

# REPORT

## Archaeological Desk-Based Assessment

Knocknagael Site, Essich, Inverness

Client: Field Knocknagael Ltd

Reference: PC3506-RHD-07-XX-RP-Z-0004

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## 1 Introduction

### 1.1 Background and Document Purpose

Royal HaskoningDHV has been commissioned by Field Knocknagael Limited (Field) to undertake an archaeological desk-based assessment and walkover survey in relation to the construction and operation of a Battery Energy Storage System (BESS) with associated infrastructure, access and ancillary works (the Proposed Development) on land located to the west of the existing Knocknagael substation, approximately 8 kilometres (km) southwest of the town of Inverness, Scotland.

The purpose of this desk-based assessment is to provide an understanding of the potential effects of the Proposed Development in regard to heritage. This report constitutes a full desk-based assessment including a setting assessment and walkover survey.

### 1.2 Site Description and Potential Development

The Proposed Development is located approximately 600 m to the south of the settlement of Essich within the area of the Highland Council (**Appendix A: Figures, Figure 1**). The Proposed Development is bound by Essich Road to the west, Biorraid Road to the east and woodland to the south and southwest. The existing Knocknagael substation is located to the east of Biorraid Road, and is connected to three overhead electricity transmission lines (see **Appendix A: Figures, Figure 1**). The Proposed Development is c. 6 hectares in size and comprises an area of semi-improved pasture with a number of mature trees and surviving upstanding earthworks located in the eastern portion.

The name Knocknagael refers to an isolated hillock or small hill in Scots ([Scottish Language Dictionaries et al. website accessed 2023](#)) and Biorraid (Biorraid Road runs along the eastern boundary of the site) means helmet or cap in Gaelic (MacBain 1982). The Proposed Development is situated on a north facing slope which sits between 200 m Above Ordnance Datum (AoD) in the south and 180 m AoD in the north. The area to be developed is a small part of a variously undulating landscape which generally slopes down from Drum Mossie to the River Ness. From the Proposed Development, there are relatively uninterrupted long-distance views looking northwest through to northeast into the surrounding Highland landscape. Looking north, it is possible to see as far as Inverness and the Moray Firth. Longer views south are mostly precluded by the intervening topography which rises to the south and is topped by vegetation and forestry.

The Proposed Development principally comprises a battery energy storage system (BESS) that will charge and discharge electricity from the adjacent Knocknagael substation. It includes two battery compounds comprising battery storage units arranged into rows, MV skids and associated ancillary equipment, a substation compound which accommodates high-voltage grid transformers, switchgear and a control building, as well as site-wide supporting infrastructure including underground cabling, access tracks, fencing, attenuation basins, and landscaping measures. Whilst the exact specifications are subject to detailed design, the principal components described form the basis of the planning application to allow environmental assessments and mitigation to be appropriately scoped. The Proposed Development has been carefully designed by Field in order to avoid the core of the upstanding post-medieval settlement within the Site (MHG26103) as embedded mitigation, however there will be impacts on three non-designated possible hut circles (MHG62728, MHG62784, MHG26014) to the south as per **Appendix C: Site Plan**.

The Proposed Development is located immediately adjacent to the existing Knocknagael substation which was constructed in tandem with the associated upgrade to the overhead line transmission network in the area, required to support the increasing amounts of renewable-generated electricity. Previous planning applications for the substation site and infrastructure include:

- A new substation (08/00753/FULIN);
- 275kV Overhead Transmission Line (15/02000/SCOP); and
- Construction and operation of the proposed Knocknagael to Tomatin 275kV overhead transmission line and associated works (15/04112/S37).

Various archaeological investigations were undertaken as part of these works and are described in **Section 5.3** of this report.

Ground investigations undertaken for the Proposed Development in February 2024 identified topsoil across the site comprised primarily of a dark brown gravelly silty-sand ranging between 0.10 – 0.60 m in thickness. The topsoil overlies Hummock Glacial Deposits of light brown gravelly clayey-sand with a high cobble content (mudstone and sandstone). The subsoil level varied significantly across the area to be developed, therefore the geological bedrock was typically encountered between 0.20 m and 1.95 m below ground level, consisting of Inshes Flagstone Formation sandstone or mudstone.

The ground Investigation was undertaken in conjunction with a watching brief which identified no features of archaeological origin in the test pits.

## 2 Aims and Objectives

The aim of this desk-based assessment is to outline from existing information the nature, extent and significance of the historic environment baseline resource within the study area (**Section 5**) and, where relevant, its immediate surroundings, to provide an archaeological and historical baseline summary and context for the Proposed Development.

This report also assesses the likely level of any impact that the Proposed Development may have on known and potential heritage assets, as well as the significance of any assets affected and a consideration of the setting of any affected assets. Where there is the potential for impacts, the report highlights any mitigation necessary to enable development at the Site.

The specific aim of this assessment is further defined via the application of the following objectives:

- To outline the known and potential heritage assets within the Site based on a review of existing information in order to provide an archaeological and historical baseline context within the study area (defined in **Section 3.2**);
- To assess the importance of the known and potential heritage assets through a weighted consideration of their valued components and to provide a consideration of the setting of heritage assets, where relevant; and
- Make recommendations on the likely next steps and mitigation required to enable development at the Site, in consultation with the Highland Council and Historic Environment Scotland.

## 3 Methodology

### 3.1 Introduction

The following methodology has been designed in a manner consistent with good practice professional guidance outlined by the Chartered Institute for Archaeologists' (CIfA) Standards and guidance for historic environment desk-based assessment (CIfA, 2020). Other best-practice guidance is referenced in the text where appropriate.

## 3.2 The Study Area

This assessment utilises study areas which have been designed based on the Option Site provided by Field, as shown in **Appendix A: Figures**.

For the purpose of assessing the potential setting impacts, a 2 km study area was established for designated heritage assets (**Appendix A: Figures, Figure 2**) for which data was acquired from Historic Environment Scotland.

For the purpose of assessing the potential physical impact of the Proposed Development, a study area based on a 1 km buffer from the proposed Option Site was established to gather Historic Environment Record (HER) Data from the Highland Council for non-designated heritage assets (**Appendix A: Figures, Figure 3**).

## 3.3 Sources

The following documentary, cartographic and internet-based sources were consulted in compiling this desk-based assessment:

- Highland Council HER (<https://her.highland.gov.uk/>);
- Canmore – National Record of the Historic Environment; (<https://canmore.org.uk/site/search/result?SITECOUNTRY=0&view=map>);
- Historic Environment Scotland (<https://portal.historicenvironment.scot/downloads>);
- Archival information held at the Highland Archive Centre;
- Historic Mapping held by the National Library of Scotland (<https://maps.nls.uk/>); and
- National Collection for Aerial Photography (NCAP) (<https://ncap.org.uk/>).

A commercial search of the Highland Council HER was requested on 15<sup>th</sup> May 2024. For the purposes of this search, the HER conducted data enhancement to incorporate new records resulting from recent archaeological investigations in the area. The data was also refined to remove duplicate records within the area. The HER data was received on 16<sup>th</sup> May 2024. The HER data used to compile this assessment is presented gazetteer style **Tables A3** and **A4** in **Appendix B: Gazetteers**.

### 3.3.1 Cartographic Sources

Pre-Ordnance Survey maps of the Site held by the National Library of Scotland (NLS) were identified and consulted on-line. Relevant maps, including manuscript maps, range in date from the sixteenth to the nineteenth centuries. The Highland Council Archives were visited as part of the walkover assessment. Pre-Ordnance Survey Estate maps covering the Site were viewed but provided no additional details on any known or potential heritage assets at the Site. The National Records of Scotland hold an 1834 map covering the Site as part of the Papers of the Mackintosh Family of Mackintosh (RHP2187). The map comprises a sketch plan of the farm by an unknown surveyor dating to 1834. Forming part of the muniments of the Mackintosh family of Mackintosh, it is stored with other documents dealing with Essich in the National Archives in Edinburgh. The Site is shown as a blank field.

First, second and subsequent editions of the Ordnance Survey maps of the area of interest, were identified and examined via NLS.

### 3.3.2 Aerial Photographic Data

No LiDAR data covering the Site was found via NLS or the Scottish LiDAR Remote Sensing Portal. The Site is within grid squares covered by Phase 1 LiDAR, but no topographic detail is available. The NCAP on-line archive holds two aerial photographs covering the Site dated to 1988 at a scale of 1:24000 m (Sortie: ASS/61188 Frames, All Scotland Survey) neither of which are at a sufficient resolution to identify any additional discernible archaeological features.

### 3.3.3 Walkover Survey

A site visit was carried out on 23 August 2023 to determine the topography and existing land use, the nature of the existing visible heritage assets (e.g. structures and earthworks) and assess factors which may have affected the survival or condition of any known or potential heritage assets.

The visit extended beyond the Site boundary for the purposes of scoping designated heritage assets and their intervisibility with the Proposed Development for the settings assessment.

## 3.4 Setting Assessment

This setting assessment has been undertaken in line with the guidance within 'Managing Change in the Historic Environment: Setting' (Historic Environment Scotland 2020b). This industry-standard guidance document recommends a stepped (stage-based) approach for assessing the implications of development proposals, as follows:

- Step 1: identify those heritage assets whose settings might be affected;
- Step 2: define the setting of each historic asset; and
- Step 3: assess the impact of any new development on this.

The results of Step 1 are presented in **Section 5**.

## 3.5 Assumptions and Limitations

Data used to compile this report primarily consists of secondary, pre-existing information derived from a variety of sources. The assumption is made that the secondary data, as well as that derived from other secondary sources, is sufficiently accurate.

The records held by the sources used in this assessment are not a record of all surviving heritage assets, rather a record of the discovery of a range of archaeological and historical components of the historic environment for the study area. The information held within these sources is not complete and does not preclude the subsequent discovery of further elements of the historic environment that are, at present, unknown.

## 3.6 Copyright

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## 4 Legislation, Policy and Guidance

### 4.1 Legislation

The Historic Environment Scotland Act (2014) sets out Historic Environment Scotland's role and legal status, including changes in processes for the designation of monuments and buildings (scheduling and listing) and for consents relating to scheduled monuments, listed buildings and conservation areas. The Act amended the following relevant legislation:

- Ancient Monuments and Archaeological Areas Act 1979;
- Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997; and
- Environmental Assessment (Scotland) Act 2005.

Under the terms of the Ancient Monuments and Archaeological Areas Act, an archaeological site or historic building of national importance can be designated as a Scheduled Monument and is registered with Historic Environment Scotland. Any development that might physically affect a Scheduled Monument is subject to the granting of Scheduled Monument Consent. Historic Environment Scotland advises the Scottish government on individual cases for consent and offers advice on the management of Scheduled Monuments.

Under the terms of the Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997 statutory protection for Listed Buildings and Conservation Areas, and their settings, is provided. A Listed Building is that which is seen to be of special architectural or historic interest, and a Conservation Area comprises an area of special architectural or historic interest, the character or appearance of which is desirable to preserve or enhance.

A Listed Building may not be demolished, altered or extended in any manner which would affect its character without Listed Building Consent being granted. Listed Buildings are put into one of three listing categories according to their relative importance:

- Category A: Buildings of special architectural or historical interest which are outstanding examples of a particular period, style or building type;
- Category B: Buildings of special architectural or historic interest which are major examples of a particular period, style or building type; and
- Category C: Buildings of special architectural or historic interest which are representative examples of a period, style or building type.

### 4.2 National Planning Policy

Overarching National planning policy in Scotland is managed through National Planning Framework 4 (Scottish Government, adopted February 2023) which subsumed the earlier two primary documents:

- Scottish Planning Policy (Scottish Government, 2014); and
- National Planning Framework 4 (Scottish Government, 2023).

This document sets out the policy aim to '*...protect and enhance historic environment assets and places, and to enable positive change as a catalyst for the regeneration of places*' and key provisions for dealing with assessment of effects on historic assets or places (Policy 7b), scheduled monuments (Policy 7h), and non-designated heritage assets (Policy 7o).

Heritage-specific policy is given in the Historic Environment Policy for Scotland (2019), which is managed by Historic Environment Scotland. The policy supports good decision making for Scotland's unique places and outlines how the Historic Environment will be considered by Scottish Government in planning decisions. There are six main policies and principles:

#### **Policy on Understanding and Recognition**

- HEP1 - Decisions affecting any part of the historic environment should be informed by an inclusive understanding of its breadth and cultural significance.

#### **Policies on Managing Change**

- HEP2 - Decisions affecting the historic environment should ensure that its understanding and enjoyment as well as its benefits are secured for present and future generations.
- HEP3 - Plans, programmes, policies and strategies, and the allocation of resources, should be approached in a way that protects and promotes the historic environment. If detrimental impact on the historic environment is unavoidable, it should be minimised. Steps should be taken to demonstrate that alternatives have been explored, and mitigation measures should be put in place.
- HEP4 - Changes to specific assets and their context should be managed in a way that protects the historic environment. Opportunities for enhancement should be identified where appropriate. If detrimental impact on the historic environment is unavoidable, it should be minimised. Steps should be taken to demonstrate that alternatives have been explored, and mitigation measures should be put in place.
- HEP5 - Decisions affecting the historic environment should contribute to the sustainable development of communities and places.
- HEP6 - Decisions affecting the historic environment should be informed by an inclusive understanding of the potential consequences for people and communities. Decision-making processes should be collaborative, open, transparent and easy to understand.

Policy HEP1 is particularly relevant to this appraisal and states that decisions affecting any part of the historic environment should be informed by an inclusive understanding of its breadth and cultural significance. The policy gives the core principles on understanding and recognition as:

- Recognising the cultural significance of sites and places supports good decision-making.
- A place must be understood in order for its cultural significance to be identified.
- A wide range of factors contribute to cultural significance.
- Knowledge and information about the historic environment is critical to our understanding of our past, present and future.
- The historic environment changes over time, and so does how it is understood and appreciated.
- Research, discussion and exchange of ideas can all contribute to our understanding of the historic environment.
- Understanding will improve when information is made widely available, and everyone has the opportunity to contribute to knowledge of the historic environment.

National heritage policy is also managed via the following supplementary planning documents:

- Our Place In Time: The Historic Environment Strategy for Scotland (Scottish Government, 2014);
- Historic Environment Scotland Circular 1: Processes and Procedures (Scottish Government, 2019);
- Scotland's Archaeology Strategy (Scottish Government, 2015); and
- Planning Advice Note 2/2011: Planning and Archaeology (Scottish Government, 2011).

### 4.3 Local Planning Policy

The Proposed Development is within The Highland Council area. The Highland Local Development Plan was adopted in 2012 and remains extant and relevant as part of the adopted local development plan. The policies relevant in terms of heritage and archaeology are:

- Policy 28 Sustainable Design;
- Policy 29 Design Quality & Place-making;
- Policy 57 Natural, Built & Cultural Heritage; and
- Policy 61 Landscape.

### 4.4 Additional Heritage Guidance

The methodology within this assessment is based on the following professional guidance documents:

- Standards and guidance for historic environment desk-based assessment (Chartered Institute for Archaeologists, 2020); and
- Managing Change in the Historic Environment: Setting (Historic Environment Scotland 2020b).

## 5 Baseline Environment

### 5.1 Designated Heritage Assets

There are five Scheduled Monuments within 2 km of the Proposed Development (**Appendix A: Figures, Figure 2**) which are detailed in **Table 1**.

*Table 1 Scheduled Monuments within 2km of the Site*

ID	Name	Easting	Northing	Distance from the Site (km)
SM2392	Carn Glas, [Prehistoric] chambered cairns 815 m southeast of Achvraid	264951	838311	0.4
SM11786	[Prehistoric] Hut circles 800 m southeast of Achvraid	264905	838294	0.5
SM11561	[Prehistoric] Hut circles 1030 m south/southeast of Achvraid	264735	837932	0.9
SM3098	[Prehistoric] Stone circle southwest of Torbreck	264375	840392	1.1
SM6499	Caledonian Canal, Dochgarroch Lock – Muirtown Locks	263726	841036	1.9

Carn Glas, chambered cairns 815 m southeast of Achvraid (SM2392) comprises a complex long cairn [burial mound] formed of three linked chambered cairns, visible as a series of stone structures set into a natural saddle-shaped ridge on Essich Moor. The cairns are Neolithic, dating to the fourth millennium BC, and form part of the Orkney-Cromarty Group of chambered cairns identified by Henshall and is the largest of those 59 chambered cairns. Carn Glas represents the accumulated remains of repeated funerary activity on the

same site, with at least four phases of construction evident, and therefore has the potential to provide information relating to a long time period.

To the immediate west of Carn Glas (SM2392) are two scheduled hut circles (SM11786). The hut circles are visible as upstanding walls and are likely to be Late Bronze Age or Iron Age (1250 BC up to 560 AD). The structures are located on a low ridge on Essich Moor. The northernmost hut circle is 5 m in diameter, the other 14 m, including banks 1 m wide. Both have entrances along the eastern arc.

Approximately 430 m southwest of these scheduled hut circles (SM11786) are two further scheduled hut circles (SM11561), which are a distance of 880 m southwest of the Site. The structures are visible as upstanding walls likely to be Late Bronze Age or Iron Age (1250 BC up to 560 AD). The western hut circle measures around 10 m in diameter, including walls spread to 2 m thick and measuring up to 0.3 m in height. The southern arc includes some outer facing stones and a natural boulder. The eastern hut circle measures 14 m in diameter, including banks 1.5 m wide. The Historic Environment Scotland schedule description records modern damage evidence in the form of tractor marks. Both huts have entrances along the eastern arc.

A scheduled stone circle (SM3098) is located 1.5 km north of the Site near Torbreck. There is no scheduling description for the monument, but it is recorded on Canmore (SC 1944964) as a Bronze Age stone circle comprising nine almost evenly spaced monoliths with an overall diameter of 7.8 m. No traces of an outer circle have been identified. Trial trenching undertaken near the circle revealed four small pits, of which one contained flint and sherds of Late Neolithic pottery, though the available record does not state when or by whom the trenching was carried out.

The historic Caledonian Canal (SM6499) is situated approximately 1.9 km northwest of the Site, comprising a stretch of inland waterway running north-eastward from Dochgarroch Lock to the flight of locks at Muirtown in Inverness. The scheduled area includes all the canal in water and the strip of ground existing up to 20 m from the water on either side, including towpaths and embankments and any associated features. Modern additions are not included in the scheduling. The monument is considered of national importance as it remains the single largest construction work in the Highlands, built between 1803 and 1822. The canal was designed by the famous Scottish civil engineer Thomas Telford, and directly funded by the Government.

There are three further Designated Heritage Assets located just beyond 2 km:

- Drumdevan House (LB8045) Category C Listed Building located over 2.3 km northeast of the Site;
- Ness Castle Category B Listed Building (LB8056) located 2.5 km northeast of the Site; and
- Leys Castle Inventory Garden and Designed Landscape (GDL00264) located 2.6 km northeast of the Site.

Due to the intervening topography and existing woodland areas, it is not anticipated that any potential impacts to the setting of these assets will arise as a result of the Proposed Development, and therefore they have not been included in the assessment. All other Designated Heritage Assets are located beyond 3 km and are not considered further in this setting assessment, predominantly due to their distance from the Site. It was concluded, based on the result of the walkover survey, that due to their distance from the Site and the likely scale of the Proposed Development, that there will be no changes to the setting of these assets.

There are no Listed Buildings, Conservation Areas, Inventory Gardens and Designed Landscapes, or Inventory Historic Battlefield's within 2 km of the Site.

## 5.2 Non-Designated Heritage Assets

### 5.2.1 Highland Council Historic Environment Record Data

#### 5.2.1.1 Within the Site

There are various non-designated above ground archaeological remains within the Site itself (**Appendix A: Figures, Figure 3**). A hut circle (MHG26104, **Plate 1**) dated to the Late Bronze Age to Late Iron Age (1250 BC to 560 AD) is located within the Site, approximately 60 m west of Biorraid Road. The feature is described in the Highland HER as a possible hut-circle and identified on aerial photographs in the semi-improved field. Some 15 m to the south is another possible hut-circle (MHG62784, **Plate 2**) and a further 19 m to the southwest a circular stony feature may either be a robbed-out cairn [burial mound] or a smaller hut-circle (MHG62768, **Plate 3**). A few small cairns are visible on the aerial photographs around the hut-circle. This Site is recorded as having been visited by a member of Highland Council Archaeological Unit staff in August 2009. The feature was confirmed as a probable hut circle, measuring approximately 10 m in diameter. A possible entrance was located to the southeast. The western side of the feature is somewhat damaged, or less apparent. The circular stony feature visible on aerial photographic coverage to the southwest was not located, though when the Highland HER GIS spatial data was amended in 2023, the smaller circular feature was visible at the described location measuring c.6.5 m in diameter.



*Plate 1 Hut Circle – 540 m east of Achvraid, Essich (MHG26104) looking northwest*



*Plate 2 Possible hut circle – Achvraid (MHG62784) looking north*



*Plate 3 Possible hut circle — 540 m east of Achvraid, Essich (MHG62768) looking northwest*

Approximately 50 m to the north of the possible hut circles, adjacent to a group of mature trees are the above-ground remains of a farmstead (MHG26103, **Plate 4** and **Plate 5**). The Highland HER describes three visible features comprising two buildings and an enclosure, all of which are visible both on aerial photographs and within the field. The three structures are depicted on the 1st Edition of the Ordnance Survey 6-inch map (Inverness-shire 1875, sheet XX), on which only one of the buildings is roofed. The same building is shown on the current/latest edition of the Ordnance Survey mapping. A roofless sub-rectangular structure, with the south-eastern facing elevation being slightly rounded is also evident. The asset is recorded as being visited by the Highland HER during a walkover survey in July 2008. The remains of a blackhouse [a traditional stone-built house] aligned north-south and measuring around 24 m by 7 m were

identified, with the byre [barn] area to the south (**Plate 4**). An entrance was identified about 3 m from the northeast gable end. Two wells are also marked on the 1<sup>st</sup> Edition Ordnance Survey map however these were not identified during the walkover survey suggesting that they have since been covered or filled.



*Plate 4 Barn area to the south of blackhouse (MHG26103) looking southeast*



*Plate 5 Remains of blackhouse (MHG26103) looking north*

The second building survives as grass covered mounds around 8 m to the northeast. This enclosure/settlement survives as four grass mounds about 20 m to the northeast of the blackhouse. Aerial photographic coverage of the location shows other possibly associated features and trackways.

A group of assets have been identified to the northeast and southeast of the blackhouse, which sit outside the site boundary. A clearance cairn was also identified within the Site during a walkover survey for a new

cable route between the existing Knocknagael Substation and Clune Wood (Highland Archaeology Services, 2020). When recorded in 2020 by Highland Archaeology Services, the cairn (identified as W4 in the report) covered an area approximately 1 m<sup>2</sup> and was 0.3 m high. Based on the plan produced in the report, the cairn appears to be approximately 10 m northeast of the blackhouse and is described in the report as a clearance cairn for the kaleyard (vegetable garden) associated with the dwelling (Highland Archaeology Services, 2020). The clearance cairn was not identified during the walkover survey conducted in August 2023.

In addition to the clearance cairn, a possible midden (identified as W2 in the Highland Archaeology Services report, 2020) and dyke (identified as W6 in the report) (Canmore ID 369902) were recorded by Highland Archaeology Services to the north of the farmstead (MHG26103). An area of uneven 'lumps and dips' were evident in the otherwise flat pasture approximately 50 m north from the blackhouse footings. The report describes the undulations as mainly turf-covered with some stones showing. They were interpreted as a possible area of dumping/midden/field clearance (Highland Archaeology Services, 2020).

A well is also evident at NGR 264947, 838920 to the southwest of the farmstead (MHG26103) on the 1st Edition of the Ordnance Survey 6-inch map and is still present on modern mapping; however, this was not identified during the walkover survey suggesting that they have since been covered or filled.

### 5.2.1.2 Within the 1 km Study Area

The Highland HER describes a boundary stone (MHG54926 and MHG 52760) which was recorded by Highland Archaeology Services Ltd during a watching brief for a water main which was under construction in 2011 (Highland Archaeology Services Ltd, 2011a). The boundary stone is located along the fence line to the north of the access road to Knocknagael Substation, approximately 65 m west of the Site. The stone is inscribed with the date 1794. The asset is recorded twice on the Highland HER under numbers MHG54926 and MHG 52760.

Approximately 60 m to southeast of the Site at Allt Mor is another hut circle (MHG3498) dated to the Late Bronze Age to Late Iron Age (1250 BC to 560 AD). The HER describes it as a well-preserved hut circle located on a rise in the landscape. The circular stone-walled hut measures c.11 m in diameter between the centres of a wall spread to c.3 m in circumference. The entrance at the east is damaged. No trace of associated cultivation was recorded at the location in 1970. The site is recorded as having since been visited by the Highland Council Archaeological Unit in August 2009 and found to be as previously described.

Another hut circle (MHG61664) is located approximately 22 m south of the Site. The HER describes it as a partly ploughed-out hut circle, visible on aerial photographs dating to 2009. It measures approximately 14 m in diameter and has been broadly dated to the prehistoric period (Neolithic to Late Iron Age (4000 BC to 560 AD)).

The Highland HER records a large undated field system (MHG40368) at Achvraid, probably associated with a number of hut circles that lie amongst and around it. The field system is so well defined that it is marked on modern Ordnance Survey mapping of the area. Centred at NH 647 380 on a broad ridge, is a settlement of at least 12 stone-walled circular huts (MHG3534, MHG62769, MHG62770, MHG62771, MHG62772, MHG62773, MHG62774, MHG62775, MHG62778, MHG62779, MHG62782, MHG62921, MHG62922, MHG62924) and an associated field system. The field system comprises ruined field walls, lynchets (earth terraces for cultivation), and stone clearance heaps, defining cultivation plots measuring approximately 30 m x 20 m average size. Also noted in the HER is an associated field bank (MHG62923) which terminates where it meets one of the hut circles (MHG62774); however, it is difficult to determine if the bank joined the hut. The bank apparently overlies two other hut circles (MHG62921 and MHG62922) and may comprise



part of the wider field system (MHG40368). The Highland HER states that the small cairns and field system cover a much larger area than delimited by the Ordnance Survey mapping, extending as far as the easternmost hut-circle (NH 6507 3836), and for some 200 m to the north of the northernmost hut-circle (NH 6477 3864). Fragments of what may be cord rig (predominantly prehistoric but occasionally later cultivation comprising spade cut ridges) are visible on the aerial photographs across much of the area, but there are well-defined patches centred on NH 6462 3798, NH 6499 3803 and NH 6465 3855.

A further field system (MHG40450) and associated hut-circles are recorded in the HER to the east and southeast of Big Burn, approximately 890 m from the Site. The HER describes three hut-circles (MHG26105, MHG60023, MHG60024) visible on aerial photographs (RCAHMSAP 1994 and RAF 541A/435, frame 3073) lying within a scatter of small cairns and field banks. One of the hut-circles (MHG26105) was partially destroyed during unsupervised clearance and construction of a tower compound for the Knocknagael to Tomatin Overhead Line (see EHG5451, **Section 5.3**). A rescue excavation conducted by AOC Archaeology in 2018 targeted the undisturbed area of the hut circle and identified a substantial roundhouse with a well-constructed stone wall and possible evidence of a turf upper wall. Exterior paving and a north to northeast facing entrance were identified along with possible internal floor deposits.

A flint working site (MHG3475) is recorded on a little knoll on the farm of Balrobert 715 m to the north of the Site. Numbers of chipped flints were found to suggest that the location may have been a very well used prehistoric flint working site.

The site of a cemetery at Balrobert (MHG33853) is recorded in the HER, approximately 935 m northeast of the Site. The cemetery is depicted as a ‘burial ground’ on the 1<sup>st</sup> Edition OS map, centred on NH 6556 4002.

The road which borders the Site to the west is recorded as part of an 18<sup>th</sup> century military road across Drumashie Moor attributed to General Wade (MHG17871). It is however not shown on Roy’s Military Survey mapping of 1747 – 1752.

The Highland HER records that Essich was traditionally reported in the 16<sup>th</sup> and 17<sup>th</sup> centuries as the meeting place of the local chiefs (MHG3526). An HER record at Essich describes the remains of a “strong building” evident under grass covered mounds overlooking Essich Burn. There are no confirmed records before 1543 of the farmstead/small settlement at Essich. The HER records this at the location of the current site of Essich Farm located 515 m to the northwest of the Site. The HER does state that a pre-Reformation chapel was located at the site. A carved stone depicting a boar (MHG3546) and initially thought to be Pictish was also recorded at Essich, but later found to be a poor copy of the impressive 5<sup>th</sup>/6<sup>th</sup> century Knocknagael Boar Stone found c. 2.3 km to the northeast of the Site and now housed at the Highland Council Office (Historic Environment Scotland, 2016).

The Canmore database records a number of previously unknown archaeological sites between 500 – 940 m east and southeast of the Site, which were identified during a walkover survey in advance of a proposed forestry development in 2010 (see EHG3867, **Section 5.3**). The survey revealed a number of features including cairns, buildings, walls, a kiln and a hut circle.

### 5.3 Previous Archaeological Investigations

Various previous archaeological investigations have been undertaken adjacent to the Site prior to the construction of the Knocknagael Substation (**Appendix A: Figures, Figure 4**).

A desk-based assessment and walkover survey was conducted to assess the potential impacts upon the Archaeology and Cultural Heritage resulting from the construction of a substation site at Knocknagael. The assessment found that it was likely that the proposed works could impact directly upon the remains of

archaeological features present within the study corridor. Nine sites were identified within the study area. There was abundant indication that this area was occupied and exploited from as early as the Neolithic period. One site has been identified that dates to the Neolithic and three sites could potentially date to the Bronze Age period (Jacobs Engineering Ltd, 2009). While the DBA noted a high potential for archaeological remains to occur ranging from the Neolithic period to the Post-medieval period, subsequent archaeological works at the site identified very limited stratified remains (see EHG3534 below).

A trial trenching evaluation was conducted over the footprint of Knocknagael substation prior to construction (EHG3534). Twenty-four trenches were excavated of which only three contained archaeological features. It was also noted that there were few topsoil finds in those which were found lying on the south side of the site. The identified features comprised a possible posthole in Trench 12, three rubble field drains in Trench 16 and four possible postholes and a possible hearth in Trench 19. Whilst these features may be indicative of prehistoric activity, it is thought more likely that they result from 19th or 20th-century scrub clearance. In any case, the features were highly truncated. A number of large sandstone and schist slabs were noted in Trenches 12, 19 and 20, but these were not associated with any archaeological evidence. A charcoal sample was recovered from one of the features but has not been processed as it was not securely stratified. No further work was recommended within the footprint of the substation site (Highland Archaeology Services Ltd, 2010a).

The public road serving the Site follows the line of General Wade's military road between Inverness and Fort Augustus, built in 1726 (HER ref: 85525 and 85526). The first passing space constructed lies close to the former site of the Knocknagael Boar Stone, which was moved to the Highland Council's headquarters in 1990. It is shown on this site on the 1st Edition OS map of 1875, but an excavation at the time of its removal noted that it was standing on disturbed ground, and it seems to have been placed there in the 19th century. No archaeological features or finds were found during the watching brief on the passing space or observed during topsoil stripping for a nearby cable (Highland Archaeology Services Ltd, 2010a).

Highland Archaeology Services undertook a watching brief on new passing places on the public road which included a "Passing place U", located to the immediate south of the Site. The topsoil here was shallow, around 10 cm depth, overlying stony periglacial clays and sands with small-medium angular stones ranging from 2 cm – 10 cm in diameter. There was very slight charcoal smearing in one area, probably from gorse burning. There was no midden material, and no features of archaeological significance were recorded (Highland Archaeology Services Ltd, 2010a).

In 2010, an archaeological watching brief was also undertaken during the construction of towers and temporary haul roads associated with the Knocknagael substation. The construction of a temporary haul road linking Towers 404R, 402R and 40AR was monitored between May and September 2010. Two poorly-defined low mounds of loose stone were identified, probably representing modern field clearance. No finds or diagnostic features were noted and there were no other features or finds of archaeological significance (Highland Archaeology Services, 2010b).

Another watching brief was undertaken by Highland Archaeology Services in 2010-11 during excavations for cable undergrounding works associated with the construction of a new electricity substation and associated infrastructure at Knocknagael, Inverness. The stripped line was split into six areas and varied in width from about 8m to about 15 m. Although there was some evidence of manuring as might be expected, a number of small pits did not contain any datable evidence and at least some of these are likely to be the result of scrub clearance in the Post-medieval period. No significant archaeology was found (Highland Archaeology Services, 2011b).

Between January – August 2018, a programme of archaeological work was undertaken in advance of a new overhead powerline between the Knocknagael substation and the Tomatin substation. Excavation was required at two possible roundhouses (hut circles), where micrositing of towers was not possible. In other areas, a walkover survey identified and flagged up a previously unrecorded settlement. The majority of the watching brief uncovered minimal archaeological results, but at Tordarroch (approximately 6 km southeast of the Site), one possible hut circle (NH 6776 3310) was excavated in advance of groundworks. Although the site presented as a potential hut circle, it was concluded that it was in fact a modified, natural hollow, which had been used for small-scale purposes. The outer bank proved to be too ephemeral and crude to have formed a hut circle wall, although it had been augmented to provide an element of shelter for the hollow. While the presence of two postholes confirmed the use of the site as a structure, they were too few to have formed anything substantial. A small fire-pit appeared to have only had limited use suggesting transitory use of the site. A few fragments of pottery and one piece of worked flint were recovered (Demay L and Peteranna M, 2019).

At Essich, another hut circle (NH 6596 3825) had been previously impacted by construction of a site compound in advance of mitigation (EHG5451). An excavation of the surviving half revealed that the structural remains, which had appeared only as a faint raised circular bank, were well-preserved. A substantial roundhouse was revealed with a well-constructed stone wall and possible evidence for a turf upper wall. Exterior paving and a north/northeast-facing entrance were identified, along with possible internal floor deposits. An internal posthole positioned off-centre suggests the hut circle may have featured an internal post ring to support a roof (Demay L and Peteranna M, 2019).

An archaeological desk-based assessment and walkover survey was conducted in September 2010 in advance of a proposed forestry development at Balvonie of Leys, Essich (EHG3867). The survey identified a number of previously unrecorded archaeological sites including buildings, cairns, walls, a kiln and a hut circle. Overall, most of the sites relate to a Post-medieval farming landscape which was likely abandoned by the mid-19<sup>th</sup> century (Farrell, F, 2010).

## 5.4 Cultural Significance of Heritage Assets

The importance of defining cultural significance is set out in HEP1 of Historic Environment Policy for Scotland (Historic Environment Scotland, 2019) – “This involves thinking about its physical and material elements – how much of it has survived or how much of it has changed through time, as well as its wider context and setting. Elements of places which may not have a physical presence, but which contribute to cultural significance need to be recognised. These intangible qualities include the knowledge and associations people have with a particular place.”

The hut circles (MHG26104 and MHG62768) within the Site visibly survive above the surface as stony banks with likely associated cairns. These assets are part of a much wider network of surviving prehistoric settlement and agriculture in this area. Examples of groups of hut circles (former roundhouses) outside the Site are usually accompanied by evidence of land/field division and cultivation, such as walls, dykes, lynchets (earth terraces for cultivation), cord rig (series of linear mounds and ditches for cultivation), clearance cairns (piles of larger stones removed from the ground for ease of cultivation) etc. This demonstrates that the hut circles sit in a much wider Prehistoric landscape context within this area, noting that some hut circles (SM11786) less than 500 m from the Site, have been deemed of national importance and as such have been designated as Scheduled Monuments (providing a specific legal protection). It should also be noted that making a definitive distinction between burial cairns and field clearance cairns is not always possible without intrusive archaeological investigation. The scheduled Carn Glas cairn (SM2392) is of a morphology and size, which is a definitive example of a burial cairn. Those within the Site potentially appear to be more indicative of field clearance/improvement cairns.

The evident pattern of Prehistoric settlement, agriculture and funerary monuments within the Study Area is continued south along Drumashie Moor, east on Allt Mor and onto Black Wood of Leys, north and northeast at Balrobert and is characteristic of Prehistoric Highland settlement. The assets within the Site are part of a much wider early landscape, which is still very apparent and discernible in this area.

The Post-medieval farmstead (MHG26103) demonstrates the continued use of this area for settlement and agriculture, where much of the surrounding land has subsequently been taken up by forestry. The farmstead includes a blackhouse, which are characteristic traditional houses in the Scottish Highlands. Blackhouses, or *taigh-dubh* in Gaelic, are a windowless dwelling housing for both animals and people, they have rounded corners and no chimney. The blackhouse has a central door and inside is an *aig an teine* ('living room') and a *bathaich* ('cattle byre'), with a parallel *sabhal* ('barn'). A peat fire would have been at the centre of the living room and was never allowed to go out. The roofs were thatched (Historic Environment Scotland Website, accessed March 2023). While the farmstead and associated field boundaries, enclosures, dykes and clearance cairns survive mainly as stony features within banks and ditches, they survive as visible above surface remains of diagnostic (dateable) morphology. They are generally representative of traditional rural pre-improvement dwellings in Scotland.

The presence of hut circles (MHG26104 and MHG62768) and clearance cairns within the Site and the survival of similar and likely associated Prehistoric settlement and agricultural features in the wider landscape indicates there is moderate to high potential for further previously unrecorded heritage assets to be present buried beneath the surface. The survival of these assets shows there has been little change to land use and agricultural regimes in terms of intensive cultivation since their abandonment. It is notable that archaeological investigations to the immediate east at Knocknagael substation did not identify any definitive Prehistoric settlement or agricultural features. It should be noted, however, that within the Site there are surviving above ground archaeological remains, which indicates significant potential for the presence of further below ground Prehistoric and later archaeological remains.

Likewise, the presence of visible above ground remains of a Post-medieval farmstead (MHG26103) suggests there is also moderate to high potential for further previously unrecorded heritage assets to be present buried beneath the surface.

The upstanding heritage assets within the Site are surviving illustrative examples of Prehistoric (MHG26104 and MHG62768) and pre-improvement (MHG26103) farming and settlement within the region. Whilst the preservation of the assets is variable, they can still be appreciated and understood within this wider system of agriculture and settlement and as such assessed as having a regional level of importance.

## 6 Impact assessment

### 6.1 Impact to Above Ground and Buried Archaeological Remains

The Site Plan provided by Field (**Appendix C: Site Plan**) suggests that there is a potential for significant harm to known non-designated heritage assets within the Site, primarily as a result of direct physical impacts to hut circles MHG62768, MHG26104 and MHG62784. Groundwork activity across the Site additionally has the potential to damage any previously unrecorded archaeological remains buried beneath the surface, likely to comprise associated features such as stock enclosures or remains of cultivation.

### 6.2 Potential change to the Setting of Heritage Assets

In terms of setting, there are five Scheduled Monuments within 2 km of the Site. **Table 2** describes the current setting and the potential change as a result of the introduction of the Proposed Development and forms Step 2 of the setting assessment.

Table 2 Potential change to the setting of heritage assets

ID	Name	Distance from the Site (km)	Setting	Potential Change
SM2392	Carn Glas, [Prehistoric] chambered cairns 815m southeast of Achvraid	0.4	Located within semi-improved upland moor to the south of the Site.	No potential for views towards the Site due to intervening modern forestry plantations.
SM11786	[Prehistoric] Hut circles 800m southeast of Achvraid	0.5		
SM11561	[Prehistoric] Hut circles 1030m south/southeast of Achvraid	0.9		
SM3098	[Prehistoric] Stone circle southwest of Torbreck	1.5	Adjacent to Torbreck Farm which includes large modern agricultural sheds and modern arable fields located on a valley floor	Potential for very limited views towards the Site due to intervening topography.
SM6499	Caledonian Canal, Dochgarroch Lock – Muirtown Locks	1.9	Follows the base of the deeply-incised wooded valley of the river Ness, passing from the north end of Loch Ness to the Beaulay Firth and Muirtown Basin, Inverness where cargoes could be loaded and unloaded.	No potential for views towards the Site due to distance from the Site and intervening vegetation.

Following the walkover, it was apparent that the intervening topography and modern forestry plantations prevent any direct intervisibility between Carn Glas (SM2392) and the Prehistoric Hut circles (SM11786 and SM11561) located within semi-improved upland moorland to the south of the Site and the Proposed Development (**Plate 6**). If both plantations were to be felled simultaneously, there would be some very limited visibility of the proposed development from Carn Glas (SM2392) in views northwards. However, it is anticipated that this visibility would rapidly be lost to even fairly limited regrowth, as the Option Site lies on a north-facing slope which, combined with the shelter belts, screens the Proposed Development in views from the south. The undulating landscape and intervening woodland also block any direct views towards the Prehistoric stone circle southwest of Torbreck (SM3098) from the Site, and any views towards the historic Caledonian Canal (SM6499) (**Plate 7**).



*Plate 6 Modern woodland plantation on the southern edge of the Site, photograph taken looking south*



*Plate 7 Looking northwest from the site across the River Ness valley*

Following Steps 1 and 2 of the guidance ‘Managing Change in the Historic Environment: Setting’ (Historic Environment Scotland 2020b), it was assessed (Step 3) that the cultural significance of all of the assets in **Table 2** would not be affected by the Proposed Development in terms of material changes to their setting and how the assets are understood and appreciated. This is based on the factors discussed in **Section 5** such as the distance of the heritage asset from Site, the heritage asset’s location, scale and orientation, and the nature, extent and scale of intervening vegetation and topography between the heritage asset and the Proposed Development.

The Proposed Development avoids the core of the Post-medieval settlement and avoids change in the setting of the various scheduled monuments to the south.

## **7 Assessment and Recommendations**

It is considered that there is no potential for a material impact to the cultural significance of heritage assets as a result of changes in their setting.



As a worst-case scenario, which includes development/excavation across the Proposed Development, there would however be a detrimental impact on surviving above ground Prehistoric and Post-medieval monuments and features, as well as any potential associated buried archaeological remains. The Site Plan provided by Field (**Appendix C: Site Plan**) indicates that there is the potential for the complete and partial removal of Prehistoric heritage assets within the Site, which at this stage are considered to be of regional importance.

An agreed programme of archaeological works secured via a suitably worded condition attached to any planning permission would be appropriate to mitigate impacts to surviving above and below ground archaeological remains. This would comprise a staged approach to archaeology and to further characterise, investigate, establish survival and significance, and ultimately to mitigate the impacts to heritage assets within the Site. Mitigation is likely to include a combination of techniques such as geophysical survey, trial trenching and earthwork survey to allow areas of preservation in situ, or archaeological excavation and/or watching brief to be defined in line with Highland Council's approved 'Standards for Archaeological Work' (2012b). The WSI would include details of how the recording and recovery of archaeological resources found within the Site will be undertaken, and how any updates, if required, to the WSI will be provided throughout the implementation of the programme of archaeological works. Should any archaeological works reveal the need for post excavation analysis, a Post-Excavation Research Design (PERD) for the analysis, publication, and dissemination of results and archive deposition would be provided.

Where an agreed scheme of archaeological mitigation is in place, it is considered that any loss of the informative value of those archaeological remains would be effectively mitigated to an acceptable level.

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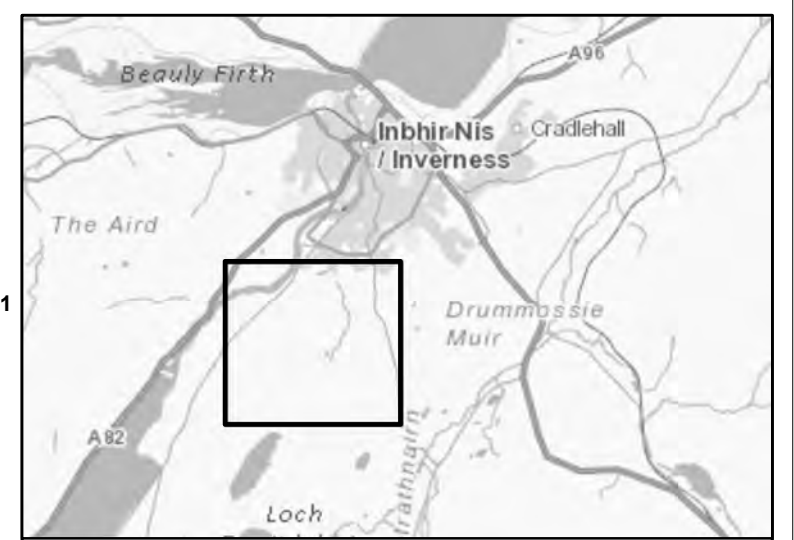
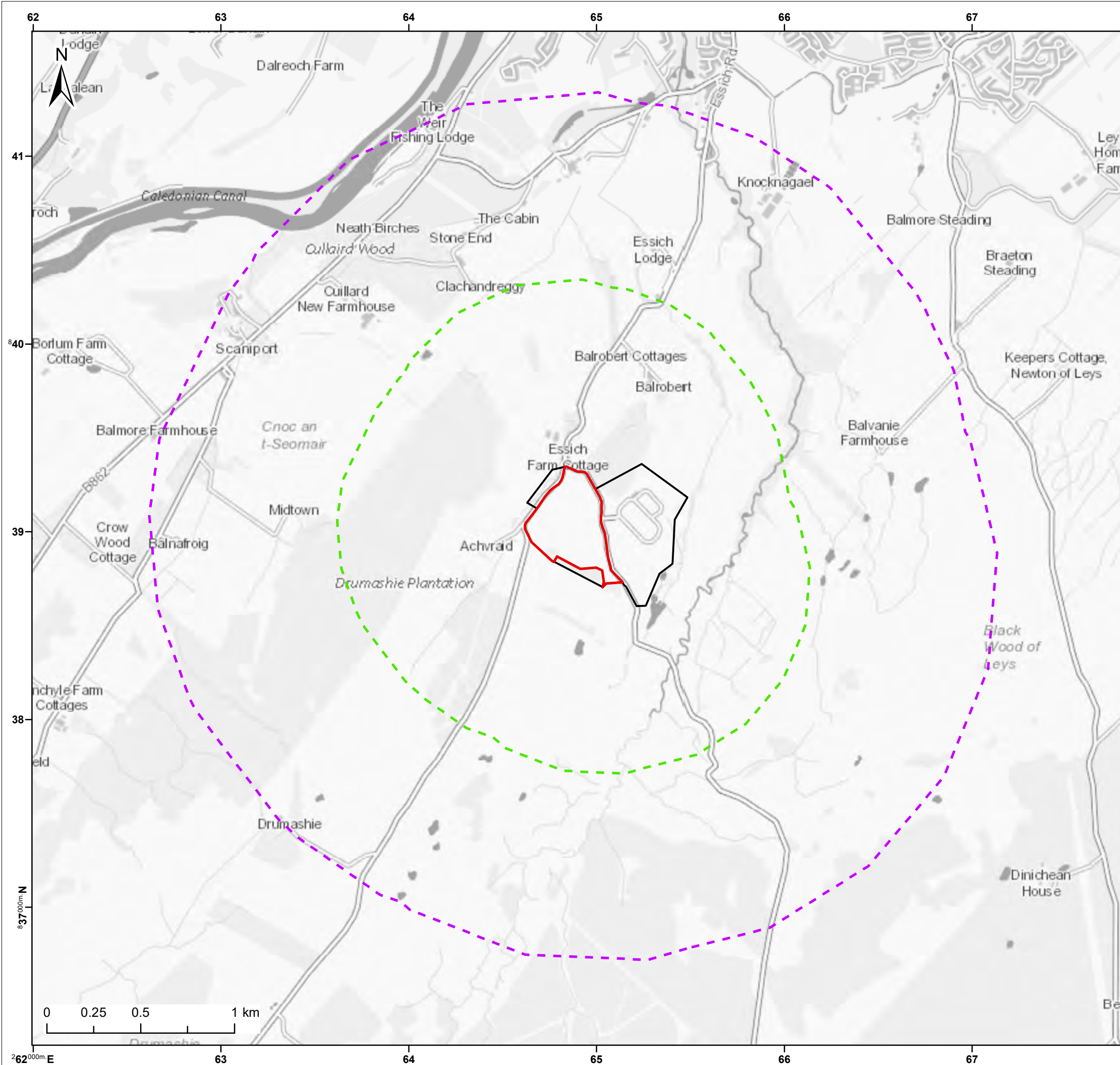
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## Appendix A: Figures



**Legend:**

- Option Site
- Planning Boundary
- 1km Study Area
- 2km Study Area

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Title:  
**Site Location**

Figure: 1      Drawing No: PC3506-RHD-KN-ZZ-DR-GS-0003

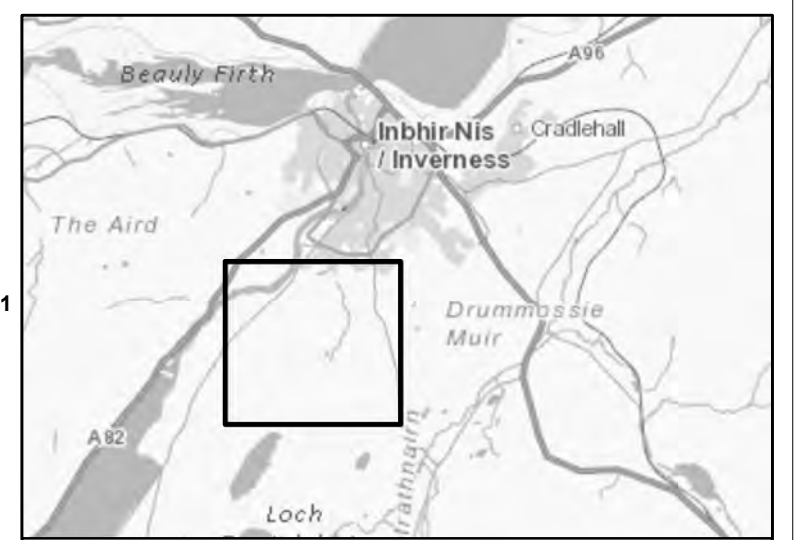
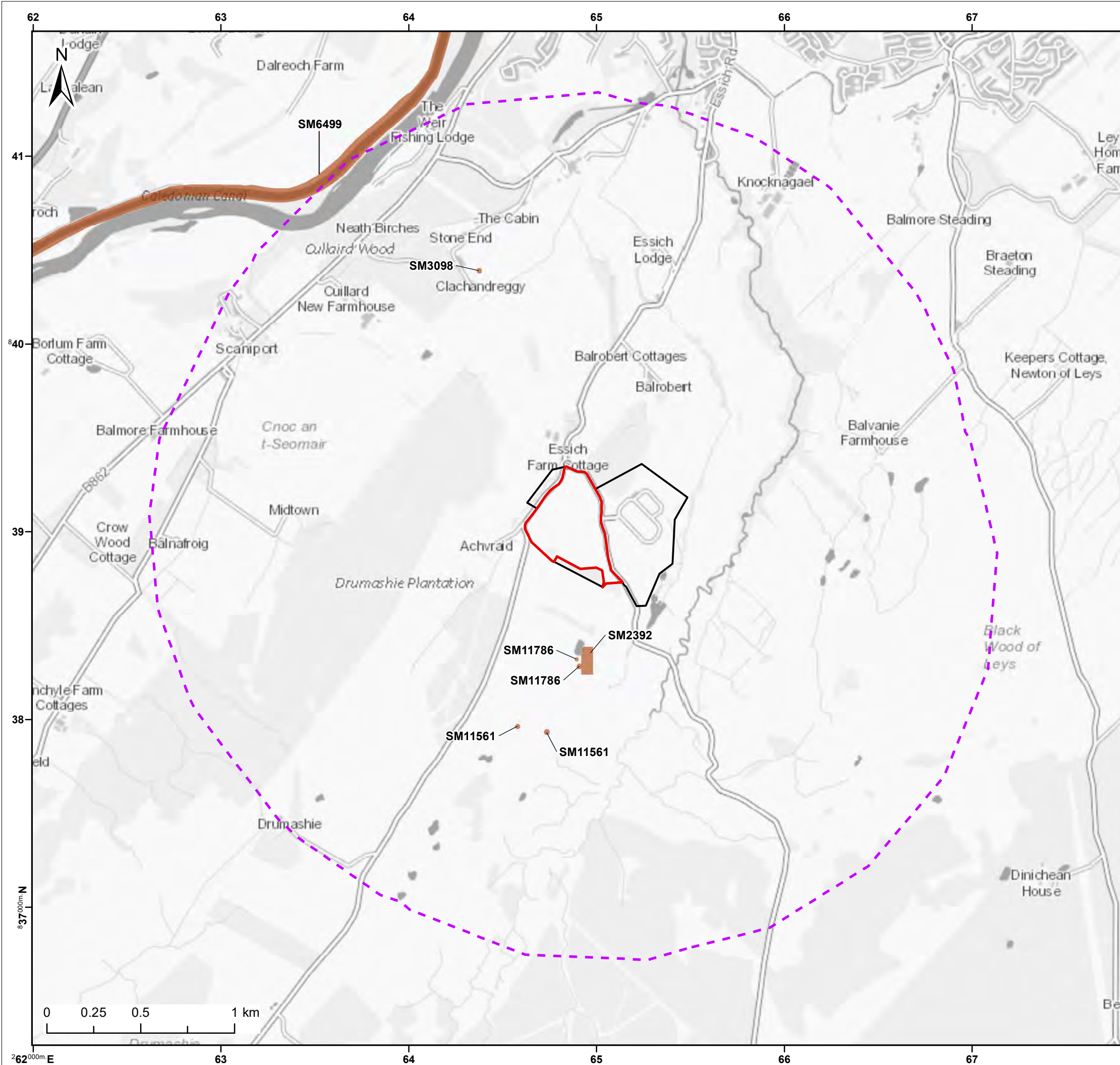
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01	01/09/2023	AB	FB	A3	1:20,000

Co-ordinate system: British National Grid



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Legend:

- Option Area
- Planning Boundary
- 2km Study Area
- Scheduled Monuments within 2km

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Title:  
**Designated Heritage Assets**

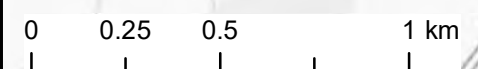
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Co-ordinate system: British National Grid

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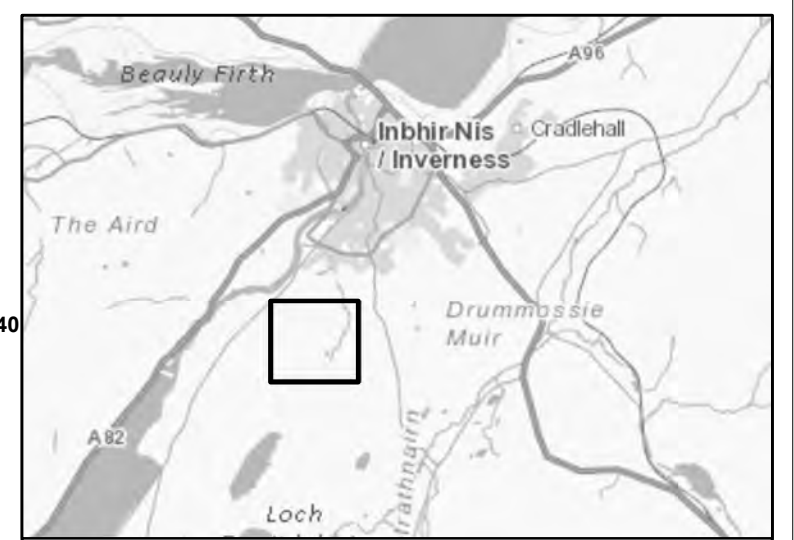
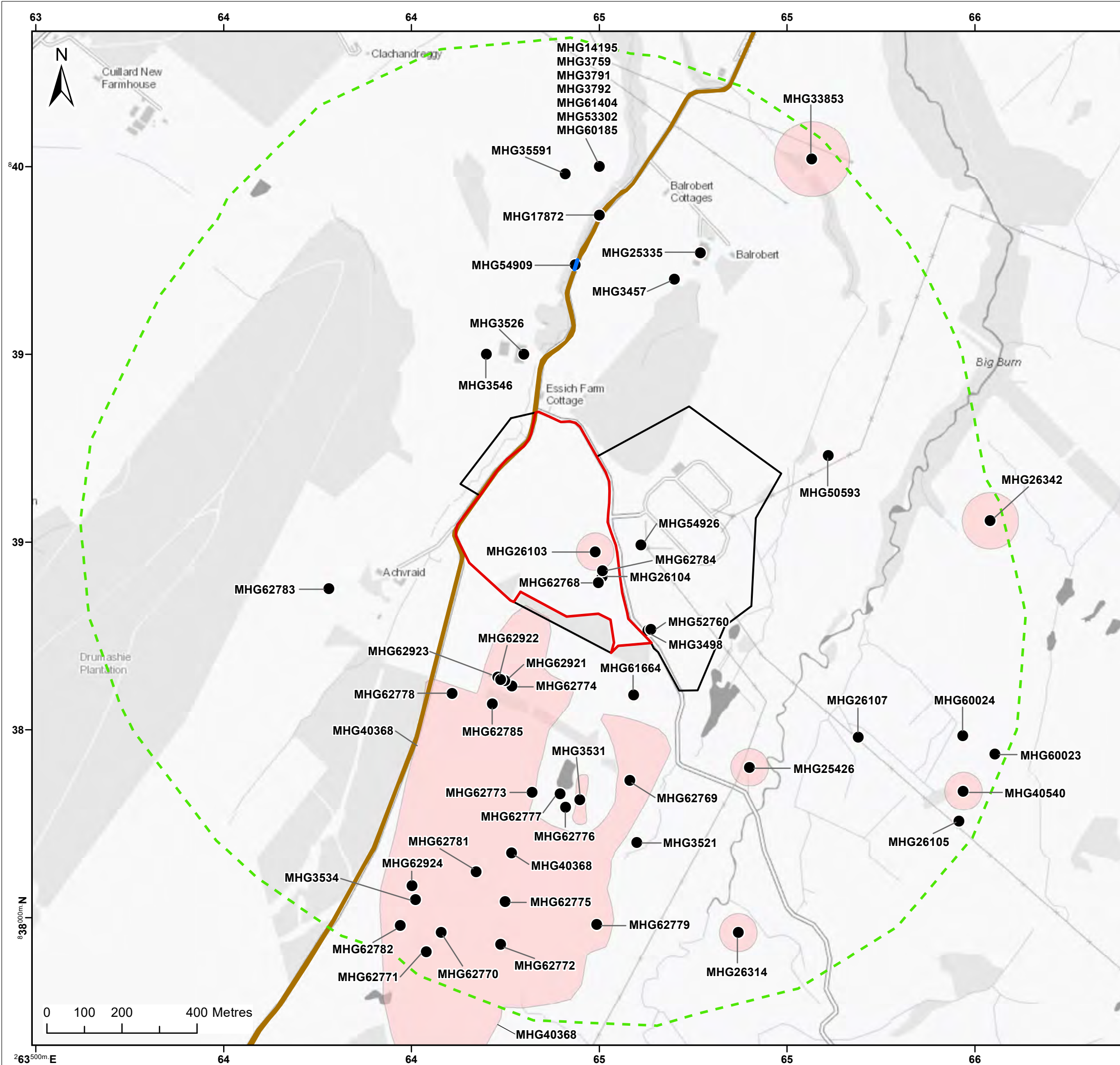
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62 63 64 65 66 67

37 000m N

62 000m E



Legend:

- Option Site
- HER point record
- HER linear record
- Planning Boundary
- HER area record
- Military road
- 1km Study Area

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Title:  
**Non-designated Heritage Assets**

Figure: 3      Drawing No: PC3506-RHD-KN-ZZ-DR-GS-0005

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01	01/09/2023	AB	FB	A3	1:10,000

Co-ordinate system: British National Grid

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### Appendix B: Gazetteers

Table 3 Canmore and Highland HER Data

HER ID	Name	Monument Type	Highland HER Website	Canmore Website
MHG17872	General Wade's Military Road, Fort William - Fort Augustus - Inverness	MILITARY ROAD	<a href="https://her.highland.gov.uk/monument/MHG17872">https://her.highland.gov.uk/monument/MHG17872</a>	<a href="https://canmore.org.uk/site/85526">https://canmore.org.uk/site/85526</a>
MHG25335	Balrobert, Farm Offices	BUILDING	<a href="https://her.highland.gov.uk/monument/MHG25335">https://her.highland.gov.uk/monument/MHG25335</a>	<a href="https://canmore.org.uk/site/99023">https://canmore.org.uk/site/99023</a>
MHG25426	Big Burn	TOWNSHIP	<a href="https://her.highland.gov.uk/monument/MHG25426">https://her.highland.gov.uk/monument/MHG25426</a>	<a href="https://canmore.org.uk/site/115095">https://canmore.org.uk/site/115095</a>
MHG26103	Essich	FARMSTEAD	<a href="https://her.highland.gov.uk/monument/MHG26103">https://her.highland.gov.uk/monument/MHG26103</a>	<a href="https://canmore.org.uk/site/115093">https://canmore.org.uk/site/115093</a>
MHG26104	Hut circle - 540m east of Achvraid, Essich	HUT CIRCLE	<a href="https://her.highland.gov.uk/monument/MHG26104">https://her.highland.gov.uk/monument/MHG26104</a>	<a href="https://canmore.org.uk/site/115094">https://canmore.org.uk/site/115094</a>
MHG26105	Hut circle – Big Burn	HUT CIRCLE	<a href="https://her.highland.gov.uk/monument/MHG26105">https://her.highland.gov.uk/monument/MHG26105</a>	<a href="https://canmore.org.uk/site/115096">https://canmore.org.uk/site/115096</a>
MHG26107	Big Burn	BUILDING	<a href="https://her.highland.gov.uk/monument/MHG26107">https://her.highland.gov.uk/monument/MHG26107</a>	<a href="https://canmore.org.uk/site/115098">https://canmore.org.uk/site/115098</a>
MHG26341	Allt Mor	FARMSTEAD	<a href="https://her.highland.gov.uk/monument/MHG26341">https://her.highland.gov.uk/monument/MHG26341</a>	<a href="https://canmore.org.uk/site/115877">https://canmore.org.uk/site/115877</a>
MHG26342	Big Burn	FARMSTEAD	<a href="https://her.highland.gov.uk/monument/MHG26342">https://her.highland.gov.uk/monument/MHG26342</a>	<a href="https://canmore.org.uk/site/115878">https://canmore.org.uk/site/115878</a>
MHG33853	Balrobert	CEMETERY	<a href="https://her.highland.gov.uk/monument/MHG33853">https://her.highland.gov.uk/monument/MHG33853</a>	-
MHG3475	Balrobert Farm	LITHIC WORKING SITE	<a href="https://her.highland.gov.uk/monument/MHG3475">https://her.highland.gov.uk/monument/MHG3475</a>	<a href="https://canmore.org.uk/site/13108">https://canmore.org.uk/site/13108</a>
MHG3498	Hut circle - Allt Mor, Essich	HUT CIRCLE	<a href="https://her.highland.gov.uk/monument/MHG3498">https://her.highland.gov.uk/monument/MHG3498</a>	<a href="https://canmore.org.uk/site/13131">https://canmore.org.uk/site/13131</a>
MHG3521	Drumossie Moor	FIELD SYSTEM	<a href="https://her.highland.gov.uk/monument/MHG3521">https://her.highland.gov.uk/monument/MHG3521</a>	<a href="https://canmore.org.uk/site/13154">https://canmore.org.uk/site/13154</a>
MHG3526	Essich	HOUSE	<a href="https://her.highland.gov.uk/monument/MHG3526">https://her.highland.gov.uk/monument/MHG3526</a>	<a href="https://canmore.org.uk/site/13159">https://canmore.org.uk/site/13159</a>
MHG3531	Chambered cairns - Cam Glas	CHAMBERED CAIRN	<a href="https://her.highland.gov.uk/monument/MHG3531">https://her.highland.gov.uk/monument/MHG3531</a>	<a href="https://canmore.org.uk/site/13164">https://canmore.org.uk/site/13164</a>
MHG3546	Carved stone, Essich House	INSCRIBED STONE; FINDSPOT	<a href="https://her.highland.gov.uk/monument/MHG3546">https://her.highland.gov.uk/monument/MHG3546</a>	<a href="https://canmore.org.uk/site/13179">https://canmore.org.uk/site/13179</a>

## Project related

HER ID	Name	Monument Type	Highland HER Website	Canmore Website
MHG35591	Essich	SITE; LINEAR FEATURE	<a href="https://her.highland.gov.uk/monument/MHG35591">https://her.highland.gov.uk/monument/MHG35591</a>	<a href="https://canmore.org.uk/site/150618">https://canmore.org.uk/site/150618</a>
MHG3759	Kilvean	CAIRN	<a href="https://her.highland.gov.uk/monument/MHG3759">https://her.highland.gov.uk/monument/MHG3759</a>	<a href="https://canmore.org.uk/site/13539">https://canmore.org.uk/site/13539</a>
MHG3791	Polished Stone Axehead - Caledonian Canal	FINDSPOT	<a href="https://her.highland.gov.uk/monument/MHG3791">https://her.highland.gov.uk/monument/MHG3791</a>	<a href="https://canmore.org.uk/site/13504">https://canmore.org.uk/site/13504</a>
MHG3792	Polished Stone Axehead - Caledonian Canal (finds)	FINDSPOT	<a href="https://her.highland.gov.uk/monument/MHG3792">https://her.highland.gov.uk/monument/MHG3792</a>	<a href="https://canmore.org.uk/site/13503">https://canmore.org.uk/site/13503</a>
MHG40368	Field system - Achvraid	FIELD SYSTEM	<a href="https://her.highland.gov.uk/monument/MHG40368">https://her.highland.gov.uk/monument/MHG40368</a>	<a href="https://canmore.org.uk/site/13167">https://canmore.org.uk/site/13167</a>
MHG50593	Balrobert	HUT CIRCLE; FIELD SYSTEM; CAIRNFIELD	<a href="https://her.highland.gov.uk/monument/MHG50593">https://her.highland.gov.uk/monument/MHG50593</a>	<a href="https://canmore.org.uk/site/288349">https://canmore.org.uk/site/288349</a>
MHG52760	Marker stone - Essich to Bunachton road	MARKER STONE	<a href="https://her.highland.gov.uk/monument/MHG52760">https://her.highland.gov.uk/monument/MHG52760</a>	<a href="https://canmore.org.uk/site/13131">https://canmore.org.uk/site/13131</a>
MHG53302	Trumpet Brooch - Torbreck	FINDSPOT	<a href="https://her.highland.gov.uk/monument/MHG53302">https://her.highland.gov.uk/monument/MHG53302</a>	<a href="https://canmore.org.uk/site/300380">https://canmore.org.uk/site/300380</a>
MHG54909	Remains of boundary dyke, Knocknagael	BOUNDARY DYKE?	<a href="https://her.highland.gov.uk/monument/MHG54909">https://her.highland.gov.uk/monument/MHG54909</a>	-
MHG54926	Boundary marker, southeast of Essich	BOUNDARY STONE; MARKER STONE	<a href="https://her.highland.gov.uk/monument/MHG54926">https://her.highland.gov.uk/monument/MHG54926</a>	<a href="https://canmore.org.uk/site/370890">https://canmore.org.uk/site/370890</a>
MHG40540	Field system - SE of Big Burn	FIELD SYSTEM	<a href="https://her.highland.gov.uk/monument/MHG40540">https://her.highland.gov.uk/monument/MHG40540</a>	-
MHG60023	Hut circle - Big Burn	HUT CIRCLE	<a href="https://her.highland.gov.uk/monument/MHG60023">https://her.highland.gov.uk/monument/MHG60023</a>	<a href="https://canmore.org.uk/site/115096">https://canmore.org.uk/site/115096</a>
MHG60024	Hut circle – Big Burn	HUT CIRCLE	<a href="https://her.highland.gov.uk/monument/MHG60024">https://her.highland.gov.uk/monument/MHG60024</a>	<a href="https://canmore.org.uk/site/115096">https://canmore.org.uk/site/115096</a>
MHG60185	Annular Brooch and Pins - Torbreck	FINDSPOT	<a href="https://her.highland.gov.uk/monument/MHG60185">https://her.highland.gov.uk/monument/MHG60185</a>	<a href="https://canmore.org.uk/site/339344">https://canmore.org.uk/site/339344</a>
MHG61664	Hut circle - Achvraid	HUT CIRCLE	<a href="https://her.highland.gov.uk/monument/MHG61664">https://her.highland.gov.uk/monument/MHG61664</a>	<a href="https://canmore.org.uk/site/13167">https://canmore.org.uk/site/13167</a>
MHG61404	Brooch - Balrobert	FINDSPOT	<a href="https://her.highland.gov.uk/monument/MHG61404">https://her.highland.gov.uk/monument/MHG61404</a>	-
MHG62768	Possible hut circle - 540m east of Achvraid, Essich	HUT CIRCLE?	<a href="https://her.highland.gov.uk/monument/MHG62768">https://her.highland.gov.uk/monument/MHG62768</a>	<a href="https://canmore.org.uk/site/115094">https://canmore.org.uk/site/115094</a>



## Project related

<b>HER ID</b>	<b>Name</b>	<b>Monument Type</b>	<b>Highland HER Website</b>	<b>Canmore Website</b>
MHG62769	Hut circle - Achvraid	HUT CIRCLE	<a href="https://her.highland.gov.uk/monument/MHG62769">https://her.highland.gov.uk/monument/MHG62769</a>	<a href="https://canmore.org.uk/site/13167">https://canmore.org.uk/site/13167</a>
MHG3534	Hut circle - Achvraid 'A'	HUT CIRCLE	<a href="https://her.highland.gov.uk/monument/MHG3534">https://her.highland.gov.uk/monument/MHG3534</a>	<a href="https://canmore.org.uk/site/13167">https://canmore.org.uk/site/13167</a>
MHG62771	Hut circle – Achvraid 'C'	HUT CIRCLE	<a href="https://her.highland.gov.uk/monument/MHG62771">https://her.highland.gov.uk/monument/MHG62771</a>	<a href="https://canmore.org.uk/site/13167">https://canmore.org.uk/site/13167</a>
MHG62772	Hut circle - Achvraid 'D'	HUT CIRCLE	<a href="https://her.highland.gov.uk/monument/MHG62772">https://her.highland.gov.uk/monument/MHG62772</a>	<a href="https://canmore.org.uk/site/13167">https://canmore.org.uk/site/13167</a>
MHG62773	Hut circle - Achvraid 'E'	HUT CIRCLE	<a href="https://her.highland.gov.uk/monument/MHG62773">https://her.highland.gov.uk/monument/MHG62773</a>	<a href="https://canmore.org.uk/site/13167">https://canmore.org.uk/site/13167</a>
MHG62774	Hut circle - Achvraid 'F'	HUT CIRCLE	<a href="https://her.highland.gov.uk/monument/MHG62774">https://her.highland.gov.uk/monument/MHG62774</a>	<a href="https://canmore.org.uk/site/13167">https://canmore.org.uk/site/13167</a>
MHG62775	Hut circle - Achvraid 'G'	HUT CIRCLE	<a href="https://her.highland.gov.uk/monument/MHG62775">https://her.highland.gov.uk/monument/MHG62775</a>	<a href="https://canmore.org.uk/site/13167">https://canmore.org.uk/site/13167</a>
MHG62776	Hut circle - Achvraid 'H'	HUT CIRCLE	<a href="https://her.highland.gov.uk/monument/MHG62776">https://her.highland.gov.uk/monument/MHG62776</a>	<a href="https://canmore.org.uk/site/13167">https://canmore.org.uk/site/13167</a>
MHG62777	Hut circle - Achvraid	HUT CIRCLE	<a href="https://her.highland.gov.uk/monument/MHG62777">https://her.highland.gov.uk/monument/MHG62777</a>	<a href="https://canmore.org.uk/site/13167">https://canmore.org.uk/site/13167</a>
MHG62778	Hut circle - Achvraid	HUT CIRCLE	<a href="https://her.highland.gov.uk/monument/MHG62778">https://her.highland.gov.uk/monument/MHG62778</a>	<a href="https://canmore.org.uk/site/13167">https://canmore.org.uk/site/13167</a>
MHG62779	Hut circle - Achvraid	HUT CIRCLE	<a href="https://her.highland.gov.uk/monument/MHG62779">https://her.highland.gov.uk/monument/MHG62779</a>	<a href="https://canmore.org.uk/site/13167">https://canmore.org.uk/site/13167</a>
MHG62781	Hut circle - Achvraid	HUT CIRCLE	<a href="https://her.highland.gov.uk/monument/MHG62781">https://her.highland.gov.uk/monument/MHG62781</a>	<a href="https://canmore.org.uk/site/13167">https://canmore.org.uk/site/13167</a>
MHG62782	Possible hut circle – Achvraid	HUT CIRCLE?	<a href="https://her.highland.gov.uk/monument/MHG62782">https://her.highland.gov.uk/monument/MHG62782</a>	<a href="https://canmore.org.uk/site/13167">https://canmore.org.uk/site/13167</a>
MHG62783	Possible hut circle - Achvraid	HUT CIRCLE?	<a href="https://her.highland.gov.uk/monument/MHG62783">https://her.highland.gov.uk/monument/MHG62783</a>	<a href="https://canmore.org.uk/site/13167">https://canmore.org.uk/site/13167</a>
MHG62784	Possible hut circle - Achvraid	HUT CIRCLE?	<a href="https://her.highland.gov.uk/monument/MHG62784">https://her.highland.gov.uk/monument/MHG62784</a>	<a href="https://canmore.org.uk/site/13167">https://canmore.org.uk/site/13167</a>
MHG62785	Hut circle or ring cairn - Achvraid	HUT CIRCLE?; RING CAIRN?	<a href="https://her.highland.gov.uk/monument/MHG62785">https://her.highland.gov.uk/monument/MHG62785</a>	<a href="https://canmore.org.uk/site/13167">https://canmore.org.uk/site/13167</a>
-	Inverness	ARROWHEAD	-	<a href="https://canmore.org.uk/site/365368">https://canmore.org.uk/site/365368</a>
-	Balvonie of Leys	BUILDING(S)	-	<a href="https://canmore.org.uk/site/314314">https://canmore.org.uk/site/314314</a>

## Project related

HER ID	Name	Monument Type	Highland HER Website	Canmore Website
-	<i>Big Burn – Balvonie of Leys</i>	CLEARANCE CAIRN	-	<a href="https://canmore.org.uk/site/314317">https://canmore.org.uk/site/314317</a>
-	<i>Big Burn</i>	BUILDING	-	<a href="https://canmore.org.uk/site/314318">https://canmore.org.uk/site/314318</a>
-	<i>Big Burn</i>	KILN	-	<a href="https://canmore.org.uk/site/314320">https://canmore.org.uk/site/314320</a>
-	<i>Balvonie of Leys</i>	BUILDING; KILN	-	<a href="https://canmore.org.uk/site/314315">https://canmore.org.uk/site/314315</a>
-	<i>Big Burn</i>	HUT CIRCLE	-	<a href="https://canmore.org.uk/site/314321">https://canmore.org.uk/site/314321</a>
-	<i>Big Burn</i>	BUILDING; RIG AND FURROW	-	<a href="https://canmore.org.uk/site/115097">https://canmore.org.uk/site/115097</a>

Table 4 Highland HER Event Record Data (previous investigations)

HER ID	Name	Location	Date	Type	Highland HER Website
<i>EHG1027</i>	<i>Evaluation and Watching Brief – West Torbeck</i>	<i>Clachandreggy, West Torbeck, Inverness</i>	<i>November 2003</i>	<i>Watching brief extent</i>	<a href="https://her.highland.gov.uk/event/EHG1027">https://her.highland.gov.uk/event/EHG1027</a>
<i>EHG3050</i>	<i>Desk-based assessment and walkover survey - Knocknagael, Essich</i>	<i>Proposed substation site, Knocknagael, Essich</i>	<i>July 2008</i>	<i>Whole site extent</i>	<a href="https://her.highland.gov.uk/event/EHG3050">https://her.highland.gov.uk/event/EHG3050</a>
<i>EHG3537</i>	<i>Watching brief - Passing Places M, N, O, Knocknagael</i>	<i>Passing Places M, N and O, Knocknagael</i>	<i>January 2010</i>	<i>Watching brief extent</i>	<a href="https://her.highland.gov.uk/event/EHG3537">https://her.highland.gov.uk/event/EHG3537</a>
<i>EHG3538</i>	<i>Watching brief - Passing Places U, V and W, Knocknagael</i>	<i>Passing Places U, V and W, Knocknagael</i>	<i>March 2010</i>	<i>Watching brief extent</i>	<a href="https://her.highland.gov.uk/event/EHG3538">https://her.highland.gov.uk/event/EHG3538</a>
<i>EHG3541</i>	<i>Watching brief, Knocknagael substation (tower junctions)</i>	<i>Proposed substation site, Knocknagael</i>	<i>March 2010</i>	<i>Watching brief extent</i>	<a href="https://her.highland.gov.uk/event/EHG3541">https://her.highland.gov.uk/event/EHG3541</a>
<i>EHG3541</i>	<i>Watching brief, Knocknagael substation (tower junctions)</i>	<i>Proposed substation site, Knocknagael</i>	<i>March 2010</i>	<i>Watching brief extent</i>	<a href="https://her.highland.gov.uk/event/EHG3541">https://her.highland.gov.uk/event/EHG3541</a>
<i>EHG3543</i>	<i>Watching brief, Knocknagael substation (Haul Road 1)</i>	<i>Proposed substation site, Knocknagael</i>	<i>August 2010</i>	<i>Watching brief extent</i>	<a href="https://her.highland.gov.uk/event/EHG3543">https://her.highland.gov.uk/event/EHG3543</a>

## Project related

<b>HER ID</b>	<b>Name</b>	<b>Location</b>	<b>Date</b>	<b>Type</b>	<b>Highland HER Website</b>
EHG3544	Watching brief, Knocknagael substation (Haul Road 2)	Proposed substation site, Knocknagael	June 2010	Watching brief extent	<a href="https://her.highland.gov.uk/event/EHG3544">https://her.highland.gov.uk/event/EHG3544</a>
EHG3545	Watching brief, Knocknagael substation (Haul Road 3)	Proposed substation site, Knocknagael	June 2010	Watching brief extent	<a href="https://her.highland.gov.uk/event/EHG3545">https://her.highland.gov.uk/event/EHG3545</a>
EHG3593	Watching brief, Knocknagael substation (Tower 402R)	Proposed substation site, Knocknagael	July 2010	Watching brief extent	<a href="https://her.highland.gov.uk/event/EHG3593">https://her.highland.gov.uk/event/EHG3593</a>
EHG3594	Watching brief, Knocknagael substation (Tower 402AR)	Proposed substation site, Knocknagael	September 2010	Watching brief extent	<a href="https://her.highland.gov.uk/event/EHG3594">https://her.highland.gov.uk/event/EHG3594</a>
EHG3595	Watching brief, Knocknagael substation (Tower 403AR)	Proposed substation site, Knocknagael	September 2010	Watching brief extent	<a href="https://her.highland.gov.uk/event/EHG3595">https://her.highland.gov.uk/event/EHG3595</a>
EHG3595	Watching brief, Knocknagael substation (Tower 403AR)	Proposed substation site, Knocknagael	September 2010	Watching brief extent	<a href="https://her.highland.gov.uk/event/EHG3595">https://her.highland.gov.uk/event/EHG3595</a>
EHG3595	Watching brief, Knocknagael substation (Tower 403AR)	Proposed substation site, Knocknagael	September 2010	Watching brief extent	<a href="https://her.highland.gov.uk/event/EHG3595">https://her.highland.gov.uk/event/EHG3595</a>
EHG3595	Watching brief, Knocknagael substation (Tower 403AR)	Proposed substation site, Knocknagael	September 2010	Watching brief extent	<a href="https://her.highland.gov.uk/event/EHG3595">https://her.highland.gov.uk/event/EHG3595</a>
EHG3596	Watching brief, Knocknagael substation (Tower 404R)	Proposed substation site, Knocknagael	September 2010	Watching brief extent	<a href="https://her.highland.gov.uk/event/EHG3596">https://her.highland.gov.uk/event/EHG3596</a>
EHG3596	Watching brief, Knocknagael substation (Tower 404R)	Proposed substation site, Knocknagael	September 2010	Watching brief extent	<a href="https://her.highland.gov.uk/event/EHG3596">https://her.highland.gov.uk/event/EHG3596</a>
EHG3596	Watching brief, Knocknagael substation (Tower 404R)	Proposed substation site, Knocknagael	September 2010	Watching brief extent	<a href="https://her.highland.gov.uk/event/EHG3596">https://her.highland.gov.uk/event/EHG3596</a>
EHG3596	Watching brief, Knocknagael substation (Tower 404R)	Proposed substation site, Knocknagael	September 2010	Watching brief extent	<a href="https://her.highland.gov.uk/event/EHG3596">https://her.highland.gov.uk/event/EHG3596</a>

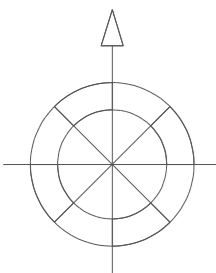
## Project related

HER ID	Name	Location	Date	Type	Highland HER Website
EHG3642	Watching brief, water main for Knocknagael Substation	Proposed substation site, Knocknagael	August 2011	Watching brief extent	<a href="https://her.highland.gov.uk/event/EHG3642">https://her.highland.gov.uk/event/EHG3642</a>
EHG3867	DBA and walkover survey - Balvonie of Leys, by Essich, Inverness	Balvonie of Leys, by Essich, Inverness	Sept 2010	Survey extent	<a href="https://her.highland.gov.uk/event/EHG3867">https://her.highland.gov.uk/event/EHG3867</a>
EHG4689	DBA and Walkover Survey - Moy Wind Farm 33Kv Underground Cable Grid Connection	Moy Wind Farm 33Kv Underground Cable Grid Connection	July 2014	Survey extent	<a href="https://her.highland.gov.uk/event/EHG4689">https://her.highland.gov.uk/event/EHG4689</a>
EHG4900	DBA and Walkover Survey - Knocknagael - Tomatin 275 kV OHL	Knocknagael - Tomatin proposed 275 kV OHL	Aug 2014	Survey extent	<a href="https://her.highland.gov.uk/event/EHG4900">https://her.highland.gov.uk/event/EHG4900</a>
EHG4167	Watching brief - Knocknagael cable undergrounding works	Knocknagael	Sept 10-Jan 11	Watching brief extent	<a href="https://her.highland.gov.uk/event/EHG4167">https://her.highland.gov.uk/event/EHG4167</a>
EHG3534	Trial trenching, Knocknagael substation site	Proposed substation site, Knocknagael	March 2010	Trenches	<a href="https://her.highland.gov.uk/event/EHG3534">https://her.highland.gov.uk/event/EHG3534</a>
EHG5277	Watching brief - electricity substation, Knocknagael	Electricity substation, Knocknagael	Jan-Feb 2010	Watching brief extent	<a href="https://her.highland.gov.uk/event/EHG5277">https://her.highland.gov.uk/event/EHG5277</a>
EHG5278	Watching brief - Knocknagael cable undergrounding works (2nd line, Phase 4)	Knocknagael	Jan-Feb 11	Watching brief extent	<a href="https://her.highland.gov.uk/event/EHG5278">https://her.highland.gov.uk/event/EHG5278</a>
EHG5451	Excavation – Hut circle 5a, Knocknagael to Tomatin 275kV Overhead Line	Big Burn	March 2018	Trench	<a href="https://her.highland.gov.uk/Event/EHG5451">https://her.highland.gov.uk/Event/EHG5451</a>
EHG5591	Watching brief - Knocknagael to Tomatin, 275kV Overhead Line	Knocknagael to Tomatin	May 2017 - Aug 2018	Monitored areas	<a href="https://her.highland.gov.uk/event/EHG5591">https://her.highland.gov.uk/event/EHG5591</a>
EHG5720	DBA and walkover survey - new 33kV Cable, Moy	Moy	June 2020	Survey area	<a href="https://her.highland.gov.uk/event/EHG5720">https://her.highland.gov.uk/event/EHG5720</a>
EHG5722	DBA and walkover survey - Knocknagael to Clune Wood Cable	Knocknagael to Clune Wood	2020	Survey area	<a href="https://her.highland.gov.uk/event/EHG5722">https://her.highland.gov.uk/event/EHG5722</a>
EHG696	Walkover survey – new water treatment site, Loch Ashie	Loch Ashie	1999	Survey areas	<a href="https://her.highland.gov.uk/event/EHG696">https://her.highland.gov.uk/event/EHG696</a>

## Project related

<i>HER ID</i>	<i>Name</i>	<i>Location</i>	<i>Date</i>	<i>Type</i>	<i>Highland HER Website</i>
<i>EHG6184</i>	<i>Walkover survey – new underground cabling, Red John Project, Knocknagael</i>	<i>Knocknagael, Loch Ashie</i>	<i>2022</i>	<i>Survey area</i>	<i><a href="https://her.highland.gov.uk/Event/EHG6184">https://her.highland.gov.uk/Event/EHG6184</a></i>

**Appendix C: Site Plan**



- Notes**
- All dimensions are shown in metres unless noted otherwise.
  - Do not scale from this drawing.
  - This drawing is indicative only and the site layout is likely to change as more information becomes available.

- Legend**
- Planning Boundary
  - Access Track - Unbound Finish
  - Access Track - Asphalt Finish
  - Attenuation Basin
  - Palisade Fence
  - 4m Acoustic Fence
  - 3m Acoustic Fence
  - Stock Proof Fence
  - Indicative Underground Cable Route
  - Site Landscaping and Planting
  - Existing Trees to Remain

1:10	0	100mm	200mm	300mm	400mm	500mm	600mm	700mm	800mm	900mm	1m
1:20		0.5m	1m	1.5m	2m	2.5m	3m	3.5m	4m	4.5m	5m
1:50		1m	2m	3m	4m	5m	6m	7m	8m	9m	10m
1:100		1m	2m	3m	4m	5m	6m	7m	8m	9m	10m
1:200		5m	10m	15m	20m	25m	30m	35m	40m	45m	50m
1:500		5m	10m	15m	20m	25m	30m	35m	40m	45m	50m
1:1000		10m	20m	30m	40m	50m	60m	70m	80m	90m	100m
1:1000		10m	20m	30m	40m	50m	60m	70m	80m	90m	100m

REV	DATE	DESCRIPTION	BY	CHKD
3	27.08.2024	Landscaping and planting area amended	JH	AP
2	20.08.2024	Change and landscaping amended. Annotations added	JH	AP
1	30.05.2024	Site layout amended	JH	JW
0	28.03.2024	Site Layout Plan - Original	JH	AP

**FIELD**

Field  
Fora Montacute Yards,  
186 Shoreditch High Street,  
London,  
E1 6HU

PROJECT: Knocknagael

TITLE: Indicative Site Layout Plan

DISCIPLINE: PLANNING

DRAWING STATUS: FOR PLANNING

SCALE	DATE	DRAWN BY	CHECKED BY	APPROVED BY
1:1000 @ A0	28.03.2024	JH	AP	JM
PROJECT NO.	DRAWING NO.	REV.		
BTGBKN001	001.1	03		

Essich Road

Biorraid Road

Substation Compound - refer to drawing 005.8.1 for details

High Voltage Transformer

Parking Spaces

Substation Building

Standby Generator

Transmission Operator Substation

Knocknagael Electricity Substation

MV Skid

Battery String

Western BESS Compound

Auxiliary Transformer

LV Cabinet

Southern BESS Compound

Lighting and CCTV Column