



**FORSS WIND FARM EXTENSION
ARCHAEOLOGICAL DESK-BASED ASSESSMENT**

CULTURAL HERITAGE REPORT NUMBER: 119

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Prepared By:

Arcus Consultancy Services

7th Floor
144 West George Street
Glasgow
G2 2HG

T +44 (0)141 847 0340 | **E** info@arcusconsulting.co.uk
W www.arcusconsulting.co.uk

Registered in England & Wales No. 5644976

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DATA ENTRY FORM

PROJECT INFORMATION	
Project title	Forss Wind Farm Extension
Description	Wind farm development and ancillary infrastructure
Report	Desk Based Assessment and Walkover Survey
Contractor name	Arcus Consultancy Services Ltd.
Client	Abbey Properties Cambridgeshire Limited

SITE LOCATION INFORMATION	
Council	The Highland Council
Core Study Area	77.5 ha
Grid References	Centred on NGR 302100, 969598

PROJECT BIBLIOGRAPHY	
Type of publication	Unpublished document/manuscript
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Author	Eva Heimpel and Heather Kwiatkowski
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SUMMARY

An archaeological desk-based assessment has been undertaken by Arcus Consultancy Services Limited ('Arcus') on behalf of Abbey Properties Cambridgeshire Limited for land located at Forss Business and Energy Park, near Thurso. The purpose of this archaeological desk-based assessment is to establish the known or potential archaeological resource baseline in order to assess the effects of the proposed Forss Wind Farm Extension (herein referred to as 'the Development') for which an application is to be submitted in 2020.

For the purposes of this desk-based assessment, the Core Study Area covers approximately 77.5 hectares (ha), with the extents and location shown on Figure 1. This Core Study Area consists of Forss Wind Farm and Business and Energy Park, and agricultural fields. The Core Study Area is the area in which direct effects to archaeology may occur. A 1 km study area, which includes the Core Study Area and land within a 1 km radius, was used to aid the assessment of potential unknown archaeology. A 10 km Study Area was used to identify assets which have the potential to receive a change to their setting as a result of the Development.

The data collection exercise has identified a total of 21 heritage features within the Core Study Area. This includes the scheduled St Marys Chapel and broch S of Chapel Pool (SM90086), 18 non-designated features as identified through the HER and Canmore datasets, and two features identified through the cartographic record.

Within the 1 km Study Area, there are two additional nationally designated assets, Scheduled Green Tullochs, broch & cairn 640m NNW of Borrowston Mains (SM554) and Category B Listed Lybster Farm Steading (LB14991), and a further 42 non-designated features as identified through the HER and Canmore datasets.

There are a number of prehistoric and early medieval remains within the Core Study Area. This includes Early Iron Age to early medieval settlement (MHG1053), three Early Iron Age to early medieval brochs (MHG13495, 13496, 39521), Early Iron Age to early medieval burial (MHG45519), the 12th century St Marys Chapel (SM90086), and two pictish findspots (MHG39524, MHG45692). This indicates a high potential for unknown archaeological remains to survive within the CSA. However, subsequent development of the naval base in the north, and agricultural use of the fields in the east would likely have damaged or destroyed subsurface archaeological remains and lowers the potential within the CSA. Indeed, the 2002 and 2007 watching briefs within the CSA, as detailed in Section 4.2.8, did not identify any additional archaeological features. This reduces the archaeological potential to moderate.

There are no known medieval remains and limited post medieval remains within the Core Study Area. Subsequent development and agricultural use of the fields within the CSA would likely have damaged or destroyed subsurface archaeological remains. There is good cartographic coverage of this area and any post medieval remains will have likely been record. There is low potential for any unknown post medieval remains to survive within the CSA.

There are numerous modern archaeological features in the Core Study Area and remains of the naval base (MHG24616), for which some remains are extant and some are no longer extant, although subsurface remains may survive. Subsequent development, including the wind turbines and associated cabling, and agricultural activities in the east of the Core Study Area may have damaged/destroyed some of the subsurface modern remains. The cartographic coverage of the Core Study Area is good and there have been numerous previous archaeological investigations within this area. As such, it is very unlikely that previously unknown archaeological remains exist within the Core Study Area. The potential for unknown modern remains to exist is very low.

In conclusion, it is likely that any work undertaken within the Core Study Area would have a modern potential to have a direct impact upon potentially significant, previously undiscovered archaeological remains. Consultation should be undertaken with the THC archaeologist to agree appropriate mitigation measures, where required.

Within the 10 km Study Area there are 34 Scheduled Monuments, 114 Listed Buildings of all Categories, and Thurso Conservation Area. There are no World Heritage Sites, Registered Battlefields, or Registered Parks and Gardens.

There is also the potential for indirect impacts to affect assets both in the Core Study Area and the wider area. Consideration of indirect effects will be reported on fully in the EIA Report, taking into account the way in which the Development may affect the setting of nationally important sites.

1 INTRODUCTION

An archaeological desk-based assessment has been undertaken by Arcus Consultancy Services Limited ('Arcus') on behalf of Abbey Properties Cambridgeshire Limited for land located at Forss Business and Energy Park, near Thurso. The purpose of this archaeological desk-based assessment is to establish the known or potential archaeological resource baseline in order to assess the effects of the proposed Forss Wind Farm Extension (herein referred to as 'the Development') for which an application is to be submitted in 2020.

1.1 The Development

The Development will consist of two turbines with a maximum height to blade tip of up to 124.75 metres (m) and a total generating capacity of up to 8.4 MW. Ancillary infrastructure will also be required as part of the Development and is likely to include a substation, transformers, battery storage infrastructure, new and upgraded access tracks and site entrance, temporary construction compound, temporary crane hardstandings, temporary borrow pits and a permanent meteorological mast. The ancillary infrastructure proposed may change as the final parameters of the Development are identified throughout the iterative EIA process.

1.2 Study Areas

To assess the potential for on-site archaeology, two study areas were defined based upon the likelihood of potential significant effects upon archaeology and cultural heritage.

Core Study Area covers approximately 77.5 hectares (ha), with the extents and location shown on Figure 1. This Core Study Area consists of Forss Business and Energy Park and agricultural land, as shown in Plate 1. The Core Study Area is the area in which direct effects to archaeology may occur.

A 1 km study area, which includes the Core Study Area and land within a 1 km radius of the archaeological core study area (Figure 1), was used to establish the type of known archaeology within proximity to the Core Study Area in order to inform the potential for unknown archaeology to survive within the Core Study Area.

A 10 km Study Area was used to identify assets which have the potential to receive a change to their setting as a result of the Development and for which an assessment of indirect effects may be required within the EIA Report.

2 LEGISLATION, POLICY AND GUIDANCE

The assessment has been undertaken taking into account relevant heritage legislation and guidance as outlined below.

2.1.1 Legislation

The assessment of impacts to the historic environment falls under The Town and Country Planning (Scotland) Act 1997, and this DBA forms the baseline against which this assessment will occur. This DBA is a technical appendix to the EIA Report that will accompany the application for consent.

Statutory protection for archaeology is principally outlined in the Ancient Monuments and Archaeological Areas Act (1979)¹, as amended by the National Heritage Act (1983)² and nationally important sites are listed in a Schedule of Monuments. The 1979 Act makes no reference to the settings of Scheduled Monuments.

¹ UK Government (1979) *Ancient Monuments and Archaeological Areas Act*. Available at www.legislation.gov.uk/ukpga/1979/46 [Accessed on 20/10/2019]

² UK Government (1983) *National Heritage Act*. Available at <http://www.legislation.gov.uk/ukpga/1983/47> [Accessed on 20/10/2019]

Listed Buildings and Conservation Areas receive protection under the Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997³, as amended by the Enterprise and Regulatory Reform Act (2013)⁴. The 1997 Act places a duty on the local planning authority with respect to Listed Buildings and Conservation Areas, and their settings. Section 59 of the 1997 Act states (in part):

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

Section 64 states:

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

The Historic Environment Scotland Act 2014 defines the role of Historic Environment Scotland (HES) and the processes for the designation of heritage assets, consents and rights of appeal.

2.1.2 Policy

Scottish Planning Policy⁵ (SPP) is the statement of the Scottish Government's policy on nationally important land use planning matters. Circulars, which also provide statements of the Scottish Government's policy, contain guidance on policy implementation through legislative or procedural change

In the SPP, the historic environment is defined as *"the physical evidence for human activity that connects people with place, linked with the associations we can see, feel and understand"* and includes *"individual assets, related settings and the wider cultural landscape"*⁶. As stated in paragraph 137:

"The planning system should:

Promote the care and protection of the designated and non-designated historic environment (including individual assets, related settings and the wider cultural landscape) and its contribution to sense of place, cultural identity, social well-being, economic growth, civic participation and lifelong learning; and

Enable positive change in the historic environment which is informed by a clear understanding of the importance of the heritage assets affected and ensure their future use. Change should be sensitively managed to avoid or minimise adverse impacts on the fabric and setting of the asset, and ensure that its special characteristics are protected, conserved or enhanced."

In regards to designated heritage assets, the SPP⁷ states:

Regarding developments affecting listed buildings, "special regard must be given to the importance of preserving and enhancing the building, its setting and any features of special architectural or historic interest";

³ UK Government (1997) *(Listed Buildings and Conservation Areas) (Scotland) Act 1997*. Available at http://www.legislation.gov.uk/ukpga/1979/46/pdfs/ukpga_19790046_en.pdf [Accessed on 20/10/2019]

⁴ UK Government (2013) *Enterprise and Regulatory Reform Act 2013*. Available at <http://www.legislation.gov.uk/ukpga/2013/24/contents/enacted> [Accessed 20/10/2019]

⁵ Scottish Government (2014) *Scottish Planning Policy* [Online] Available at <https://beta.gov.scot/publications/scottish-planning-policy/> [Accessed 30/10/2019]

⁶ Scottish Government (2014) *Scottish Planning Policy*. Paragraph 137 [Online] Available at <https://beta.gov.scot/publications/scottish-planning-policy/> [Accessed 30/10/2019]

⁷ Scottish Government (2014) *Scottish Planning Policy*. Paragraph 141-149 [Online] Available at <https://beta.gov.scot/publications/scottish-planning-policy/> [Accessed 30/10/2019]

Proposals "which will impact on its appearance, character or setting [of a conservation area], should preserve or enhance the character and appearance of the conservation area";

"where there is potential for a proposed development to have an adverse effect on a scheduled monument or on the integrity of its setting, permission should only be granted where there are exceptional circumstances";

"where a development proposal has the potential to affect a world heritage site, or its setting, the planning authority must protect and preserve its outstanding universal value";

"planning authorities should protect and, where appropriate, seek to enhance gardens and designed landscapes included in the inventory of gardens and designed landscapes and designed landscapes of regional and local importance"; and

"planning authorities should seek to protect, conserve and, where appropriate, enhance the key landscape characteristics and special qualities of sites in the inventory of historic battlefields".

The SPP also requires local planning authorities to protect archaeological sites and monuments, preserving them *in situ* or otherwise ensuring "appropriate excavation, recording, analysis, publication and archiving before and/or during development"⁸. "Non-designated historic assets and areas of historical interest, including historic landscapes, other gardens and designed landscapes, woodlands and routes such as drove roads" should also be preserved *in situ* wherever feasible⁹.

'Our Place in Time: The Historic Environment Strategy for Scotland'¹⁰ presents the Scottish Government's strategy for the protection and promotion of the historic environment. The Historic Environment Policy for Scotland¹¹ (HEPS) and the Historic Environment Scotland Circular¹² complement the SPP and provide further policy direction. In particular, HEPS provides more detailed policy on historic environment designations and consents.

The Highland-Wide Local Development Plan 2012, Policy 57: Natural, Built and Cultural Heritage¹³ states that 'all development proposals will be assessed taking into account the level of importance and type of heritage features, the form and scale of the development, and any impact on the feature and its setting'. The following criteria will also work:

- For features of regional/local importance, development will be accepted if they do not have an unacceptable impact on the heritage resource;
- For features of national importance, development will be accepted if they do not compromise the heritage resource. Significant effect must be clearly outweighed by social or economic benefits of national importance;
- For features of international importance, developments which effect heritage sites will be accepted only where there is no alternative solution.

2.1.3 Guidance

Planning Advice Note 2/2011: Planning and Archaeology¹⁴ provides advice on dealing with archaeological remains. Whilst it covers a range of issues, of particular relevance is the planning balance associated with the preservation of archaeological remains and the

⁸ Scottish Government (2014) Scottish Planning Policy. Paragraph 150 [Online] Available at <https://beta.gov.scot/publications/scottish-planning-policy/> [Accessed 30/10/2019]

⁹ Scottish Government (2014) Scottish Planning Policy. Paragraph 151 [Online] Available at <https://beta.gov.scot/publications/scottish-planning-policy/> [Accessed 30/10/2019]

¹⁰ *Our Place in Time: The Historic Environment Strategy for Scotland*, 2015, Historic Environment Scotland

¹¹ *The Historic Environment Policy for Scotland*, 2019, Historic Environment Scotland

¹² *Historic Environment Scotland Circular*, 2019, Historic Environment Scotland

¹³ The Highland Council (2012) Highland-Wide Local Development Plan. Available at [file:///C:/Users/EvaH/Downloads/Highland wide Local Development Plan.pdf](file:///C:/Users/EvaH/Downloads/Highland%20wide%20Local%20Development%20Plan.pdf) [Accessed 30/08/2019]

¹⁴ The Scottish Government (2011) Planning Advice Note 2/2011. Available at <http://www.gov.scot/Resource/Doc/355385/0120020.pdf> [Accessed 30/08/2019]

benefits of development; the circumstances under which developers may be required to provide further information or field evaluation to inform decisions; and measures that can be taken to mitigate adverse effects.

Designation Policy and Selection Guidance (DPSG, 2019) accompanies HEPS and details the policy and selection guidance used by Historic Environment Scotland when designating heritage assets of national importance.

Guidance on how to apply the policies set out in the SPP is set out in Historic Environment Scotland's 'Managing Change in the Historic Environment Series', of which their guidance on 'Setting'¹⁵ is particularly relevant.

Standards and Guidance published by the Chartered Institute for Archaeologists (CifA) have been followed in preparing this DBA, in particular the 'Standard and guidance for commissioning work or providing consultancy advice on archaeology and the historic environment'¹⁶ and the 'Standard and guidance for historic environment desk-based assessment'¹⁷.

3 AIMS, METHODOLOGY AND SOURCES

3.1 Aims

The aim of this DBA is to:

- Establish the baseline information regarding archaeology within the Core Study Area and 1 km Study Areas;
- To establish the archaeological potential for unknown buried archaeology to survive within the Core Study Area;
- To identify heritage assets that may be impacted by the Development and for which further assessment is required; and
- Where appropriate, make recommendations to mitigate harm and/or enhance heritage assets.

3.2 Methodology

The following methodology follows those guidelines as outlined in the Chartered Institute for Archaeologists' Standard and Guidance Paper for historic environment desk-based assessment¹⁸.

The DBA comprises of a written report including a description of the baseline heritage resource and archaeological potential of the study area, a description of the area's historic character, the archaeological and historical baseline's significance, the potential effect of the Development upon the outlined archaeological and historical resource, and possible mitigation strategies. The following section outlines the methodology used to fulfil the aims of the assessment stated in Section 3.1 above.

To inform the DBA, an archival search was undertaken in order to identify records of known archaeological features which have the potential to be affected by the Development. This

¹⁵ Historic Environment Scotland, 2016, *Managing Change in the Historic Environment: Setting*. [Online] Available at: <https://www.historicenvironment.scot/archives-and-research/publications/publication/?publicationId=80b7c0a0-584b-4625-b1fd-a60b009c2549> [Accessed 30/08/2019]

¹⁶ Chartered Institute for Archaeologists (2014) *Standard and Guidance for Commissioning work or providing consultancy advice on archaeology and the historic environment*, Published December 2014, [Online] Available at: https://www.archaeologists.net/sites/default/files/CifAS&GCommissioning_1.pdf

¹⁷ Chartered Institute for Archaeologists (2017) *Standard and Guidance for Historic Environment Desk-Based Assessment*, Published December 2014, Updated January 2017 [Online] Available at: http://www.archaeologists.net/sites/default/files/CifAS%26GDBA_3.pdf [Accessed 30/08/2019]

¹⁸ Chartered Institute for Archaeologists (2017) *Standard and Guidance for Historic Environment Desk-Based Assessment*, Published December 2014, Updated January 2017 [Online] Available at: http://www.archaeologists.net/sites/default/files/CifAS%26GDBA_3.pdf [Accessed 30/08/2019]

archive search also collected data falling within the 1 km study area to inform the assessment of the physical and ground-based archaeological potential of the Core Study Area.

The following sources were consulted in accordance with the best practice guidelines laid down by the Institute for Archaeologists (CIfA).

- Historic Environment Scotland Datasets including;
 - Canmore Archaeological Records;
 - Database of World Heritage Sites;
 - Database of Scheduled Monuments;
 - Database of Listed Buildings;
 - Database of Inventoried Garden and Designed Landscapes; and
 - Database of Inventoried Battlefields.
- The National Collection of Aerial Photography (NCAP);
- Cartographic evidence;
- The Highland Council Historic Environment Record (HER) consulted on 24th July 2019; and
- The Statistical Accounts for Scotland.

These resources have been collated and examined alongside the results of any fieldwork.

To accompany this consultation, a site walkover was conducted on 14th August 2019 to verify the written records, to assess the character of the site, and to note any archaeological features not previously identified. Any previously unknown sites were recorded by use of digital photography and an appropriate scale.

The results of this work have informed the archaeological baseline and archaeological potential of the Core Study Area. This baseline has then been cross-referenced with the Development to assess the potential for harm to archaeological resources situated within the Development footprint.

4 RESULTS

The data collection exercise has identified a total of 21 heritage features within the Core Study Area. This includes the scheduled St Marys Chapel and broch S of Chapel Pool (SM90086), 18 non-designated features as identified through the HER and Canmore datasets, and two features identified through the cartographic record.

Within the 1 km Study Area there are two additional nationally designated assets, Scheduled Green Tullochs, broch & cairn 640m NNW of Borrowston Mains (SM554) and Category B Listed Lybster Farm Steading (LB14991), as well as 42 non-designated features as identified through the HER and Canmore datasets.

The results of the desk-based assessment are summarised below with full details provided in the Heritage Gazetteer in Section 9.

4.1 Core Study Area Description

The Core Study Area comprises of vacant land which is occasionally used for grazing with the Forss Business & Energy Park making up a large part of the western portion of the Core Study Area. The Business & Energy Park comprises a range of industrial buildings, hardstandings and roadway. The Existing Forss Wind Farm is situated on land to the north-west of the Core Study Area and is within the same ownership of the Applicant.

The bedrock geology of the Core Study Area is Dounreay Siltstone Member – Siltsone and Sandstone which is sedimentary bedrock reod by a local environment previously dominated

by lakes.¹⁹ Superficial deposits are Broubster Till Member – Diamicton formed in a local environment previously dominated by ice age conditions.²⁰

4.2 Core and 1 km Study Area

4.2.1 Designated Assets

A search of the National Monument Record Scotland (NMRS) returned one nationally designated Scheduled Monument within the Core Study Area, St Marys Chapel and broch S of Chapel Pool (SM90086 which encompasses several HER records including MHG373, MHG1053, MHG13495, MHG13496, MHG39323, MHG39324, MHG39521, MHG39522, MHG39523, MHG39524, MHG45519, MHG45520, MHG45521, and MHG45692).

There are two additional nationally designated assets within the 1 km Study Area, as follows:

- Scheduled Green Tullochs, broch & cairn 640m NNW of Borrowston Mains (SM554, MHG1233, MHG1227, MGH39597, MHG39598); and
- Category B Listed Lybster Farm Steading (LB14991, MHG15166).

There are no World Heritage Sites, Inventoried Gardens or Designed Landscapes (GDL), or Inventoried Battlefields within the 1 km Study Area.

These are shown in Figure 2 and are discussed in Section 6. Full details of these can be found in the Heritage Gazetteer in Section 9.

4.2.2 Non-Designated Assets

The Historic Environment Record (HER) and Canmore datasets returned a further 60 records of archaeological features within the 1 km archaeological study area (Figure 3), 18 of which fall within the archaeological core study area as shown in Table 1.

Table 1: Non-Designated Assets within the Core Study Area

Asset	Asset ID	Name	Type	Extant Surface Remains
HER Record	MHG883	Enclosure, Crosskirk	Enclosure	No
HER Record	MHG903	Longhouse, Hill of Lybster	Longhouse	No
HER Record	MHG904	Structure, Hill of Lybster	Structure	No
HER Record	MHG905	Structure, Hill of Lybster	Structure	No
HER Record	MHG1226	St. Mary's Well	Well	Yes
HER Record	MHG17662	Hill of Lybster	Farmstead	No
HER Record	MHG17663	Hill of Lybster	Building	No
HER Record	MHG24616	Lybster Hill, US Naval Communication Unit	Telecommunication building; transmitter site	Yes
HER Record	MHG47565	Hill of Lybster	Radio station	No

¹⁹ Geology of Britain Viewer. Available at <https://mapapps.bgs.ac.uk/geologyofbritain/home.html> (Accessed 1/12/2019)

²⁰ Ibid

Asset	Asset ID	Name	Type	Extant Surface Remains
HER Record	MHG47566	Hill of Lybster	Building	No
HER Record	MHG53678	Settlement rig and furrow around Tullochs broch	Settlement	No
HER Record	MHG53679	Turf boundary banks, Forss Wind farm	Boundary bank; enclosure	No
HER Record	MHG53680	Site of house, Forss Wind farm	House platform	No
HER Record	MHG53681	House Platform, Forss Wind farm	House platform	No
HER Record	MHG53682	Rig and furrow adjacent to St Mary's chapel	Rig and Furrow	No
HER Record	MHG56021	Building? - Crosskirk, Reay	Building?	No
HER Record	MHG56022	Building? - Crosskirk, Reay	Building?	No
Canmore Record	339759	Forss Wind Farm	Wind farm	Yes

Full details of all non-designated assets within the 1 km Study Area can be found in the heritage gazetteer in Section 8.

4.2.3 Cartographic Analysis

Historic mapping of the area can be accessed through the National Library of Scotland Mapping service and other readily available sources. All maps containing specific reference to the archaeological core study area were consulted as listed below:

- Ordnance Survey, County Series, 1876²¹: This Map shows the Core Study Area rough pasture to the west, with two semi-irregular enclosed fields to the west and south, as shown on Figure 4. The two Scheduled Monuments Crosskirk, St Marys Chapel and broch S of Chapel Pool (SM90086) and Green Tullochs, broch & cairn 640m NNW of Borrowston Mains (SM554) are depicted on this map. St Marys well (MHG1226) is also shown on this map, in the larger of the two fields, as well as Hill of Lybster Farmstead (MHG17662) and a number of building structures (MHFG903, MHG905, MHG17663). Two quarries are shown in this map, one in the south of the Core Study Area (HM-1), and one along the coast in the north of the Core Study Area (HM-2).
- Ordnance Survey, 2nd edition 1888²²: In this map the large enclosed field to the west is split into three small fields. Both quarry feature (HM-1 and HM-2) are labelled as 'Old Quarry's' in this map, as shown on Figure 5. There are no other changes to the Core Study Area.
- Ordnance Survey, County Series, 1907²³: There are no changes to the Core Study Area in this map, as shown on Figure 6.
- OS Plan, 1959²⁴: There are no changes to the Core Study Area in this map, as shown on Figure 7.

²¹ Ordnance Survey, County Series (1876) Caithness-shire

²² Ordnance Survey, Six-inch 2nd edition (1888)

²³ Ordnance Survey, County Series (1987) Caithness-shire

²⁴ Ordnance Survey, Plan (1959)

- OS Plan, 1969-75²⁵ : This map shows the west rough pasture is now only prevalent in the far west of the Core Study Area, with the central area now including a the communication station and numerous masts and trackways, as shown in Figure 7. The enclosed fields to the east and south have been further segmented into six separate fields and both quarry's and Hill of Lybster Farmstead (MHG17662) and a number of building structures (MHFG903, MHG905, MHG17663) are no longer shown in the map. There is an additional wireless station also show in this map to the west of St Marys Chapel (SM90086).

A review of cartographic sources identified two additional quarry features, one in the south of the Core Study Area (HM-1), and one along the coast in the north of the Core Study Area (HM-2). This is detailed in Heritage Gazetteer in Section 9 and shown in Figures 3, 5, 6, and 7.

4.2.4 Aerial Photography

Aerial photography of the area was accessed through the National Collection of Aerial Photography. Photographs for the area around the archaeological core study area were consulted, as listed below:

- Sortie: FSL/7343/38; Frame 0611; Dated 25 May 1975; Location: Hill of Lybster, Raey, Caithness, Scotland. This photograph shows the remains of Lybster Hill farmstead/enclosures in the southeast corner of the Core Study Area (MHG904, MHG905). The western half of the Core Study Area depicts the MS station, tracks, masts and associated infrastructure (MHG24616). No additional features of archaeological interest were noted;
- Sortie: CLY/8522; Frame 0969; Dated 18 December 1985; Location: Hill of Lybster, Raey, Caithness, Scotland. The western half of the Core Study Area depicts the MS station, tracks, masts and associated infrastructure (MHG24616). No additional features of archaeological interest were noted; and
- Sortie: CLY/8522; Frame 0971; Dated 18 December 1985; Location: Gieu-using Geo, Raey, Caithness, Scotland. The western half of the Core Study Area depicts the MS station, tracks, masts and associated infrastructure. No additional features of archaeological interest were noted.

Analysis of the aerial photographic archive and satellite imagery did not reveal any additional archaeological features.

4.2.5 Walkover Survey

A walkover survey was undertaken on 14th August 2019. The weather was fair and visibility was good. The Core Study Area was surveyed in its entirety. A number of extant modern features, which are recorded in the HER and Canmore records, were identified. This includes the naval base (MHG24616) and Forss Wind Farm (Canmore ID: 339759), as shown in Plates 1 and 2. A number of modern building debris such as concrete slabs which are identified within the naval base HER designation are visible across the western portion of the Core Study Area, as shown in Plates 3 and 4.

There are a number of sites which no longer have extant surface remains due to the development of the Business park and agricultural activities. This includes Hill of Lybster Farmhouses and building structures (MHG903-905, 17662, 1763, 47565, 47566, Canmore ID: 7878 and 85930), St. Marys Well (MHG1226), brochs and findspots at St. Marys Chapel (MHG13495, 13496, 39324, 39521-24, and 45519-21), buildings (MHG56021 and 56022), and House platforms (MHG53679-81).

²⁵ Ordnance Survey, Plan (1969-75)

The Core Study Area consist of the naval base and Forss Wind Farm in the north and agricultural fields in the east, as shown on plate 5. No additional archaeological features were noted.

4.2.6 Statistical Accounts

The Statistical Accounts for the Core Study Area is found in the County of Caithness, Parish Reay. Whilst there is no specific mention of the Core Study Area, the parish records describe the topography of the parish indicating that the 'only flat and lowlands lie along the coast'²⁶.

In relation to potential archaeology within this area, the parish records 'at Lybster, in the eastern part of the Parish, stand the ruins of a Roman Catholic chapel, near which is a spring of water, thought to be the sacred font'²⁷, this is likely to relate to St. Mary's chapel (SM90086). There is also reference to 'the ruins of another chapel of the same description; close to which is a tomb, wherein lies a coffin'²⁸ within Shebster.

4.2.7 National Archives of Scotland

A search of the national archives for the closest villages to the Development was undertaken. A search of Lybster revealed four records which include:

- 1811-1957 Lybster Fishery District;
- 1899-1923 Wick and Lybster Light Railway;
- 1881-1977 Records of Lybster/ Lybster St Mary's/Lybster and Bruan Kirk Session; and
- 1884-1934 Lybster Free Church, United Free, Church of Scotland.

A search of Reay revealed five records which include parish records, church records, and papers of the Mackay Family.

4.2.8 Previous Archaeological Investigations within Core Study Area

There are 12 previous archaeological excavations which occurred fully or partially within the Core Study Area. These include:

- 1971 Geophysical survey of the area between Crosskirk Broch and the cemetery to the south (EHG4658). A geophysical survey was undertaken to try and identify the course of a wall discovered in excavations for Crosskirk Broch²⁹.
- 1980-81 Archaeological Field Survey at Dounreay (EHG427). This archaeological field survey was conducted along the northern coast of Caithness/Sutherland. Any recorded archaeological finds should have been incorporated into the HER³⁰.
- 2001 DBA and walkover of the proposed Dounreay Wind Farm (EHG576). A DBA and walkover survey were conducted by GUARD in 2001 in advance of a proposed wind farm development at Borrowston Mains³¹. The area included within this survey abuts the Core Study Area, with a small overlap within the northwest of the Core Study Area. A number of features were highlighted as requiring mitigation, although none within the Core Study Area.

²⁶ Statistical Accounts (1845) Reay, County of Caithness, NSA, Vol. XV, page13. Available at [https://stataccscot.edina.ac.uk/static/statacc/dist/viewer/nsa-vol15-Parish record for Reay in the county of Caithness in volume 15 of account 2/](https://stataccscot.edina.ac.uk/static/statacc/dist/viewer/nsa-vol15-Parish%20record%20for%20Reay%20in%20the%20county%20of%20Caithness%20in%20volume%2015%20of%20account%202/) [Accessed 25/11/2019].

²⁷ Statistical Accounts (1845) Reay, County of Caithness, NSA, Vol. XV, page17. Available at [https://stataccscot.edina.ac.uk/static/statacc/dist/viewer/nsa-vol15-Parish record for Reay in the county of Caithness in volume 15 of account 2/](https://stataccscot.edina.ac.uk/static/statacc/dist/viewer/nsa-vol15-Parish%20record%20for%20Reay%20in%20the%20county%20of%20Caithness%20in%20volume%2015%20of%20account%202/) [Accessed 25/11/2019].

²⁸ Statistical Accounts (1845) Reay, County of Caithness, NSA, Vol. XV, page17. Available at [https://stataccscot.edina.ac.uk/static/statacc/dist/viewer/nsa-vol15-Parish record for Reay in the county of Caithness in volume 15 of account 2/](https://stataccscot.edina.ac.uk/static/statacc/dist/viewer/nsa-vol15-Parish%20record%20for%20Reay%20in%20the%20county%20of%20Caithness%20in%20volume%2015%20of%20account%202/) [Accessed 25/11/2019].

²⁹ HER Record (1971) Available at <https://her.highland.gov.uk/Event/EHG4658> [Accessed on 03/12/2019]

³⁰ R J Mercer (1980-81) Archaeological Field Survey in Northern Scotland. Available at https://librarylink.highland.gov.uk/LLFiles/865/full_865.PDF [Accessed on 25/11/2019]

³¹ HER Record (2006) Available at <https://her.highland.gov.uk/event/EHG576> [Accessed on 03/12/2019]

- 2002 DBA and watching brief for Forss wind farm (EHG887, MHG47855, Canmore 268983). A DBA was produced as part of the EIA for Forss Wind Farm. Subsequent mitigation included a watching brief carried out by S Farrell in October 2002. The watching brief included the location of a new access track and two turbines. No archaeological features or deposits were identified³².
- 2006 Photographic survey of naval communications base (EHG1425). A photographic record was made of the remains of the US Naval Base³³, which covers the western part of the Core Study Area. A photographic record was taken of the extant remains.
- 2006-10 Walkover and photographic survey of settlement evidence (EHG3287). An area of rig and furrow close to St Marys Chapel (MHG39473) was noted. This was surveyed and photographed³⁴.
- 2007 walkover survey and watching brief at Forss Windfarm for associated cabling (EHG1574, Canmore 296095). The following sites: MHG47566, MHG47565, MHG904, MHG1230, MHG905, and MHG17662 were identified in this survey. These were not affected by the development and the 18th/19th century structures were recorded³⁵.
- 2007 DBA and Watching brief for the construction of cable routes at Forss Wind Farm (EHG1573). A DBA and subsequent archaeological watching brief were carried out in 2007 during the installation of cables to connect Forss Wind Farm to the National Grid. No archaeological features or deposits were identified³⁶.
- 2008 DBA and walkover survey for Forss Wind Farm extension (EHG4335). A DBA and walkover survey were conducted by CFA Archaeology in 2008 as part of an ES for an extension for Forss Wind Farm. No new archaeological features were identified, although a high potential was assessed for unknown archaeological features to remain³⁷.
- 2011 Lidar survey for Baillie Hill and Cnoc Freiceadin, Caithness (EHG4017). A Lidar survey was conducted by AOC Archaeology as part of mitigation for a Wind Farm development. This survey comprised an area of 85 km² (which includes the Core Study Area), and resulted in a number of additional archaeological sites being incorporated into the HER record³⁸.
- 2012 DBA and walkover for development at Balmore, Dounreay (EHG4541). A DBA and walkover survey were conducted by Cotswold Archaeology in 2012. The area included within this survey intersects the southern corner of the Core Study Area. A previously unidentified wall and drainage ditch were recorded during the walkover, neither of which fall within the Core Study Area³⁹.
- 2013 DBA of Hill of Lybster Turbines (EHG4524). A DBA was produced by The Energy Workshop Limited as part of the Environmental Report (ER) for the Lybster Turbine. The DBA did not identify any archaeological remains which are not recorded within the HER and identified a low potential for unknown archaeological remains to survive within the Development footprint⁴⁰.

³² Stuart Farrell (2002) Report of Archaeological Watching Brief October 28th – 29th 2002. Available at https://librarylink.highland.gov.uk/LLFiles/9355/full_9355.pdf [Accessed on 25/11/2019].

³³ HER Record (2006) Available at <https://her.highland.gov.uk/Event/EHG1425> [Accessed on 25/11/2019]

³⁴ HER Record (2010) Available at <https://her.highland.gov.uk/Event/EHG3287> [Accessed on 25/11/2019]

³⁵ HER Record (2007) Available at <https://her.highland.gov.uk/event/EHG1574> [Accessed on 03/12/2019]

³⁶ Highland Archaeology Services Ltd. (2007) Forss Windfarm (Cabling). Archaeological Watching Brief. Available at https://librarylink.highland.gov.uk/LLFiles/2640/full_2640.pdf [Accessed on 25/11/2019]

³⁷ RES (2010) Forss Wind Farm Extension. Available at https://librarylink.highland.gov.uk/LLFiles/285603/full_285603.pdf [Accessed on 25/11/2019]

³⁸ AOC Archaeology (2012) Baillie Hill and Cnoc Freiceadain, Caithness LiDAR Survey. Available at https://librarylink.highland.gov.uk/LLFiles/267031/full_267031.pdf [Accessed on 25/11/2019].

³⁹ HER Record (2012) Available at <https://her.highland.gov.uk/event/EHG4541> [Accessed on 03/12/2019]

⁴⁰ Whirlwind Renewables (2013) Lybster Wind Turbine. Volume 1: Environmental Report. Available at https://librarylink.highland.gov.uk/LLFiles/290438/full_290438.pdf [Accessed on 25/11/2019].

4.2.9 Previous Archaeological Investigations within 1 km Study Area

There are 2 additional archaeological excavations which occurred fully or partially within the 1 km Study Area. These include

- **1985 walkover survey of Stemster Hill (EHG439).** This survey area is located 50 m to the south of the Core Study Area. All identified sites are recorded within the HER record.
- **1980 walkover survey of Caithness (EHG426).** This survey area is located 270 m to the east of the Core Study Area. All identified sites are recorded within the HER record.

4.3 10 km Study Area

4.3.1 Nationally Designated Assets

Within the 10 km Study Area, there are 37 Scheduled Monuments, 115 Listed Buildings, and Thurso Conservation Area. There are no World Heritage Sites, Registered Battlefields, or Registered Parks and Gardens.

All designated heritage assets are detailed in the heritage Gazetteer in Section 9 and in Figure 10.3

5 BASELINE INTERPRETATION

The following section gives a brief description of the wider study area's archaeological and historical sites within the context of the area's background history, presented by period. The features referred to are detailed in the Heritage Gazetteer in Section 9 and shown in Figures 2 and 3.

5.1 The Prehistoric Period

Within the Core Study Area (CSA) there are five prehistoric remains. This includes an Early Iron Age to early medieval settlement (MHG1053), three Early Iron Age to early medieval brochs (MHG13495, 13496, 39521), and Early Iron Age to early medieval burial (MHG45519). Within the 1 km Study Area there is a Neolithic cairn (MHG884), 600 m to the E of the CSA; a bronze age hut circle (MHG885), 420 m east of the CSA; Bronze Age arrowhead (MHG1225), 20 m east of the CSA; a Bronze Age Cist (MHG1228), 400 m west of the CSA; and an Iron Age Broch (MHG1230), 190 m east of the CSA.

The wider area of Caithness has a rich prehistoric history with known Mesolithic and Neolithic artefacts and features, especially concentrated along this northern coastline. Recent excavations along Thusater Burn near Thurso, approximately 8 km east of the Core Study Area, has uncovered evidence of an Iron Age settlement including finds such as a stone lined hearth, a hammer stone, and striking stones⁴¹. Other significant scheduled prehistoric features within the area include: Green Tullochs broch (SM554), 150 m west of the CSA; Cnoc na h'Uiseig (SM444), a chambered cairn 2.7 km west of the CSA; Scrabster Mains broch (SM579), 5.8 km southeast of the CSA; and Cnoc Freiceadain, long cairns (SM90078), 3.6 km south of the CSA.

These prehistoric archaeological features are largely concentrated at lower elevations along the coastline or inland near waterways and lochs. The archaeological potential of the CSA is high given the proximity of the Green Tulloch brochs (SM554) and the number of prehistoric archaeological finds within the CSA. However, subsequent development of the naval base in the north, and agricultural use of the fields in the east would likely have damaged or destroyed subsurface archaeological remains and lowers the potential within

⁴¹ Kathryn Krakowka (2018) Iron Age Settlement near Thurso? Available at <https://www.archaeology.co.uk/articles/iron-age-settlement-near-thurso.htm> [Accessed on 27/11/2019]

the CSA. Indeed, the 2002 and 2007 watching briefs within the CSA, as detailed in Section 4.2.8, did not identify any additional archaeological features. This reduces the prehistoric archaeological potential of the CSA to moderate.

5.2 Early Medieval Period

There are eight known early medieval archaeological remains within the Core Study Area. This includes the 12th century St Marys Chapel (SM90086), the Early Iron Age to early medieval settlement (MHG1053), three Early Iron Age to early medieval brochs (MHG13495, 13496, 39521), Early Iron Age to early medieval burial (MHG45519), which may date to the early medieval period, and two pictish findspots (MHG39524, MHG45692).

Within the wider area, there are known sites of Viking activity. By the end of the 8th century, Viking raids were beginning through the highlands by way of Shetland. Caithness became under Norse control and many Viking place names still survive, indicating the spread of influence⁴². An example of this is the use of the word 'ster' which means 'farm, homestead' in Norse⁴³. Examples of this in close proximity to the CSA include Lybster, Shebster, Broubster, and Achscrabster. There is a scheduled 9th or 10th century church (SM615) in Reay, 6.8 km southwest of the CSA. Excavations at Brochties Steading (MHG46260) in Dunnet, 20 km east of the Core Study Area, have identified a prehistoric/early medieval mound beneath a post medieval Cruck House. It is likely that a number of later remains may have earlier origins.

There are eight known archaeological features of early medieval origin within the CSA which indicates a high potential for unknown archaeological remains to survive within the CSA. However, subsequent development of the naval base in the north, and agricultural use of the fields in the east would likely have damaged or destroyed subsurface archaeological remains and lowers the potential within the CSA. Indeed, the 2002 and 2007 watching briefs within the CSA, as detailed in Section 4.2.8, did not identify any additional archaeological features. This reduces the archaeological potential of the CSA to moderate.

5.3 Medieval Period

The 12th century St Marys Chapel (SM90086) was still in use within the medieval period. The associated burial ground is enclosed by stone walls, and the earliest dated stone to survive is inscribed 1692. There are no known prehistoric archaeological remains within the 1 km Study Area.

The medieval period in the highlands was characterised by the attempts of the Kings of Scotland to gain back control from the Norsemen. This included attempt made by the Earldom of Orkney in Caithness and Sutherland and the Lordship of the Isles in the west⁴⁴. However, there are limited known medieval remains within the wider area, this may be due to subsequent development within the post medieval period which may cover medieval features.

The early medieval St Marys Chapel (SM90086) was still in use within the medieval period. There are no additional known archaeological features of medieval origin within the CSA or the 1 km Study Area. Subsequent development of the naval base in the north, and agricultural use of the fields in the east would likely have damaged or destroyed subsurface archaeological remains and lowers the potential within the CSA. As such, the potential across the CSA to encounter unknown medieval archaeological remains is very low.

⁴² HER <https://her.hIGHLAND.gov.uk/Theme/THG6>

⁴³ Waugh D (n.d.) Available at http://www.snsbi.org.uk/Nomina_articles/Nomina_08_Waugh.pdf [Accessed on 27/11/2019]

⁴⁴ HER

5.4 Post-Medieval Period

There are three post medieval features within the CSA, as identified through the data analysis. This includes turf boundary banks (MHG53679), and two house platforms (MHG53680 and MHG53681) all of which are no longer extant. Within the 1 km Study Area, there is a post medieval farmstead (MHG15166) and a mill (MHG30614) both of which are still extant, and two instances of known post medieval ridge and furrow (MHG53678 and MHG53682).

The wider area is characterised by croft settlements and enclosed agricultural fields concentrated along the coastline, with area of interspersed settlement inland along known roads and waterways, which still exist today. Mills such as Forss Mill (LB14925), 1.3 km to the southeast of the CSA, are located along the coast and in the vicinity to these settlements indicating the activity in the area.

Within the Core Study Area and 1 km Study Area, there are a number of heritage assets which likely date to the post-medieval period. These include turf boundaries and instances of ridge and furrow which are representative of agricultural activity within the CSA, and settlement and building remains. This indicates agricultural settlement within the CSA which is representative of the settled farmed landscape throughout Caithness. Subsequent development and agricultural use of the fields within the CSA would likely have damaged or destroyed subsurface archaeological remains. There is good cartographic coverage of this area and any post medieval remains will have likely been recorded. There is low potential for any unknown post medieval remains to survive within the CSA.

5.5 Modern Era

There are a number of modern features within the Core Study Area. This include Lybster Hill, the US Naval communications unit (MHG24616) which was established in 1975. Following the closure of the navy base in 1992, the site was left empty until 2003 when it was redeveloped as the Forss Wind Farm and Forss Business and Energy Park⁴⁵. The Core Study Area now also contains Forss Wind Farm (Canmore ID: 339759) which consist of six turbines. Within the 1 km Study Area, there is a 20th century housing estate (MHG37460).

There are numerous modern archaeological features in the Core Study Area including remains of the naval base (MHG24616). Some of these remains are extant and some are no longer extant due to subsequent development, including the wind turbines and associated cabling, and agricultural activities in the east of the Core Study Area. This development may have damaged/destroyed some of the subsurface modern remains. The cartographic coverage of the Core Study Area is good and there have been numerous previous archaeological investigations within this area. As such, it is very unlikely that previously unknown archaeological remains exist within the Core Study Area. The potential for unknown modern remains to exist is very low.

6 ARCHAEOLOGICAL AND HISTORICAL POTENTIAL

The following section summarises the potential for subsurface archaeological remains within the archaeological study area, outlines the potential threat from the Development to these remains, and suggests further work and mitigation strategies.

The review of the data collected and the current site conditions indicates that the Core Study Area has low potential for further archaeological remains as shown in Table 2.

6.1 Archaeological Potential

There are a number of prehistoric and early medieval remains within the Core Study Area. This includes Early Iron Age to early medieval settlement (MHG1053), three Early Iron Age

⁴⁵ Scottish Places (n.d.) Available at <https://www.scottish-places.info/features/featurefirst19808.html> [Accessed on 27/11/19]

to early medieval brochs (MHG13495, 13496, 39521), Early Iron Age to early medieval burial (MHG45519), the 12th century St Marys Chapel (SM90086), and two pictish findspots (MHG39524, MHG45692). This indicates a high potential for unknown archaeological remains to survive within the CSA. However, subsequent development of the naval base in the north, and agricultural use of the fields in the east would likely have damaged or destroyed subsurface archaeological remains and lowers the potential within the CSA. Indeed, the 2002 and 2007 watching briefs within the CSA, as detailed in Section 4.2.8, did not identify any additional archaeological features. This reduces the archaeological potential to moderate.

There are no known medieval remains and limited post medieval remains within the Core Study Area. These include turf boundaries (MHG53679) and settlement and building remains (MHG53680 and MHG53681), none of which are extant. This indicates agricultural settlement within the CSA which is representative of the settled farmed landscape throughout Caithness. Subsequent development and agricultural use of the fields within the CSA would likely have damaged or destroyed subsurface archaeological remains. There is good cartographic coverage of this area and any post medieval remains will have likely been record. There is low potential for any unknown post medieval remains to survive within the CSA.

There are numerous modern archaeological features in the Core Study Area and remains of the naval base (MHG24616), for which some remains are extant and some are no longer extant, although subsurface remains may survive. Subsequent development, including the wind turbines and associated cabling, and agricultural activities in the east of the Core Study Area may have damaged/destroyed some of the subsurface modern remains. The cartographic coverage of the Core Study Area is good and there have been numerous previous archaeological investigations within this area. As such, it is very unlikely that previously unknown archaeological remains exist within the Core Study Area. The potential for unknown post medieval and modern remains to exist is very low.

Table 2 provides a summary of the Archaeological Potential of the Core Study Area.

Table 2: Summary of Archaeological Potential of the Site

Period	Visibility within 1 km Study Area	Presence or Absence of sites within 1 km Study Area	Likelihood of further Discoveries within the Development
Prehistoric	Present within the Core Study Area and 1 km Study Area in low lying areas along the coast. Archaeological features include settlement, brochs, and standing stones. Limited presence of prehistoric archaeological features in upland areas.	Likely presence, any subsurface remains would likely lie in areas of low elevation along the coastline although subsequent development within the Core Study Area may have destroyed/damaged features.	Moderate
Early Medieval	Present within the Core Study Area and 1 km Study Area in low lying areas along the coast. Archaeological features include early medieval settlements and burials. Limited presence of early medieval	Likely presence, any subsurface remains would likely lie in areas of low elevation along the coastline although subsequent development within the Core Study Area may have	Moderate

	archaeological features in upland areas.	destroyed/damaged features.	
Medieval	No known presence within the Core or 1 km Study Areas.	No known presence within the Core or 1 km Study Areas. Subsequent development within the Core Study Area may have destroyed any such features.	Low
Post-Medieval	No visible surface remains within the Core Study Area. Within 1 km Study Area there are known farmsteads and a mill. Archaeological remains in low lying coastal areas relate to expansion of villages. Good cartographic coverage.	Prevalent in the form of auxiliary remains associated with farmsteads. Subsequent development within the Core Study Area may have destroyed/damaged any such features.	Low
Modern	Good-remains still highly visible and good cartographic coverage	Limited presence, any modern archaeological remains would likely still be extant and visible, or recorded within the Cartographic record.	Very Low

6.2 Potential Impact from the Development

Direct impacts are physical alterations which may affect either known sites or currently unknown buried and otherwise unrecorded archaeology. Direct or physical impacts may damage or destroy archaeological features and are usually permanent and irreversible. These effects are likely to occur during construction or decommissioning of a site.

Direct effects are limited to the Development footprint where associated earthmoving and excavation occur and not to the full extent of the Core Study Area. Excavations for the turbine foundations are anticipated to reach a depth between 2-4 m with bedrock encountered at depths below 3 m. Excavation depths for cable runs and access tracks are anticipated to reach c. 500-750 mm. It is therefore unlikely that any archaeology situated at a depth of more than 1 metre has the potential to receive a direct impact, other than at the turbine locations.

It is recommended that the finalised Development footprint avoid all known remains. There is a moderate potential for unknown archaeology to exist across the Core Study Area due to its known sites and coastal location. As such, the Development has the potential to directly affect any existing archaeological remains. The direct effects as a result of the finalised Development footprint will be assessed within the EIA Report.

The Development has the potential to cause indirect effects, primarily visual, upon the settings of nationally important cultural heritage assets within and beyond the study area of the desk-based assessment. Due to the height and visibility of the turbines, it is considered that these indirect effects have the potential to be significant (i.e., they may have the potential to so alter the settings of some cultural heritage assets that the understanding, appreciation or experience of those assets is affected). An area covering a 10 km radius of the Core Study Area has been initially selected to determine which assets will have the potential to be indirectly affected by the Development. The final list of assets for selection is based on theoretical visibility of the Development, professional judgement

and through consultation with HES and includes Inventoried Gardens and Designed Landscapes, Scheduled Monuments, and Listed Buildings of high and medium sensitivity. These effects will be assessed and reported in full within the EIA Report.

6.3 Potential Mitigation

It is considered that preservation *in situ* is the preferred method of mitigation for known archaeological remains. However, where this is not possible, or where there is a likelihood of encountering locally important unknown subsurface archaeological remains, a programme of archaeological works leading to preservation by record is considered appropriate.

Due to there being moderate potential for further unknown significant archaeological remains within the Core Study Area it is proposed that the following steps are undertaken to reduce the potential impact:

- Avoidance of known or potential archaeological features and sites during finalisation of site design; and
- Consultation with THC archaeologist in order to establish appropriate mitigation.

7 CONCLUSION

The desk-based assessment has revealed that many of the archaeological remains recorded within the study areas relate to prehistoric and early medieval settlement and land use, as well as modern developments including US Naval base, the Forss Business and Technology Park, and the Forss Wind Farm. Planning Permission exists for a further turbine to the south-east of the site known as Lybster.

Potential to encounter further unrecorded archaeological remains is moderate as evidence indicates a prehistoric/early medieval coastal landscape which has been impacted by subsequent developments and agricultural practices.

In conclusion, it is likely that any work undertaken on this site would have moderate potential to have a direct impact upon potentially significant, previously undiscovered archaeological remains. Consultation should be undertaken with THC archaeologist to agree appropriate mitigation measures, where required.

There is also the potential for indirect impacts to affect assets both in the Core Study Area and the wider area. Consideration of indirect effects will be reported on fully in the EIA Report, taking into account the way in which the Development may affect the setting of nationally important sites.

8 GAZETTEER OF ARCHAEOLOGICAL SITES

8.1 Designated Assets within 10 km

The following gazetteer summarises the results of the desk-based assessment and includes designated heritage assets within the 10 km study area. These are shown on Figure 2.

Table 8.1.1 Scheduled Monuments within 10 km

Group	Reference	Name
Achvarasdal	SM421	Achvarasdal House,two stones N of
Broubster	SM426	Bridge of Broubster,standing stones 1350m NE of
Broubster	SM427	Bridge of Broubster, stone circle 700m ENE of Broubster Village
Broubster	SM428	Bridge of Broubster, two standing stones 1200m E of
No Group	SM441	Clach Clais an Tuire,standing stone 1000m SE of Loanscorribest
No Group	SM444	Cnoc-na-h'Uiseig, chambered cairn
No Group	SM458	Knock Stanger, cairn 730m E of Sandside House
Mill of Knockglass	SM469	Mill of Knockglass, long cairn 100m SSE of, Bridge of Westfield
Mill of Knockglass	SM470	Mill of Knockglass, cairn 220m S of, Bridge of Westfield
Mill of Knockglass	SM471	Mill of Knockglass, chambered cairn 320m SSE of, Bridge of Westfield
Shebster	SM476	Hill of Shebster, chambered cairn
Broubster	SM489	Torr Bann Na Gruagaich,chambered cairn
Lieurary	SM497	Tulach an t'Sionnaich,long cairn 900m SSW of,Lieurary Mains
Broubster	SM498	Tulach Buaille Assery,chambered cairn
Lieurary	SM500	Tullochs of Assery,chambered cairns 1000m SW of Lieurary Mains
No Group	SM513	Achunabust,broch NNW of
Achvarasdal	SM514	Achvarasdal House, broch 65m NE of
No Group	SM554	Green Tullochs, broch & cairn 640m NNW of Borrowston Mains
Scrabster	SM559	Holborn Head,fort,Scrabster

Group	Reference	Name
Mill of Knockglass	SM562	Knockglass, broch 300m SSW of Mill of Knockglass
No Group	SM564	Knock Urray, broch 400m NNE of Gunnscoft
Scrabster	SM579	Scrabster Mains, broch 1000m W of
Thurso	SM587	Thing's Va, broch 1000m E of Blackheath, Scrabster
No Group	SM615	Reay, burial ground, old church and cross slab 175m E of Parish Church
No Group	SM616	Sandside House, Reay, two carved stones
Thurso	SM618	Thurso, St Peter's Church and Burial Ground
Lieurary	SM2220	Framside, broch 850m E of, Hills of Lieurary
Shebster	SM2386	Creag Bhreac Mhor, stone rows 200m ESE of
Thurso	SM2630	Scrabster Castle
Broubster	SM5306	Bridge of Broubster, limekilns 1450m ENE of
No Group	SM5510	Brims Castle
No Group	SM6401	Dounreay Castle
Broubster	SM13618	Broubster Village, prehistoric settlement 560m WSW of
Broubster	SM13630	Broubster Village, roundhouses 855m, 745m and 695m SW of
Broubster	SM13636	Garadh an Ratha, roundhouse
Shebster	SM90078	Cnoc Freiceadain, long cairns
No Group	SM90086	Crosskirk, St Marys Chapel and broch S of Chapel Pool

Listed Buildings within 10 km

Group for Assessment	LB Ref	Name	Category	x	y
Westfield	7795	Westfield, Bridge Of, Over Forss Water	B	305557	964194
Westfield	7796	Westfield Farmhouse, Adjoining Range Of Dwellings And Dovecote	B	306332	964186
Forss	14923	Forss House	B	303585	968768
Forss	14924	Forss Cottage	C	301749	964148
Forss	14925	Forss Mill And Miller's House (East)	B	303684	968702
Forss	14926	Forss Bridge Of Forss Over Forss Water	B	303724	968663

Group for Assessment	LB Ref	Name	Category	x	y
Scrabster	14952	Holborn Head Lighthouse And Attached Keeper's House	B	310669	970659
No Group	14953	Lythmore Farm Steading, Centre Range	B	305369	966385
Scrabster	14954	Scrabster House	C	295662	964565
Scrabster	14955	Scrabster Ice House And Adjoining Cottage	C	295728	964615
Reay	14981	Reay Village, Brackside Bridge Over Brackside-Sandside Burn	C	311612	967805
Reay	14982	Reay Village, Smithy Cottage And Steading Range (Former Dwellings At Right Angles)	C	311246	968069
Shebster	14983	Reay Free Church, Enclosing Walls To Frontage And Memorial Sited Therein, Achimenach, By Shebster	B	302440	964039
Sandside	14984	Sandside House	B	295215	965155
Sandside	14985	Sandside House, Garden Walls, 2 Walled Gardens, Dovecote And Privy	B	295127	965211
Sandside	14986	Sandside House Kiln Barn And Single Storey Range Of Former Byres, Cottage And Dairy, And Implement Shed	A	295216	965234
Sandside	14987	Sandside House Gate Lodge And Gate Piers	B	295083	964629
Sandside Harbour	14988	Sandside Harbour 1 And 2, Sandside And Fishing Store	A	295762	965990
No Group	14989	Upper Dounreay Farm Steading	B	299820	965985
Forss	14990	Forss Mill (West Bank Of Forss Water)	B	303644	968681
No Group	14991	Lybster Farm Steading	B	302483	968529
Reay	14992	Reay Parish Church And Enclosure Wall	A	296733	964822
Reay	17592	Reay Village, Reayburn House	B	296988	964930
Shebster	17593	Shebster Barn	C	311611	968129
Reay	18831	Reay Village Market Cross Adjacent To The Terrace New Reay	B	295900	964553
Thurso	41961	2, 4 Barrock Street	C	311541	968148
Thurso	41962	6, 8 Barrock Street Piers And Garden Walls	B	311495	968281
Thurso	41963	10 Barrock Street	C	311607	968165
Thurso	41964	12 Barrock Street And Garden Walls	C	311455	968227
Thurso	41965	18, Barrock Street	C	311717	968255
Thurso	41966	11, Brabster Street	C	311476	968255
Thurso	41967	1, Campbell Street	C	311484	968264
Thurso	41968	7, Campbell Street	B	311584	968434

Group for Assessment	LB Ref	Name	Category	x	y
Thurso	41969	9, Campbell Street	B	311574	968422
Thurso	41970	11, Campbell Street	B	311570	968418
Thurso	41971	13, Campbell Street	B	311564	968410
Thurso	41972	15, Campbell Street	B	311558	968402
Thurso	41973	17, Campbell Street	B	311552	968394
Thurso	41974	19, Campbell Street	B	311546	968388
Thurso	41975	2, Campbell Street	C	311346	968269
Thurso	41976	4 And 6, Campbell Street	C	311627	968287
Thurso	41977	8, Campbell Street	C	311812	968309
Thurso	41978	10, 12 Campbell Street	C	311589	968316
Thurso	41979	14, 16, 18 Campbell Street	C	311445	968354
Thurso	41980	20, Campbell Street	C	311666	968355
Thurso	41981	26, Campbell Street	C	311567	968373
Thurso	41982	Castle Street, Congregational Church	C	311581	968392
Thurso	41983	Castle Street Former West Public Primary School	C	311659	968396
Thurso	41984	Davidson's Lane Miller Institution	B	311456	968065
Thurso	41985	50, Duncan Street	C	311664	968402
Thurso	41986	24, Durness Street Allendale	B	311606	968599
Thurso	41987	Granville Street, Pentland House And Garden Walls	B	311311	968622
Thurso	41988	High Street, Town Hall	B	311861	968519
Thurso	41989	1, Janet Street	B	311698	968204
Thurso	41990	2, Janet Street	B	311683	968186
Thurso	41991	3, Janet Street House And Stables/Gighouse	B	311652	968187
Thurso	41992	4, Janet Street	B	311643	968150
Thurso	41993	6, Janet Street The Thurso Club	C	311591	968403
Thurso	41994	7, Janet Street	B	311584	968077
Thurso	41995	8 Janet Street	B	311568	968057
Thurso	41996	9 And 10, Janet Street	B	311546	968042
Thurso	41997	Manson's Lane The Meadow Well House	B	311711	968351
Thurso	41998	22, 24, Manson's Lane The Brewer's House (22) And Old Brewery (24)	B	311781	968301
Thurso	41999	5, Market Street	B	311826	968602
Thurso	42000	6, 7, Market Street	C	311707	968403
Thurso	42001	Millbank Road, Former Thurso Mill	B	311586	967763
Thurso	42002	Millbank, Foundry	C	311669	968407
Thurso	42003	20, Miller's Lane	B	312020	968546

Group for Assessment	LB Ref	Name	Category	x	y
Thurso	42004	21, Miller's Lane	C	311595	968409
Thurso	42005	Olig Street Bank Of Scotland	B	311640	968498
Thurso	42006	Olig Street Former St Andrew's Church	B	311628	968551
Thurso	42007	43, 45 Olig Street	C	311674	968410
Thurso	42008	16, Olig Street	C	311714	968413
Thurso	42009	Olig Street, Masonic Hall	C	311678	968414
Thurso	42010	Pennyland House And Steading	B	310946	968775
Thurso	42011	Princes Street, St Peter's Parish Church (Church Of Scotland), Church Room, Enclosure Railings And Gate Piers	B	311558	968348
Thurso	42012	Princes Street, Greenacres, House And Stable With Gighouse. (Former Free Church And Subsequently Church Of Scotland Manse)	C	311602	968417
Thurso	42013	2, Princes Street And Court Yard Wall	C	311497	968419
Thurso	42014	4, Princes Street	C	311682	968424
Thurso	42015	6, Princes Street	C	311684	968429
Thurso	42016	8, 10 Princes Street	C	311611	968429
Thurso	42016	8, 10 Princes Street	C	311506	968432
Thurso	42017	12, Princes Street	C	311614	968434
Thurso	42018	14, Princes Street	C	311617	968438
Thurso	42019	30, Princes Street	B	311572	968288
Thurso	42020	15, Riverside Place	C	311622	968443
Thurso	42021	23, Riverside Place	C	311636	968461
Thurso	42022	5, 7, Riverside Road The White House	C	311638	968467
Thurso	42023	9, Rose Street ("Aldourie") And 11, Rose Street ("Bothangarrow")	C	311912	968467
Thurso	42024	21, 23, 25, Rose Street (Right To Left)	C	311625	968483
Thurso	42025	16, 18, Shore Street	B	311960	968667
Thurso	42026	Shore Street, Kippering House With Kiln, Fish-House, Yard, Store And Shop	B	311938	968640
Thurso	42027	Sinclair Street Thurso West Church (Church Of Scotland) Church Room And Gate Piers	B	311501	968152
Thurso	42028	24, Sinclair Street	C	311419	968526
Thurso	42029	Sir George's Street, Episcopal Church Of St Peter And The Holy Rood	C	312032	968538
Thurso	42030	Sir John's Square Sir George Sinclair Memorial Fountain	C	311460	968558

Group for Assessment	LB Ref	Name	Category	x	y
Thurso	42031	Sir John's Square War Memorial, 1914-18 And 1939-45	C	311843	968598
Thurso	42032	Sir John's Square, Sir John Sinclair Memorial	B	311608	968302
Thurso	42033	Thurso Bridge Over River Thurso	B	311769	968170
Thurso	42034	Thurso East The Lodge (Former Gate Lodge To Thurso East Castle) And Gateway	B	312465	968573
Thurso	42035	Thurso Railway Station	B	311287	967912
Thurso	42036	1, 3, 5, 7, 9 Traill Street	C	311501	968603
Thurso	42037	11, Traill Street	B	311694	968400
Thurso	42038	13, Traill Street	B	311687	968395
Thurso	42039	15 And 17 Traill Street, Clydesdale Bank	B	311683	968385
Thurso	42040	19, 21 And 23 Traill Street	C	311948	968630
Thurso	42041	25, 27, 29, 31, 33, 35, Traill Street	B	311660	968352
Thurso	42042	37 Traill Street	C	303792	968693
Thurso	42043	8, Wilson Street	C	309889	969882
Thurso	42044	Wilson Lane, Old St Peter's Church And Burial Ground	A	312043	968616
Thurso	42045	7 Wilson Lane	B	311939	968631
Thurso	42046	8 Wilson Lane	C	310191	970445
Thurso	42047	K6 Telephone Kiosk At Town Hall	B	311845	968514
No Group	44721	Forss Water, Humpback Bridge	B	304113	967501
Thurso	49296	High Street, Thurso Heritage Museum (Former Carnegie Library)	B	311848	968504

8.2 Non-Designated Assets within 1 km

The following gazetteer summarises the results of the desk-based assessment and includes non-designated heritage assets within the 1 km study area but excludes any duplicate references in designated areas. Archaeological sites within the Core Study Area are highlighted in grey and shown on Figure 3.

Table 8.2.1: Non-Designated Heritage Assets

HER Reference	Canmore ID	DBA Ref	Name	Monument Type
MHG375	8007		Cottage, Crosskirk	House
MHG376	8008		Rig and Furrow, Crosskirk	Rig And Furrow
MHG377	8009		Longhouse, Crosskirk	Longhouse
MHG378	8010		Structure, Crosskirk	Structure
MHG881	7956		Mound, Borrowston Mains	Mound
MHG882	7857		Structure, Borrowston Mains	Structure
MHG883	7858		Enclosure, Crosskirk	Enclosure
MHG884	7859		Cairn, Crosskirk	Cairn
MHG885	7860		Hut circles, Crosskirk	Hut Circle
MHG886	7861		Mound, Forss Smallholdings	Mound
MHG901	7876		Longhouse, Green Tullochs	Longhouse
MHG902	7877		Wall, Green Tullochs	Wall
MHG903	7878		Longhouse, Hill of Lybster	Longhouse
MHG904	7879		Structure, Hill of Lybster	Structure
MHG905	7880		Structure, Hill of Lybster	Structure
MHG906	7881		Structure, Hill of Lybster	Structure
MHG907	7882		Mound, Hill of Lybster	Mound
MHG908	7883		Longhouse, Crosskirk	Longhouse
MHG909	7884		Crosskirk	Site; Hollow
MHG920	7895		Longhouse, Crosskirk	Longhouse
MHG922	n/a		Longhouse, Crosskirk	Longhouse
MHG1047	n/a		Structure, Ushat Head	Structure
MHG1049	8015		Landing Place, Crosskirk of Forss	Landing Point
MHG1055	8021		Chapel, Crosskirk	Chapel

HER Reference	Canmore ID	DBA Ref	Name	Monument Type
MHG1057	n/a		Farmstead, Crosskirk	Farmstead
MHG1058	n/a		Enclosure, Crosskirk	Enclosure
MHG1224	7836		Mound, Crosskirk	Mound
MHG1225	7837		Barbed and Tanged Flint Arrowhead - Lybster Farm	Findspot
MHG1226	7838		St. Mary's Well	Well
MHG1228	7840		Cist, Green Tullochs	Cist
MHG1230	7842		Broch, Tulloch of Lybster	Broch
MHG1234	7846		Whorl - Crosskirk	Findspot
MHG17662	85929		Hill of Lybster	Farmstead
MHG17663	85930		Hill of Lybster	Building
MHG24616	103561		Lybster Hill, US Naval Communication Unit	Telecommunication Building; Transmitter Site
MHG24711	n/a		Crosskirk Bay, Boat Winch	Winch
MHG30614	n/a		Mill, Kennachy	Lade
MHG37199	191633		BORROWSTON MAINS	House
MHG37460	194604		Crosskirk, Proposed County Housing	Housing Estate; Site
MHG38269	n/a		TRIAD: BORROWSTON, PENTLAND FIRTH	Wreck
MHG38785	229067		LYBSTER FARM STEADING	Farmstead
MHG39465	7861		Ditch, Forss Smallholdings	Ditch
MHG39468	7882		Wall, Hill of Lybster	Wall
MHG39469	7883		Kiln, Crosskirk	Kiln
MHG39473	n/a		Rig and Furrow, Crosskirk	Rig And Furrow
MHG39474	n/a		Kiln, Crosskirk	Kiln
MHG47565	266337		Hill Of Lybster	Radio Station
MHG47566	266348		Hill Of Lybster	Building
MHG47855	268983		Forss, Hill Of Lybster	Site
MHG49173	n/a		Unknown: Crosskirk, Pentland Firth	Wreck
MHG50606	n/a		Clarkwood: Crosskirk, Pentland Firth	Wreck

HER Reference	Canmore ID	DBA Ref	Name	Monument Type
MHG50611	n/a		Mary Michael: Crosskirk, Pentland Firth	Wreck
MHG52811	n/a		Building North Crosskirk Chapel	Building
MHG53678	n/a		Rig and furrow and possible settlement features, Forss	Rig And Furrow; Settlement
MHG53679	n/a		Turf boundary banks, Forss Wind farm	Boundary Bank; Enclosure
MHG53680	n/a		Site of house, Forss Wind farm	House Platform
MHG53681	n/a		House Platform, Forss Wind farm	House Platform
MHG53682	n/a		Rig and furrow, adjacent to St. Mary's Chapel, Forss	Rig And Furrow
MHG56021	n/a		Building? - Crosskirk, Reay	Building?
MHG56022	n/a		Building? - Crosskirk, Reay	Building?
n/a	103447		Crosskirk Bay, Boat Winch	Winch
n/a	334097		Crosskirk Bay Weir	Weir
n/a	339759		Forss Wind Farm	Wind Farm
n/a		HM-1	Quarry shown on OS County Series 1876	Quarry
n/a		HM-2	Quarry shown on OS County Series 1876	Quarry

9 PLATES



Plate 1: Image taken from the north of the Navel base (MHG24616) looking south over the Core Study Area.



Plate 2: Image taken from the southeast of the Corse Study Area looking northwest over the existing Forss Wind Farm (Canmore ID: 339759).



Plate 3: Image of concrete slab. This image is taken along northern border of the Core Study Area looking east towards St Marys chapel.

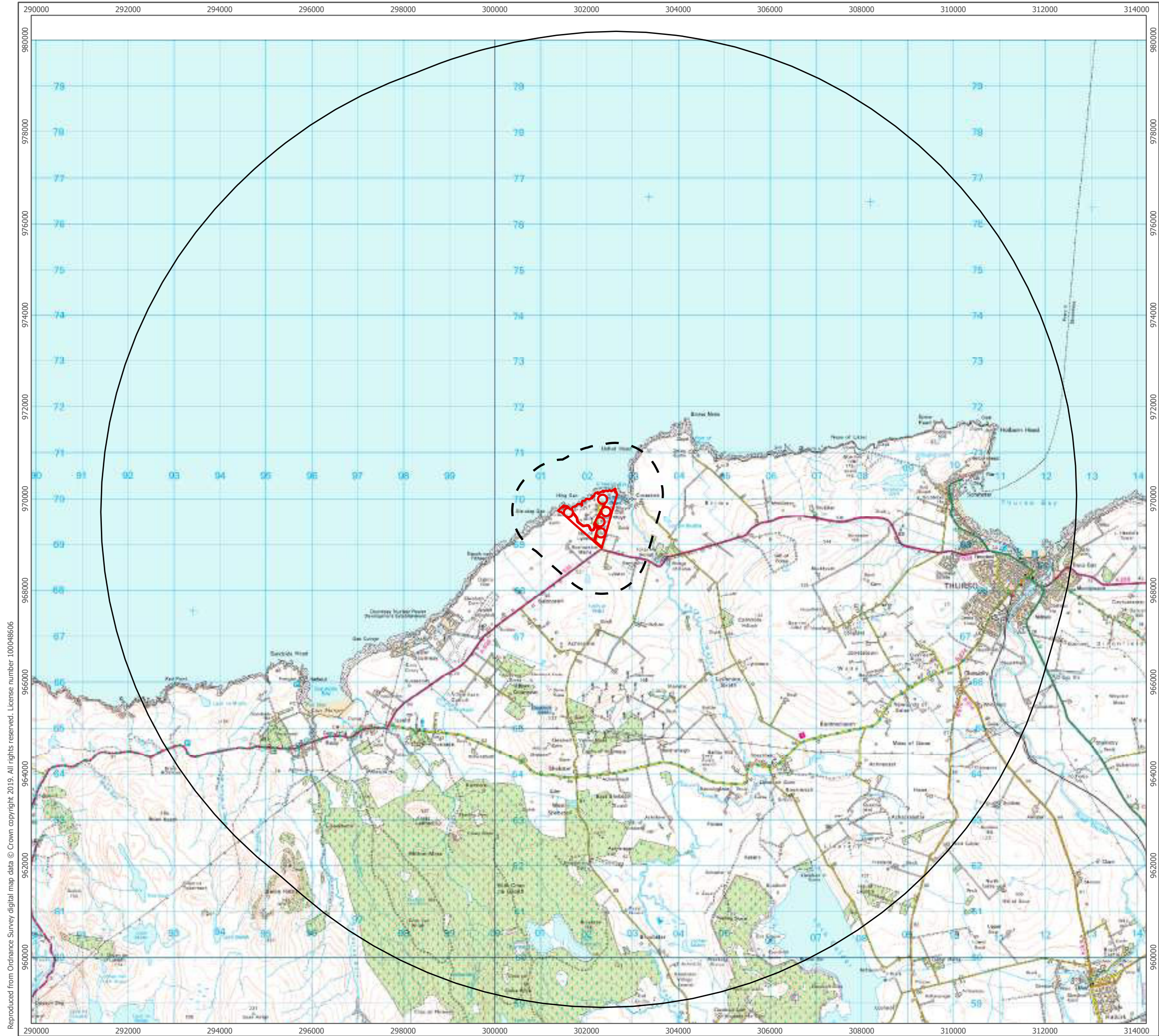


Plate 4: Image of concrete slab. This image is taken from the centre of the Core Study Area looking northwest over the existing Forss Wind Farm.



Plate 5: Image taken to the east of St Marys Well looking west over the Core Study Area towards the naval base.




10 FIGURES



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P:\Projects\Cultural Heritage\3530 Forss WF Extension\3530 Forss WF Extension.aprx\3530-REP-001 Fig01 Study Areas



-  Core Study Area
-  1 km Study Area
-  10 km Study Area



Produced By: EH	Ref: 3530-REP-001
Checked By:	Date: 02/12/2019

Study Areas
Figure 1

**Forss Wind Farm
Archaeological DBA**



- Core Study Area
- 10 km Study Area
- Scheduled Monuments
- Category A Listed Building
- Category B Listed Building
- Category C Listed Building
- Conservation Areas

1:80,000 Scale @ A3

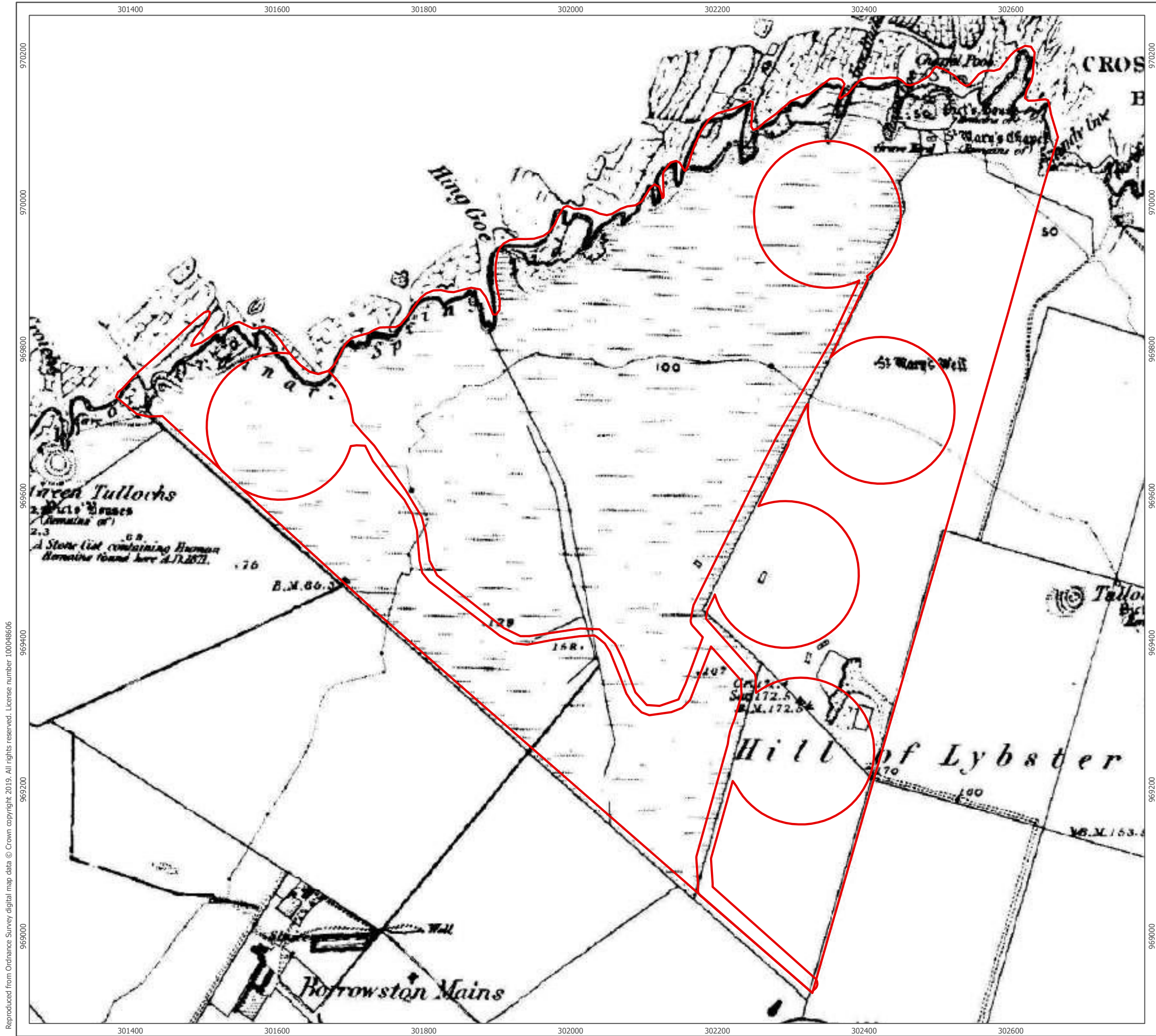
0 1.5 3 km

NORTH

Produced By: EH	Ref: 3530-REP-002
Checked By:	Date: 02/12/2019

Designated Assets in 10 km
Figure 2

Forss Wind Farm
Archaeological DBA



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ARCUS

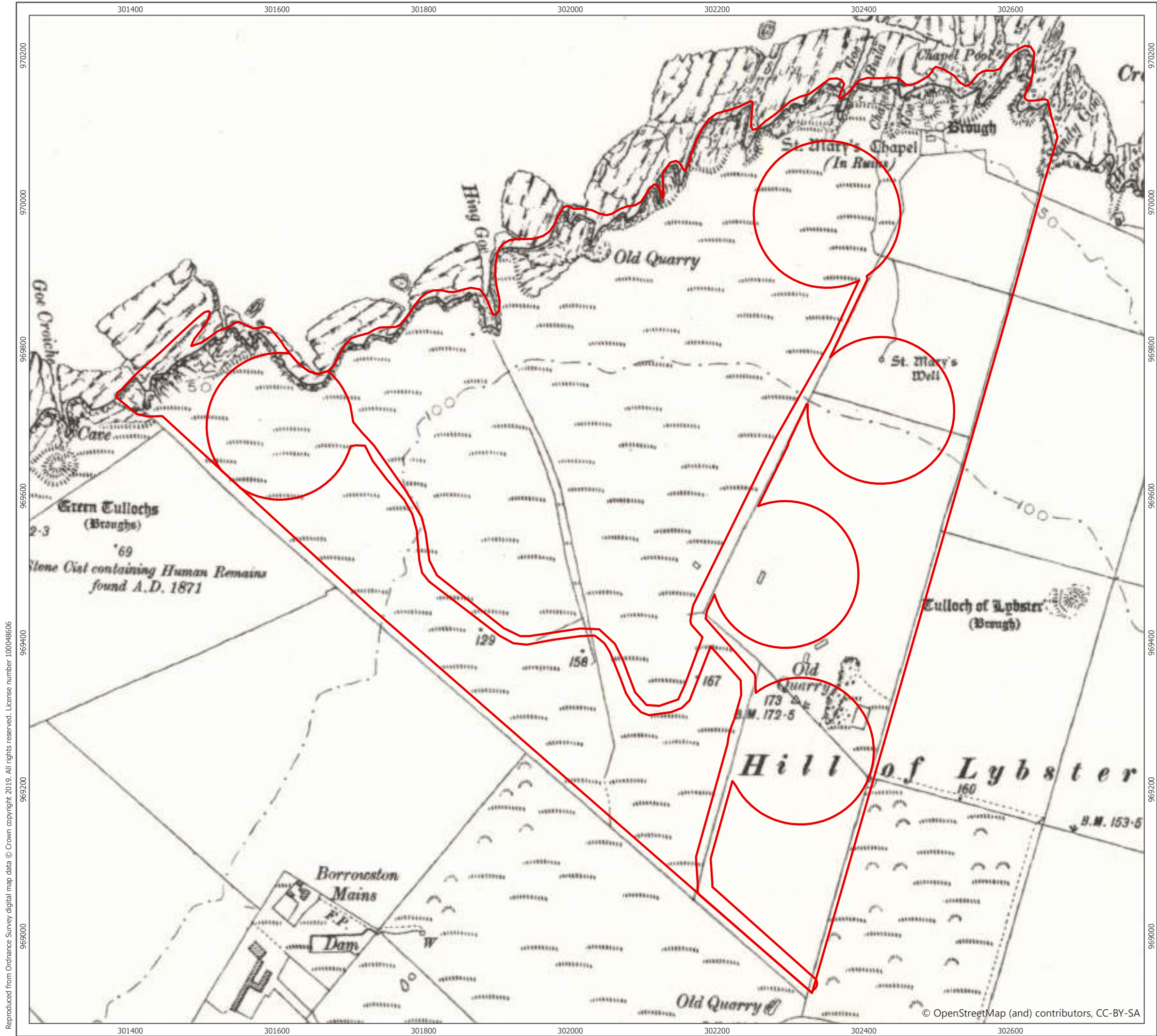
Core Study Area

1:5,000 Scale @ A3
0 100 200 m
NORTH

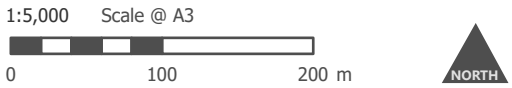
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Checked By:	Date: 02/12/2019

1876 OS Map
Figure 4

Forss Wind Farm
Archaeological DBA



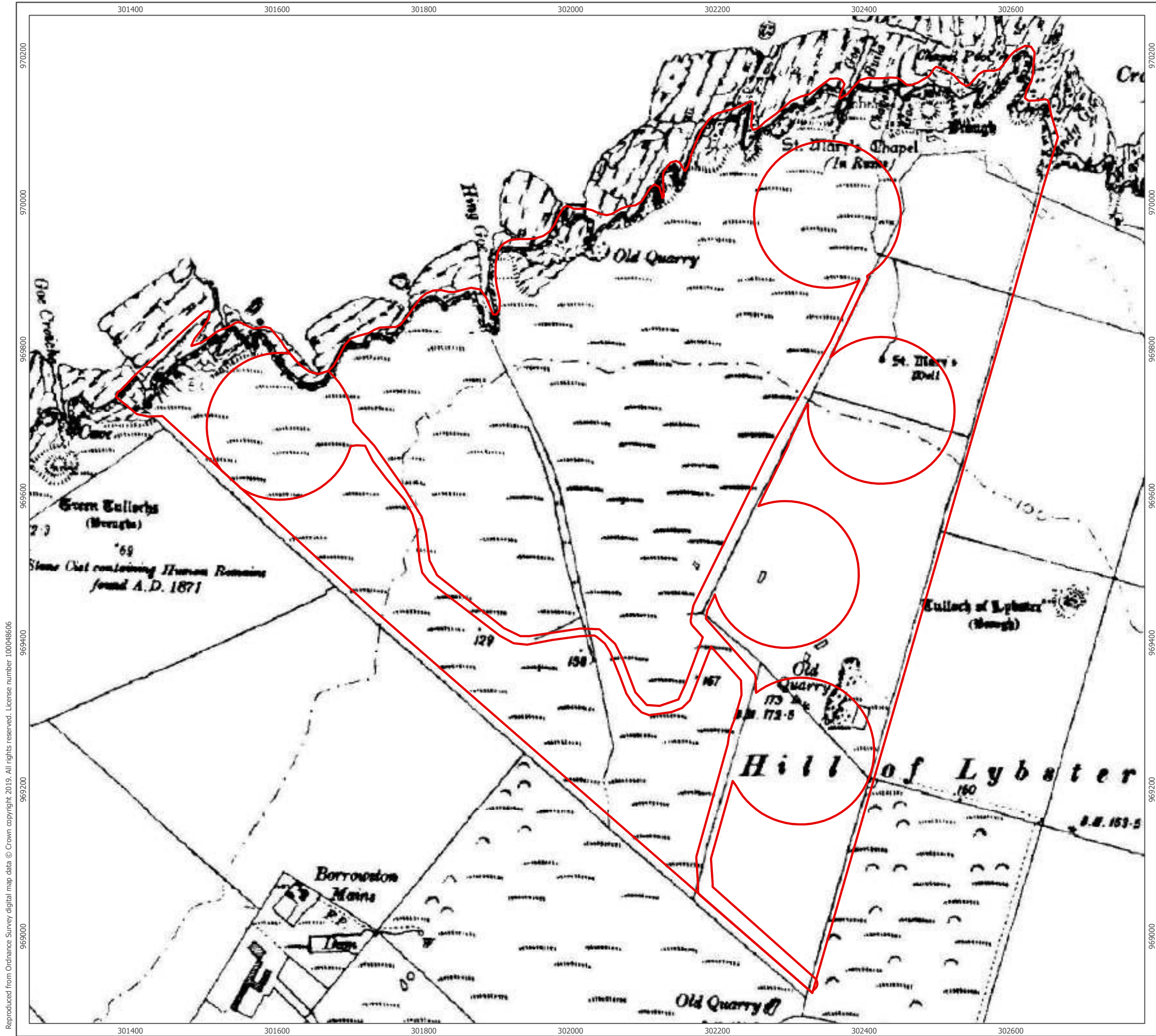
Core Study Area



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Checked By:	Date: 02/12/2019

1888 OS Map
Figure 5

Forss Wind Farm
Archaeological DBA



Core Study Area

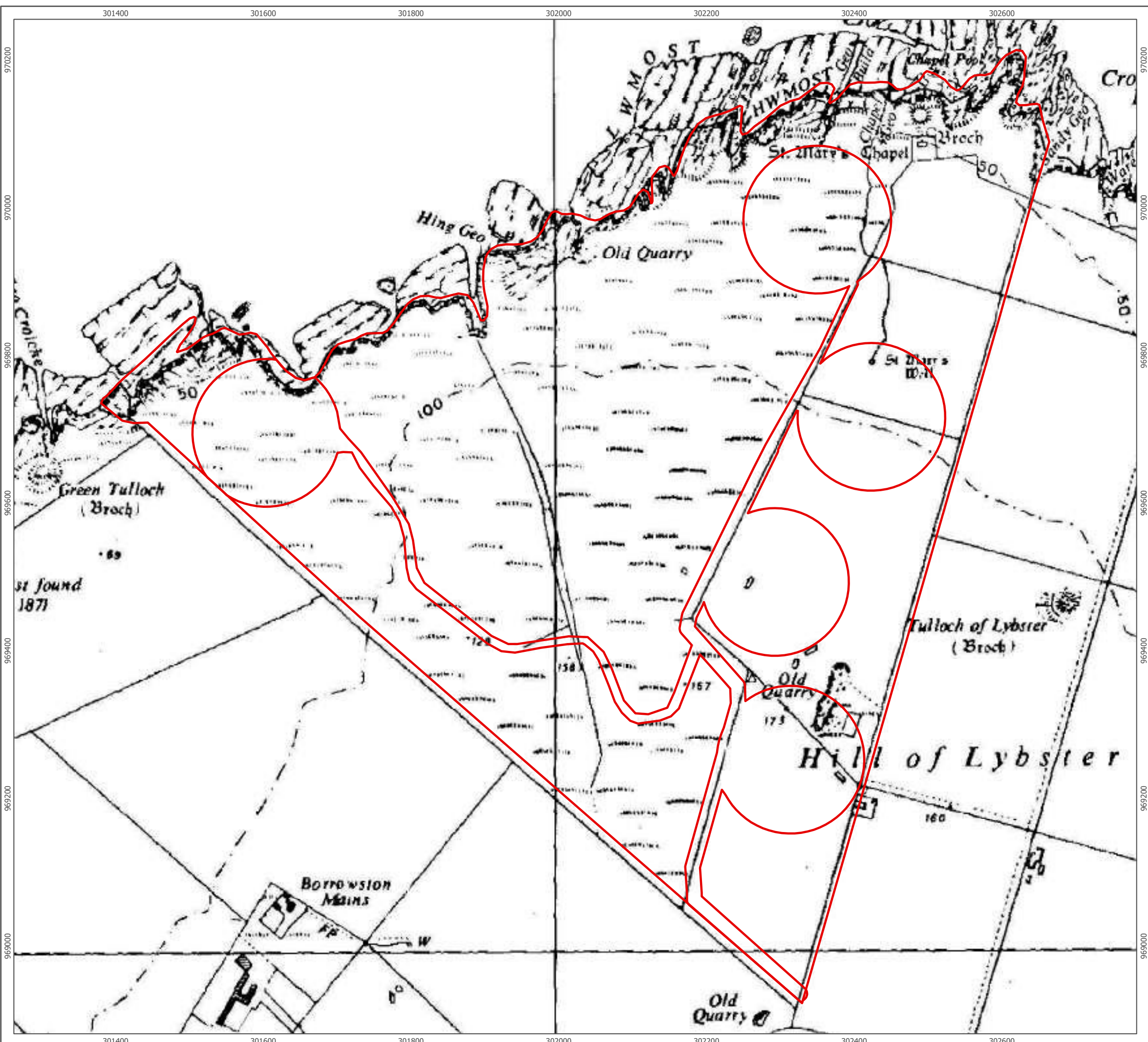
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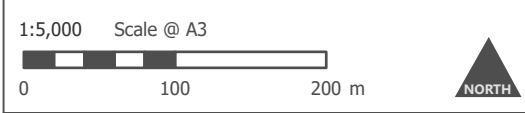
1907 OS Map
Figure 6

Forss Wind Farm
Archaeological DBA

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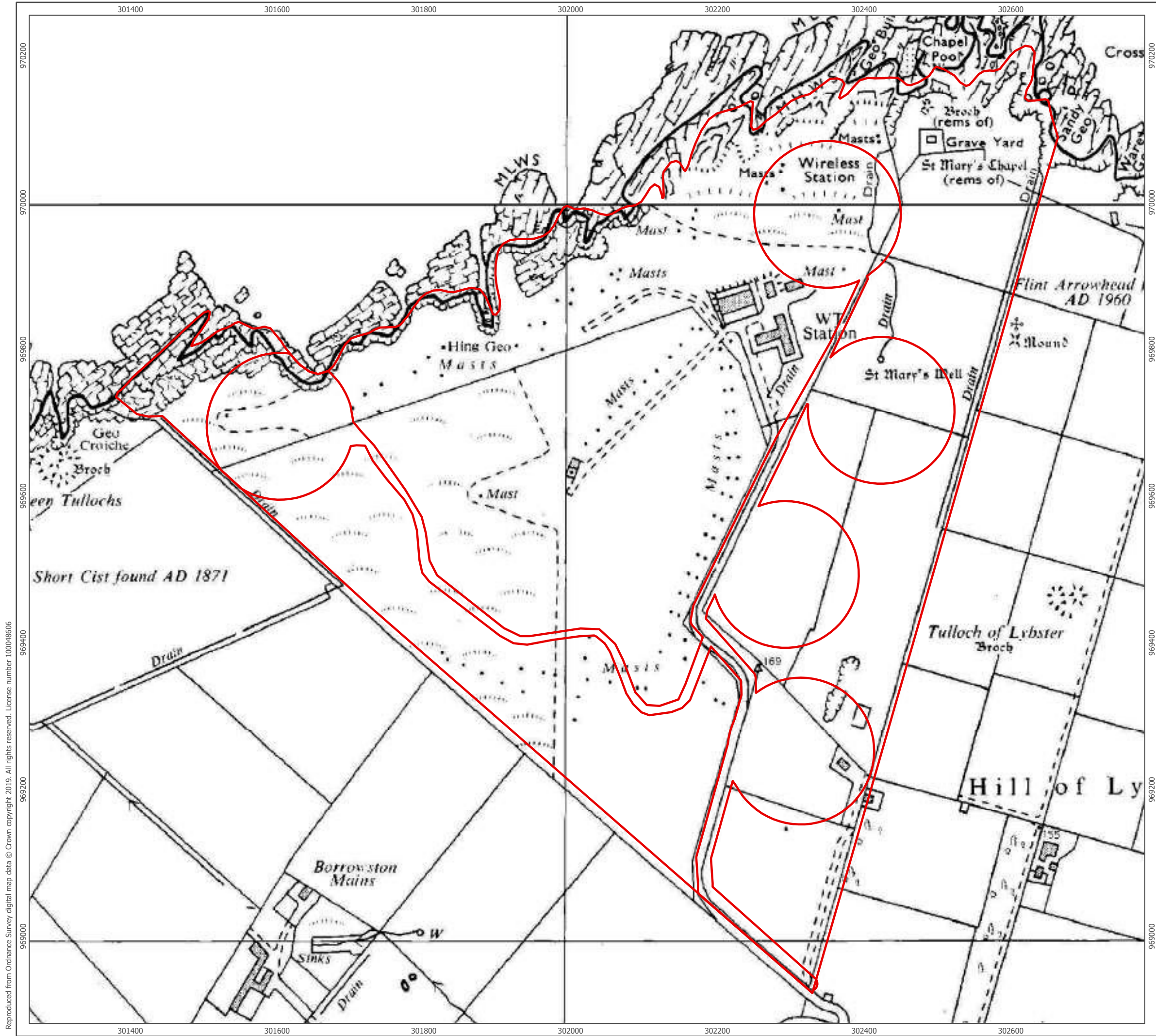
 Core Study Area



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1959 OS Map
Figure 7

Forss Wind Farm
Archaeological DBA



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ARCUS

Core Study Area

1:5,000 Scale @ A3
0 100 200 m
NORTH

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1969-75 OS Map
Figure 8

Forss Wind Farm
Archaeological DBA