pastoral farming population, perhaps split between those who lived and farmed in Glen Clova all year round and those who annually accessed the Glen during the summer months to allow their beasts and animals access to the upland grazing. These more transient seasonal visitors would have constructed shielings, a small dwelling occupied on a seasonal basis while monitoring cattle and sheep.

The lack of deep ploughing and development within the parcels means that evidence for such occupation is readily apparent. The Glen has been heavily surveyed both by the present DBA and the RCAHMS, and it is considered that the potential for unrecorded upstanding archaeological remains in the study areas is **low**. Elements of unrecorded buried archaeological deposits may survive, but it is considered that these would lie in proximity to the recorded assets should they exist.

### 5.3.2 Early Modern

A number of the farmsteads, settlements and more substantial buildings recorded by the DBA were occupied in the Early Modern period. The maps of Thomson and Johnson, and the 1<sup>st</sup> edition OS depict buildings such as Clayleith (MM18), West Bonhard (MM38 - Photo 5.1), Langholme (MM44), and East Bonhard (MM58).

These farmsteads and farmsteads had earlier origins, but many of the visible remains date to the early modern period. The farming in this period would have been more established, with shielings no longer used. The remains of these early modern farm buildings are well recorded and the potential for significant previously unrecorded heritage assets or archaeological deposits is considered **low**.



**Photo 5.1: View south across building MM38g**

## 6 Conclusions and recommendations

### 6.1 General

The DBA and Walkover Survey accurately defined the locations, extent and number of individual heritage assets within the parcels, particularly where these had previously been recorded by the RCAHMS under collective umbrella terms without specific detail. Previously unrecorded heritage assets were recorded during the DBA and walkover contributing to an accurate and comprehensive historic environment baseline.

The accuracy of the recording allows the heritage assets in the parcels to be accurately plotted through GIS, with these records provided to both the client and stakeholders as a dataset to accompany this report. This dataset contains descriptions of heritage assets, as well as geotagged images of each asset attached to the records and recommended buffers.

The significance of these heritage assets recorded includes the nationally important Clova Castle (MM01), while the preservation of the settlements, farmtouns, townships and farmsteads (such as MM18) allowed these to be considered of potential regional importance. The remainder are considered of local or less than local significance.

On the whole these heritage assets recorded relate to agricultural exploitation of the study areas from the medieval period to the early modern period, primarily for pastoral farming.

### 6.2 Recommended mitigation

#### 6.2.1 Buffer zones and the planting design

##### 6.2.1.1 General

The preferred mitigation option for any heritage asset affected by the proposed planting is for preservation *in situ*. For the Glen Clova Woodland Creation scheme, it should be possible to achieve this across much of the site through careful design to avoid direct impacts on the monuments. Buffer zones will be incorporated around the heritage assets identified.

Guideline number 7 of the UKFS covers the protection of historic field boundaries<sup>38</sup> and the use of an appropriate buffer zone is recommended under Guideline 11.<sup>39</sup> For Scheduled Monuments, a buffer of 20m should be maintained as a minimum. While 20m is the standard buffer outlined for identified features of national importance, it is accepted that a degree of professional judgement will be employed depending upon the asset itself. Where necessary a buffer zone of 5m will be maintained either side of recorded and unrecorded field boundaries, drystone walls and earthen banks, giving a total linear corridor left unplanted of 10m. A buffer of 10m will be maintained around sheepfolds, and 15m will be maintained around structures, shielings and buildings.

In recommending buffer zones, it is important that consideration is given to maintaining larger areas of open space around related features or those located in close proximity to one another. This is to maintain relationships and elements of setting for the monuments.

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<sup>38</sup> The Forestry Commission 2017, The UK Forestry Standard: The Government's Approach to Sustainable Forestry - 88

<sup>39</sup> *Ibid.* 89



The recommended general buffer zones for each site are outlined in Table B.2 of Appendix B. The buffers are also represented in Figure 2, as well as the shapefiles provided alongside this DBA. The locations and buffers shown in Figure 2 provide a visual representation of the buffers recommended and should not be relied upon for accurately placing these in the landscape. The shapefiles provide accurate information as to the locations and condition of assets recorded during the walkover survey.

Where a heritage asset was not readily located during the walkover survey (such as MM35 and MM41) a buffer is still proposed based on pre-existing information. Should it not be possible to locate archaeological features when heritage assets are marked on the ground prior to planting, it is proposed these areas can also be planted. Such cases will be decided based on professional judgement.

The design concept for the woodland has yet to be finalised and as such only indicative planting locations have been provided. Rides, breaks, tracks and areas of open ground should be designed where relevant to provide access to particular sites. This will allow access to the monuments for the purposes of management and public interest.

Consideration should be taken when designing the Woodland to ensure that no self-seeding trees are planted around buffer zones, as the lack of grazing animals may lead these to become established and reduce the buffers while damaging the heritage asset. The extent of root spread from the trees planted should also be considered when planning planting around buffers, ensuring trees planted will not disturb the or undermine archaeological features through the growth and spread of roots across the proposed buffer. A management plan should be put in place to ensure buffers are adequately maintained and do not become inaccessible and overgrown.

#### 6.2.1.2 Scheduled Monument – Clova Castle (MM01)

Appropriate buffers will be maintained around the Clova Castle Scheduled Monument (MM01) as outlined in the UKFS at a minimum of 20m. This monument is located outwith the proposed Woodland Creation area, but the woodland will border the Scheduled Monument and the required buffer will need to be considered in the design of the proposed woodland.

In accordance with UKFS Guideline 20<sup>40</sup> Historic Environment Scotland should be consulted on proposals before site operations commence.

### 6.2.2 Fencing

Prior to work commencing, each of the buffer zones established in the Forest Design will be clearly marked and delineated on the ground according to the descriptions provided in this DBA and assisted by the shapefiles accompanying it. This will be completed under the physical guidance of a suitably qualified heritage professional. This is to ensure that no planting takes place on these areas and that they are not damaged by the tracking of machinery during the planting process.

### 6.2.3 Toolbox Talk

Prior to site works commencing, a toolbox talk will be delivered to the appointed contractors. As a minimum, this will discuss specific historical and archaeological issues identified during the DBA, including the location of buffer zones and potential for unrecorded archaeological features to survive in areas of the site.

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<sup>40</sup> The Forestry Commission 2017, The UK Forestry Standard: The Government's Approach to Sustainable Forestry - 93

The toolbox talk will also cover the need to report any potentially important archaeological features located during the planting process. Any archaeological objects which are noted or recovered by the contractor during site works must be reported to the client's Archaeological Consultant in the first instance and thereafter ACAS. This is in line with the UKFS Requirement 2 relating to 'Archaeological Finds'<sup>41</sup> and the Treasure Trove system in Scotland.

The provision of a toolbox talk will ensure that those working on the site are aware of the importance of the historic environment; encouraged to recognise archaeological features; and assist in the recording and preservation of these as recommended by UKFS Guideline 6.<sup>42</sup>

#### 6.2.4 The Forest Plan – felling regimes

In any Forest Plan prepared for the future Glen Clova Woodland, consideration should be given to the felling regimes to be employed when cutting down trees and extracting timber. Methodologies should consider the presence of heritage assets and those methodologies employed should be as non-destructive as possible when completed in close proximity to recorded heritage assets.

### 6.3 Statement of archaeological potential – unrecorded sites

Given the lack of extensive agricultural improvement or use of large scale modern farming practices across much of the study area, it is possible that previously unrecorded archaeological deposits will survive had these previously existed.

The DBA has been comprehensive and the walkover survey has systematically assessed the study areas, focussing on heritage assets identified in the DBA and in parts of the landscape suitable for occupation. In addition, the landscape is one which has been surveyed in the past by the RCAHMS. As such, the possibility for upstanding heritage assets surviving unrecorded is considered **low**.

It is accepted that there is potential for buried archaeological deposits to survive in the parcels, but given the upstanding nature of the assets recorded, it is considered that any significant occupation would be visible above ground and buried remains would exist in proximity to the heritage assets recorded by the survey.

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<sup>41</sup> *Ibid.* 83

<sup>42</sup> *Ibid.* 88

## 7 Acknowledgements

Mott MacDonald would like to thank Tilhill Forestry Ltd, and in particular David Bruce for commissioning us to undertake the historic environment desk-based assessment as part of the Glen Clova Woodland Creation Scheme. David deserves our gratitude for his understanding and patience when faced with difficulties timetabling the work during the COVID-19 pandemic and the adverse weather which affected Glen Clova.

We extend our gratitude to Caroline Palmer and Bruce Mann at ACAS for their assistance, knowledge and advice during the compilation of this assessment.

## 8 Bibliography

### 8.1 Aerial images

**Table 8.1: Aerial images consulted**

Frame Numbers	Sortie	Date	Platforms
3006	106G/Scot/UK/0056	08/05/46	NCAP
3048	106G/Scot/UK/0056	08/05/46	NCAP
3049	106G/Scot/UK/0056	08/05/46	NCAP
3050	106G/Scot/UK/0056	08/05/46	NCAP
3051	106G/Scot/UK/0056	08/05/46	NCAP
3080	106G/Scot/UK/0056	08/05/46	NCAP
3153	106G/Scot/UK/0056	08/05/46	NCAP
3154	106G/Scot/UK/0056	08/05/46	NCAP
3155	106G/Scot/UK/0056	08/05/46	NCAP
3429	106G/Scot/UK/0056	08/05/46	NCAP
3432	106G/Scot/UK/0056	08/05/46	NCAP
3434	106G/Scot/UK/0056	08/05/46	NCAP
3435	106G/Scot/UK/0056	08/05/46	NCAP
3436	106G/Scot/UK/0056	08/05/46	NCAP
3437	106G/Scot/UK/0056	08/05/46	NCAP
3440	106G/Scot/UK/0056	08/05/46	NCAP
3441	106G/Scot/UK/0056	08/05/46	NCAP
4082	106G/Scot/UK/0056	08/05/46	NCAP
4083	106G/Scot/UK/0056	08/05/46	NCAP
4438	106G/Scot/UK/0056	08/05/46	NCAP
4439	106G/Scot/UK/0056	08/05/46	NCAP
3078	106G/Scot/UK/0062	08/05/46	NCAP
3157	106G/Scot/UK/0062	08/05/46	NCAP
3407	106G/Scot/UK/0062	08/05/46	NCAP
4077	106G/Scot/UK/0062	08/05/46	NCAP
4078	106G/Scot/UK/0062	08/05/46	NCAP
4157	106G/Scot/UK/0062	08/05/46	NCAP
4255	106G/Scot/UK/0064	08/05/46	NCAP
0094	AA/61988	09/06/88	NCAP
-	-	29/06/18	Google Earth
-	-	-	<a href="http://www.google.com/maps">www.google.com/maps</a>
-	-	-	<a href="http://www.bing.com/maps">www.bing.com/maps</a>

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National Record of the Historic Environment CANMORE Areas – updated 02/03/2021

### 8.2.2 Digital

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## 8.2.4 Policy and guidance

Aberdeenshire Council Archaeology Service 2019 Guidance for Forestry Archaeological Walkover Survey

Chartered Institute for Archaeologists 2019 Code of Conduct

Chartered Institute for Archaeologists 2020 Standards and Guidance for Historic Desk-based Assessment

Forestry Commission Scotland 2016a Forests & historic environment: information and advice

Forestry Commission Scotland 2016b The provision of archaeological information and advice in Scotland to meet the UKFS – Guidance Note

The Forestry Commission 2017, The UK Forestry Standard: The government's approach to sustainable forestry

The Scottish Government 2011, Historic Environment (Amendment) (Scotland) Act 2011

The UK Government 1979, Ancient Monuments and Archaeological Areas Act 1979

## 8.3 Cartographic references

### 8.3.1 Pre-Ordnance Survey

**Table 8.2: Pre-Ordnance Survey maps consulted**

Date	Surveyed	Who	Title
c.1583-96	-	Timothy Pont	Middle Strathmore: Pont 29
c.1583-96	-	Timothy Pont	North Esk, South Esk: Pont 30
c.1636-52	-	Robert Gordon	A map of Scotland, north of Glenmore in detail, and outline of the east coast to Dunbar, showing the courses of the chief rivers, and the positions of a few places: Gordon 2
c.1636-52	-	Robert Gordon	Straloch's mapp of Scotland, and, The West coast from Glen Elg to Knap-dail: Gordon 4
c.1636-52	-	Robert Gordon	A map of Eastern Scotland, including basins of Rivers Don, Dee, Tay, Forth, and Tweed: Gordon 6
c.1636-52	-	Robert Gordon	Aberdeen, Banf [sic], Murrey [sic] &c. to Inverness : [and] Fra the north water to Ross / Robertus Gordonius a Strathloch describebat 1640: Gordon 25
c.1636-52	-	Robert Gordon	Anguss; Gordon 41
c.1636-52	-	Robert Gordon	Brae of Angus, [and] The height of Anguss, M.T.P. Height of Anguss: Gordon 42

Date	Surveyed	Who	Title
1654	-	Joan Blaeu	Scotiae provinciae mediterraneae inter Taum flumen et Vararis aestuarium : Sunt autem Braid-Allaban, Atholia, Marria Superior, Badenocha, Strath-Spea, Lochabria, cum Chersoneso qui ei ad occasum praetenditur; cum singulis earundem partibus / opera Ro. G
1678	-	Robert Edward	Angusia Provincia Scotiae sive The Shire of Angus
1745	Pre-1732	Herman Moll	The Shire of Angus or Forfar
1745	Pre-1732	Herman Moll	The Shire of Kincairden or Mears with the South Part of Aberdeen Shire &c.
c.1750	1747-55	William Roy	Military Survey of Scotland
1794	-	John Ainslie	Map of the County of Forfar or Shire of Angus
1825	-	John Thomson and William Johnson	Northern Part of Angus Shire. Southern Part
1825	-	Sidney Hall	Angusshire
1831	-	James Knox	Map of the basin of the Tay

Source: [www.nls.uk](http://www.nls.uk)

### 8.3.2 Ordnance Survey

**Table 8.3: Ordnance Survey maps consulted**

Date	Surveyed	Scale	Title
1865	1862	6 inches to 1 mile	Forfarshire, Sheet X
1865	1862	6 inches to 1 mile	Forfarshire, Sheet XI
1902	1900	6 inches to 1 mile	Forfarshire, Sheet X.SE
1902	1900	6 inches to 1 mile	Forfarshire, Sheet X.SW
1940	-	1:25,000	Sheet 38/78 N.W.
1941	-	1:25,000	Sheet 38/78 N.E.
1970	1969	1:2500	NO2875-NO2975 - AA
1970	1969	1:2500	NO2974 - A
1970	1969	1:2500	NO3074 - A
1970	1969	1:2500	NO3173 - A
1970	1969	1:2500	NO3273 - A
1970	1969	1:2500	NO3272-NO3372 - AA
1970	1969	1:2500	NO3272-NO3372 - AA

Source: [www.nls.uk](http://www.nls.uk)

## A. Gazetteer

**Table A.1: Gazetteer of heritage assets recorded during the DBA**

Number	Asset Name	Asset Type	Parcel	Source	Designation Reference	HER Number	NRHE Number	Significance	Period	Easting	Northing	Description	Walkover
MM01	CLOVA CASTLE	CASTLES, STRUCTURES, TOWERS, TRACKWAYS	E	HES, HER, NRHE	SM6913	NO37SW0001	32423	High	Post Medieval	332178	773370	<p>HES: The monument comprises the remains of Clova Castle, a castle of late medieval date. The monument lies on a steep knoll in pasture, at around 250m OD. It is thought to be of 16th century date. The remains of the main building are visible as a rectangular turf-covered mound of fallen masonry some 1.3m high, measuring about 14m west to east by approximately 16m transversely. The only upstanding masonry visible is a fragment of a circular stair tower, now standing to a height of about 3m, that occupied the south-east angle of the castle. A track measuring some 1.5m wide, terraced into the hillside, approaches the castle from the west. A short length of this track is included in the scheduled area. The scheduled area encompasses the visible remains and an area around them in which traces of associated activity may be expected to survive. It is irregular with maximum dimensions of 60m from its northernmost point to its southernmost point and 60m from its easternmost point to its westernmost point, bounded on the east by a fence and on the north by a wall, the above-ground elements of which are excluded from scheduling.</p> <p>HER: Remains of a castle. It is situated on a height above the Glen Road. Only a fragment of a circular stair tower which occupied the southeast angle of the castle survives. The southern segment of this stands at a height of c.3m, the rest lay collapsed, but its diameter is c.4m, the wall being 1m thick. Abutting on the northeast were the vague turf-covered foundations of a rectangular area measuring c.9m east-west by 7.7m north-south but undoubtedly the foundations of the main building, but by 1970 when revisited by the OS no recognisable rectangular foundations were visible to the northeast of the tower, where turf-covered fallen masonry forms a mound c.1.3 m high, c.14 m east to west by c.16 m transversely. An old track, c.1.5 m wide terraced into the hillside from the west may be connected with the castle.</p> <p>NRHE: Clova Castle is situated in a pasture field immediately W of Mains farmstead. The visible remains comprise a rectangular block measuring 11m from NW to SE by 9.2m transversely, but largely obscured beneath a mound of grass-grown rubble up to 1.5m high. The best preserved part of the castle is a circular tower projecting from the W corner. This measures 4.6m in diameter over a mortar-bonded rubble wall 1.2m in thickness, and stands 2.7m in height. The remains of a slit window are visible in its W side, 0.8m above ground level.</p> <p>DBA: OS Name Book of 1857-61 records 'the Remains of this old Castle, or Keep, consists of a Circular Wall about twenty feet high; it is about four feet thick and from the marks yet traceable on the Interior of the Wall it was evidently a Staircase. It is said to have been erected about the 15th. century.'</p>	As described.
MM02	THE DOLL	BURNT MOUNDS	A	HER, NRHE	n/a	NO27NE0037	263155	Medium	Prehistoric	327980	775750	<p>HER: Burnt Mound. Recorded by the RCAHMS during field survey in 2004.</p> <p>NRHE: This burnt mound stands at the foot of the boulder-strewn NNE flank of The Scorrie. C-shaped on plan, it measures 9.5m from NNW to SSE by 6.7m transversely and up to 1.1m in height. The hollow in the E side of the mound measures 2.2m across. (CLOVA99 700)</p>	As described. Crescent shaped mound open to ne with clear dipped interior measuring 2.5-3m internally. Externally 9m n-s by c.7m. No clear watercourse nearby. Some other prominent mounds to NW but no indication of features on them.



Number	Asset Name	Asset Type	Parcel	Source	Designation Reference	HER Number	NRHE Number	Significance	Period	Easting	Northing	Description	Walkover
MM03	BRAEDOWNIE	BUILDINGS (SHIELING HUT)	A	HER, NRHE	n/a	NO27NE0038	263437	Low	Post-Medieval - Early Modern	328109	775490	<p>HER: Remains of a building. Recorded by the RCAHMS during field survey in 2004. Not depicted on the 1st or 2nd edition OS maps, nor on the current edition (2006).</p> <p>NRHE: This hut is situated at the foot of the steep scree-covered NE flank of The Scorrie, about 200m NW of a group of similar structures (NO27NE 39). Rectangular on plan, it measures 7m from NW to SE by 2.1m transversely over faced rubble walls up to 0.8 in thickness and 0.4m in height, with an entrance in the NE side.</p>	<p>Very clear rectangular structure. Footings survive up to 2 courses. Medium field stones/boulders. C.7m NW-SE by c.3m. Long narrow internal space. Walls c. 0.5m wide. Possible entrance midway along NE side. Located on marginal land.</p>
MM04	HILLOCKS	HUTS	B	HER, NRHE	n/a	NO27SE0008	264107	Low	Post-Medieval - Early Modern	328690	774880	<p>HER: Remains of a hut, recorded by the RCHAMS during field survey in 2004. Not depicted on the 1st or 2nd edition OS map.</p> <p>NRHE: This hut is situated on a grass-grown NE-facing slope, above and about 130m SSW of the farmstead NO27SE 1. Sub rectangular on plan, it measures 4.5m from NW to SE by 1.9m transversely within walls reduced to stony banks up to 0.9m in thickness and 0.4m in height.</p>	<p>Clear rectangular structure. Footings of walks up to 2 courses high with dipped interior. No sign of rubble collapse indicates turf structure. Aligned NW-SE. Measures c.6m by &gt;3m. Rounded corners? Entrance along NE side? Wall c.0.5m wide. Located on marginal land.</p>
MM05	WHITEHAUGH	BUILDING(S) (PERIOD UNASSIGNED)	D	NRHE	n/a	n/a	262765	Low	Post-Medieval - Early Modern	330183	774044	<p>NRHE: Two rectangular buildings stand in rough pasture at the foot of the NNE flank of Bassies, about 200m SE of the farmstead NO37SW 98. The NE building, which lies on the SW side of an enclosure, measures 6.1m from NW to SE by 2m transversely within rubble wall-footings 1m in thickness and up to 0.4m in height. The fragmentary remains of the other building, which measures at least 11.6m in length, are situated immediately SW.</p>	<p>Heavily overgrown and truncated building. Sub rectangular aligned NW-SE. Truncated remains measure 3.5m by c.2.5m where 2.5m is full width. Covered by bracken. Walls appear as spread mounds of medium stones with one very large. &gt;1m wide, c.0.40m high. Truncated by borrow out for adjacent forest road. Only one building recorded.</p>
MM06	BURN OF LOWIE	BUILDINGS, ENCLOSURES	D	HER, NRHE	n/a	NO37SW0030	262629	Low	Post Medieval	330648	773843	<p>HER: Remains of four buildings and an enclosure stand on the southern bank of the river South Esk, southeast of Whitehaugh. Not depicted on the (c.1846 and c.1888) 1st or 2nd edition OS maps.</p> <p>NRHE: This farmstead is situated at the foot of a steep NE-facing slope at the confluence of the Burn of Lowie and the River South Esk. It comprises five buildings, one on the NW bank of the burn and a line of four standing on the SE edge of a small field or enclosure that is situated on the SE bank. The buildings measure from 8.8 to 15.8m in length by up to 3.7m in breadth within walls that have been reduced to footings. Three of them (CLOVA99 730, 732-3) contain two compartments and one (CLOVA99 730) also has an outshot attached. The farmstead is named Burnlowie on John Ainslie's 1794 map of the County of Forfar (SRO RHP 3233), but no buildings are depicted here on the 1st edition of the OS 6-inch map (Forfarshire 1865, sheet xi). The NE part of the farmstead, including two buildings (CLOVA99 732 &amp; 733) and the NE end of another (CLOVA99 731), now lie within a conifer plantation. An enclosure of unknown date, which stands E of the buildings, has not been planted.</p>	<p>As described, with individual features outlined below.</p>
MM06a										330625 330640	773876 773853		<p>MM06a: Curvilinear boundary of enclosure to south and west of farmstead MM06. Follows topography. Consists of a line of single file medium sized boulders. Truncated by road building along northern boundary and ploughing associated with historic planting, making it difficult to appreciate full extent of enclosure. There is a clearly defined entrance on NE side with internal returns.</p>
MM06b										330650	773846		<p>MM06b: Two compartmented rectangular building. Sharp corners. Overgrown but three courses visible in places. Aligned NW-SE and 3.5m by 10.5m. Internally NE compartment is 4m by 2.2m, SE is 3m by 2.2m. NW has clear entrance on NE side, maybe on SW?</p>

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MM07	ATTON	SHEEPFOLDS	D	HER, NRHE	n/a	NO37SW0099	262671	Low	Early Modern	330905	773650	<p>HER: Sheepfold depicted on the OS 1st and 2nd edition maps, and also shown on current OS maps.</p> <p>NRHE: This rectangular drystone sheepfold stands in rough pasture at the foot of a steep NE-facing slope 330m NW of Atton farmsteading (NO37SW 87). Depicted as a sheepfold on the 1st edition of the OS 6-inch map (Forfarshire 1865, Sheet xi), it measures 18m from E to W by 15m transversely.</p>	Large square sheepfold. Drystone from medium to very large boulders. Rudimentary construction. Clearly defined entrance on S side flanked by orthostats. Measures 11m across.
MM08	ATTON	BUILDINGS, ENCLOSURES	D	HER, NRHE	n/a	NO37SW0098	256091	Low	Post Medieval - Early Modern	330960	773500	<p>HER: Building recorded by RCAHMS Glen Clova survey. No further information at present.</p> <p>NRHE: This building and enclosure stand in rough pasture towards the foot of a steep NE-facing slope about 240m W of Atton farmsteading (NO37SW 87). Sub rectangular on plan, the building measures 7.4m from NW to SE by 2.1m transversely within walls reduced to a grass-grown stony bank up to 1.1m in thickness and 0.4m in height. The drystone enclosure, which is trapezoidal on plan, lies about 40m upslope from the building.</p>	Sub rectangular building. Heavily overgrown and impacted by placement of grouse feeder. Seems to be two compartments. Aligned NW-SE 8.5m by 3.5m. Dipped interior. Walls up to 0.25m internally and up to 0.75m high externally (downslope) to NE. Possible crosswall making 3m compartment at NW end and 2m at SW. internal widthc.1.5m
MM09	ATTON	BANKS, FARMSTEADS	D	HER, NRHE	n/a	NO37SW0095	256090	Negligible	Post Medieval - Early Modern	331110	773509	<p>HER: RCAHMS Glen Clova survey recorded a farmstead and bank at this location. No further information. Nothing appears on the OS 1st or 2nd edition maps, and the entry may relate to Atton farmstead to the east (NO37SW0021)</p> <p>NRHE: This farmstead is situated at the foot of the NE flank of Cairn Inks. It comprises four buildings, of which one is a barn and another is a cart-shed, and three banks. The barn (CLOVA99 728) has two compartments with opposed entrances in the NW end; it measures 11m from NW to SE by 4.2m transversely within clay-bonded stone walls 0.7m in thickness and up to 1.5m in height. It has an outshot to the SE and a two-compartment lean-to on the SW side. The footings of a cart-shed, which is open to the NE, lie immediately to the NW. A short length of bank extends to the SW from the W corner of the cart-shed. The hut (CLOVA99 727) stands immediately to the NW of the cart-shed and measures 2.1m by 1.9m transversely within a stone wall 0.8m in thickness and up to 0.4m in height. The fourth building (CLOVA99 729) lies 30m S of the other three. Rectangular on plan, it measures 9.5m from NW to SE by 3.3m transversely within a wall reduced to grass-grown footings 0.3m in height. A short length of bank, less than 10m to the NE, runs parallel with this building. An angled bank, measuring roughly 50m in length, is situated some 200m to the NW of the structures. Two of these buildings (CLOVA99 727, 728) are depicted roofed on the 1st edition of the OS 6-inch map (Forfarshire 1865, sheet xi). Atton is also depicted on John Ainslie's 1794 map of the County of Forfar (SRO RHP 3233).</p>	Not recorded during walkover survey. Believed to relate to adjacent Atton Farmstead, and no archaeological features were recorded within the study area.
MM10	ATTON	TOWNSHIP (PERIOD UNASSIGNED)	D	NRHE	n/a	n/a	262405	Medium	Post Medieval - Early Modern	331473	773219	<p>NRHE: A township comprising at least twelve sub rectangular buildings and huts (CLOVA99 715-25, 766), as well as enclosures, all loosely linked by a head dyke now reduced to a grass-grown bank, is situated on the SW bank of the River South Esk, some 300m to the SE of Atton farmsteading (NO37SW 87). The buildings range in size from 4.7m to 11m in length by up to 4.2m in breadth within walls reduced to footings. One of these buildings contains two compartments (CLOVA99 720) and two have outshots attached (CLOVA99 722, 766); and two others (CLOVA99 717, 720) have rounded NW ends. The huts measure from 3.6m to 5.7m in length by up to 2.4m in breadth within walls reduced to footings.</p>	As described, with individual features outlined below.
MM10a										331547	773182		MM10a: Sub rectangular structure made of mixed medium slabs and stones. Sharp corners. Aligned NE-SE 7m by 3.2m. Main building measures 4.2m and there appears to be an addition at NE end of different build. With clear rounded corners in manner of a kiln. Stone building as opposed to stone foundations.
MM10b										331529	773181		MM10b: Irregular, ephemeral structure defined by very large stones with smaller stones filling gaps. Measures 4m W-E by 2m. Linked to MM10a and MM10c.

Number	Asset Name	Asset Type	Parcel	Source	Designation Reference	HER Number	NRHE Number	Significance	Period	Easting	Northing	Description	Walkover
MM10c										331519	773184		MM10c: Aligned NW-SE MEASURES 6m by 3m externally. Substantial stone walls c.0.5m wide and <0.4m high. Possible rounded corners?
MM10d										331507	773184		MM10d: Sub circular earthen banks with stone core. Crescent shaped and open to SE. Banks spread up to 1.5m and c.0.3m high. Bowled interior. 4m diameter and c.1.5-2m internally.
MM10e										331497	773180		MM10e: Footings of a building aligned NW-SE measuring 7m by c.3.5m. Substantial earthen banks up to 1m high spread to 1.5m. Rounded terminals. Entrance on SW side.
MM10f										331479	773220		MM10f: Sub rectangular building aligned NW-SE. Substantial stone walls surviving up to 0.9m at SE end banked with Earth and against slope. Remainder predominantly 2 courses. Walls up to 0.5m high. Measures 11m by 3.2m externally. Two compartments, SE is c.4m and NW slightly larger at c. 4.2m. Entrances along SW side. No chimney and corners rounded. Pre improvement.
MM10g										331461 331353	773245 773299		MM10g: Sub angular, roughly square enclosure with low earthen banks. Measuring <0.2m high by c.0.5m wide. Measures c.15mNE-SW by c.13m NW-SE.
MM10g										331461 331353	773245 773299		MM10g: Curvilinear earthen bank with core of substantial stones. Follows topography and water course. spread up to 1.5m at base and 1m high.
MM10h										331423 331423	773278 773258		MM10h: Low earthen bank. Same alignment as nearby MM10n. Part of field system? Low earthen bank running NNNE-SSW. C1m at base in places and <0.2m high
MM10i										331427	773247		MM10i: Low building aligned NE-SE measuring 6m by 3m. Walls spread up to 1m Entrance at NE end where there appears to be a slight external enclosing wall.
MM10j										331428 331434	773241 773242		MM10j: Small curvilinear enclosed space seemingly open to NW. Banks contain substantial stones and are up to 0.5m high. Feature measures 4m across.
MM10k										331330	773310		MM10k: Sub rectangular building aligned NW-SE measuring 7m by 4m. Walls lined by very large stones with gaps filled by turf covered smaller stones. Two compartments with ephemeral crosswall dividing into two 2.5m compartments. Entrance unclear, perhaps N corner?
MM10l										331320	773276		MM10l: Sub rectangular drystone building aligned NW-SE measuring 10m by 4m externally. Main building has two clear compartments each 2m by 2.5m. There is also a curvilinear section at NW end. Seems a third compartment of snake dimensions. Large amount of collapse. More stone than turf?
MM10m										331316	773269		MM10m: Sub rectangular building aligned NW-SE measuring 5m by 3m. Excavated into NE facing hillside. Dipped interior. rounded corners and medium stones protruding. 5m upslope of MM10l.

Number	Asset Name	Asset Type	Parcel	Source	Designation Reference	HER Number	NRHE Number	Significance	Period	Eastings	Northing	Description	Walkover
MM10n										331437	773261		MM10n: Sub angular, roughly square enclosure with low earthen banks. Measuring <0.2m high by c.0.5m wide. Measures c.15mNE-SW by c.13m NW-SE.
MM11	GLEN CLOVA	ENCLOSURES	D	HER, NRHE	n/a	NO37SW0048	255273	Low	Post Medieval - Early Modern	331620	772877	HER: Enclosure recorded by RCAHMS Glen Clova survey. It has been built against a steep rock outcrop at the rear of an east-facing terrace on the lower slopes of Cairn Inks and measures about 24.5 m from north to south by 12 m transversely.  NRHE: This enclosure has been built against a steep rock outcrop at the rear of an E-facing terrace on the lower slopes of Cairn Inks. It measures about 24.5m from N to S by 12m transversely.	As described. Very steep slope.
MM12	GLEN CLOVA	HUTS, BUILDING	D	HER, NRHE	n/a	NO37SW0044	255258	Low	Post Medieval - Early Modern	331607	772746	HER: Huts recorded by RCAHMS survey of Glen Clova . No further information at present.  NRHE: Two rectangular buildings are situated about 60m apart close to the foot of the boulder-strewn NE flank of Cairn Inks, some 840m SSE from Atton. Both buildings lie above the head-dyke and have been reduced to stone wall-footings. The W building (MM12) measures 5.3 m from NNW to SSE by 2m transversely within its footings; the E building measures 2m from NNW to SSE by 1.4m transversely.	Sub rectangular building aligned NW-SE measuring 6m by 3.2m. Entrance on NE side. The second building noted by the NRHE was not recorded, although it is possible this was missed in the overgrown vegetation of this area.
MM13	GLEN CLOVA	HUTS, BUILDING	D	HER, NRHE	n/a	NO37SW0045	255257	Low	Post Medieval - Early Modern	331700	772786	HER: Hut recorded by RCAHMS Glen Clova survey. It is rectangular in plan, measuring 5.5m by 1.8m within walls which are reduced to footings 0.9m thick and 0.4m high. There is an entrance on the southwest side and a small outshot to the northwest.  NRHE: This building stands in rough pasture close to the foot of the NE flank of Cairn Inks. Rectangular on plan, it measures 5.5m from NW to SE by 1.8m transversely within walls reduced to footings 0.9m in thickness and 0.4m in height. There is an entrance in the SW side and a small outshot extends from the NW end of the NE side.	As described.
MM14	GLEN CLOVA	HUTS, BUILDING	D	HER, NRHE	n/a	NO37SW0047	255256	Low	Post Medieval - Early Modern	331790	772753	HER: Remains of a building and hut recorded by RCAHMS Glen Clova survey. The building measures 4m by 1.8m with walls reduced to rubble 0.9m in thickness and 0.4m high. There is an entrance on the SSW, and an outshot at the ESE end. The hut, about 25m to the SW, is sub rectangular, measuring 2.7m by 1.4m over grass-grown footings 0.8m wide and 0.3m high.  NRHE: A building and a hut are situated within rough pasture on the lower slopes of the NE flank of Cairn Inks. Rectangular on plan, the building (CLOVA99 581) measures 4m from ESE to WNW by 1.8m transversely within walls reduced to rubble 0.9m in thickness and 0.4m in height. There is an entrance on the SSW side and an outshot extends from the ESE end. The sub rectangular hut (CLOVA99 582), which lies 25m to the SW of the building, measures 2.7m from ESE to WNW by 1.4m transversely within grass-grown footings 0.8m in thickness and 0.3m in height.	Inaccessible. Located within an area surrounded by deer fence directly west of coniferous plantation. Visible from fence.
MM15	GLEN CLOVA	HUT-CIRCLES	D	HER, NRHE	n/a	NO37SW0046	255255	Low - Medium	Prehistoric / Iron Age?	331780	772737	HER: Hut-circle recorded by RCAHMS survey in Glen Clova. It measures 15m in diameter over a stony bank 1.7m wide and 0.3m high, with an entrance on the southeast. The site is immediately north of the findspot of a Late Bronze Age hoard (NO37SW0005), a small hollow about 3m across may mark the site.  NRHE: This hut-circle stands on a knoll in rough pasture at the foot of the NE flank of Cairn Inks. It measures 15m in diameter over a stony bank 1.7m in thickness and 0.3m in height, with an entrance on the SE. In the interior there is a shallow depression, measuring 6m in diameter, immediately inside the entrance.  About 11m SW of the hut-circle is an excavated hollow measuring about 3m across, which may be the site of a hoard (NO37SW 5) discovered in 1956.	Low earthen banks forming a circle measuring 10m across. Banks are narrow, perhaps one stone width incorporating very large stones. Interior slightly bowled. Clear entrance in SE side marked by large stones either side and measuring 2m across. Has appearance of hut circle and provenance of findspot MM15. But caution given by various phases of sheepfolds and enclosures immediately adjacent. This area was clearly well used for corralling of animals.

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MM16	GLEN CLOVA	HANDLES, HOARDS, OPENINGS, SPEARHEADS, SWORDS, WINGS	D	HER, NRHE	n/a	NO37SW0005	32433	Unknown	Late Bronze Age	331780	772730	<p>HER: Findspot of a Late Bronze Age hoard, dating from the mid-8th century BC, consisting of two spearheads and a sword. The hoard was found in a rabbit burrow, 'some years ago' before 1956, by a local shepherd. He felt a hard object which he pulled out and then discarded. The various items were later collected by local children. An object -like a bit of charcoal- was found, but crushed and thrown away. This was possibly part of the sword handle. Inspection of the objects in 1956 by J. M. Haddow revealed that three of the metal fragments formed a leaf-shaped sword, with two rivets still in place. Haddow, J. D. Boyd and R. D. M. Candow visited the site but could find no trace of associated structure, but noted that the site was riddled with rabbit burrows. A site to the north of the findspot was identified as a possible site. A subsequent visit later in that year discovered that persons unknown had dug over the site and a possible worked flint was picked up. The sword is of Ewart Park type, reclassified by Burgess and Colquhoun as a Northern unclassified variety. It is 54.6cm long, 4.1cm wide at the terminal, with a maximum blade width of 3.4cm. Its surface is pitted and corroded with a shiny green patina, and its rivets are in the order 2:4 (two in situ). The spearheads are both of Coles' Lunate Type and are both 31.75cm long. The first spearhead has a leaf-shaped blade and lunate openings. The second spearhead also is leaf-shaped and has lunate openings and perforations in each wing. The hoard is now in the NMAS.</p> <p>NRHE: A Late Bronze Age hoard, dating from the mid-8th century BC and consisting of two spearheads and a sword, was found in a rabbit burrow, some years before 1956, partly by Gilchrist (E Gilchrist, Tarriebuckle) who indicated the site and partly by children drawn by his report. Subsequent inspection of the site in 1956 revealed no trace of associated structure but a possibly worked flint was picked up. The hoard is in National Museum of Antiquities of Scotland (NMA Accession Number DQ 325-7) and the site is now marked by a hole, made by people, possibly by children, searching for more finds. (Ewart Park type - Northern unclassified). Sword, in three pieces. Length 54.6cm, terminal width 4.1cm, maximum blade width 3.4cm, surface pitted and corroded, shiny green patina, rivets 2:4 (two in situ).</p>	N/A
MM17	GLEN CLOVA	BUILDINGS, ENCLOSURES, SHEEPFOLDS	D	HER, NRHE	n/a	NO37SW0016	104835	Low	Post Medieval - Early Modern	331865	772747	<p>HER: Remains of a building, sheepfold and an enclosure stand on the west side of Glen Clova on the lower slopes of Cairn Inks. They are all depicted on the (c.1846 and c.1888) 1st and 2nd edition OS maps.</p> <p>NRHE: One unroofed building, an attached Sheepfold and another enclosure are depicted on the 1st edition of the OS 6 inch map (Forfarshire 1865, sheet xi). Two enclosures are shown on the current edition of the OS 1:10000 map (1972). At least five rectangular buildings and their attendant enclosures are strung out in a line in rough pasture close to the foot of the NE flank of Cairn Inks. The buildings measure from 4m to 11.5m in length within walls reduced to footings. At the centre of the line is a building (CLOVA99 578) sitting within the NW corner of a rectangular enclosure that is depicted as a 'Sheepfold' on the 1st edition of the OS 6-inch map (Forfarshire 1865, sheet xi). Another enclosure, which lies immediately to the E and is also depicted on that map, appears to abut the S side a building (CLOVA99 580).</p>	As described, with individual features outlined below.
MM17a										331895	772737		MM17a: Sub circular earthwork foundations of a structure. Rare stones protruding surviving up to 0.15m high, but higher to S against the S running slope. Very spread walls up to 1m. Measures c.5m n-s by 4.2m W-e. Dipped interior.
MM17b										331882	772733		MM17b: Irregular drystone enclosure of medium sized field stones. Degraded and collapsed surviving often as mounds of stones. Small building integrated at NE corner. This has sharp corners and measures 5m NW-SE by 4m. Walls c.0.6m with rubble core. Actually, abuts sheepfold but is part of it. 10m diameter. Shown on 1st edition OS.

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MM17c										331858	772747		MM17c: Large irregular drystone sheepfold. Predominantly medium to large stones. Much degraded. Building integrated on SE corner aligned c. W-E measuring 8m by 4m. Entrance at E end. Whole thing measures c.23m W-E by c.14m N-S externally. Shown on 1st edition OS.
MM17d										331850	772757		MM17d: Low footings of a sub rectangular building. Heavily overgrown. Relationship with MM17c unclear but this forms the S wall of the building. Measures c.6.5mW-E by 4m externally and 5m by 2m internally. Possible entrance on E side?
MM17e										331837	772740		MM17e: Irregular enclosure. Survives as low earthen banks with occasional medium and very large stones protruding. Heavily overgrown. Measures c.10m W-E by c.7m.
MM18	CLAYLEITH	BUILDINGS, ENCLOSURES, SETTLEMENTS	D	HER, NRHE	n/a	NO37SW0032	254352	Medium	Post-Medieval - Early Modern	332079	772800	<p>HER: Remains of a small settlement. Clayleith is depicted on the OS map of 1867 as consisting of at least 7 houses and small enclosures. On the 2nd edition (c.1888), only 2 buildings are depicted and shown as disused. Only remains of some enclosure walls are depicted on the current edition (2006) OS map but it is unknown if grass-covered footings are still visible.</p> <p>NRHE: This township, which comprises at least twelve buildings and huts, one corn-drying kiln, a stack-yard and several enclosures, is disposed across the foot of the NE flank of Cairn Inks, some 850m WNW of Cadham farmsteading. Nine rectangular buildings measure from 8m to 17.8m in length by up to 4m in breadth within walls reduced to grass-grown footings. Five contain two or more compartments (CLOVA99 705-708, 710) and three have outshots attached (CLOVA99 709, 710, 713). Three huts measure up to 5.6m in length within walls reduced to low footings. The corn-drying kiln (CLOVA99 701) has been set into an E-facing slope at the SE end of the township. Its pot measures 2.1m in diameter within a faced-rubble wall 2.1m in thickness and 1.2m in height and the flue is in the E side. Most of the buildings at the core of the township are depicted roofed on the 1st edition of the OS 6-inch map (Forfarshire 1865, sheet xi). The others probably belong to earlier phases of occupation: Clayleith is depicted on John Ainslie's 1794 map of the County of Forfar (SRO RHP 3233).</p> <p>DBA: The OS Name Book of 1857-61 records Clayleith as a farmhouse with offices attached on the South Side of the South Esk, the property of Colonel Ogilvy. These are sometimes called Easter &amp; Wester, but are united as one Farm.</p>	As described, with individual features outlined below. Linked to other assets in wider landscape including MM89, MM20g, MM92, MM93 etc.
MM18a										332021	772839	n/a	MM18a: Artificial channel created by walls and capped by flags. Function unclear? Small. Mill related?
MM18b										332020 332093 332086 331995	772830 772809 772787 772821	n/a	MM18b: Ford leading to track. Ford assisted by channel MM18a in creating wider flow. Track is revetted into hill.
MM18c										332092	772800	n/a	MM18c: Clearance cairn. 3m by 2m.
MM18d										332081	772796	n/a	MM18d: Concentration of stones 3m by 2m
MM18e										332085 332058	772802 772811	n/a	MM18e: Relict drystone wall. Low and curvilinear. Around 0.4m wide and c.0.1m high.
MM18f										332002	772792	n/a	MM18f: Bridge carrying track MM18b. Substantial stone culvert or channel created and overlain with large flags or slabs. Channel is at least 3-4 courses high.
MM18g										332031 332037	772771 772778	n/a	MM18g: Stone enclosure. Aligned NW-SE, open to SE. Measures 3m by 4.5m. Walls c. 0.5m wide and up to 0.4m high.

Number	Asset Name	Asset Type	Parcel	Source	Designation Reference	HER Number	NRHE Number	Significance	Period	Easting	Northing	Description	Walkover
MM18h										332039	772784	n/a	MM18h: Ephemeral structure footings aligned NE-SW. walls c.0.3m wide and up to 0.15m high. Measures 4m by 3m.
MM18i										332061 332102	772778 772727	n/a	MM18i: Curvilinear, overgrown at E end and more substantial large boulders beyond.
MM18j										332083	772704	n/a	MM18j: Low sub rectangular building. aligned NW-SE and measures 4.5m by 3m. Walls c0.75m wide. Clear edges. Up to 0.2m high.
MM18k										332110	772733	n/a	MM18k: NE-SE aligned sub rectangular building. 7m by 2.5m
MM18l										332102	772760	n/a	MM18l: W-E aligned building. W end may be open at terminal. Small building at E end measures 3.2m W-E by 4.2m. Full length is 12m. Unlikely to be open as there is a clear entrance midway along S side.
MM18m										332123	772745	n/a	MM18m: NE-SE aligned structure with 2 compartments. 14m by 4.5m.
MM18n										332123	772718	n/a	MM18n: NW-SE aligned building. Measures 5.5m by 4m. Two compartments. Entrances on SW side.
MM18o										332139 332146	772715 772704	n/a	MM18o: Enclosure wall. Earth covered bank. Medium stones protruding. Curvilinear. C.0.4m wide by up to 0.4m high.
MM18p										332147 332153	772713 772712	n/a	MM18p: Earth bank enclosure. Open to NE. Measures 3m across
MM18q										332157 332153	772723 772730	n/a	MM18q: Curvilinear earthen bank attached to MM18p
MM18r										332181	772717	n/a	MM18r: Aligned W-E. not 100% convincing. Sub oval banked space with bowled interior. Around 4m by 9m.
MM18s										332156	772723	n/a	MM18s: Sub circular overgrown Earth foundations. 2m W-E by 1m internally. Externally heavily banked.
MM19	GALLOWS KNOWE	EXECUTIONS, GALLOWS	D	HER, NRHE	n/a	NO37SW0031	n/a	Negligible	Medieval?	332490	772723	HER: Site of a gallows. Gallows Knowe, to the south of the village is probably the place of execution for the nearby castle.  DBA: OS Name Book of 1857-61 records 'a very slight eminence south of the footbridge at the "Milton". It was a Knoll at one time & was destroyed by the present farmer of Cadham in course of Cultivation.	Nothing noted during walkover.

Number	Asset Name	Asset Type	Parcel	Source	Designation Reference	HER Number	NRHE Number	Significance	Period	Easting	Northing	Description	Walkover
MM20	GLEN CLOVA	TOWNSHIPS	D	HER, NRHE	n/a	NO37SW0052	254354	Medium	Post Medieval - Early Modern	332380	772564	HER: Township recorded by RCAHMS Glen Clova survey. No further information at present. Nothing is shown at this location on the OS 1st or 2nd edition maps.  NRHE: This township, which comprises eight buildings, three huts, a kiln and a head-dyke, is situated at the foot the N flank of Cairn of Barns. Six of the buildings (CLOVA99 351-355), measuring up to 9.4m in internal length, and a hut are situated on or just above the head-dyke marking the upper end of improved ground to the NE. The kiln (CLOVA99 350) is situated at the E side of the head-dyke, set into NW bank of the Minrie Burn. It measures 3m in diameter within a wall reduced to a stony bank 1.5m in thickness and up to 1m in height on the SE, where there is a flue. Above the Minrie Burn the head-dyke extends more than 300m WNW, towards the neighbouring township (NO37SW 27). On the hillside above the main group of buildings are two other buildings (CLOVA99 356, 357), respectively measuring 5.8m and 7.2m in internal length, and three smaller huts (CLOVA99 358, 359, 388), one with an enclosure attached.	As described, with individual features outlined below.
MM20a										332469	772584	n/a	MM20a: Irregular mound with clear dipped interior. 6m diameter. Located on se facing slope above burn. Sub circular almost appearance of burnt mound but proximity to structures suggests contemporaneous.
MM20b										332440	772578	n/a	MM20b: Large sub rectangular building. Heavily overgrown with only overgrown footings surviving on marginal land at edge of field. Measures c.17m-w-e by 4.5-5m n-s. Walls spread up to 1m, up to 0.4m high along n side. Much less clear and mounded at w end. Located 2m from MM20c.
MM20c										332423	772584	n/a	MM20c: Sub rectangular footings for a building. Partially terraced into hill slope to W. Aligned W-e measuring 8m by c.4.2m. Walls spread up to 1m and <0.25m high. Located 2m from MM20b.
MM20d										332440 332437	773241 772571	n/a	MM20d: Short curvilinear earthen bank. Remnants of an enclosure. Bank curves to SE and stands up to 0.6m above surrounding marsh. Spread 1-2m wide. Associated with MM20b and MM20c.
MM20e										332390	772580	n/a	MM20e: Clear rectangular building. Stone footings substantial NS clearly defined walls incorporating very large boulders. All c.0.6m wide. NW-SE 9m by c. 5m.
MM20f										332380	772588	n/a	MM20f: Small square building with clear footings and dipped interior. Rockfall within. 5m NW-SE by c.4.5m NE-SW. walls up to 2 courses. Located 3m NW of MM20e.
MM20g										332271 332413 332262 332139	772633 772584 772631 772702	n/a	MM20g: Curvilinear earthen bank. Part of MM21 and links this with MM74. No stone base. Survives up to 1m high up to 1m wide.
MM21	MINRIE BURN	BUILDINGS, ENCLOSURES, FOOTINGS	D	HER, NRHE	n/a	NO37SW0108	n/a	Medium	Post Medieval - Early Modern	332342	772507	HER: The remains of at least six small rectangular buildings and an enclosure were recorded during aerial reconnaissance in February 2008. All footings are below. grass-covered. Nothing is depicted at this location on either the 1st or 2nd OS map editions.	As described, with individual features outlined below.
MM21a										332401	772544	n/a	MM21a: Small two compartmented building. Aligned NW-se 8m by 3.5m with a crosswall at midway point. Crosswall is substantial up to 0.4m high spread to 1m. SE end may be open.



Number	Asset Name	Asset Type	Parcel	Source	Designation Reference	HER Number	NRHE Number	Significance	Period	Easting	Northing	Description	Walkover
MM21b										332362	772545	n/a	MM21b: Sub rectangular two compartmented building aligned NW-SE measuring c.10m by 4m. Substantial remains survive. Heavily overgrown stone footings. Up to 0.6m high but generally less. Defined walls c.0.6m wide. Larger compartment to SE. Entrance in uphill SW side. Smaller compartment possibly in NE side. Smaller compartment 4m long.
MM21c										332326	772479	n/a	MM21c: Relict sub circular sheepfold. Pre improvement. Sub circular stone footings c.9m across. Tumbled and spread over 1m wide.
MM22	MINRIE WELL	WELLS	D	HER, NRHE	n/a	NO37SW0020	n/a	Low	Post Medieval - Early Modern	332379	772490	HER: Site of a chalybeate well which is depicted on the 1st and 2nd edition OS maps.  DBA: OS Name book of 1857-61 records 'About mid-way and a little east of this Burn there is a very strong Chalybeate Well, celebrated in the locality & known by the name of Minrie Well.'	Not recorded during walkover survey. This are contained dense gorse, but the adjacent watercourse is also fast flowing with pools of water.
MM23	MINRIE BURN	BUILDINGS, ENCLOSURES	D	HER, NRHE	n/a	NO37SW0053	255253	Low	Post Medieval - Early Modern	332159	772320	HER: Building and enclosure recorded by RCAHMS Glen Clova survey. No further information at present.  NRHE: The remains of a sub rectangular hut and an enclosure are situated in rough pasture on a steep NE-facing slope immediately SE of Minrie Burn.	Irregular sub circular sheepfold on undulating ground. Mix of large rockfall boulders and medium sized stones filling gaps. Survives to 2 courses. No evidence for the building recorded by NRHE.
MM24	GLEN CLOVA	BUILDINGS, HEAD DYKE	D	HER, NRHE	n/a	NO37SW0054	255254	Low	Post Medieval - Early Modern	332650	772470	HER: Buildings recorded by RCAHMS Glen Clova survey. No further information at present.  NRHE: Five buildings are strung out along the remains of a head-dyke at the foot of the N flank of Craig Duff, some 270m WSW of Cadham farmsteading. Rectangular on plan, the buildings measure from 4.4 to 6.5m in length within walls reduced to grass-grown footings. Two of them (CLOVA99 363 & 361) have sub-divided into two compartments and the other (CLOVA99 360) has an outshot attached to its NW end. The head-dyke survives as fragmentary segments of stony bank extending from the B955 public road for some 400m to the W and probably continues on the NW side of Minrie Burn (see NO37SW 29).	As described, with individual features outlined below.
MM24a										332772	772437	n/a	MM24a: 10m NW-SE by 3.5m. Substantial two compartment building. Walls very clear stoney mounds. Spread up to 1m but generally less at c0.5m. Possible sharp corners. Crosswalk at midpoint.
MM24b										332761	772444	n/a	MM24b: Possible building. Not clear and disrupted by dry stone wall adjacent but on same alignment as MM24a and enough remains to indicate presence of a structure.
MM24c										332665	772450	n/a	MM24c: 7m NW-SE by 4m. Single compartment. Earthen banks with dipped interior. Stones protruding.

Number	Asset Name	Asset Type	Parcel	Source	Designation Reference	HER Number	NRHE Number	Significance	Period	Easting	Northing	Description	Walkover
MM25	CADHAM	BUILDINGS, DAMS, FARMSTEADS, PONDS, SAWMILLS	D	HER, NRHE	n/a	NO37SW0060	255250	Low	Post Medieval - Early Modern	333049	772411	<p>HER: Farmstead, still in use. The OS 1st edition map shows a long L-plan range, two rectangular buildings and an L-plan building. By the time of the 2nd edition OS map a western wing had been added to the range forming a U-plan building. The westernmost rectangular building had been removed and the L-plan building extended resulting in a rectangular plan. All three buildings remain in use. To the south of the buildings is a mill pond and dam. To the west is what appears to be a rectangular building, probably a mill - the RCAHMS Glen Clova field survey recorded a sawpit at this location. Current maps indicate that the pond has been largely infilled.</p> <p>NRHE: This structure, which may have been a saw-pit is situated in rough pasture immediately S of the B955 public road and above Cadham farmsteading. It comprises a sub rectangular enclosure, open-ended on the ESE, measuring 8.5m from WNW to ESE by 3.1m transversely within earthen banks faced internally with stone. A square structure, measuring 2.5m across within walls reduced to stony banks is attached to the WNW end of the structure. This feature is depicted roofed on the 1st edition of the OS 6-inch map (Forfarshire 1865, sheet xi) and is similar to a 'Saw Pit' identified on this map at the Drums, 4.5km to the SE (see NO36NE 29).</p>	As described.
MM26	CADHAM	BUILDINGS, DAM, HUT, STACK-BASES	D	HER, NRHE	n/a	NO37SW0059	255251	Low	Post Medieval - Early Modern	333019	772329	<p>HER: Buildings and stack stands recorded by RCAHMS Glen Clova survey. No further information at present.</p> <p>NRHE: There are at least two buildings, a stack yard, a dam and a hut on a terrace some 80m S of and above Cadham farmsteading, immediately S of the B955 public road. The E building (CLOVA99 368), measures 11.6m from NW to SE by 3.3m transversely within walls reduced to stony banks 0.9m in thickness and 0.2m in height. The interior has two compartments and there is an entrance in the SW side. A stackyard containing eight stack stands lies immediately N of the building and what may be another building lies beneath a pile of logs to the W. The W building (CLOVA99 364) measures 10.8m from WNW to ESE by 2.5m transversely within walls reduced to stony banks 1.3m in thickness and 0.4m in height. The ESE end is rounded and the interior has been divided into two compartments.</p> <p>The dam (NO 3304 7239) depicted on the 2nd edition of the OS 6-inch map (Forfarshire 1902; sheet 11 SW) at the head of a mill pond, is situated about 60m NE of the W building. A hut (CLOVA99 366) lies about 40m S of the dam. Sub rectangular on plan, it measures 3.5m in length by 2.3m transversely within walls reduced to grass-grown banks 0.8m in thickness and 0.3m in height.</p>	Only one building recorded. Small building footings. 5m NW-SE by 3.5m. Medium angular stones protruding. Dipped interior.
MM27	CADHAM	BUILDINGS (ROUND ENDED)	D	HER, NRHE	n/a	NO37SW0061	255247	Low	Post Medieval - Early Modern	333171	772245	<p>HER: Round ended building recorded by RCAHMS Glen Clova survey. No further information at present.</p> <p>NRHE: This building is situated at the foot of the NE flank of Craig Duff, immediately SW of the B955 public road. It has a rounded SW end and it measures internally 8.5m from NE to SW by a maximum of 4.8m transversely, narrowing towards the NE end, and its rubble walls have been reduced to banks 0.4m in height. The interior has been divided into two compartments, that on the NE being at a lower level and having a scooped floor.</p>	Recorded by NRHE as a building, but appears more An enclosure. Sub circular, semi sunken with spread mounded walls of up to 0.6m high and 1.2m wide with rare stones protruding. Dipped interior. Aligned W-E 10m by 6m.
MM28	CADHAM	BANKS, BUILDINGS, HUTS, RIG AND FURROW, PENS	D	HER, NRHE	n/a	NO37SW0063	255248	Low	Post Medieval - Early Modern	333237	772212	<p>HER: Building, hut, rig and bank recorded by RCAHMS Glen Clova survey. No further information at present.</p> <p>NRHE: There is a building, a pen and an area of rig-and-furrow about 280m SE of Cadham farmsteading and immediately SW of the B955 public road. The rig occupies an area measuring about 150m from NW to SE by 100m transversely and the individual rigs are aligned roughly NNE and SSW. The building lies just beyond the SW edge of the rig, between a short length of bank to the NE and an old head-dyke to the SW. Roughly rectangular on plan, the building measures 8m from NW to SE by 2.1m transversely within walls reduced to grass-grown stony banks. The pen lies close to the centre of the rig.</p>	As described, with individual features outlined below.

Number	Asset Name	Asset Type	Parcel	Source	Designation Reference	HER Number	NRHE Number	Significance	Period	Easting	Northing	Description	Walkover
MM28a										333322	772183	n/a	MM28a: Possible low footing for a building. Sub circular with dipped interior. Spread walls over 1m. Measures 6m w-e by 5m n-s. Not entirely convincing. May be from animal feeder.
MM28b										333339	772197	n/a	MM28b: Area of clear rig and furrow. Aligned w-e. Very low <0.1m high. Narrow. c.1.4m from crest to crest.
MM29	CADHAM	BUILDINGS	D	HER, NRHE	n/a	NO37SW0062	255249	Low	Post Medieval - Early Modern	333180	772154	HER: Building recorded by RCAHMS Glen Clova survey. No further information at present.  NRHE: This building is situated immediately S of a large modern sheep fank at the foot of the NE flank of Craig Duff. Rectangular on plan, it measures 5.6m from NW to SE by 2m transversely within walls reduced to a stony bank 0.4m in height. Much of the wall is missing on the NE side, where a D-shaped enclosure is attached.	A small sub rectangular building aligned NW-SE with small sub circular enclosure conjoined to NE. 7m by 3m with enclosure 5m wide running length of building. Enclosure is rough arrangement of large stones placed in circle. Building survives as low overgrown footings, perhaps 2 courses high, c.<0.2m high spread to c.0.5m.
MM30	CADHAM	SHEEPFOLDS	D	HER, NRHE	n/a	NO37SW0019	n/a	Low	Early Modern	333172	772201	HER: Remains of a sheepfold which is depicted on the 1864 1st edition OS map.	Dry stone square sheepfold. Survives to full height, c.1m of rough angular boulders. Opening in S and W corners. Aligned NW-sw.
MM31	CRAIG DUFF	MINES/QUARRY , TRACKWAYS	D	HER, NRHE	n/a	NO37SW0055	255244	Low	Early Modern	332884 332933	771922 772060	HER: Mine and trackway NO 3294 7206 to 3281 7191, recorded by RCAHMS Glen Clova survey. No further information at present.  NRHE: There is a rough track that zig-zags up the steep crags of the NE flank of Craig Duff to a quarried hollow measuring about 7m across.	Ephemeral trackway recorded. Extends beyond study area.
MM32	CRAIG DUFF	HUTS, BUILDING	D	HER, NRHE	n/a	NO37SW0056	255246	Low	Post Medieval - Early Modern	333000	772061	HER: Hut recorded by RCAHMS Glen Clova survey. No further information at present.  NRHE: This building is situated on the NW bank of a burn in rough pasture at the foot of the NE flank of Craig Duff. It measures 4m from NW to SE by 2m transversely over walls 0.8m in thickness and 0.7m in height. There is an entrance in the SW side.	Low footings of sub rectangular building. Aligned NW-SE 5m by 3m. Low turf covered with rare medium angular stones protruding. C.0.8m wide, <0.2m high. No entrance visible.
MM33	BRAEDOWNIE	HUTS (SHIELING)	E	HER, NRHE	n/a	NO27NE0042	263448	Medium	Post Medieval - Early Modern	329759	775041	HER: Remains of shieling huts. Recorded by the RCAHMS during field survey in 2004. Not depicted on the 1st or 2nd edition OS maps, nor on the current edition (2006).  NRHE: Eight rectangular shieling huts are strung along the foot of the steep SW flank of Red Craig, immediately above the glen road to Braedownie. The huts range from 4.2m to 7.3m in length by 1.7 to 2.8m in breadth within walls reduced to grass-grown stony banks. Three of them (CLOVA99 604, 607 & 609) overlie earlier huts.	As described, with individual features outlined below.
MM33a										329776	775029	n/a	MM33a: Low ephemeral earthwork building. Sub rectangular clear dipped interior. Aligned NW to se. Banks only c. 0.15m high. Possible entrance on NE side. No indication of stones.
MM33b										329756	775017	n/a	MM33b: Possible shieling disrupted by quarry.
MM33c										329792	775005	n/a	MM33c: Very ephemeral structure. Measures c.3.5m SW-NE by c.8m. Slightly even area surrounded by sloping areas with boulders. Clear lines of stones are visible at se end and along ne side. Large angular stones. Single line.
MM33d										329748	775078	n/a	MM33d: Ephemeral shieling. Low irregular earthen bank. C.5m NE to SW by c.4m. Slight dipped interior. No stones except large earthfast rockfall.
MM33e										329715	775090	n/a	MM33e: Low ephemeral shieling. Low earthen banks. Aligned SE- NW with slight dipped interior. Measures c.8m by c.3m. Limits unclear.

Number	Asset Name	Asset Type	Parcel	Source	Designation Reference	HER Number	NRHE Number	Significance	Period	Easting	Northing	Description	Walkover
MM33f										329706	775080	n/a	MM33f: Irregular and unclear structure. Earthwork aligned c NE- SW. c.4m wide by c.5.5m. Dipped interior. Terminals unclear.
MM34	BONTYRE	TOWNSHIP (PERIOD UNASSIGNED)	E	NRHE	n/a	n/a	264357	Medium	Post Medieval - Early Modern	330140	774860	NRHE: A township, comprising twenty-four buildings, a corn-drying kiln, several enclosures and two head-dykes, lies at the foot of the SW flank of White Bents, immediately above the glen road. There are two periods of occupation represented by the two phases of head-dyke that cross each other at NO 3021 7486 and two types of building construction, round- and square-ended, which are generally grouped discretely from one another. The buildings are distributed in three clusters from SE to NW within the head-dykes (centred at NO 3024 7469, NO 3009 7483 and NO 3001 7493). Round-ended buildings (CLOVA99 614-617, 618-620) predominate in the two easternmost clusters and they tend to be larger than the square-ended ones, ranging from 5m to 14m in length by up to 3.9m in breadth over grass-grown footings up to 0.3m in height. A corn-drying kiln (CLOVA99 621) has been set into a SSW-facing slope about 30m W of the central cluster. Its pot measures 2m in diameter within rubble walls 1.6m in thickness and up to 1.8m in height and there is a flue on the SSW.	The centre of the westernmost concentration of square ended buildings (as described by NRHE) has been planted with a coniferous plantation. Buildings were recorded around the perimeter of this plantation. The ground here is very rocky and despite extensive survey, only five buildings were recorded along with a stretch of walling and head dyke. Square and round ended buildings were noted. Given the detail of the RCAHMS description, the wider area will be protected. Individual features recorded are outlined below.
MM34a										330095 330077	774934 774942	n/a	MM34a: Ephemeral drystone boundary. Located in very rocky landscape. Aligned NW-SE and only faintly visible as one course, roughly two stones wide. Most readily apparent in one area where a depression means stones stand proud.
MM34b										330048	774910	n/a	MM34b: Small sub rectangular structure. Heavily overgrown. Survives as 1-2 courses of large to medium angular stones also incorporating very large boulders and rockfall. Aligned NW-SE measuring c.5m by c.3m. Dipped interior. Pre improvement. Entrance on SW side.
MM34c										330056	774835	n/a	MM34c: Ephemeral earthwork remains of a structure or enclosure. Irregular in shape. Incorporates four earthfast rocks or very large boulders into the perimeter. Area between is enclosed by low spread earthen banks, c.1m wide. Dipped interior. No evidence of stones in banks.
MM34d										329980	774886	n/a	MM34d: W-e aligned rectangular structure with two clear compartments. Very narrow. Measures c.10m by <2.5m. Internal division at around halfway with W end slightly larger. N wall much more distinct, with areas of a tumbled downslope (steep). Heavily overgrown, 1, sometimes 2 courses. Medium angular field stones. Entrances presumably on S side as not apparent on N. No opening in partition.
MM34e										330030	774978	n/a	MM34e: Substantial building. Stocky with walls of up to 3-4 courses. Curved, bowed ends. Pre improvement. Measures c.5m w-e by c.3m n-s. Walls c.0.5-1m. Interior up to 0.5m deep. Entrance perhaps on N side?
MM34f										330038	774976	n/a	MM34f: Clear substantial stone structure. 3m s of MM66. Same n-s alignment. One compartment. No bonding. Mix of small to medium field stones. C.3m by c.5m. Survives up to 3 courses.
MM34g										330229 330292	774826 774638	n/a	MM34g: Curvilinear earthen bank. Runs c.SW downslope from much rockier area uphill. Bank is relatively low (c.<0.2m) and spread up to 1.1m. Possible head dyke? Although landscape not noticeably different either side.

Number	Asset Name	Asset Type	Parcel	Source	Designation Reference	HER Number	NRHE Number	Significance	Period	Easting	Northing	Description	Walkover
MM35	CORRIE OF BONHARD	HUTS	E	HER, NRHE	n/a	NO37NW0001	254893	Low	Post Medieval - Early Modern	331330	775270	Recorded in different locations by HER and NRHE. HER: Remains of a hut. Recorded by the RCAHMS during aerial reconnaissance in 1998. Not depicted on the 1st or 2nd edition OS maps.  NRHE: This sub rectangular hut is situated in the Corrie of Bonhard, on a terrace immediately W of the Burn of Bonhard. It measures 4m from NW to SE by 2.4m within walls reduced to grass-grown stony banks 0.9m in thickness and up to 0.4m in height. The NE side incorporates a very large boulder and there is an entrance on the SW.	Not visited during walkover.
MM36	WEST BONHARD	SHEEPFOLDS	E	HER	n/a	NO37SW0029	n/a	Low	Early Modern	330414	774570	HER: Site of a roughly circular sheepfold depicted only on the 1864 1st edition OS map. It does not appear on the 2nd edition.	Reasonably clear along W and N side, with an earthen bank incorporating medium to very large angular boulders. Not convincing to east.
MM37	WEST BONHARD	SHEEPFOLDS	E	HER, NRHE	n/a	NO37SW0028	n/a	Low	Post Medieval - Early Modern	330688	774543	HER: Site of a sheepfold, which is depicted only on the 1864 1st edition OS map. It does not appear on the 2nd edition.	As described, with individual features outlined below.
MM37a										330691	774539	n/a	MM37a: Possible structure or enclosure conjoined to MM37. Located off SW corner. Runs c.6m NW before returning for c.3m. NE wall not clear.
MM37b										330705	774540	n/a	MM37b: Irregular drystone sheepfold. Sub rectangular, with dog leg at s end. Measures c.23m N-s by c.23m W-E (estimate due to deer fence)
MM38	WEST BONHARD	ENCLOSURES, FARMSTEADS, SHEEPFOLDS, SHIELING HUTS	E	HER, NRHE	n/a	NO37SW0027	292857	Low	Post Medieval	330682	774403	HER: Remains of a farmstead that is depicted on the 1864 1st edition OS map as three rectangular buildings and a large enclosure, with a sheepfold to the E. On the 2nd edition (c.1888), the buildings are shown as roofless.  NRHE: A township and eight shieling-huts are situated at the foot of a steep SW-facing slope on the NW bank of the Burn of Bonhard. The township comprises six buildings, a corn-drying kiln and several enclosures. The buildings measure up to 18.8m in length by 4.1m in breadth within walls reduced to grass-grown footings. The kiln (CLOVA99 845) stands on the N side of a stackyard containing at least five stack stands. The shieling-huts, which are disposed across the slope to the N and NE of the buildings, are all sub rectangular on plan and contain single compartments measuring up to 6.4m in length within low wall-footings; one hut (CLOVA99 840) has an outshot attached. Most of the buildings are depicted roofed on the 1st edition of the Ordnance Survey 6-inch map (Forfarshire 1865, Sheet xi) and the Name Book (Forfarshire, Book 15, p.40) describes West Bonhard as 'a few cottages, formerly a farmhouse, on the farm of East Bonhard'. Those buildings that are not shown probably belong to an earlier phase of occupation and Wester Bonhard is depicted on John Ainslie's 1794 map of the County of Forfar (SRO RHP 3233).  DBA: The OS Name Book of 1857-61 records a 'few Cottages formerly a Farmhouse, on the Farm of East Bonhard'.	As described, with individual features outlined below.
MM38a										330682	74403	n/a	MM38a: Substantial drystone sheepfold. Squared with entrance in SW side
MM38b										330663	774444	n/a	MM38b: Aligned NW-SE sub rectangular. Low earthen banks with dipped interior. Measures c.7m by 3m.
MM38c										330671	774435	n/a	MM38c: Low rub rectangular building aligned NW-SE. Measures c.5m by 3m.
MM38d										330731	774449	n/a	MM38d: Sub rectangular building. Aligned NW-SE. Measures 10m by 3m. Clear walls c. 0.4m wide and up to 0.5m high. Main building is 7m long and there appears to be a less substantial annex at SE end.
MM38e										330741	774360	n/a	MM38e: Small sub rectangular building. Aligned NW-SE with entrance on SW side. Measures

Number	Asset Name	Asset Type	Parcel	Source	Designation Reference	HER Number	NRHE Number	Significance	Period	Easting	Northing	Description	Walkover
MM38f										330794	774439	n/a	c.5m by 3m. No indication of stones. Mounds c.0.8m wide and up to 0.5m high. MM38f: NW-SE aligned substantial sub rectangular earthen footings of a building. Measures c.8m by 4m with clear entrance on SW side. Rounded terminals. Stoves protruding. C.spread to >1m and 0.5m high but walls appear closer to c.0.45m wide.
MM38g										330744	774413	n/a	MM38g: Overgrown building surviving as low earthen banks with medium to large stones protruding. Aligned NW-SE measuring 3.5m by 6m. Not clearly defined. Curvilinear.
MM39	GLEN CLOVA	SHEEPFOLDS	E	HER, NRHE	n/a	NO37SW0025	n/a	Negligible	Early Modern	330915	774244	HER: Site of a now destroyed sheepfold that is depicted on the (c.1846 and c.1888) 1st and 2nd edition OS maps.	Not recorded during walkover survey.
MM40	ATTON	BUILDING (PERIOD UNASSIGNED)	E	NRHE	n/a	n/a	262672	Low	Post Medieval - Early Modern	331067	774114	NRHE: This building stands on a terrace above the flood plain of the River South Esk, immediately to the NE of the glen road. Round-ended on plan, it measures 6.9m from NW to SE by 2.3m transversely within grass-grown wall-footings spread up to 0.8m in thickness and 0.3m in height.	Aligned NW-SE measuring 3.5m by 7m. Heavily overgrown and spread turf walls with sun rounded ends of packed Earth. Walls spread up to 1.5m and <0.2m high.
MM41	ATTON	BUILDING (PERIOD UNASSIGNED)	E	NRHE	n/a	n/a	262673	Low	Post Medieval - Early Modern	331376	773824	NRHE: This building stands on the NW end of a terrace at the foot of Ben Reid, some 80m to the NE of the glen road. It measures 6.1m from NW to SE by 3.3m transversely within turf wall-footings 0.6m in thickness and 0.2m in height. An outshot extends 3.3m to the NW.	Not recorded during walkover.
MM42	LANGHOLME	BUILDINGS	E	HER, NRHE	n/a	NO37SW0097	255272	Low	Post Medieval - Early Modern	331380	774111	NRHE plots this asset outside the study area, but HER plots it overlapping the boundary.  HER: Building recorded by RCAHMS Glen Clova survey. No further information at present.  NRHE: This building stands on the NE bank of the River South Esk, immediately SW of the public road, about 1.5km NW of Clova. Roughly rectangular on plan, it measures 4.8m from NE to SW by 1.9m transversely within rubble walls 0.7 in thickness and 0.3m in height. There is an entrance in the SW side.  DBA: OS Name Book of 1857-61 records Langholme as the ruins of a farmhouse a short distance West from the Church of Clova.	Not recorded during walkover. Located outwith study area.
MM43	LANGHOLME	KILNS	E	NRHE, HER	n/a	NO37SW0096	n/a	Low	Post Medieval - Early Modern	331500	773829	HER: Possible kiln recorded by RCAHMS Glen Clova survey. No further information. It may relate to the nearby ruined farmstead of Langholme (NO37SW23).	

Number	Asset Name	Asset Type	Parcel	Source	Designation Reference	HER Number	NRHE Number	Significance	Period	Easting	Northing	Description	Walkover
MM44	LANGHOLME	FARMSTEADS, SHEEPFOLDS, CORN DRYING KILN, TRACK	E	NRHE, HER	n/a	NO37SW0023	188575	Medium	Post Medieval - Early Modern	331571	773754	<p>HER: Remains of a farmstead, depicted as being in ruins on the 1864 1st edition OS map. Two sub-rectangular sheepfolds are shown to the northeast. On the 2nd edition (c.1888), only the two sheepfolds are shown. A circular enclosure now overlaps one of the sheepfolds.</p> <p>NRHE: A farmstead comprising five unroofed buildings, one of which is a long building, and two enclosures, and two outlying enclosures, annotated Sheepfold and Sheep Ree, are depicted on the 1st edition of the OS 6 inch map (Forfarshire 1865, sheet xi). Two unroofed buildings and two enclosures are shown on the current edition of the OS 1:10000 map (1972). This township, which comprises five buildings, four huts, a possible corn-drying kiln and five enclosures, is situated at the foot of Ben Reid, immediately SE of an unnamed burn, 1.4km NW of Clova. At the core of the township are three principal buildings (CLOVA99 374, 376, 378), measuring up to 14m in internal length, and a group of four smaller huts or outbuildings (CLOVA99 375, 377, 379, 380). Each of the large buildings has an attached enclosure. The kiln (CLOVA99 818) stands roughly 30m NW of the main group. It is set into the bank overlooking the unnamed burn to the SW and it measures 1.9m in diameter within walls reduced to grass-grown banks 1.4m in thickness and 0.5m in height. Its flue opens to the SSW. On the hillside to the E of the main group of buildings there are three huts and two sub rectangular enclosures. Finally, a trackway extends from the principal buildings, down slope, towards the SE for a distance of at least 180m. This farmstead is depicted, named 'Langholme' and annotated as 'ruins', on the 1st edition of the OS 6-inch map (Forfarshire 1865, sheet xi).</p>	As described, with individual features outlined below.
MM44a										331636	773736	n/a	MM44a: Sub rectangular sheepfold. Drystone from small to medium rounded stones. Aligned NW-SE 14m by 9.5m with small entrance in NW end.
MM44b										331627	773803	n/a	MM44b: 30m NW-SE by 26m. Entrance unclear. Upslope? Drystone. Incorporates large earthfast rockfall. Entrance is clear on SW downslope side with a short wall leading to it on S side
MM44c										331624	773786	n/a	MM44c: Sub rectangular building aligned NW-SE built within SW wall of MM44b on external side. Measures 3m by 5m. No clear entrance. Walls are turf covered mounds with stones protruding.
MM44d										331606	773797	n/a	MM44d: Small sub circular enclosure attached to NW corner of MM44b. Low drystone walls of medium rounded boulders. 5m diameter.
MM44e										331574	773808	n/a	MM44e: NW-SE 6m by 3.5m. Sub rectangular with very well defined sharp stone foundations. Walls two courses thick and 1-2 high. Entrance downslope on SW side. Small arm of walking running downslope and creating small enclosure the length of the building on door
MM44f										331607 331590	773751 773702	n/a	MM44f: Relict drystone wall running downslope.
MM44g										331619 331545 331510 331492	773666 773754 773778 773799	n/a	MM44g: Revetted trackway. Probably continues beyond recorded area but appears to relate to MM44. Areas of drystone wall visible lining it. C.2m wide.
MM44h										331542	773773	n/a	MM44h: Very substantial NW-SE aligned building. Post improvement. Squared corners and walls up to 3 courses. C.<0.5m high and 0.8m wide. 5m by 10m. More degraded at SW end. Entrance on SW side. Small compartment at NW end measuring 3m across internally.
MM44i										331515 331502	773769 773784	n/a	MM44i: Curvilinear drystone wall forming enclosure on SE side of MM44.

Number	Asset Name	Asset Type	Parcel	Source	Designation Reference	HER Number	NRHE Number	Significance	Period	Easting	Northing	Description	Walkover
MM44j										331552	773768	n/a	MM44j: NW-SE aligned substantial stone building. Conjoins S end of MM44i. Measures 3.5m by 8m.
MM44k										331519	773797	n/a	MM44k: Substantial improvement farmstead aligned NW-SE with large rectilinear enclosure upslope to NE. Measures 5m by 11m. Small entrance up steps on SW side.
MM44l										331507	773783	n/a	MM44l: Aligned NW-SE sub rectangular building measuring 4m by 9m. Substantial improvement farmstead with walls of up to 5 courses.
MM44m										331501	773773	n/a	MM44m: Sub rectangular building measuring c.5m NE-SW by c.4m NW-SE. Thick wall foundations c.0.8m two stones with small rubble between. Only two courses.
MM44n										331558	773778	n/a	MM44n: Sub circular enclosure adjacent to MM44h. Steep hillside. Incorporates very large stones.
MM45	CLOVA	TOWNSHIPS, CORN DRYING KILN, HEAD DYKE, HUT(S)	E	NRHE, HER	n/a	NO37SW0093	254355	Medium	Post Medieval - Early Modern	332040	773420	<p>HER: RCAHMS Glen Clova survey recorded a township at this location: no further information at present. Nothing appears on the OS 1st or 2nd edition maps.</p> <p>NRHE: This township, which comprises at least ten buildings and huts, one corn-drying kiln, several enclosures and a head-dyke, lies at the foot of the SW flank of Ben Reid, immediately NW of Clova Castle (NO37SW 1). A head-dyke, now reduced to fragmentary lengths of grass-grown bank, extends across the hillside for some 400m to the NW. Seven of the buildings and huts and the kiln are disposed along the length of the dyke, standing to both sides of it. The buildings measure from 7.5m to 12m in length by up to 3.1m in breadth within walls reduced to footings, and the huts measure from 2.5m to 5.6m in internal length. The kiln (CLOVA99 395, NO 32000 73452), which is set into a NE-facing slope at the SE end of the township, measures 2.2m in diameter within a faced-rubble wall 1.3m in thickness and up to 0.5m in height. It has a flue on the SW. To the N of the E end of the head-dyke there are two conjoined enclosures, lying N and S of each other, and measuring respectively 160m from E to W by 80m and 150m from E to W by 120m. Three huts are built against the common bank between the two enclosures.</p>	As described, with individual features outlined below.
MM45a										332001	773455	n/a	MM45a: Sub rectangular structure. Measures 4m NW-SE by 3m. Wide spread turf walls. Linear bank MM45b runs downslope from NE corner and along contour from SE corner.
MM45b										331999	773454	n/a	MM45b: Series of curvilinear earthen banks., Numerous alignments and locations, but numbered together. Remnants of field systems.
MM45c										332015	773420	n/a	MM45c: Large NW-SE aligned sub rectangular enclosure. Thin earthen banks c.0.3m wide and 0.3m high. 4m by 10m. SE end is large Boulder. No other stones.
MM45d										332028	773411	n/a	MM45d: Possible earthen building aligned NW-SE measuring 5m by 3m with internal division.
MM45e										332045	773448	n/a	MM45e: 8m NW-SE by 3m. Sub rectangular earthen structure. Appears partially cut into hillside. Overgrown. Dipped interior. Walls up to 0.35m high.
MM45f										332040	773492	n/a	MM45f: Sunken and overgrown lime kiln. 2.2m across.



Number	Asset Name	Asset Type	Parcel	Source	Designation Reference	HER Number	NRHE Number	Significance	Period	Easting	Northing	Description	Walkover
MM45g										332065	773479	n/a	MM45g: Linear, overgrown stone bank. A series of long earthen banks, much degraded, but recorded under one number. Likely part of the same field systems as MM45g.
MM45h										332097	773514	n/a	Possible sub circular sheepfold. The side is very clear. May be part of field system.
MM45i										332099	773481	n/a	Small sub circular building measures 4m NE-SE by 2.5m. Built downslope, but part of head dyke MM40.
MM45j										332147	773468	n/a	Sub rectangular building aligned NW-SE, with NE wall formed by head dyke MM40. Measures 3m by 10m. Two compartments.
MM46	MAINS	HUT (PERIOD UNASSIGNED)	E	NRHE	n/a	n/a	255271	Medium	Post Medieval - Early Modern	332278	773506	NRHE: This hut stands on a grassy SW-facing terrace 140m NNE of Mains farmstead. Rectangular on plan, it measures 5.8m from NW to SE by 2m transversely within walls reduced to stony banks 1m in thickness and 0.2m in height.	NW-SE aligned sub rectangular building. Measures 4.5m by 2.2m.
MM47	MAINS	BANKS, HUTS	E	NRHE	n/a	NO37SW0094	255176	Medium	Post Medieval - Early Modern	332310	773620	HER: Huts and a bank recorded by RCAHMS Glen Clova survey. No further information at present.  NRHE: There are two huts about 50m apart in rough pasture on the steep SW flank of Meikle Tulloch, some 240m NNE of Mains farmstead. The N hut (CLOVA99 802), which stands on the leading edge of a terrace, measures 5.8m from NW to SE by 2m transversely within grass-grown footings. The S hut (CLOVA99 801), which measures 2.4m from E to W by 2m internally, appears to lie within the SW corner of an enclosure, whose W and S sides are delineated by a grass-grown stony bank, but which has otherwise been destroyed.	As described, with individual features outlined below.
MM47a										332300	773606	n/a	MM47a: Sub circular structure with bowled interior. Measures 3m diameter. 1.5m from bank MM47b.
MM47b										332296 332299	773596 773623	n/a	MM47b: NE-SW aligned spread earthen bank. 1.5m NW of MM47a.
MM48	PARKHEAD	ENCLOSURES	E	NRHE	n/a	NO37SW0090	255174	Low	Post Medieval - Early Modern	332474	773430	HER: Enclosure recorded by RCAHMS Glen Clova survey. No further information at present.  NRHE: This drystone-walled enclosure, measuring about 5m square, stands in rough pasture at the foot of the steep SW flank of Tom Baith, about 55m to the NNE of Parkhead Cottage.	Sub rectangular animal enclosure. Measures c.8m by 7m. Irregular small to large boulders.
MM49	PARKHEAD	BUILDINGS	E	NRHE	n/a	NO37SW0091	255171	Low	Post Medieval - Early Modern	332512	773511	HER: Building recorded by RCAHMS Glen Clova survey. No further information at present.  NRHE: This hut stands in rough pasture on the SW flank of Tom Baith, about 150m NE of Parkhead Cottage. Rectangular on plan, it measures about 7.5m from NW to SE by 2.2m transversely within a wall reduced to its footings. The interior has been divided into two compartments, one with an entrance on the SW, and there is a small outshot attached to the NE side.	Measures 7.5m NW-SE by 3m. Low Earth walls with stones protruding. Includes large earthfast rocks. Walls c.0.75m wide and 0.2-0.3m high. Internal partition creates compartment 2m by 2m at NW end and 4m by 2m at SE end. Entrance possible at NW corner and
MM50	ARNTIBBER	BUILDING(S) (PERIOD UNASSIGNED)	E	NRHE	n/a	n/a	293060	Medium	Post Medieval - Early Modern	332678	773288	NRHE: These six rectangular buildings are situated on the S flank of Tom Baith, immediately N of Arntibber. They range from 5.6m to 12m in length by 1.8m to 2.5m in breadth within walls largely reduced to footings. The largest building (CLOVA99 813) has been divided into three compartments, one with an entrance on the SSW side. Another building (CLOVA99 809) has two compartments and two others (CLOVA99 811 & 812) each have an outshot at one end.  DBA: Arntibber is recorded by the OS Name Book of 1857-61 as 'a few scattered houses and ruins north-west of Milton of Clova'.	Only three buildings recorded. As described, with individual features outlined below.

Number	Asset Name	Asset Type	Parcel	Source	Designation Reference	HER Number	NRHE Number	Significance	Period	Easting	Northing	Description	Walkover
MM50a										332682	773276	n/a	MM50a: Aligned NW-SE 9.5m by 3.5m. Clear stone foundations. Internal partition creating compartment 4m by c.1.5m at SE end and 3m by c.1.5m at NW.
MM50b										332672	773288	n/a	MM50b: NW-SE aligned sub rectangular building. Low stone foundations. C.6m by 3m.
MM50c										332665	773300	n/a	MM50c: NW-SE aligned sub rectangular building. Measures 3.2m by 7.2m. Internal partition. 2m NW of MM50b.
MM51	ARNTIBBER	BUILDINGS, FARMSTEADS	E	HER, NRHE	n/a	NO37SW0085	188593	Low	Early Modern - Modern	332723	773203	<p>HER: Farmstead, still in use. It is depicted on the OS 1st edition map which shows a loose group of at least six buildings with attached enclosures. By the time of the 2nd edition OS map only two of the original buildings remained and a new building had been added in the westernmost enclosure. This building remains in use.</p> <p>NRHE: A farmstead comprising one unroofed building, two partially roofed buildings, one roofed building and six enclosures is depicted on the 1st edition of the OS 6 inch map (Forfarshire 1865, sheet xi). Two roofed buildings, one of which is annotated Hall, and three enclosures, two of which are incomplete, are shown on the current edition of the OS 1:10000 map (1972).</p> <p>DBA: Arntibber is recorded by the OS Name Book of 1857-61 as 'a few scattered houses and ruins north-west of Milton of Clova'.</p>	Located outside study area.
MM52	ARNTIBBER	BUILDING (PERIOD UNASSIGNED), ENCLOSURE (PERIOD UNASSIGNED)	E	NRHE	n/a	n/a	293059	Low	Post Medieval - Early Modern	332745	773237	<p>NRHE: A building and an enclosure stand in rough pasture immediately N of Arntibber. The building has been set into the slope on the N and W, and measures 13.7m from E to W by 4m transversely within walls up to 0.5m in height. The drystone-walled enclosure, which stands 15m NNW of the building, measures about 19m square. Both the building, which is shown roofed, and the enclosure are depicted on the 1st edition of the OS 6 inch map (Forfarshire 1865, sheet xi).</p> <p>DBA: Arntibber is recorded by the OS Name Book of 1857-61 as 'a few scattered houses and ruins north-west of Milton of Clova'.</p>	As described, with individual features outlined below.
MM52a										332753	773237		
MM52b										332718 332728	773273 773256	n/a	Heavily disrupted by road but appears to continue on both sides. Narrow earthen bank with single lime of stones evident in places.
MM52c										332735 332739	773269 773274	n/a	As MM52b – continuation.
MM53	GLEN CLOVA	BUILDINGS	E	HER, NRHE	n/a	NO37SW0086	255168			332970	773411	<p>HER: Building recorded by RCHMS Glen Clova survey. No further information at present.</p> <p>NRHE: This sub rectangular hut stands on a rocky knoll on the SSW flank of Tom Baith, some 350m NNE of Clova. It measures 7m from NW to SE by 1.7m transversely within walls reduced to stony banks 0.3m in height.</p>	Sub rectangular building aligned NNW-SSE. Measures 8m by 3m. Dipped interior. Walls are earthen banks spread up to 1m and 0.25m high. Built on a high point which creates real prominence.
MM54	INCHDOWRIE	HUTS	E	HER, NRHE	n/a	NO37SW0076	254896			334260	772541	<p>HER: Huts recorded by RCHMS Glen Clova survey. No further information at present.</p> <p>NRHE: These two huts are situated in rough pasture close to the foot of the S flank of Brown Holm, some 160m NNE of Inchdowie House. The NE hut (CLOVA99 554), which has a rounded SE end and rounded internal corners, measures 4.7m from NW to SE by 2m transversely within grass-grown wall-footings. An entrance in the SW side leads into a small enclosure. The second hut (CLOVA99 543), which lies 40m SW of its neighbour, measures 4.3m from NNW to SSE by 2m transversely within grass-grown footings.</p>	As described, with individual features outlined below.

Number	Asset Name	Asset Type	Parcel	Source	Designation Reference	HER Number	NRHE Number	Significance	Period	Easting	Northing	Description	Walkover
MM54a								Low	Post Medieval - Early Modern	334250	772521	n/a	MM54a: Irregular shape. Sub circular although possibly sub rectangular aligned NW-SE with substantial collapse on NE corner. Lots of small rounded stones. Dipped interior. Measures c.4m by 6m.
MM54b								Low	Post Medieval - Early Modern	334269	772552	n/a	MM54b: Substantial NNW-SSE sub rectangular building with curvilinear enclosure attached to NE. Measures 5m by 3m. Enclosure is additional 5m from entrance. Small to medium rounded stones.
MM55	INCHDOWRIE	TRACKWAYS	E	HER, NRHE	n/a	NO37SW0073	254895	Negligible	Modern?	334310	772510	HER: Trackway recorded by RCAHMS Glen Clova survey. No further information at present.  NRHE: A rough track, which zig-zags up the steep S flank of Brown Holm, is depicted on the 1st edition of the 6-inch Ordnance Survey 6-inch map (Forfarshire 1865, xi).	Substantial revetted track traversing hillside.
MM56	LOCH BRANDY	HUT (PERIOD UNASSIGNED)	E	HER, NRHE	n/a	n/a	293419	Low	Post Medieval - Early Modern	334269	772552	NRHE: This hut stands on the W bank of an unnamed burn about 500m SSW of Loch Brandy. Rectangular on plan, it measures 3.4m in length by 1.7m in width within drystone walls up to 1m in height. It has an entrance on the E.	Substantial NNW-SSE sub rectangular building with curvilinear enclosure attached to NE. Measures 5m by 3m. Enclosure is additional 5m from entrance. Small to medium rounded stones. Typical location for an illicit still.
MM57	CADHAM	HUTS	D	HER, NRHE	n/a	NO37SW0058	255252	Low	Post Medieval - Early Modern	332928	772280	HER: Hut recorded by RCAHMS Glen Clova survey. No further information at present.  NRHE: This hut lies at the foot of the NE flank of Craig Duff, some 180 SW of Cadham farmstead and immediately NW of a burn. Rectangular on plan, it measures 4m from NW to SE by 2m transversely within grass-grown wall-footings 0.8m in thickness and 0.2m in height. There is an entrance in the SW side.	Small sub square structure. Insubstantial low earth walls only c.<0.1m high and c.1m wide. Rare stones protruding.
MM58	EAST BONHARD	FARMSTEADS, SETTLEMENT	D	HER, NRHE, DBA	n/a	NO37SW0026	292858	Medium	Post-Medieval - Early Modern	330712	74308	Not recorded within the study area by the HER or NRHE.  HER: Remains of a farmstead that is depicted on the 1864 1st edition OS map as a group of 3 rectangular buildings with a rectangular enclosure to the S. On the 2nd edition (c.1888), all that is depicted at the site is one unroofed building.  NRHE: A township and seven shieling-huts are situated on the SE bank of the Burn of Bonhard, at the foot of a steep SW-facing slope. The township comprises nine rectangular buildings, two corn-drying kilns and several enclosures. The buildings measure up to 18.2m in length by 3.9m in breadth within walls reduced to grass-grown footings. One of the kilns (CLOVA99 822) stands at the SE end of the township, the other (CLOVA99 852) is set into the bank of a burn within the main group of buildings. The shieling-huts are all sub rectangular on plan and contain single compartments measuring up to 5.3m in length within low wall-footings; one hut (CLOVA99 830) has a possible outshot attached. Most of the buildings are depicted roofed on the 1st edition of the OS 6-inch map (Forfarshire 1865, sheet xi). Those buildings that are not shown probably belong to an earlier phase of occupation and Easter Bonhard is depicted on John Ainslie's 1794 map of the County of Forfar (SRO RHP 3233).  DBA: Shown on the 1st edition as straddling the main road and extending within the study area. The HER polygon overs the three to four buildings south of the road, but the two rectangular structures on the northern side of the road are omitted from this record, located on the east side of the Burn of Bonhard, with enclosed worked land to the north and east, lined with trees.	As described, with individual features outlined below.
MM59	BURN OF LOCH BRANDY	SLUICE	D	DBA	n/a	n/a	n/a	Negligible	Early Modern	333119	773445	DBA: 'Sluice' is recorded on the 1st edition at the confluence of the Burn of Loch Brandy and a minor watercourse, possibly diverting water to run downhill to Kirkton of Clova.	Not noted during walkover survey.

Number	Asset Name	Asset Type	Parcel	Source	Designation Reference	HER Number	NRHE Number	Significance	Period	Easting	Northing	Description	Walkover
MM60	THE DOLL	DRYSTONE WALL	A	Walkover	n/a	n/a	n/a	Low	Early Modern	327874 327838	775815 775775	n/a	Linear drystone wall of medium to large angular field stones. Surviving near intact within study area A but degraded to north.
MM61	THE SCORRIE	REVTMENT / TRACK?	A	Walkover	n/a	n/a	n/a	Low	Unknown	327949 328019	775639 775636	n/a	Area cleared of stone fall which is clear piled up to sides. Measures c.7m wide. Traverses to SE then sharply turns to NW but quickly stops.
MM62	EAST BONHARD	BUILDING	E	Walkover	n/a	n/a	n/a	Negligible	Early Modern - Modern	330908	774242	n/a	Building with enclosure to SW. Aligned NW-SE and measures c.7m by 3m. Clear walls up to 2 courses. Squared corners. Enclosure on SW side. Entrance on SW side. Enclosure ephemeral up to 6m.
MM63	BONTYRE	QUARRY	E	Walkover	n/a	n/a	n/a	Negligible	Early Modern - Modern	329958	774858	n/a	Irregular quarry scoop. Slight cut into S facing slope. 6m by 6m. C.1.2m deep against large boulders and face to N, basically ground level to S.
MM64	BRAEDOWNIE	QUARRY	E	Walkover	n/a	n/a	n/a	Negligible	Early Modern - Modern	329787	774982	n/a	Large irregular quarry. C.16m NW-SE by c.17m. Irregular with large boulders against the E face. Associated with modern road.
MM65	BRAEDOWNIE	QUARRY	E	Walkover	n/a	n/a	n/a	Negligible	Early Modern - Modern	329745	775017	n/a	Large irregular depression. Possible quarry. Possibly impacts and debris overlies shieling to NE. Associated with modern road.
MM66	LOCAH BRANDY	GROUSE BUTT	E	Walkover	n/a	n/a	n/a	Negligible	Early Modern - Modern	333542	774548	n/a	Small stub of wall. W-E aligned. 3m by 1m.
MM67	LOCH BRANDY	CAIRN	E	Walkover	n/a	n/a	n/a	Negligible	Unknown	333411	774344	n/a	Concentration of medium rounded stones. 3.5m diameter.
MM68		VOID											VOID
MM68	BROWN HOLM	GROUSE BUTT	E	Walkover, DBA	n/a	n/a	n/a	Negligible	Early Modern - Modern	Various	Various	Series of grouse butts in linear arrangements, evenly spaced across the moor to the north of Clova. Noted on modern OS.	In the locations visited, some of the grouse butts marked are not visible or barely discernible. Some are clearly turf or peat constructed, using the topography and earthfast rocks. Small curved earthen bank within a gap formed by two very large boulders. Others are small 2m stretches of drystone walling.
MM69	BONTYRE	DRYSTONE WALL	E	Walkover	n/a	n/a	n/a	Negligible	Early Modern - Modern	330313 330302	774656 774633	n/a	Substantial drystone wall exploiting stones of all sizes including very substantial rockfall
MM70	WEST BONHARD	LINEAR EARTHWORK	E	Walkover	n/a	n/a	n/a	Negligible	Early Modern - Modern	330479 330555	774524 774505	n/a	Low curvilinear earthen bank. C.0.15m high. Spread to c. 1.5m wide. Incorporates large earthfast boulders.
MM71	WEST BONHARD	SHIELING	E	Walkover	n/a	n/a	n/a	Low	Post Medieval - Early Modern	330540	774550	n/a	Low sub rectangular structure with dipped interior. Aligned NW-SE with entrance along SW side. Measures c. 5m by c. 4m. Heavily overgrown but some stones protrude. Walls spread to 0.5-1m. Rounded ends.
MM72	COREMACHY	GROUSE BUTT	F	Walkover	n/a	n/a	n/a	Negligible	Early Modern	333726	771100	n/a	Small stub of drystone wall. Aligned NE-SW 1.8m long by c.0.6m wide. Constructed from small to medium angular field stones. Not a stub, finished at either terminal. 4-5 courses high.
MM73	COREMACHY	PATH?	F	Walkover	n/a	n/a	n/a	Negligible	Modern?	334556 334315	770825 771161	n/a	Very substantial curvilinear raised bank of substantial rounded stones. Clear ditch along west (upslope) side. Up to >1m high in places on both sides. Clear gravel path on top. Little used. C.1m wide on top. Substantial culvert may indicate path as prima

Number	Asset Name	Asset Type	Parcel	Source	Designation Reference	HER Number	NRHE Number	Significance	Period	Easting	Northing	Description	Walkover
MM74												VOID	
MM75	MINRIE BURN	DRYSTONE WALL	D	Walkover	n/a	n/a	n/a	Negligible	Early Modern	332301 332258	772597 772619	n/a	Degraded. Built from mix of medium to very large angular stones.
MM76	CRAIG DUFF	DRYSTONE WALL	D	Walkover	n/a	n/a	n/a	Negligible	Early Modern	332543 332539	772269 772318	n/a	Relict drystone wall
MM77	CRAIG DUFF	GROUSE BUTTS	D	Walkover	n/a	n/a	n/a	Negligible	Early Modern				Two recorded grouse butts, likely more on same alignment. As described below.
MM77a										332665	772155	n/a	MM77a: Small section of drystone wall. 0.6m wide by 0.7m tall and 2m long. 3-4 courses high.
MM77b										332691	772174	n/a	MM77b: Small section of drystone wall. 0.6m wide by 0.7m tall and 2m long. 3-4 courses high.
MM78	CRAIG DUFF	GROUSE BUTTS	D	Walkover	n/a	n/a	n/a	Negligible	Early Modern				Two recorded grouse butts, likely more on same alignment. As described below.
MM78a										332719	772289	n/a	MM78a: Small section of drystone wall
MM78b										332745	772339	n/a	MM78b: Small section of drystone wall
MM79	CADHAM	BANK	D	Walkover	n/a	n/a	n/a	Low	Post Medieval - Early Modern	333196 333300	772160 772125	n/a	Degraded earthen bank. Curvilinear. Ephemeral. <0.1m high spread to c.1.5m. Rare stones protruding.
MM80	CADHAM	BUILDING	D	Walkover	n/a	n/a	n/a	Low	Post Medieval - Early Modern	332955	772348	n/a	12m NW-SE by 4.5m. Substantial double compartment building. Walls very spread up to 1.5-2m. Surviving as turf covered mounds up to 0.75m at SE end. Clear dipped interiors. Partition is at mid point. Possible entrance on NE side.
MM81	MINRIE BURN	EARTHEN BANK	D	Walkover	n/a	n/a	n/a	Low	Post Medieval - Early Modern	332589 332531 332516 332488	772467 772505 772526 772557	n/a	Head dyke? Spread curvilinear earthen bank.
MM82	MINRIE BURN	BANK	D	Walkover	n/a	n/a	n/a	Low	Post Medieval - Early Modern	332471 332449	772489 772517	n/a	Relict field boundary. Predominantly a low spread earthen bank but with areas of clear stone walling.
MM83	MINRIE BURN	BUILDING	D	Walkover	n/a	n/a	n/a	Low	Post Medieval - Early Modern	332519	772520	n/a	Heavily overgrown faintly discernible building. Sub rectangular aligned NW-SE. 3m by 7m. Sides of mounded earth up to 0.7m high in places, with slightly dipped interior.
MM84	EAST BONHARD	BUILDING	E	Walkover	n/a	n/a	n/a	Low	Post Medieval - Early Modern	330965	774251	n/a	Low turf covered building footings. Measures c.6m by c.3m. Substantial stone wall footings c. 0.8m wide and up to 0.4m high. Aligned NW-SE. Clear entrance on SW side in front of which is a small levelled partially enclosed area measuring 4m by 5m and see
MM85	EAST BONHARD	BUILDING	E	Walkover	n/a	n/a	n/a	Low	Post Medieval - Early Modern	330959	774199	n/a	Sub rectangular building aligned NW-SE. Measures c.8m by 3m. Walls heavily overgrown with rare stones, survive up to 0.2m high with width of c.0.6m.
MM86	EAST BONHARD	BUILDING	E	Walkover	n/a	n/a	n/a	Low	Post Medieval - Early Modern	330955	774220	n/a	Related to MM85? Small irregular possible structure. Measures 3m diameter averted into hillside. Mound to rear measures c.1m across by 0.4m high, remainder is ephemeral but there is a clear scooped interior.
MM87	EAST BONHARD	BUILDING	E	Walkover	n/a	n/a	n/a	Low	Post Medieval - Early Modern	330918	774232	n/a	Sub rectangular building. Measures 6m by 4m aligned NW-SE, with clear entrance on SW side. Walls up to 0.4m high and c.0.8m wide slumped.

Number	Asset Name	Asset Type	Parcel	Source	Designation Reference	HER Number	NRHE Number	Significance	Period	Easting	Northing	Description	Walkover
MM88	EAST BONHARD	SHEEPFOLD	E	Walkover	n/a	n/a	n/a	Low	Post-Medieval - Early Modern	330884	774264	n/a	Ephemeral remnants of circular sheepfold. C.7m diameter. Small angular stones protrude from low mound.
MM89	CLAYLEITH	LIME KILN	D	Walkover	n/a	n/a	n/a	Low	Post-Medieval - Early Modern	332219	772676	n/a	Sub circular sunken lime kiln. Excavated into NE facing slope of hill to a depth of c.1m and revetted against the slope. Clear mounded material around NW and SE sides. Opening for draw hole to NE. Reverting/construction is up to 4-5 courses visible. Some tumble in interior. Internal dimensions of kiln c.2m across. Externally this is around 5m diameter.
MM90	GLEN CLOVA	BUILDING	D	Walkover	n/a	n/a	n/a	Low	Post Medieval - Early Modern	331801	772765	n/a	Substantial sub rectangular building surviving as overgrown earthen mounds. Aligned W-E measures c. 3m by 8m with internal partition at midway point dividing into two compartments 3m long internally. Few stones visible but incorporate very large stones.
MM91	ATTON	SHEEPFOLD	D	Walkover	n/a	n/a	n/a	Low	Post Medieval - Early Modern	330921	773481	n/a	Circular animal enclosure with low stone walls downslope to NE and more substantial upslope, incorporating large in situ rockfall. Ground in and immediately around appears to have degree of improvement. Measures c.13m across.
MM92	CLAYLEITH	BANK / HEAD DYKE?	D	Walkover	n/a	n/a	n/a	Low	Post Medieval - Early Modern	331817 331926 331946 332051	772992 772870 772867 772856	n/a	Curvilinear bank, follows topography, partly to utilise very large earthfast rockfall boulders. Stones protrude. Generally, c.0.75m wide and 0.3m high although this varies considerably. Relict drystone wall and Earth bank deviate indicating the stone wall was placed on top of the bank elsewhere. Field system linked to MM18.
MM93	CLAYLEITH	BUILDING	D	Walkover	n/a	n/a	n/a	Low	Post Medieval - Early Modern	331912	772879	n/a	Sub rectangular building aligned NW-SE. Two compartments. Measures 8.5m by 2.5m. Incorporates within MM92 on NE side although this probably remained in use longer. Relationship unclear. NW compartment is 3m long while SE is 2m. 1.5m wide internally.
MM94	CLOVA	BUILDING	E	Walkover	n/a	n/a	n/a	Low	Post Medieval - Early Modern	331931	773454	n/a	8m NW-SE by 4m. Sub rectangular building. Rounded terminals. Walls from small stones c<0.6m wide and 0.2-0.4m with slope.
MM95	EAST BONHARD	BUILDING	E	Walkover	n/a	n/a	n/a	Low	Post Medieval - Early Modern	330917	774325	n/a	Substantial stone footings of a building. Aligned NW-SE 7m by 4m. Clear entrance on SW side. Walls spread up to 1m. Surviving up to 0.8m high with topography. Clear rounded terminals.
MM96	LANGHOLM	STRUCTURE	E	Walkover	n/a	n/a	n/a	Low	Post Medieval - Early Modern	331825	773567	n/a	Small sub circular building. Heavily overgrown. Walls can.0.15m high and spread up to 0.3-1m. Bowled interior.
MM97	LANGHOLM	BUILDING	E	Walkover	n/a	n/a	n/a	Low	Post medieval - Modern	331823	773578	n/a	Possible disrupted structure. Located on small plateau next to road and may have had modern usage. Survives as linear Earth bank 6m NW-SE by 3m, with no clear SE end.
MM98	CLOVA	DRYSTONE WALL	E	Walkover	n/a	n/a	n/a	Low	Early Modern	332340 332263	773481 773617	n/a	Relict drystone wall.
MM99	CLOVA	BANK	E	Walkover	n/a	n/a	n/a	Low	Post Medieval - Early Modern	332258 332159	773492 773561	n/a	Low linear earthen bank. Field system.

## B. Buffer Zones

**Table B.2: recommended Buffer Zones**

Number	Asset Name	Asset Type	Recommend Buffer	Comments
MM01	CLOVA CASTLE	CASTLES, STRUCTURES, TOWERS, TRACKWAYS	20m	Buffer on Scheduled Area must be at least 20m, but this is covered by the wider buffer incorporating MM45 and other assets.
MM02	THE DOLL	BURNT MOUNDS	15m	Exposed/open to east along study area boundary and possible watercourses.
MM03	BRAEDOWNIE	BUILDINGS (SHIELING HUT)	15m	Open to east along site boundary.
MM04	HILLOCKS	HUTS	15m	Standard 15m buffer.
MM05	WHITEHAUGH	BUILDING(S) (PERIOD UNASSIGNED)	15m	Open to road. No further quarrying or excavation in this area.
MM06	BURN OF LOWIE	BUILDINGS, ENCLOSURES	15m	15m buffer maintained around buildings, and 10m around the associated enclosures to the south. Buffer to be open to road to the north.
MM07	ATTON	SHEEPFOLDS	10m	Standard 10m buffer.
MM08	ATTON	BUILDINGS, ENCLOSURES	15m	Standard 15m buffer. Consider conjoining with MM91.
MM09	ATTON	BANKS, FARMSTEADS	None	No buffer required. Asset is located outwith study area.
MM10	ATTON	TOWNSHIP (PERIOD UNASSIGNED)	15m	Minimum 15m beyond individual buildings, but entire township is preserved within a wider buffer, ensuring intervisibility remains between assets. Buffer will remain open to the north.
MM11	GLEN CLOVA	ENCLOSURES	10m	Standard 10m buffer.
MM12	GLEN CLOVA	HUTS, BUILDING	15m	Standard 15m buffer, with area left open to the east for potential second building recorded by NRHE.
MM13	GLEN CLOVA	HUTS, BUILDING	15m	Standard 15m buffer.
MM14	GLEN CLOVA	HUTS, BUILDING	15m	Standard 15m buffer. Asset is currently behind a deer fence in an area set aside for shelter and maintenance of game birds.
MM15	GLEN CLOVA	HUT-CIRCLES	20m	20m buffer, but also incorporated within wider buffer for MM17 and other assets to east.
MM16	GLEN CLOVA	HANDLES, HOARDS, OPENINGS, SPEARHEADS, SWORDS, WINGS	None	No buffer required.
MM17	GLEN CLOVA	BUILDINGS, ENCLOSURES, SHEEPFOLDS	15m	Minimum 15m beyond buildings and 10m beyond walls and enclosures, but preserved within wider buffer incorporating MM15 and MM90.

Number	Asset Name	Asset Type	Recommend Buffer	Comments
MM18	CLAYLEITH	BUILDINGS, ENCLOSURES, SETTLEMENTS	15m	Minimum 15m beyond buildings and 10m beyond walls and enclosures, but preserved within wider buffer maintaining relationships with other associated features in the settlement and surrounding landscape, including a link with MM20.
MM19	GALLOWS KNOWE	EXECUTIONS, GALLOWS	None	No buffer required. Asset cannot be accurately located.
MM20	GLEN CLOVA	TOWNSHIPS	15m	Minimum 15m beyond buildings and 10m beyond walls and enclosures, but preserved within wider buffer maintaining relationships with other associated features in the settlement and surrounding landscape, including a link with MM218 and MM21.
MM21	MINRIE BURN	BUILDINGS, ENCLOSURES, FOOTINGS	15m	Minimum 15m beyond buildings, but preserved within wider buffer securing visual links with MM20.
MM22	MINRIE WELL	WELLS	None	No buffer required. Asset cannot be accurately located.
MM23	MINRIE BURN	BUILDINGS, ENCLOSURES	15m	Minimum 15m encompassing area of building and potential enclosure.
MM24	GLEN CLOVA	BUILDINGS, HEAD DYKE	15m	Minimum 15m beyond buildings, but preserved within wider buffer securing link with assets to the west, including MM20.
MM25	CADHAM	BUILDINGS, DAMS, FARMSTEADS, PONDS, SAWMILLS	15m	Minimum 15m but preserved within wider buffer including MM26 and MM80.
MM26	CADHAM	BUILDINGS, DAM, HUT, STACK-BASES	15M	Minimum 15m but preserved within wider buffer including MM25 and MM80.
MM27	CADHAM	BUILDINGS (ROUND ENDED)	15m	Standard 15m buffer.
MM28	CADHAM	BANKS, BUILDINGS, HUTS, RIG AND FURROW, PENS	5m	Wider buffer preserving a section of rig and furrow.
MM29	CADHAM	BUILDINGS	15m	Within wider buffer incorporating MM79.
MM30	CADHAM	SHEEPFOLDS	10m	Standard 10m buffer.
MM31	CRAIG DUFF	MINES/QUARRY, TRACKWAYS	5m	Buffer proposed on a section of the asset. Not considered necessary to preserve entire asset.
MM32	CRAIG DUFF	HUTS, BUILDING	15m	Standard 15m buffer.
MM33	BRAEDOWNIE	HUTS (SHIELING)	15m	Minimum 15m beyond buildings, but preserved within a wider buffer maintaining links between buildings. Open to road.
MM34	BONTYRE	TOWNSHIP (PERIOD UNASSIGNED)	15m	Minimum 15m beyond buildings, but preserved within wider buffer securing link with all associated elements of the landscape. Open to road.
MM35	CORRIE OF BONHARD	HUTS	15m	Standard 15m buffer.



Number	Asset Name	Asset Type	Recommend Buffer	Comments
MM36	WEST BONHARD	SHEEPFOLDS	10m	Standard 10m buffer.
MM37	WEST BONHARD	SHEEPFOLDS	10m	Minimum 10m beyond asset, but preserved within wider buffer maintaining links with landscape features including MM38.
MM38	WEST BONHARD	ENCLOSURES, FARMSTEADS, SHEEPFOLDS, SHIELING HUTS	15m	Minimum 15m beyond buildings, but preserved within wider buffer maintaining links between buildings and associated landscape features.
MM39	GLEN CLOVA	SHEEPFOLDS	None	No buffer required. Asset cannot be accurately located, but the area is preserved within the wider buffer for MM38, MM85, MM88 etc.
MM40	ATTON	BUILDING (PERIOD UNASSIGNED)	15m	Standard 15m buffer.
MM41	ATTON	BUILDING (PERIOD UNASSIGNED)	15m	Standard 15m buffer.
MM42	LANGHOLME	BUILDINGS	None	No buffer required. Asset is located outwith the study area.
MM43	LANGHOLME	KILNS	10m	Minimum 10m beyond asset, yet preserved within wider buffer maintaining links with MM44.
MM44	LANGHOLME	FARMSTEADS, SHEEPFOLDS, CORN DRYING KILN, TRACK	15m	Minimum 15m beyond buildings, yet preserved within wider buffer maintaining links between buildings and landscape features.
MM45	CLOVA	TOWNSHIPS, CORN DRYING KILN, HEAD DYKE, HUT(S)	15m	Minimum 15m beyond buildings, yet preserved within wider buffer maintaining links between buildings and landscape features including MM46, MM94 and MM99.
MM46	MAINS	HUT (PERIOD UNASSIGNED)	15m	Minimum 15m beyond building, yet preserved within wider buffer maintaining links between buildings and landscape features.
MM47	MAINS	BANKS, HUTS	15m	Minimum 15m beyond building, and 5m either side of bank, but wider buffer maintains link between two and MM98.
MM48	PARKHEAD	ENCLOSURES	10m	Standard 10m buffer.
MM49	PARKHEAD	BUILDINGS	15m	Standard 15m buffer.
MM50	ARNTIBBER	BUILDING(S) (PERIOD UNASSIGNED)	15m	Minimum 15m beyond buildings, yet preserved within wider buffer maintaining links with MM51 and MM52.
MM51	ARNTIBBER	BUILDINGS, FARMSTEADS	15m	Located outside study area, but buffer should be maintained on north side where this borders study area. Relationship with MM51 and MM52 preserved within wider buffer to north.
MM52	ARNTIBBER	BUILDING (PERIOD UNASSIGNED), ENCLOSURE (PERIOD UNASSIGNED)	15m	Minimum 15m beyond building and 10m beyond banks/walls, yet preserved within wider buffer preserving links with MM50 and MM51.
MM53	GLEN CLOVA	BUILDINGS	15m	Standard 15m buffer.
MM54	INCHDOWRIE	HUTS	15m	Standard 15m buffer, preserving link between buildings.
MM55	INCHDOWRIE	TRACKWAYS	5m	Buffer proposed on section of the asset. Not considered necessary to preserve entire asset.

Number	Asset Name	Asset Type	Recommend Buffer	Comments
MM56	LOCH BRANDY	HUT (PERIOD UNASSIGNED)	15m	Standard 15m buffer.
MM57	CADHAM	HUTS	15m	Standard 15m buffer.
MM58	EAST BONHARD	FARMSTEADS, SETTLEMENT	None	Not located during walkover, yet location is preserved within wider buffer for MM3, MM38 etc.
MM59	BURN OF LOCH BRANDY	SLUICE	None	No buffer proposed. Can be planted.
MM60	THE DOLL	DRYSTONE WALL	5m	Standard buffer of 5m either side of land boundary, leaving corridor of 10m.
MM61	THE SCORRIE	REVETMENT / TRACK?	None	No buffer proposed. Can be planted.
MM62	EAST BONHARD	BUILDING	15m	Minimum 15m beyond building, yet preserved within wider buffer for MM37, MM38, MM95 etc.
MM63	BONTYRE	QUARRY	None	No buffer necessary, but preserved within wider buffer for MM34.
MM64	BRAEDOWNIE	QUARRY	None	No buffer necessary but preserved within wider buffer for MM33.
MM65	BRAEDOWNIE	QUARRY	None	No buffer necessary but preserved within wider buffer for MM33.
MM66	LOCAH BRANDY	GROUSE BUTT	5m	Standard 5m buffer.
MM67	LOCH BRANDY	CAIRN	5m	Standard 5m buffer.
MM68	BROWN HOLM	GROUSE BUTTS	5m	Standard 5m buffer where these can be located.
MM69	BONTYRE	DRYSTONE WALL	5m	Standard buffer of 5m either side of land boundary, leaving a corridor of 10m.
MM70	WEST BONHARD	LINEAR EARTHWORK	5m	Minimum buffer of 5m either side of earthwork, but reserved within wider buffer incorporating MM37, MM38, MM88 etc
MM71	WEST BONHARD	SHIELING	15m	Minimum of 15m beyond building, yet preserved within wider buffer incorporating MM37, MM38, MM88 etc.
MM72	COREMACHY	GROUSE BUTT	5m	Standard 5m buffer.
MM73	COREMACHY	PATH?	None	No buffer proposed. Can be planted.
MM75	MINRIE BURN	DRYSTONE WALL	5m	Incorporate within wider buffer for MM20, as drawn.
MM76	CRAIG DUFF	DRYSTONE WALL	5m	Minimum 5m either side of drystone wall, yet preserved within wider buffer incorporating MM20, MM21, MM18 etc.
MM77	CRAIG DUFF	GROUSE BUTTS	5m	Standard 5m buffer where these can be located.
MM78	CRAIG DUFF	GROUSE BUTTS	5m	Standard 5m buffer where these can be located.
MM79	CADHAM	BANK	5m	Standard buffer of 5m either side of land boundary, leaving corridor of 10m.

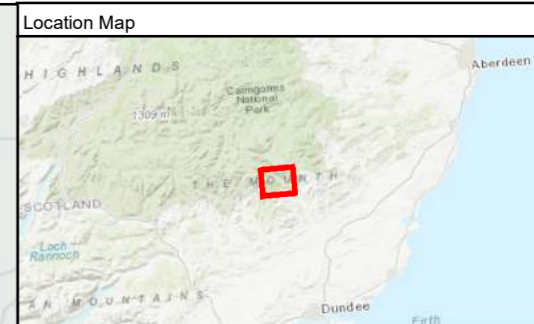
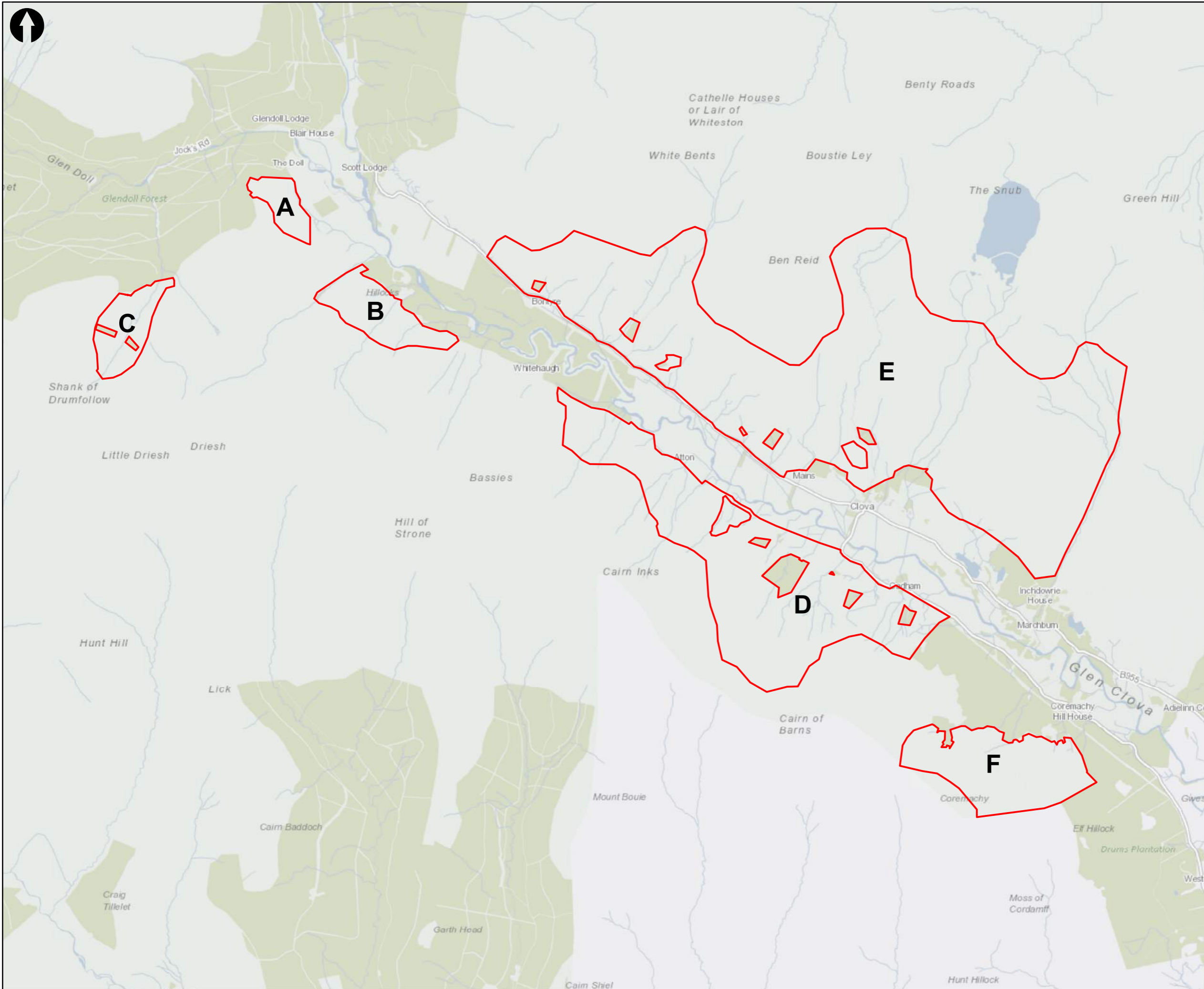
Number	Asset Name	Asset Type	Recommend Buffer	Comments
MM80	CADHAM	BUILDING	15m	Minimum 15m beyond building, yet preserved within wider buffer incorporating MM25 and MM26.
MM81	MINRIE BURN	EARTHEN BANK	5m	Minimum 5m either side of drystone wall, yet preserved within wider buffer incorporating MM20, MM21, MM83 etc.
MM82	MINRIE BURN	BANK	5m	Standard buffer of 5m either side of land boundary, leaving corridor of 10m.
MM83	MINRIE BURN	BUILDING	15m	Minimum 15m beyond building, yet preserved within wider buffer incorporating MM24 and MM81.
MM84	EAST BONHARD	BUILDING	15m	Minimum 15m beyond building, yet preserved within wider buffer incorporating MM62, MM85, MM88 etc.
MM85	EAST BONHARD	BUILDING	15m	Minimum 15m beyond building, yet preserved within wider buffer incorporating MM62, MM84, MM88 etc.
MM86	EAST BONHARD	BUILDING	15m	Minimum 15m beyond building, yet preserved within wider buffer incorporating MM38, MM84, MM85 etc.
MM87	EAST BONHARD	BUILDING	15m	Minimum 15m beyond building, yet preserved within wider buffer incorporating MM38, MM84, MM85 etc.
MM88	EAST BONHARD	SHEEPFOLD	10m	Minimum 10m buffer, yet preserved within wider buffer incorporating MM62, MM84, MM85 etc.
MM89	CLAYLEITH	LIME KILN	10m	Minimum 10m beyond asset, yet preserved within wider buffer incorporating MM18, MM20 etc.
MM90	GLEN CLOVA	BUILDING	15m	Minimum 15m beyond building, yet preserved within wider buffer incorporating MM15 and MM17.
MM91	ATTON	SHEEPFOLD	10m	Standard 10m buffer. Consider conjoining with MM08.
MM92	CLAYLEITH	BANK / HEAD DYKE?	5m	Minimum 5m either side of asset, leaving a 10m corridor, yet preserved within wider buffer linking asset with MM18 and MM93.
MM93	CLAYLEITH	BUILDING	15m	Minimum 15m beyond building, yet preserved within a wider buffer incorporating MM18 and MM92.
MM94	CLOVA	BUILDING	15m	Minimum 15m beyond building, yet preserved within wider buffer incorporating MM45 etc.
MM95	EAST BONHARD	BUILDING	15m	Minimum 15m beyond building, yet preserved within wider buffer incorporating MM38, MM62, MM85 etc.
MM96	LANGHOLM	STRUCTURE	15m	Minimum 15m beyond building, yet preserved within wider buffer maintaining link with MM97 and leaving access open to the road.
MM97	LANGHOLM	BUILDING	15m	Minimum 15m beyond building, yet preserved within wider buffer maintaining link with MM96 and leaving access open to the road.

Number	Asset Name	Asset Type	Recommend Buffer	Comments
MM98	CLOVA	DRYSTONE WALL	5m	Standard buffer of 5m either side of land boundary, leaving corridor of 10m.
MM99	CLOVA	BANK	5m	Standard buffer of 5m either side of land boundary, leaving corridor of 10m, yet preserved within wider buffer incorporating MM45, MM46 etc.

## C. Figures


**Table C.3: Figures within Appendix C**

<b>Figure Number</b>	<b>Title</b>
Figure 1	Site Location and Parcel Locations
Figure 2	Heritage assets identified within study areas and proposed buffers



Key to Symbols

### Legend

 Parcel Boundaries

Notes

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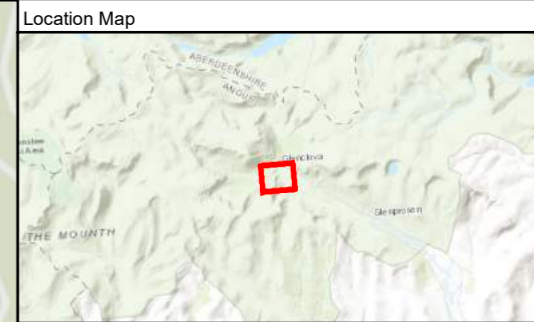
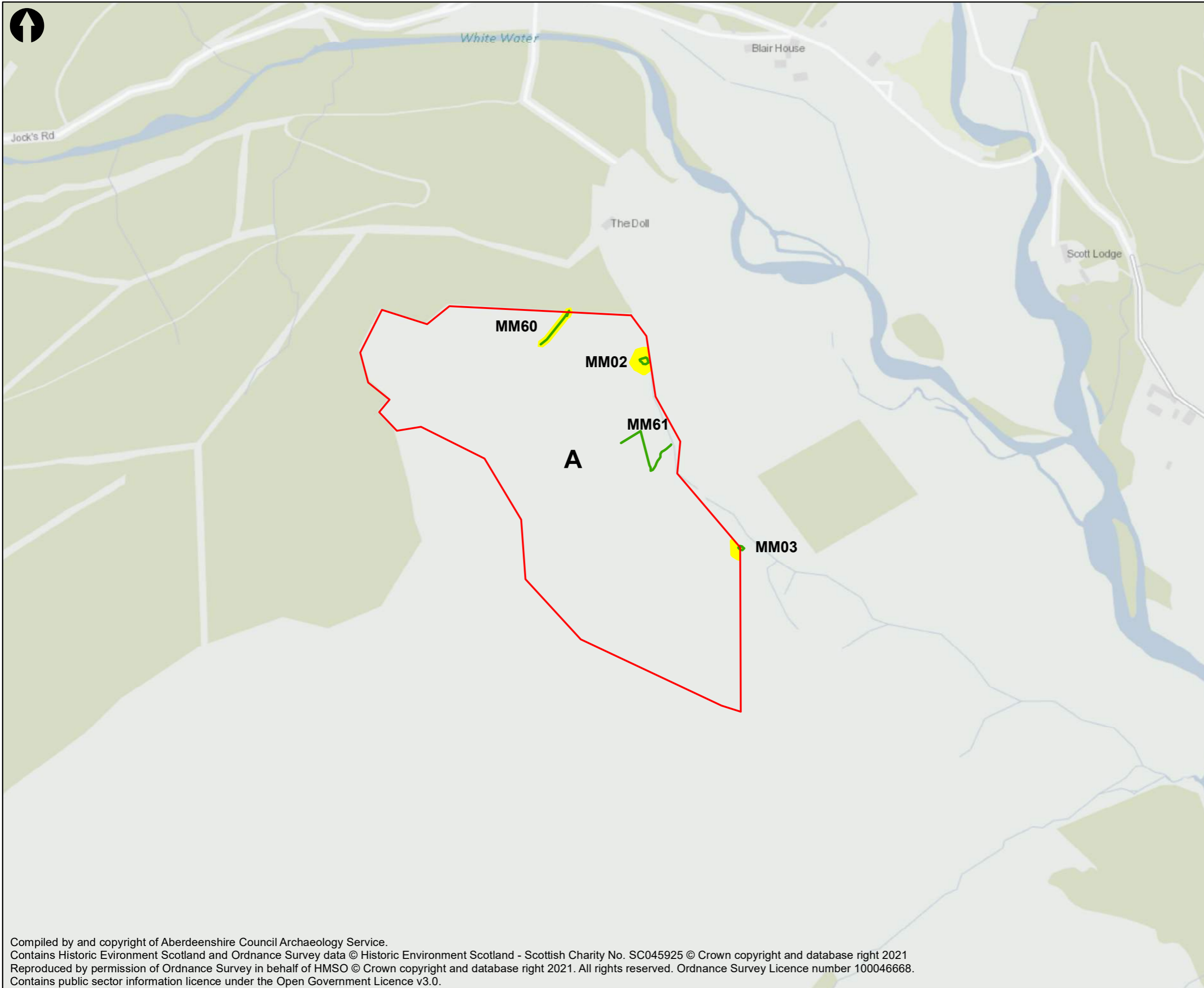
**TILHILL FORESTRY**

**Parcel Boundary Plan**  
**Glen Clova**

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Key to Symbols

- Legend**
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  - Heritage Asset
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  - Heritage Asset Buffer

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**Title**

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Heritage Asset Location Plan  
Glen Clova  
Figure 2a

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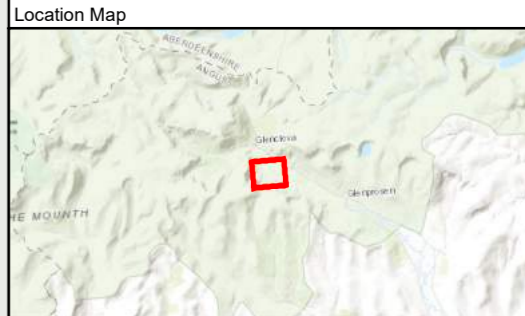
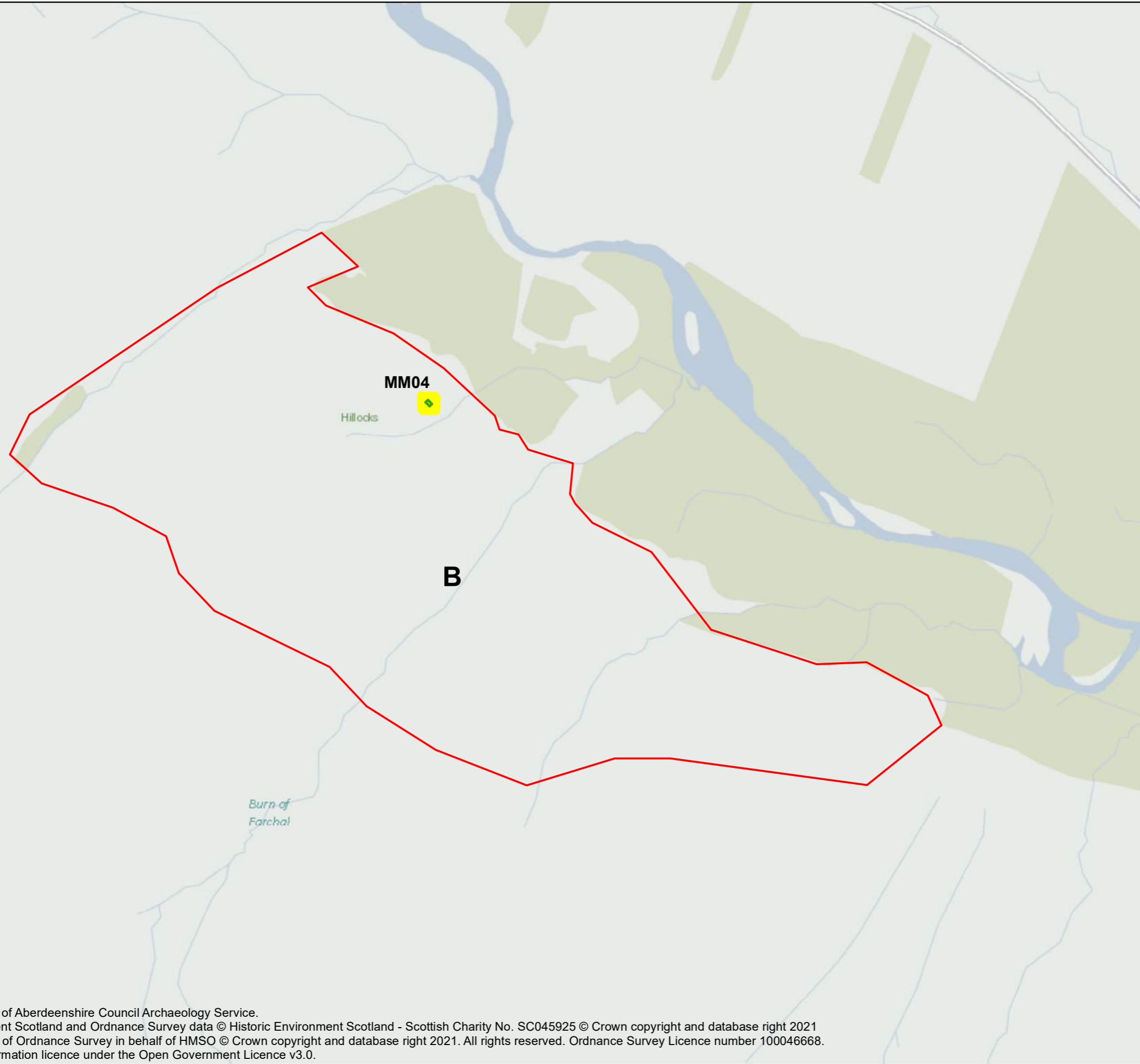
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TILHILL FORESTRY

Heritage Asset Location Plan  
Glen Clova  
Figure 2b

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MM05

MM06

MM07

MM08

MM91

MM09

River South Esk

Burn of Lowie

D

MM10

MM92

MM93

MM11

MM14

MM90

MM18

MM13

MM15

MM16

MM17

MM12

Location Map



Key to Symbols

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TILHILL FORESTRY  
Heritage Asset Location Plan  
Glen Clova  
Figure 2d

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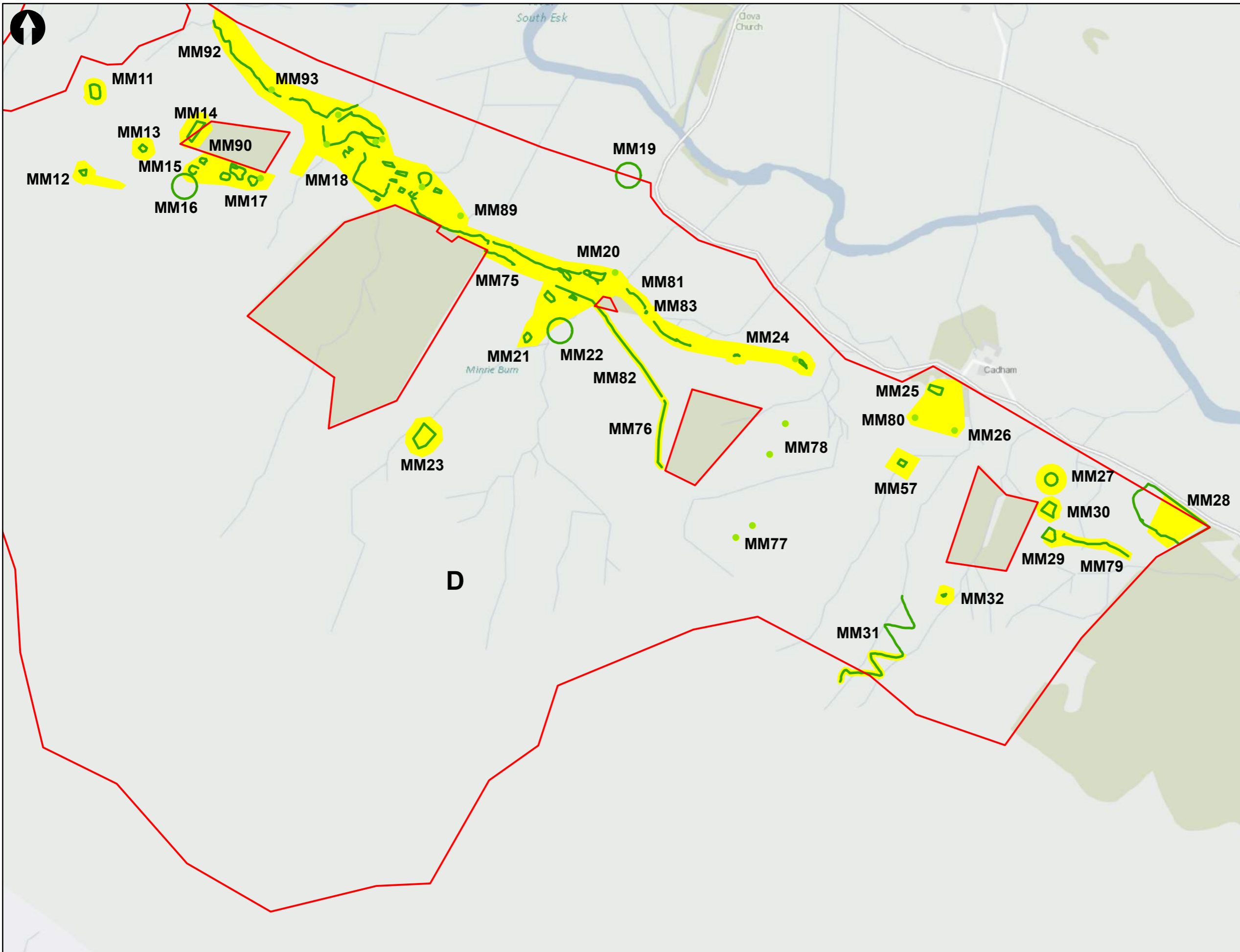
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TILHILL FORESTRY

Heritage Asset Location Plan  
Glen Clova  
Figure 2d

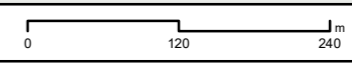
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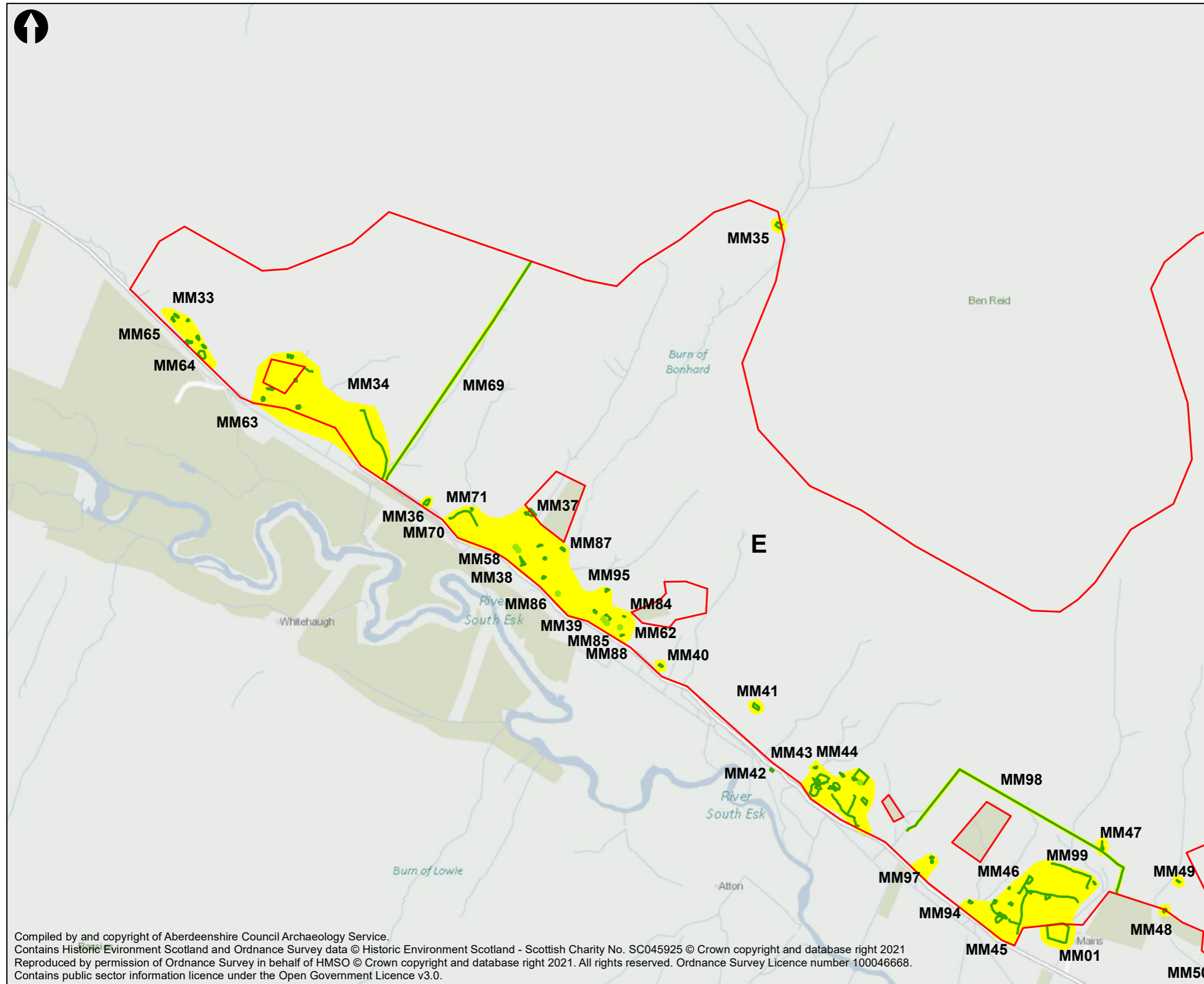
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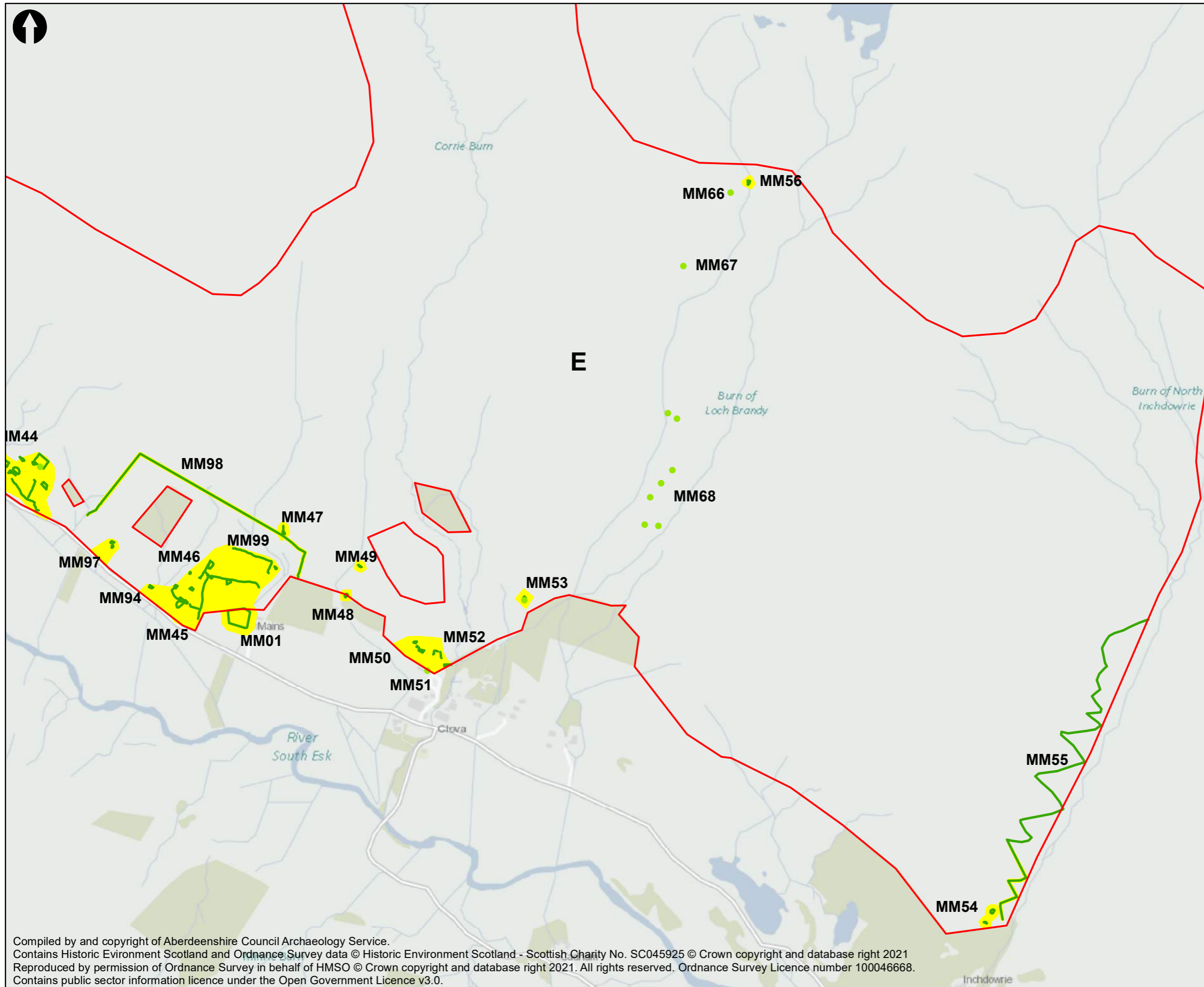
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Glen Clova  
Figure 2e

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Heritage Asset Location Plan  
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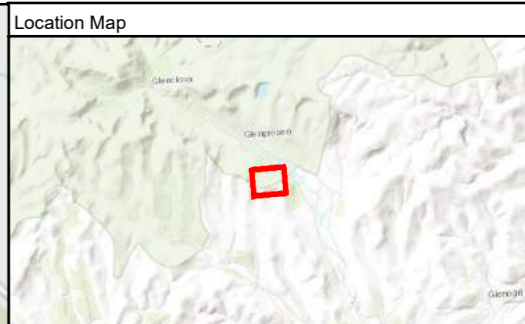
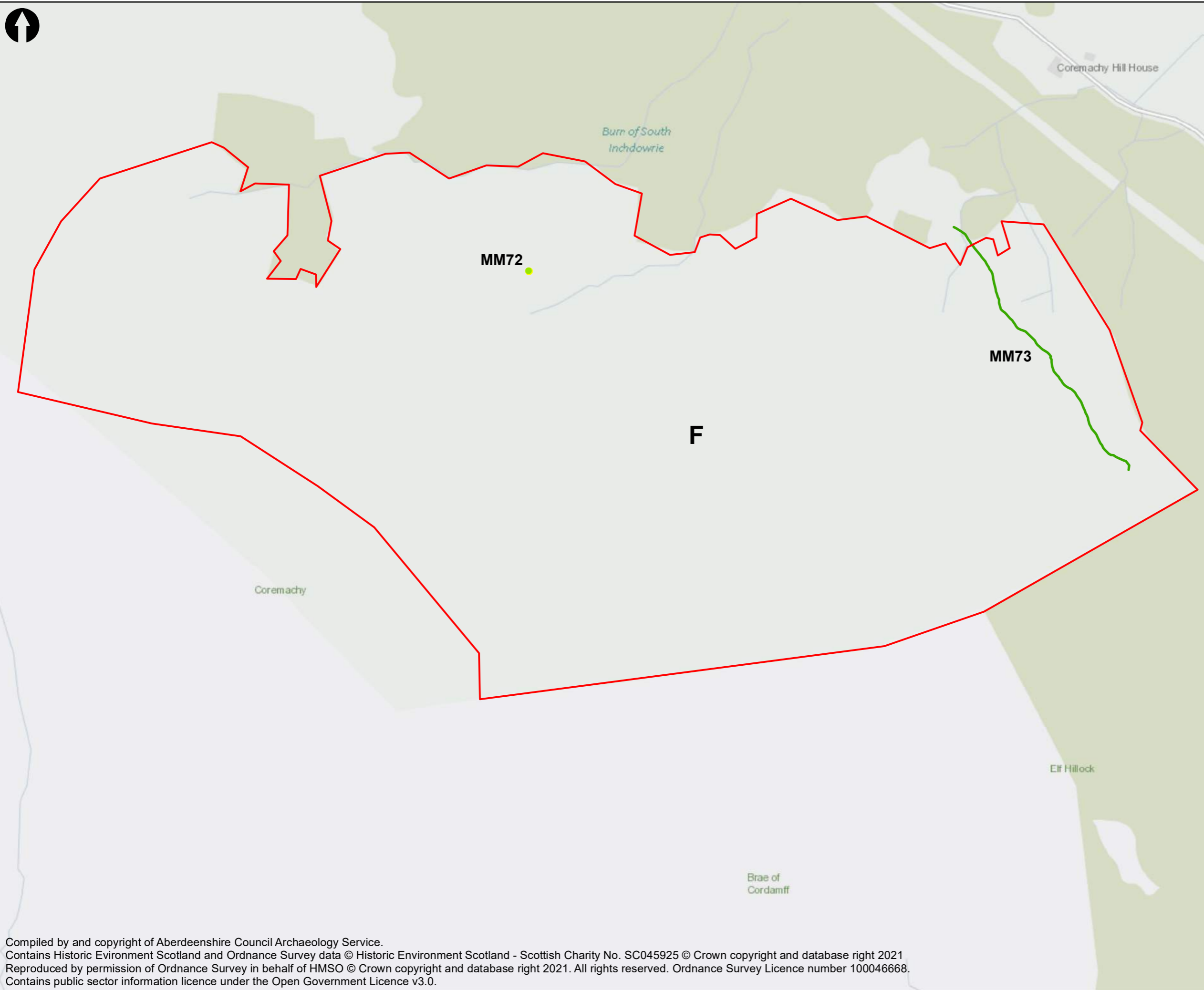
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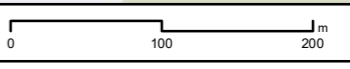
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Glen Clova  
Figure 2f

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