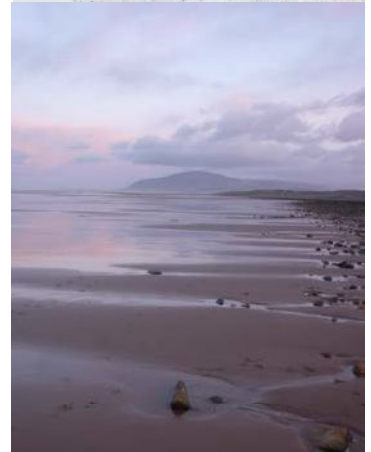


# **‘DUNES OF BARROW’, WALNEY ISLAND AND FOULNEY ISLAND, BARROW-IN-FURNESS, CUMBRIA**

## **Archaeological Desk-Based Assessment and Walkover Survey**



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## Non-Technical Summary

Greenlane Archaeology was commissioned to carry out a desk-based assessment and walkover survey ahead of a proposed scheme of habitat improvement works to a number of areas on Walney Island and Foulney Island. The project was carried out in January 2015.

Walney Island is a sandbar off the coast of Barrow-in-Furness and Foulney Island is a small island to the east at its south end. The study area occupies low-lying grassland, scrub and dunes at the north and south ends of Walney and on Foulney Island.

Walney Island is known to have been extensively settled by at least the Neolithic period and into the Bronze Age and Romano-British activity is evidenced by stray coin-finds from the area, especially on Foulney Island. Place-name evidence indicates Norse settlement in the area, although there is limited physical evidence for this. Walney in particular was home to several granges of Furness Abbey in the medieval period and was extensively used for agriculture, evidence for which remains in the form of large areas of ridge and furrow. The post-medieval history of Walney is dominated by the spread of industries associated with the growth of Barrow-in-Furness and, in modern times, the military training and defensive sites associated with both the First and Second World Wars.

The north and south ends of Walney Island were rabbit warrens, with low-lying fields nearby, from at least the early 19<sup>th</sup> century, which were owned either jointly or independently by Messrs Ellis, Simpson and Archibald. These areas have remained largely unspoiled. Foulney Island too is still undeveloped, although its shape has shifted due to coastal erosion and accretion and the coastline along the south end of Walney in particular has also shifted northwards over time.

Sites of prehistoric to modern date are known within the study area and the potential significance of those sites which may be impacted upon by the habitat improvement works has been assessed. Sites which may be affected by these works include two areas of ridge and furrow, possibly of medieval date, and various 20<sup>th</sup> century military emplacements and training grounds. Of most significance however is an area at the north end of Walney which has yielded extensive evidence of Neolithic/Bronze Age flint working and settlement. Given the nature of the erosion of the dunes in this area, finds and features relating to these periods may be exposed on the surface or may perhaps only be shallow. These sites are therefore potentially at risk from works carried out in the area. It is recommended that work in these more sensitive areas be subject to further archaeological in particular evaluation at the north end of Walney and topographic survey at the south end.

## Acknowledgements

Greenlane Archaeology would like to thank Cumbria Wildlife Trust for commissioning the project and for providing information about the site, and Matthew Lipton for additional information and for accommodating the site visit. Thanks are also due to Jeremy Parsons, Historic Environment Officer at Cumbria County Council, for providing information from the Cumbria Historic Environment Record (HER), Mark Brennand, Senior Historic Environment Officer at Cumbria County Council, for his comments, and the staff at the Cumbria Archive Centre in Barrow-in-Furness (CAC(B)) for help accessing their archives.

The project was managed by Dan Elsworth, who also carried out the desk-based assessment and site visit. The report was written by Dan Elsworth and Tom Mace, the latter of whom also produced the illustrations. The report was edited by Jo Dawson.

## 1. Introduction

### 1.1 Circumstances of the Project

1.1.1 As part of a proposed scheme of habitat improvement works to a number of areas on Walney Island and Foulney Island, as part of the 'Dunes of Barrow' project being carried out by the Cumbria Wildlife Trust (hereafter 'the client') a request was made by the Historic Environment Service at Cumbria County Council for an archaeological desk-based assessment and walkover survey to be carried out for the sites affected. Greenlane Archaeology produced a project design and following its acceptance by the client the work was carried out in January 2015.

1.1.2 Walney Island has evidence for human occupation dating from at least the Neolithic, and remains dating from the end of the last Ice Age, perhaps 10,000 years ago, have been discovered on the mainland of the Furness Peninsula (Greenlane Archaeology 2012, 9). Foulney Island has had finds of Roman date found on it although all of these discoveries typically lack context and so the extent of any associated settlement or other activity, should any exist, is unknown. Until the latter part of the 19<sup>th</sup> century, the area that was to become the modern town of Barrow-in-Furness, and by extension Walney Island, was not heavily occupied and even after the development of the town of Barrow-in-Furness, large parts of Walney remained essentially unchanged (*ibid*).

1.1.3 The proposed works affect six different areas, as defined in Table 1 below:

Area	Nature of work
A	Removal of invasive Japanese Rose through excavation of up to c1m of sand to remove roots of invasive species, and clearance of some turf to cover excavated material. Associated with creation of natterjack toad scrapes.
B	Creation of natterjack toad scrapes by excavation by machine of shallow scoops (c10-30cm) of about one machine bucket width to form pools for natterjack toads.
C	Scrub control through coppicing and clearance of larger vegetation in areas around ponds.
D	Improvement works around wildfowl pond through stripping of turf for use in creating bunds around pond in order to shield it from road, creation of new post and wire fencing and gates.
E	Shingle bank creation through stripping vegetation to expose bare shingle beneath.

**Table 1: Summary of Proposed work**

### 1.2 Location, Geology, and Topography

1.2.1 As outlined above, the proposed work is divided into five areas spread across Walney Island and Foulney Island (Figure 1). Walney Island is a sandbar (Countryside Commission 1998, 28), approximately 13km long, and is connected to Barrow-in-Furness on the mainland by the Jubilee Bridge, which joins the island at Vickerstown, c2km south of the Barrow/Walney Island Airport (Ordnance Survey 2011). Foulney Island is slightly north-east of the far south end of Walney Island and is connected to the mainland via Foulney Embankment, which connects to Roa Island Road near Rampside c3.5km south-east of Barrow-in-Furness.

1.2.2 There are three main sites at the north end of Walney Island (A-C) and one at the south (Site D), and one on Foulney Island (Site E), all of which are near the coast and lie below 10m above sea level (Ordnance Survey 2011). The solid geology of the area comprises Triassic Mercian Mudstones with a thick overlay of glacial boulder clays (Moseley 1978, plate 1), with large areas of mud, sand and shingle.

1.2.3 The northernmost site (Site A) occupies an area of scrub and grassland and the dunes of North End Haws on Walney Island; the site to the south of that (Site B) occupies a wetland area, part of North End Rabbit Warren, and the third area at the north of Walney (Site C) is in low-lying ground immediately to the west of the Barrow/Walney Island Airport. The dune landscapes of Walney, and the wetter lower areas associated with them, provide the habitat for the rare natterjack toad (Countryside Commission 1998, 25). The site at the south end of Walney Island (Site D) is also scrub and grassland, just north of Hilpsford Scar at South End Haws, and includes South End Rabbit Warren and part of South Walney Nature Reserve. The topography on Foulney Island (Site E) is similar, but the deposits underlying the turf largely comprise mixed shingles with considerably less sand.



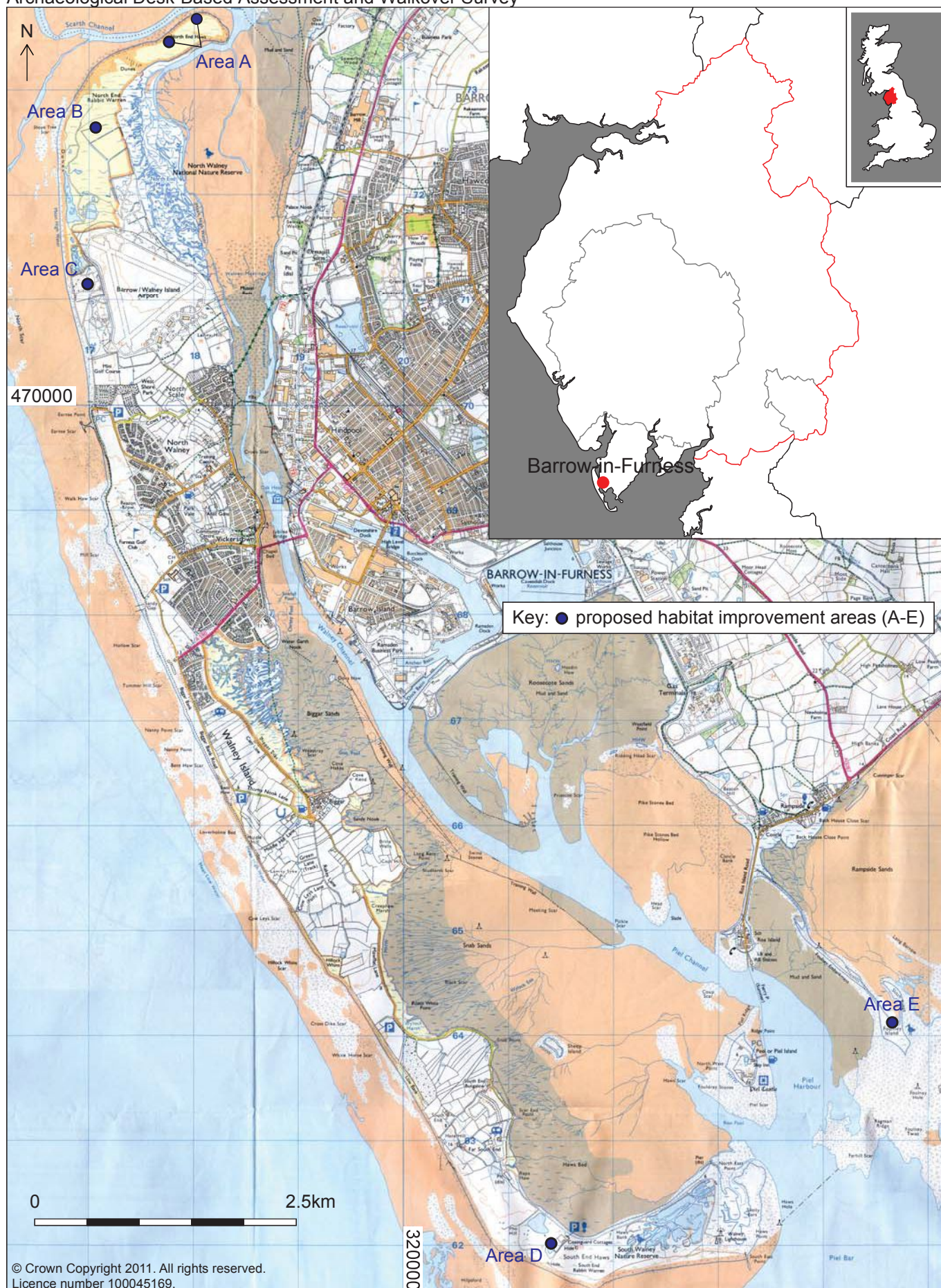
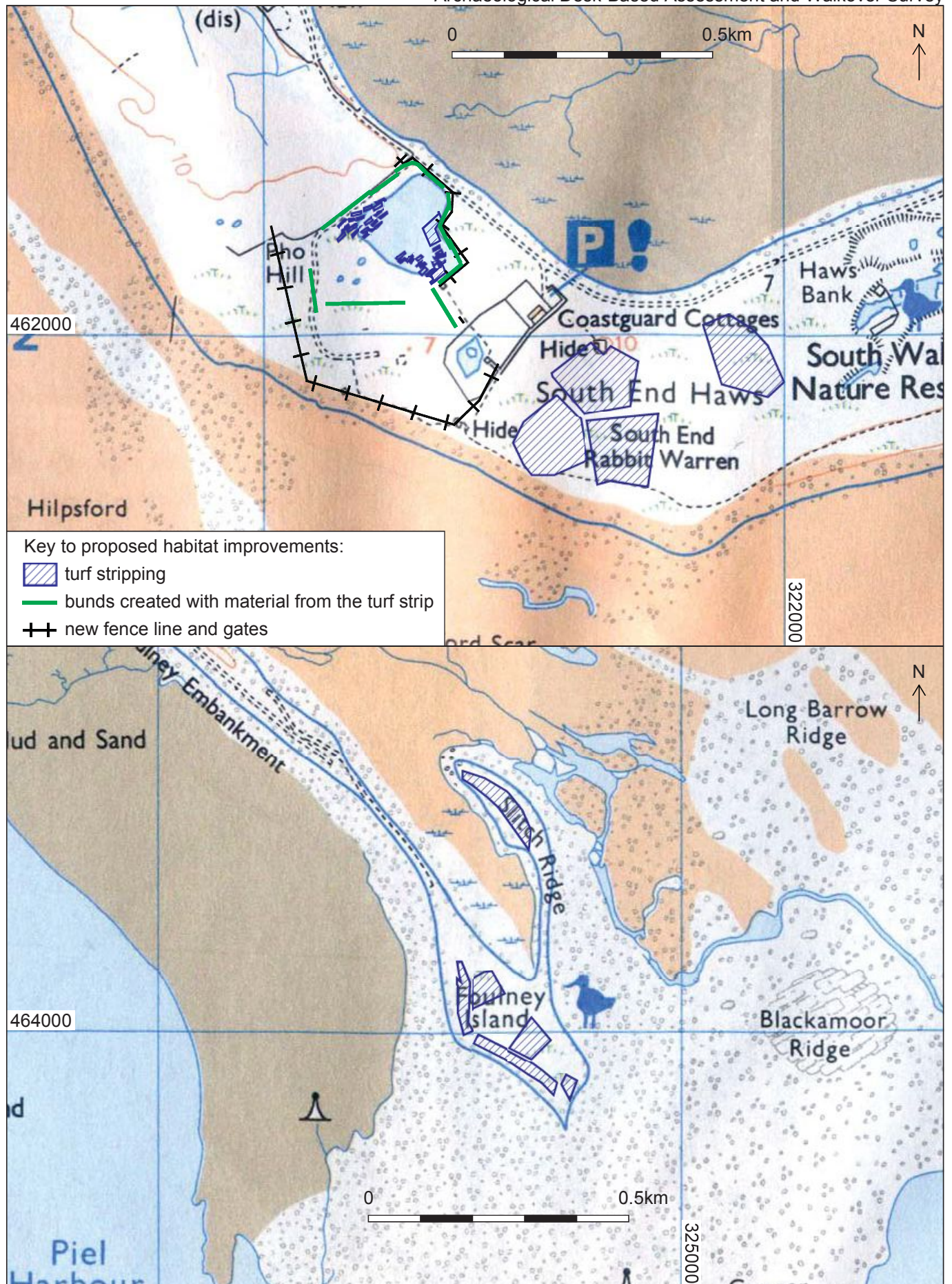


Figure 1: Site location





**Figure 2: Approximate locations of proposed works  
in Areas D and E**

## 2. Methodology

### 2.1 Desk-Based Assessment

2.1.1 A desk-based assessment was carried out in accordance with the guidelines of the Institute for Archaeologists (IfA 2008). This principally comprised an examination of early maps of the site and published secondary sources. A number of sources of information were used during the desk-based assessment:

- **Cumbria Historic Environment Record (HER):** this is a list of all the known sites of archaeological interest within the county and is the primary source of information for an investigation of this kind. All of the known sites of archaeological interest within a 500m radius of the centre point of each of the five locations (Areas A-E) of the proposed works were examined. Each identified site comes with a grid reference, description and source and any additional information which was referenced was also examined as necessary. In addition, unpublished reports of archaeological investigations in the vicinity of the site were examined;
- **Cumbria Archive Centre, Barrow-in-Furness (CAC(B)):** this was visited principally in order to examine early maps and plans of the site, but other documentary sources and published records were also consulted in order to gather information about the historical development of the site and its environs, and also information about the archaeology of its immediate environs;
- **Greenlane Archaeology library:** additional secondary sources were examined to provide information for the site background.

### 2.2 Walkover Survey

2.2.1 An English Heritage Level 1/2 walkover survey (English Heritage 2007) of Areas A-E was carried out within existing access and health and safety constraints in order to identify the presence of any features, finds, or deposits of possible archaeological interest. For each site brief written notes were made on Greenlane Archaeology's *pro forma* record sheets and its location was noted on an Ordnance Survey plan through reference to local topography. Colour digital photographs and 35mm colour prints showing the general arrangement of the site and any features of interest were also taken.

### 2.3 Archive

2.3.1 A comprehensive archive of the project has been produced in accordance with the project design and current Institute for Archaeologists and English Heritage guidelines (Brown 2007; English Heritage 1991). The paper and digital archive and a copy of this report will be deposited in the Cumbria Archive Centre in Barrow-in-Furness following the completion of the project, on agreement with the client. Up to three paper copies of the report will be supplied to the client as requested. In addition, a digital copy will be supplied to the Cumbria HER, and Greenlane Archaeology Ltd will retain one copy. At a suitable time a digital copy will also be supplied to the Cumbria HER, and a record of the project will be made on the OASIS scheme, again, on agreement with the client.

### 3. Results

#### 3.1 Introduction

3.1.1 The HER lists 22 sites of archaeological interest within the study areas (Figure 3 and Figure 4), ranging from prehistoric to modern in date, and a further four sites were identified within the study areas during the walkover survey (*Appendix 1*; summarised in Table 2 below). The locations of find spots are not always accurately located and as such the locations of **Sites 1, 6, 7, 10, 16, 19, and 23** are uncertain. At the time of consultation, the point for **Site 13** is marked in the wrong place on the HER; the outline position is in the correct place, which is centred on a different point to that recorded on the HER (see *Appendix 1*). The anti-aircraft defences at **Site 20**, the coastal battery at **Site 22**, and the pillbox (**Site 24**) are also not accurately located. There are no visible remains associated with **Site 20** or **Site 24** and the North End farmstead (**Site 13**) and windmill (**Site 15**) were both demolished ahead of the construction of Walney Airfield in 1940.

Site No.	Type	Period	Site No.	Type	Period
<b>1</b>	Stone celt find spot	Prehistoric	<b>14</b>	Summerhouse	Post-medieval
<b>2</b>	Slag find spot	Uncertain	<b>15</b>	Site of a demolished windmill	Post-medieval
<b>3</b>	Ridge and furrow	Medieval?	<b>16</b>	Coin find spot	Roman
<b>4</b>	Possible bloomery site	Medieval	<b>17</b>	Peat	Prehistoric?
<b>5</b>	Settlement site	Neolithic/Bronze Age – medieval	<b>18</b>	Walls	Post-medieval?
<b>6</b>	Hammer stone find spot	Prehistoric	<b>19</b>	Coin and pottery find spot	Roman
<b>7</b>	Arrowhead find spot	Medieval	<b>20</b>	Anti-aircraft defences	Modern
<b>8</b>	Floodgate	Post-medieval	<b>21</b>	Ridge and furrow	Medieval?
<b>9</b>	Practice trenches	Modern	<b>22</b>	Coastal battery	Modern
<b>10</b>	Axe find spot	Prehistoric	<b>23</b>	Perforated pebble find spot	Bronze Age?
<b>11</b>	Rifle range	Modern	<b>24</b>	Pillbox	Modern
<b>12</b>	Air gunnery	Modern	<b>25</b>	Weapon pits	Modern
<b>13</b>	Site of a demolished farmstead	Post-medieval	<b>26</b>	Earthwork?	Unknown

**Table 2: Summary of sites of archaeological interest within the study areas**

#### 3.2 Desk-Based Assessment

3.2.1 The results of the desk-based assessment have been used to produce two separate elements. Firstly, information relating to the sites identified in the HER and during the site visit was compiled into the gazetteer (*Appendix 1*; Figure 3 and Figure 4). The second purpose of the desk-based assessment is to produce a background history of the site. This is intended to cover all periods, in part to provide information that can be used to assess the potential of the site (particularly for the presence of remains that are otherwise not recorded in the study areas), but more importantly to present the documented details of any sites that are known (see *Section 4*).





Client: Cumbria Wildlife Trust

Figure 3: Gazetteer sites in Areas A to C



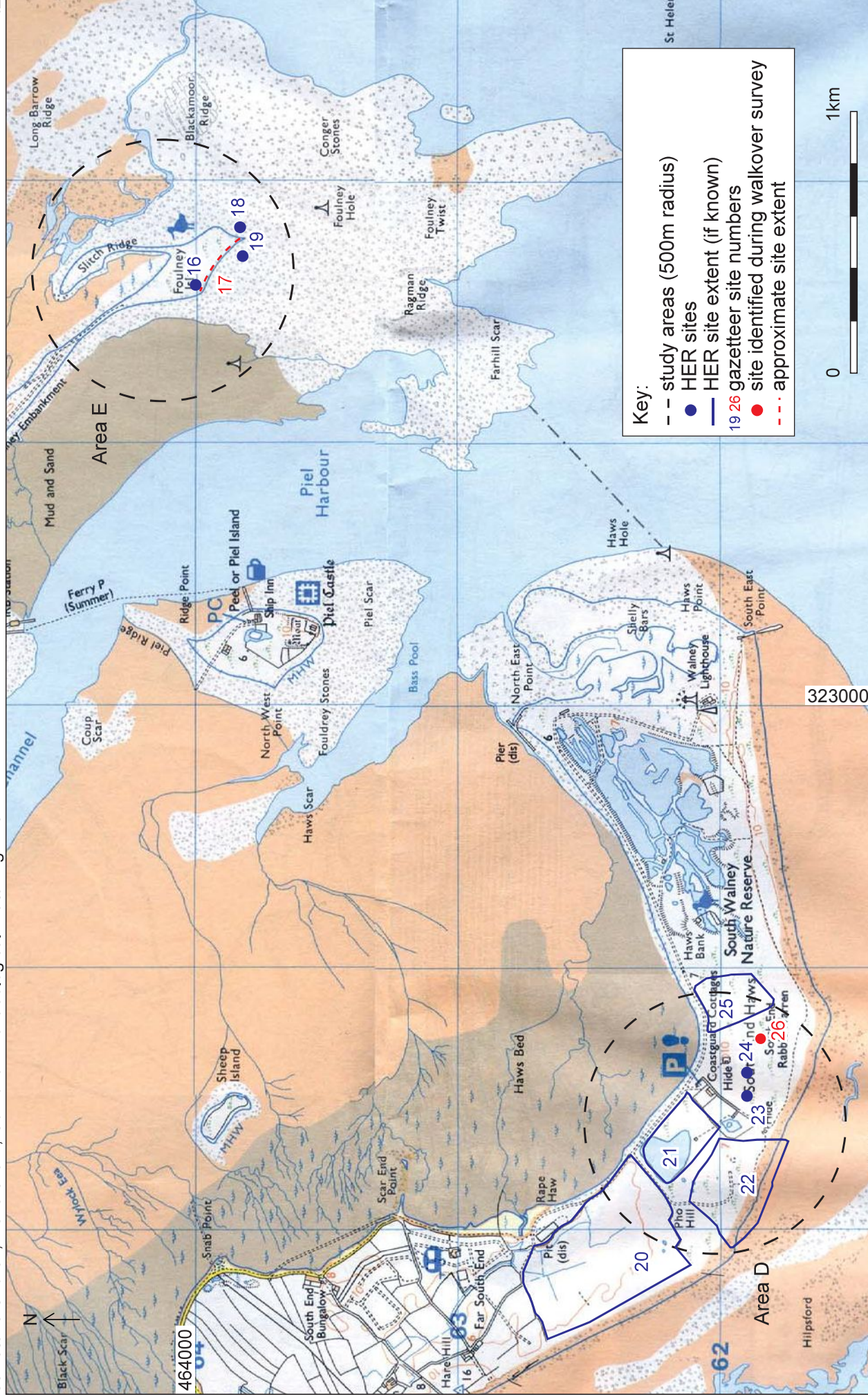


Figure 4: Gazetteer sites in Areas D and E



### 3.3 Map and Image Regression

3.3.1 **Plan of the South End of Walney belonging to Mr J Ellis and Mr J Simpson, 1797 (CAC(B) BD/BUC/39/20 1797)**: Area D on the south end of Walney overlies a large enclosure labelled '*low field on Pho Hill*', which is separated from what is described as 'pasture ground' to the west, 'sand hills' to the south and south-east, and 'rabbit warren' to the east (Plate 1). The reference to Pho Hill is of interest as this is presumably a reference to the pool that is shown on later maps. These areas are the joint property of Mr J Ellis and Mr J Simpson.



Plate 1: Extract from the map of 1797 (CAC(B) BD/BUC/39/20 1797)

3.3.2 **Plan of an Estate on the South End of the Isle of Walney belonging to John Simpson Esq, 1821 (CAC(B) BD/BUC/67/Plan 8 1821)**: the division of land to the south end of Walney appears unchanged, although the south coast appears to have shifted inland to somewhat (Plate 2; cf. Plate 1). Area D occupies the same large enclosure marked on the previous map, which is in this case named '*Low Out Field*' and rabbit warren to the south (Plate 2). Again, the area is recorded as 'joint property', presumably with Thomas Ellis, who is recorded as the sole owner of several other plots on the plan.

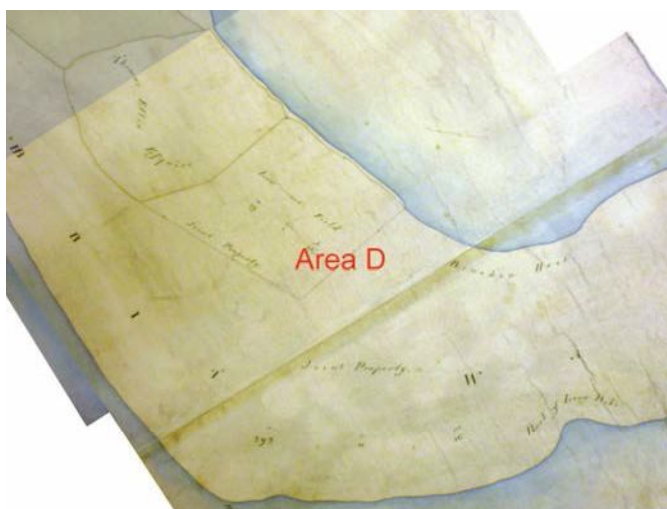


Plate 2: Extract of the estate plan, 1821 (CAC(B) BD/BUC/67/Plan 8 1821)

3.3.3 **Hennet's map, 1830**: Hennet's map is of limited use because of the scale at which it was produced. The north end of Walney at this time appears fairly undeveloped (Plate 3). The sites at this end of the island (Areas A-C) occupy elements of 'North End Haws' and areas which are void of any features north of North End. The south end of Walney Island (Site D) and Foulney Island (Site E, to the east) are shown in very little detail (Plate 4). Site D is to the west edge of 'South End Haws'.



Plate 3 (left): The north end of Walney shown on Hennet's map, 1830



Plate 4 (right): The south end of Walney shown on Hennet's map, 1830

**3.3.4 Estate plans in the Isle of Walney belonging to CD Archibald Esq, 1833 (CAC(B) BD/BUC/67/Plan 3 1833; CAC(B) BD/BUC/67/Plan 4, 1833):** Area A plot 44, which is described as 'sand hills, part of the rabbit warren', at the far north end of Walney (Plate 5). To the south of that, Area B occupies plot 42, which is also part of the rabbit warren (Plate 6). Both sites were tenanted by William Walmsley. Area D, at the south end of Walney Island, runs across plot 39, named 'The Lyre', and plot 41, the rabbit warren (part of 'Bracken Hest'), and the bunds created as part of the work at Site D will be along the edge of low fields, plots 37 and 38 (lilac on the plan) (Plate 7). Within the enclosure named 'The Lyre' is a small pond, essentially on the site of the wildfowl pond that is now present on the site, which is named 'Bark Dub'. It has a curiously indented shore on the south-west side and is apparently linked to the sea by a short channel on the north-east side. The name is of interest as it perhaps suggest it had some industrial purpose; bark was used in a number of processes for the extraction of tannin typically by soaking in water. Both this enclosure and the rabbit warren are jointly owned by Mr Archibald and Mr William Simpson and jointly occupied by Mr W Simpson and Mr James Kendal. The low fields are 'property [of Mr Archibald] in the sole occupation of James Kendal'.



Plate 5 (left): Extract of the estate plan, 1833 (CAC(B) BD/BUC/67/Plan 3 1833)

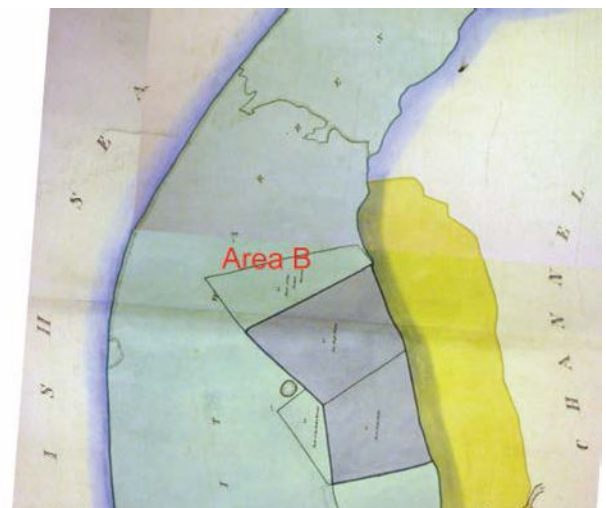


Plate 6 (right): Extract of the estate plan, 1833 (CAC(B) BD/BUC/67/Plan 3 1833)





**Plate 7: Extract of the estate plan, 1833 (CAC(B) BD/BUC/67/Plan 4 1833)**

**3.3.5 Tithe map, 1842 (CAC(B) BPR/1/I/3/1/2, 1842a):** the tithe map (CAC(B) BPR/1/I/3/1/2 1842a), which is held at the archive centre in Barrow-in-Furness, is covered in protective plastic, which means that photographs of it are unavoidably of very poor quality, something which is exacerbated by the relatively featureless nature of the terrain depicted at the north and south ends of Walney (Sites A-D), so extracts of it are not reproduced here. The map also does not include Foulney Island (Site E). Detailed information about the owners and occupiers of the plots are recorded in the accompanying apportionment (CAC(B) BPR/1/I/3/1 1842; Table 3). At the north end of the area, the division of the fields is the same as on the estate plan of 1833 (CAC(B) BD/BUC/67/Plan 8 1821). Site B is located along the north edge of 'D716' and 'D711'. Area C is an open area to the west of North End farmstead. To the south-west of the farmstead is a windmill (**Site 15, Appendix 1**). The owner of these plots is variously recorded as 'Archibald Charles Dickson', 'Charles Dickson Archibald' and 'CD Archibald', who are presumably all the same person, presumably the same CD Archibald who owned the estate on the island in 1833 (see above). Area D covers part of plot 'D9', described as 'South End Rabbit Warren', Site D is to the south side of low fields, 'D10' and 'D11'. The south end sites are occupied by Wm Postlethwaite. This part of the south end of Walney Island is again recorded as the joint property of CD Archibald and Wm Simpson.

Plot	Name	Owner	Occupier
D9	Rabbit Warren Sand Hills	CD Archibald and Wm Simpson	James Randall and Ann Redhead
D10	Far Low Field	CD Archibald	James Kendall
D11	Fourth Low Field		
D711	Rabbit Warren and Sand Hills	CD Archibald	Wm Postlethwaite
D716	Far High Field		

**Table 3: Detailed information about the owners and occupiers recorded in the tithe apportionment (CAC(B) BPR/1/I/3/1 1842)**

**3.3.6 Ordnance Survey c1847:** North End Haws (Area A) is undeveloped (Plate 8). Fish stakes are marked off the east coast. Area B, to the south is unchanged from the previous maps, although a spring is shown to the south side of the field and a floodgate (**Site 8**) is shown to the east (Plate 9). Area C, to the west of North End farm (**Site 13, Appendix 1**), is largely undeveloped (Plate 10). A sand pit is marked on the west coast and Walney windmill (**Site 15, Appendix 1**) is shown to the south-east of North End farm. There is an 'old limekiln' to the south of that (HER 16261). Area D overlies 'Pho Hill' and 'South End Rabbit Warren' (Plate 11). Foulney Island (Area E) is recorded in some detail (Plate 12). At this time its southern extent was much further to the south than it is today (Plate 12; cf. Figure 2). 'Walls' (**Site 18, Appendix 1**) are marked to its east edge.

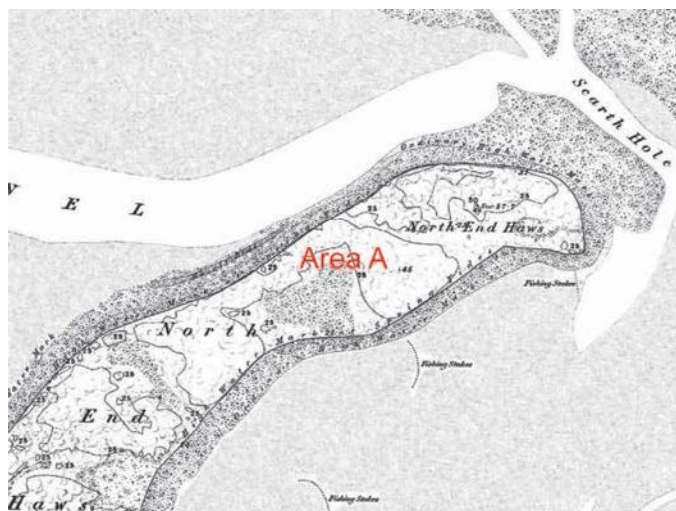


Plate 8 (left): Ordnance Survey, 1850



Plate 9 (right): Ordnance Survey, 1850-1851

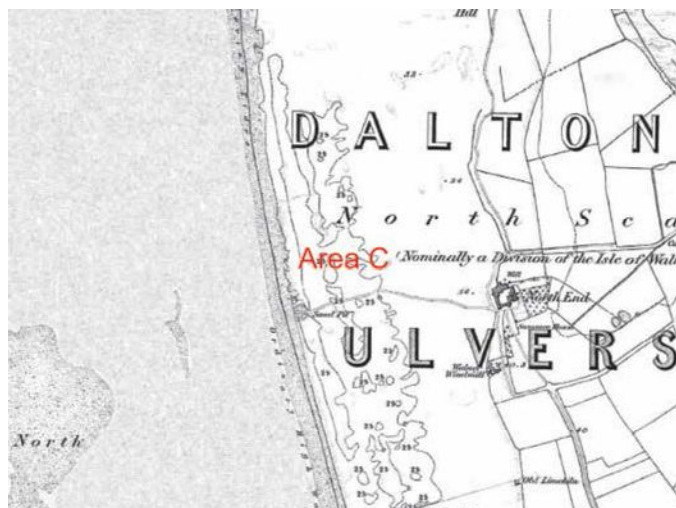


Plate 10 (left): Ordnance Survey, 1851

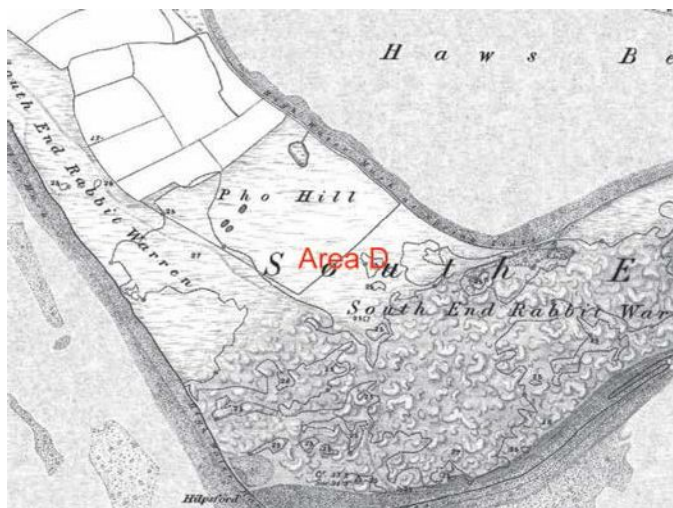


Plate 11 (right): Ordnance Survey, 1849



Plate 12: Ordnance Survey, 1849

**3.3.7 Ordnance Survey 1891:** the north end of Walney (Areas A-C) is unchanged (Plate 13, Plate 14, and Plate 15). At the south end of Walney Island (Area D), the southern boundary around Pho Hill, formerly around 'the Lyre' has been removed, but the area is otherwise largely unchanged (Plate 16). The site overlies South End Rabbit Warren / sand hills and several 'old sand pits' are shown along the south-west coast. No map was produced for the east side of Foulney Island (Area E). The west side is unchanged (Plate 17).

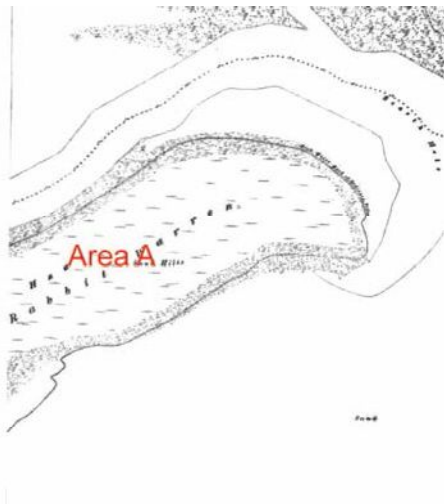


Plate 13 (left): Ordnance Survey, 1891



Plate 14 (right): Ordnance Survey, 1891



Plate 15 (left): Ordnance Survey, 1891



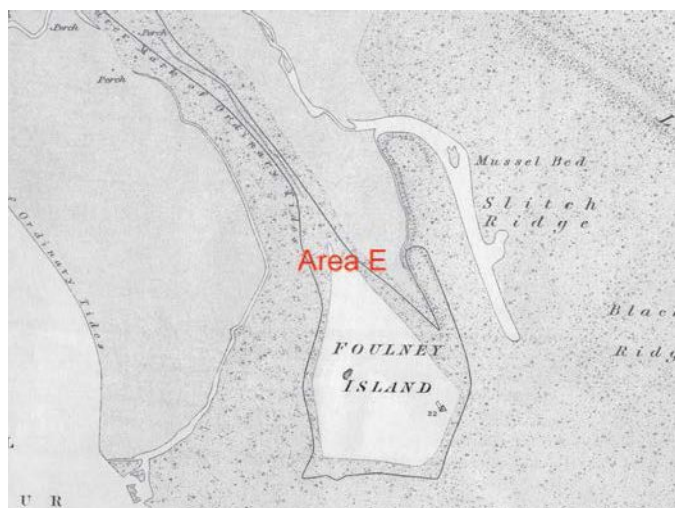
Plate 16 (right): Ordnance Survey, 1891





**Plate 17: Ordnance Survey, 1891**

3.3.8 **Ordnance Survey 1892:** a 1:10,560 scale map was produced in 1892 showing Foulney Island (Area E; Plate 18). Its shape has shifted slightly from the 1849 edition but it remains fairly undeveloped (see Plate 12). The walls still seem to be present but are unlabelled.



**Plate 18: Ordnance Survey, 1892**

3.3.9 **Ordnance Survey 1913:** again, the north end of Walney (Areas A-C) appears unchanged (Plate 19, Plate 20, and Plate 21). The coastguard station and 'Lookout House Semaphore', which are near to Area D (see Figure 2), have been built at the south (Plate 22).

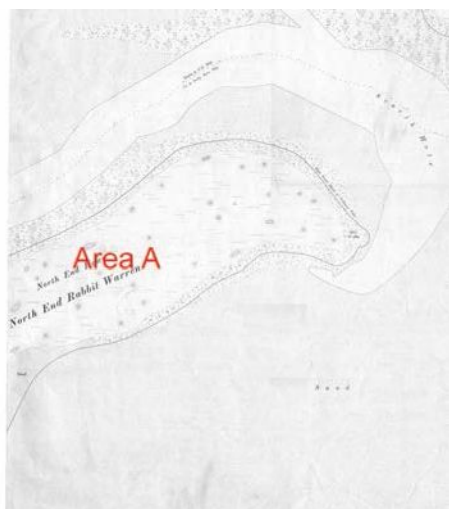


Plate 19 (left): Ordnance Survey, 1913



Plate 20 (right): Ordnance Survey, 1913



Plate 21 (left): Ordnance Survey, 1913

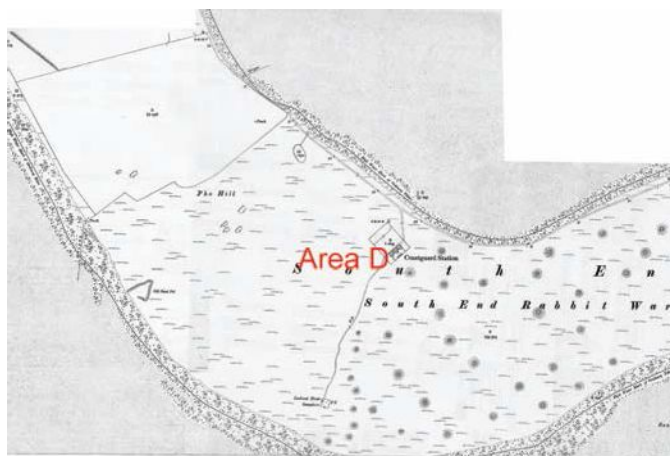


Plate 22 (right): Ordnance Survey, 1913

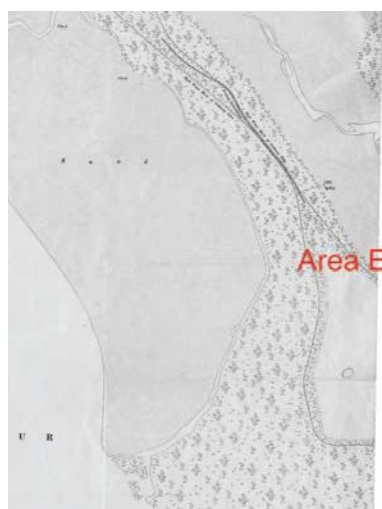


Plate 23: Ordnance Survey 1913

3.3.10 **Ordnance Survey 1933**: mapping of this date was largely unavailable for the areas of interest so they have not been included in the map regression.

### 3.4 Walkover Survey

3.4.1 Information relating to additional sites of archaeological interest revealed during the walkover survey or relating to sites already known but examined during the walkover survey was added to the gazetteer (*Appendix 1*). Only four additional sites were revealed: an area of slag and some ridge and furrow at Walney North End (Area A; **Sites 2 and 3**), a circular earthwork at Walney South End (Area D; **Site 26**), and an area of eroding peat on Foulney Island (Area E; **Site 17**). In addition, information relating to the known ridge and furrow at Walney South End (Area D; **Site 21**) was also added.

### 3.5 Conclusion

3.5.1 There is evidence for settlement on Walney Island from at least the Neolithic period onwards (**Site 5** and HER 41881) and various stray finds of prehistoric date are recorded (**Site 1, 6, 10**). Settlement continued into the Bronze Age (at **Site 5**) and again stray finds are known (**Site 23**).

3.5.2 There are no sites of Roman date recorded within the study areas on Walney Island, however, the Roman period is represented by a small number of coins and pottery finds from Foulney Island (**Site 16 and 19**).

3.5.3 The medieval period is represented by an arrowhead (**Site 7**), a possible bloomery site (**Site 4**), and areas of ridge and furrow (**Site 3 and Site 21**) on Walney, which may be medieval. Place-names also suggest medieval activity in the area.

3.5.4 The map regression shows that North and South End Haws have been rabbit warrens since at least the 1830s. The area of scrub control to the west of the airport has previously also seen very limited development. Some 'walls' are marked at the south end of Foulney Island on early editions of the Ordnance Survey maps, but this end of the island has since been lost to the sea. At south end the area was largely situated within an area known as Pho Hill, perhaps a reference to a pond, which is first shown on a plan of 1833 but is perhaps on the site of the wildfowl pond that is present today.

3.5.5 Further afield, the modern history of Walney is dominated by military sites relating to the First and Second World Wars, including WWI practice trenches (**Site 9**) and WWII training grounds and defences (**Sites 11, 12, 20, 22, 24, and 25**).

3.5.6 The walkover survey revealed a small number of new sites of archaeological interest. These were largely of indeterminate date but some probably related to known sites such as the evidence for at least one bloomery on Walney North End and perhaps the weapons pits recorded at South End. Other, already known sites were also examined as part of the work.

## 4. Site History

### 4.1 Prehistoric Period (c11,000BC – 1<sup>st</sup> century AD)

4.1.1 While there is limited evidence for human activity in the area in the period immediately following the last Ice Age, this is typically found in the southernmost part of the county on the north side of Morecambe Bay. Excavations of a small number of cave sites have found the remains of animal species common at the time but now extinct in this country and artefacts of Late Upper Palaeolithic type (Young 2002). Human remains from one of these have also recently been dated to approximately 7,100 BC (Smith *et al* 2013). The county was clearly more densely inhabited during the following period, the Mesolithic (c8,000 – 4,000 BC), as large numbers of artefacts of this date have been discovered during field walking and eroding from sand dunes along the coast, but these are typically concentrated in the west coast area and on the uplands around the Eden Valley (Cherry and Cherry 2002). Several 'conceivably Mesolithic' worked flints have been found at North Walney (**Site 5**; Cross 1938, 163) and in the area around Morecambe Bay there is generally quite dense evidence for activity in this period (Elsworth 1998). Elsewhere in the county a particularly large assemblage was recovered during excavations on the edge of the River Ede, outside Carlisle (Clark 2010) and field walking has found additional scatters of some significance also in the Eden valley near Penrith (Clarke *et al* 2008), which show the continuing potential of new sites of this type to be discovered. Coastal areas and river valleys are notably places where such material is frequently found in the wider region (Middleton *et al* 1995, 202; Hodgkinson *et al* 2000, 151-152; Hodgson and Brennand 2006, 26).

4.1.2 In the Neolithic period (c4,000 – 2,500 BC), large scale monuments such as burial mounds and stone circles begin to appear in the region and one of the most recognisable tool types of this period, the polished stone axe, is found in large numbers across the county, having been manufactured at Langdale in the central Lake District (Hodgson and Brennand 2006, 45). Indeed, a polished stone celt, similar to those from the Langdale axe factory sites, was found on a scar on the mainland side of Walney Channel in 1934 (**Site 1**; Barnes and Hobbs 1952). Other stray finds of this date include a Neolithic stone axe (**Site 10**) and a hammer stone (**Site 6**). There is evidently continuity in settlement at North Walney from the Neolithic period into the Bronze Age (c2,500 – 600 BC). Extensive Neolithic/Bronze Age flint working and settlement sites were discovered in the sand dunes at North Walney (**Site 5**) between 1936 and 1956 (Cross 1938; 1942a; 1946; 1947; 1949; 1950). It seems likely that these are actually one large spread of material, which has been seen at different points as the dunes erode, and might represent a long-lived habitation, even if not occupied permanently (Dave Coward pers comm.). Prehistoric pottery has also been found in the general area (Barnes 1955). Associated finds include midden refuse containing shells, charcoal, and animal bones (Cross 1939, 277) and a similar shell midden of probable prehistoric date is located just north of Barrow/Walney Island Airport (HER 41881; NGR 317080 471850). Another prehistoric occupation site with worked flints is recorded at Haws Bank, South Walney (HER 2628; NGR 322300 462200), just outside the study areas and South End may also have been an important prehistoric area, but supporting evidence of this has potentially been removed by later gravel and sand extraction (Robinson 1986). Early Bronze Age faunal remains have also been exposed at Hilpsford Scar off the south coast of South End Haws (HER 43982; NGR. 321722 461504) and a perforated pebble found at South End Haws may also be of Bronze Age date (**Site 23**).

### 4.2 Romano-British to Early Medieval Period (1<sup>st</sup> century AD – 11<sup>th</sup> century AD)

4.2.1 In the North West it is evident that in rural areas, initially at least, the Roman invasion had a minimal impact on the native population in this part of the country (Philpott 2006, 73-74). Second and fourth century Roman coins and pottery possibly also of Roman date have been discovered on Foulney Island (**Sites 16** and **19**), which might suggest a Roman presence in the area and a pebble scratched with lines found at Walney South End (Fell 1971, 7) has been interpreted as being of possible Roman date (Barnes 1978, 12). Although evidence for Roman military activity in the immediate area is very limited (Shotton 2004, 53), a recent reinterpretation of evidence from Furness has suggested that they may have had a presence in the area (Elsworth 2007) and in which case a good port, perhaps located at

Piel Island, would undoubtedly have been important to them (Greenlane Archaeology 2007, 9). Walney or Piel would perhaps also have been a likely spot for a Roman coastal signal station along the western coast (Trescatheric 1984, 7).

4.2.2 Continuity into the post-Roman early-medieval period is also potentially very likely in the area, although physical evidence relating to this period is, in general, very scarce in the region as a whole. Place-name evidence is perhaps a good indicator of the arrival of the Norse in Furness in the late ninth or more likely early 10<sup>th</sup> century (Trescatheric 1984, 7). Both Foulney and Walney contain the Norse suffix '*ai*' meaning island, Walney evidently originally being Hougunai meaning the island of Hougun, an estate based largely on Furness (*op cit*, 3). Similarly, the name of Biggar village probably partially derives from the Norse '*bygg*', meaning barley (Ekwall 1922, 205). Archaeological evidence for the period is, however, very scarce with occasional stray finds and sculptural evidence such as the carved stone crosses at Urswick all that is really available. No certain finds of early medieval date are known from the study areas, although two whetstones of possible early medieval type are recorded among the otherwise prehistoric material discovered at the North End of Walney (**Site 5**; Cross 1948, 73, although they are suggested in her account as being potentially Bronze Age (*op cit*, 76); one of these is also illustrated in Barnes 1978). The possible bloomery also identified at the North End of Walney is potentially early medieval although it has not been properly dated (**Site 4**) and slag was described at an early date as being spread over much of that part of the island (Cross 1948, 77).

### 4.3 Medieval Period (11<sup>th</sup> century AD – 16<sup>th</sup> century AD)

4.3.1 The coastal area of Furness remained important in the medieval period, with Piel Island becoming a prominent feature on account of its important harbour (Greenlane Archaeology 2007, 9). The earliest reference to the harbour at Piel is in 1212, when a licence was granted for the importation of a cargo of wheat, flour, and other provisions (Melville c1949, cited in Greenlane Archaeology 2007, 9).

4.3.2 North End and South End were granges of Furness Abbey, recorded in 1247 (Barnes 1978, 30), when they were probably farmed by lay brethren, but they seem to have been let out to tenants within the next fifty years (Trescatheric 1984, 11). During the medieval period, agriculture at both Biggar and North Scale followed a broadly three-field system of crop rotation and ploughing has left distinctive ridge and furrow lines which can still be traced (Trescatheric 1984, 8). Areas of ridge and furrow at the north and south ends of the study areas (**Site 3** and **Site 21**) are possibly medieval in origin.

4.3.3 Other sites of medieval date within the study areas include bloomery at North End (**Site 4**; Barnes 1955) and the findspot of an arrowhead thought to be of 14<sup>th</sup> century date (**Site 7**; Cross 1942b).

### 4.4 Post-Medieval (16<sup>th</sup> century AD – present)

4.4.1 The extent of coastal erosion along the west coast of Walney Island is well documented while at the north end and south ends there has been some accretion of sand and shingle (Phillips and Rollinson 1971, 4, 10). It is estimated that 350 acres of farmland has been lost at South End since 1535 (Trescatheric 1984, 19-20, citing Melville 1956) and farm buildings at South End were reportedly rebuilt in 1641, 1691, 1755, and 1764 in response to coastal erosion (Trescatheric 1984, 11-12). The process of coastal erosion here has been aided by the removal and trade of a protective barrier of beach pebbles along the coastline, which continued for a hundred years from the second half of the 18<sup>th</sup> century (Trescatheric 1984, 18). The 'walls' (**Site 18**) on Foulney Island too, may have been post-medieval but these have since been lost to the sea.

4.4.2 The map evidence (see *Section 3.3*) demonstrates that the study areas had reached approximately their present state by the beginning of the 19<sup>th</sup> century. The land around Walney was enclosed during the 18<sup>th</sup> and 19<sup>th</sup> centuries, partly in response to raised grain prices as a result of the War of American Independence and latterly by a shortage of grains as a result of the Napoleonic Wars (Trescatheric 1984, 11). Walney was a high producer of wheat and has been referred to as 'the granary of Furness' (*ibid*). Nearby, North End farmstead (**Site 13**) and Walney windmill (**Site 15**) were both demolished ahead of the construction of Barrow/Walney Island Airport. Other sites of post-medieval date



within the study areas on Walney Island include the floodgate (**Site 8**) and a summerhouse (**Site 14**). Other nearby sites just outside the study areas include a limekiln (HER 16261; NGR. 317360 470660) and another floodgate (HER 18415; NGR. 320950 462750).

4.4.3 The post-medieval history of Walney Island is tied to the growth of industries in Barrow-in-Furness. It became part of the borough of Barrow-in-Furness in 1872, although it remained essentially a separate, agricultural island, at which time it is described as 'tumble-down, unplanned and unkempt' (Trescatheric 1984, 24). The urban spread of industrial Barrow took hold at the end of the 19<sup>th</sup> century when Vickers bought the shipyard on Barrow Island and created Vickerstown as a workers' estate (Trescatheric 1984, 29-30). The population grew from a few hundred in the 1890s to over 3,000 by 1902 and a bridge to the mainland was opened in 1908, until which time the only way across was by boat or on foot across one of the many ancient fords (Trescatheric 1984, 21, 29-30, 33).

4.4.4 Many modern sites recorded on the HER relate to military defences and training sites on Walney, including WWI practice trenches (**Site 9**) and various WWII sites (**Sites 11, 12, 20, 22, 24, and 25**). The Coastal Battery (**Site 22**) began as a fort in 1881 and was established as a proper naval fort in 1911 to defend the docks and Vickers Works (Trescatheric 1984, 35). The Vickers shipyard contributed greatly to the naval rearmament ahead of and during the First World War, which was said to have 'recreated the prosperity of Barrow's Victorian heyday' (Trescatheric 1984, 35-36). The shipbuilding economy slumped in the between war years, but revived again in the 1930s in the run up to the Second World War (Trescatheric 1984, 38-39). North End Farm (**Site 13**) was bought by compulsory purchase order, approved in 1938, and the Air Force base was created in 1942 (Trescatheric 1984, 52-3).

4.4.5 More recently still Walney North End was designated a Site of Special Scientific Interest and the southern tip was created a nature reserved and bird sanctuary in 1963 (Trescatheric 1984, 57).

## 4.5 Previous Archaeological Work

4.5.1 There has been no recent archaeological work carried out within the study areas. Those archaeological investigations that have taken place relate to the supposed settlement sites of prehistoric and possibly later date recorded at the north and south end of Walney, which have typically comprised piecemeal fieldwork carried out in the early part of the 20<sup>th</sup> century.

4.5.2 The recent work that has taken place covering the study areas has primarily been recording and assessment of surface remains as part of the North West Rapid Coastal Zone Assessment (ARS 2009; 2012) and historic buildings (Greenlane Archaeology 2013).

## 5. Discussion

### 5.1 Introduction

5.1.1 The desk-based assessment is in part intended to determine the archaeological significance and potential of any known remains and the potential for any as yet unidentified remains being present (above or below ground). The system used to judge the significance of the remains identified within the proposed habitat improvement areas, or those thought to have the potential to be present within the development area, is based on the criteria used to define Scheduled Monuments (DoE 1990, Annex 4; *Appendix 2*).

5.1.2 It is not known what below ground impact the works will have, particularly at the north end of the area, in relation to the work at Areas A-C. Since the locations of many of the individual stray find spots are often not accurately recorded their significance cannot be known. At the north end of the areas (North Walney):

- Area A is near a possible medieval bloomery site (**Site 4**) and lies directly above extensive Neolithic/Bronze Age flint working and settlement sites (**Site 5**). Some slag was found at the north end of this area during the walkover survey (**Site 2**) and an area of possibly medieval ridge and furrow was also observed nearby (**Site 3**);
- the creation of natterjack toad scrapes (Area B) will involve only shallow excavation, and no known archaeological sites are likely to be impacted upon, although stray prehistoric finds are known in the general area;
- the scrub control work (Area C) will largely involve the coppicing of larger vegetation in this area and no below ground work. Therefore, although the area has a number of sites of archaeological interest (dating to the Second World War) nearby these are unlikely to be affected by the work.

5.1.3 At the south end of Walney Island (Area D):

- the bunds that are to be created (from turf stripping at South End Haws) around the wildfowl pond, are directly adjacent and potentially lying over an area of ridge and furrow (**Site 21**) and close to the remains of a 20<sup>th</sup> century coastal battery (**Site 22**);
- the fence lines are to be erected across the site of the coastal battery (**Site 22**) and inside the area of ridge and furrow (**Site 21**);
- the wader scrapes are to be carried out inside the area of ridge and furrow (**Site 21**);
- the turf stripping is to be carried out near a possible Bronze Age find spot (**Site 23**) and possibly in the vicinity of a WWII pillbox (**Site 24**, although there are apparently no remains of it visible), and inside the area of 'weapon pits' thought to date from the Second World War (**Site 25**). The turf stripping will also potentially encroach upon the circular earthwork (**Site 26**) observed during the walkover survey.

5.1.4 Turf stripping on Foulney Island (Site E) will not affect any known archaeological sites, although stray coin and possibly pottery finds of Roman date are known. A peaty deposit eroding from beneath the dunes was observed along the south-west coast of the island (**Site 17**) during the walkover survey, which is, however, likely to be affected by the proposed works.

5.1.5 Of the 26 individual sites of archaeological interest identified within the study areas, 11 are situated within close proximity to the proposed works and may be affected by them, although the details of these are, as yet, not determined. Stray finds of prehistoric date have been found, particularly in the area of the natterjack toad scrapes (Area B) and at the north end of the area (Site A), and Bronze Age finds have also been found at the south end of Walney Island (Area D), so there is clearly potential for further remains of archaeological interest to be discovered. Furthermore, the full extent of Neolithic/Bronze Age flint working and settlement sites at the north end of the area is unknown (**Site 5**).

## 5.2 Significance

5.2.1 The level of significance of each of the 11 sites of archaeological interest which may be affected by the proposed works is categorised according to eight criteria, as high, medium, or low, and an average of this has been used to produce an overall level of significance for each site (see Table 4 below). As can be seen in Table 4, most of these features are considered to be of medium or medium to low/low to medium significance apart from the site of the possible medieval bloomery (**Site 4**) and the Neolithic/Bronze Age flint working and settlement sites at **Site 5**, which are considered of medium to high significance.

Site / Site type	Period	Rarity	Documentation	Group value	Survival/condition	Fragility/Vulnerability	Diversity	Potential	Significance
<b>Site 2</b> – slag find spot	M	M	L	M	M	M	M	L	M-L
<b>Site 3</b> – ?medieval ridge and furrow	M	L	L	L	M	M	L	L	L-M
<b>Site 4</b> – possible medieval bloomery	M	H	M	M	M	M	M	M	M-H
<b>Site 5</b> – Neolithic/Bronze Age flint working and settlement	M	H	M	H	M	M	M	H	M-H
<b>Site 12</b> – WWII air gunnery	M	M	M	M	M	M	M	M	M
<b>Site 17</b> – area of peat	M	M	L	H	M	M	M	M	M
<b>Site 21</b> – ?medieval ridge and furrow	M	L	L	L	M	M	L	L	L-M
<b>Site 22</b> – 20 <sup>th</sup> century coastal battery	M	M	M	M	M	M	M	M	M
<b>Site 24</b> – WWII pillbox	M	L	M	M	L	L	L	L	L-M
<b>Site 25</b> – WWII weapon pits	M	M	L	M	L	M	M	L	M-L
<b>Site 26</b> – earthwork	L	M	L	L	M	M	M	M	M-L

**Table 4: Site significance (H=high, M=medium, L=low)**

## 5.3 Potential for Unknown Archaeological Remains

5.3.1 Details of the archaeological remains present within the study areas are presented in the results of the desk-based assessment (*Section 3; Appendix 1*) and the significance of the sites identified within the study areas which may be affected by the proposed works is discussed above (*Section 5.2*). The potential for as yet unidentified archaeological remains to be present, however, is based on the known occurrence of such remains elsewhere in the study areas and local environs (see *Section 4*). Where there are no remains known within the study areas the potential is based on the known occurrence within the wider local area. The degree of potential is examined by period and the results are presented in Table 5 below; in each case the level of potential is expressed as low, medium, or high:

Period	Present in study areas?	Potential
Late Upper Palaeolithic	No	Low
Mesolithic	Yes	Medium
Neolithic	Yes	High
Bronze Age	Yes	High
Iron Age	No?	Low
Roman	Yes	Low
Early Medieval	No?	Low
Medieval	Yes?	Medium
Post-medieval	Yes	High

**Table 5: Degree of potential for unknown archaeological remains by period**

5.3.2 In consideration of Table 5 it is worth noting that the possibility of finding Mesolithic remains could perhaps be assessed as medium because they are often associated with sites adjacent to watercourses and coastal areas (Middleton *et al* 1995, 202; Hodgkinson *et al* 2000, 151-152) and flint artefacts of this period have already been found at the north end. Neolithic and Bronze Age sites and artefacts are recorded within the study areas and so the potential for more remains of this date to be revealed is considered high. The Roman period is only represented by stray finds on Foulney Island within the study areas, so there is some potential for other finds of this date but it is likely to be low. The Iron Age is not certainly represented in the study areas but it is possible that the bloomer (**Site 4**), which is as yet undated, could be Iron Age. The area of ridge and furrow (**Site 21**) may be medieval and place-names also suggest medieval (and possibly early medieval) activity in the area. Sites of post-medieval date, especially of later, industrial and modern date, all have examples from within the study areas, particularly those relating to the period of the First and Second World Wars.

## 5.4 Disturbance

5.4.1 Walney Island and Foulney Island are subject to continual erosion, both from the sea but also the wind and weather (the former of which also leads to the accretion of sand on top of earlier deposits in some places), but there is still the potential for remains of archaeological interest to be preserved below ground or even exposed on the surface. In addition to the problem of wind erosion and shifting dunes has been *'the destruction of sites by gravel working and the random removal of artifacts by private collectors'* (Trescatheric 1984, 4). At the South End it was apparent during the walkover survey that the upper deposits have also been extensively disturbed by burrowing animals, particularly rabbits and there has been some disturbance to the area of ridge and furrow (**Site 21**) by demolition of WWII structures.

## 5.5 Impact

5.5.1 Although there is some flexibility in the areas that will be utilised for turf stripping at the South End of Walney and shingle collection on Foulney, this has the potential to reveal deposits of archaeological interest especially given the fact that they appear to be quite shallow. The same, however, cannot be said for the North End of Walney, where the work needs to take place in quite specific places and excavation will potentially be carried out to a depth of 1m in order to remove the roots. The scrub clearance at the North End of Walney is likely to have no impact on any sites of archaeological interest, while the creation of toad scrapes is also likely to have a negligible impact.

## 5.6 Recommendations

5.6.1 It is clear from the preceding sections that there is considerable potential for archaeological remains to be present within the area, in particular those relating to the Neolithic and Bronze Age and obviously the 20<sup>th</sup> century military history of Walney. There is some potential for finds of Roman date to be present also, although this is only represented by stray finds from Foulney Island, which has seen substantial coastal erosion. The nature of the erosion of sites along the coast means that sites are actively being eroded and may be either exposed or not deeply buried. It is therefore recommended that any part of the work which involves below-ground excavation or turf stripping should be suitably archaeologically monitored. Recommendations for each of the areas are laid out in the following sections.

5.6.2 **Walney North End – Area A:** these areas are situated within or adjacent to a large area of archaeological interest, potentially extending from the prehistoric to the early medieval periods. The walkover survey revealed slag and associated material on the surface of the northernmost area (**Site 2**), although without further analysis it is not certain what date it is or whether it came from elsewhere such as the slag banks on the mainland. The larger, southernmost area also had limited evidence for fire-cracked stones on the surface as recorded nearby. Given the nature of the work in this area, which potentially involves the removal of up to 1m of material, it is recommended that it be subject to further archaeological evaluation in the form of a series of test pits excavated across the affected areas to

establish the extent of any buried deposits of archaeological interest and the presence of any finds of archaeological interest and establish the need for any further work.

**5.6.3 Walney North End – Area B:** these are all in areas where there are no previously known sites of archaeological interest and given the nature of the work involved, which comprises the creation of a small pond a single excavator bucket width wide and a few inches deep no further work is recommended.

**5.6.4 Walney North End – Area C:** this is situated in an area of former gravel extraction, now a series of water-filled ponds. As the work in this area will only involve the coppice of existing vegetation and no excavation or groundworks no further archaeological work is recommended.

**5.6.5 Walney South End – Area D:** like the north end, this is an area of considerable archaeological interest, with a range of finds having been made, including prehistoric material but also ridge and furrow of probable medieval date, a post-medieval lookout house, and later structures relating to WWII. The walkover survey did not identify any remains definitely relating to these, indeed it was remarkable how little of the supposed WWII infrastructure that had been previously recorded was present. However, a circular feature was observed (**Site 26**), which although of unknown date may relate to the 'weapons pits' previously recorded (**Site 25**). The area in general has seen considerable surface disturbance caused by burrowing animals and shifting dune systems. The area of ridge and furrow adjacent to the pond to the west end of the site, however, is, in places, very well preserved, although it has clearly been encroached upon by the enlargement of the pond and dumping of material associated with WWII structures. Given the nature of the proposed work in this area it is recommended that the ridge and furrow be recorded by topographic survey – sections of it will be covered by the creation of the bund and while they are unlikely to be damaged by this the tracking of plant across them will cause some damage. In addition, if the circular feature recorded during the walkover survey cannot be avoided during the work, further investigation would be necessary. Elsewhere, given that the work will only involve the removal of turf to create bunds around the pond this is likely to have a limited impact on any below-ground archaeology that might be present and anything that was discovered would have limited value given the disturbance that has taken place to the upper deposits. At most a watching brief could be carried out during the removal of turf although it is likely to only identify stray finds of limited archaeological interest. The proposed erection of new post and wire fencing is unlikely to have any significant impact on any archaeological deposits or features and so no further work is proposed in connection to this.

**5.6.6 Foulney Island – Area E:** while the desk-based assessment identified two find spots of Roman coins (and possible Roman pottery) and walls recorded on early mapping nothing relating to these was noted during the walkover survey, although this is perhaps not surprising given the nature of the finds and the fact that the walls were positioned in an area now exposed to the tides. The shingle cover over most of the island, which is actively changing with the tides, would make further discoveries of Roman date unlikely and given the nature of the proposed work any further finds would be likely to be lacking in meaningful context. However, along the south-west side of the island a thin layer of peat was observed exposed below the upper layers of shingle and below the turf at one point. Given that this is unlikely to have developed recently and on the basis of similar deposits elsewhere it is reasonable to suggest that this is prehistoric. There is some potential for this to be affected by the proposed work. It is therefore recommended that as a minimum these peat deposits be left *in situ* during the work. Where any areas are likely to be exposed and therefore damaged during the work or by subsequent erosion, in particular where they are already eroding onto the beach, it is recommended that they be sampled by clearing them of the overlying shingle, recording their extent and any artefacts or ecofacts present within them, recording their height relative to Ordnance Datum, and removing bulk samples/monolith cores for further palaeoenvironmental assessment.

## 6. Bibliography

### 6.1 Primary and Cartographic Sources

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CAC(B) BD/BUC/67/Plan 3, 1833 *Plan of North End Estate in the Isle of Walney Township of Hawcoat Parish of Dalton and County of Lancaster Belonging to CD Archibald*

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CAC(B) BD/BUC/67/Plan 8, 1821 *Plan of an Estate Situate on the South End of the Isle of Walney in the Parish of Dalton in the County Palatine of Lancaster the Property of John Simpson Esq*

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## Appendix 1: Site Gazetteer

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**Site Number: 1**

**NGR:** 318000 474000

**HER No:** 2719

**Sources:** HER; Barnes and Hobbs 1952, fig I

**Site type:** stone celt find spot

**Designation:** none

**Description:** a polished stone celt found 1934 on the mainland side of Walney Channel on a scar. It weighs 10¾ ounces and is 4¾" long, 2½" wide at the cutting edge and 1¾" at the butt. The material is similar to that from the Langdale axe factory sites. Resembles those found at North End rather than those from Furness in that its edges are not ground flat, the section being a perfect oval.

**Period:** prehistoric

---

**Site Number: 2**

**NGR:** 317750 473480

**HER No:** –

**Sources:** walkover survey

**Site type:** slag find spot

**Designation:** none

**Description:** area of slag and charcoal lying on the surface of sand exposed following the chemical treatment of Japanese Rose. Covering an area of c4m<sup>2</sup> but very dispersed and in small quantities.

**Period:** unknown

---

**Site Number: 3**

**NGR:** 318040 473610 (centre)

**HER No:** –

**Sources:** walkover survey

**Site type:** ridge and furrow

**Designation:** none

**Description:** an area of possible ridge and furrow. Orientated east/west, ridges 1-2m wide.



**Plate 24:** Area of possible ridge and furrow (Site 3)

**Period:** medieval?

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**Site Number: 4****NGR:** 317830 473380**HER No:** 19760**Sources:** HER; Barnes 1955**Site type:** possible bloomery site**Designation:** none

**Description:** Fred Barnes identified a refuse mound of slag mixed with perforated pottery. Analysis shows the slag to be waste from the pre-1490 bloomery process. Barnes suggested the slag, together with the earlier finds of a 14<sup>th</sup> century iron arrowhead [Site 7] and two medieval sherds, indicated a possible early medieval bloomery site.

**Period:** medieval**Site Number: 5****NGR:** 317530 473310**HER No:** 1496**Sources:** HER; Cross 1938; 1939, 1942a, 1946; 1947; 1949; 1950; Barnes 1955; Sleep 2000**Site type:** settlement**Designation:** none

**Description:** extensive Neolithic/Bronze Age flint working and settlement sites were discovered in the sand dunes at North Walney between 1936 and 1956, centred at the NGR 317530 473310. Evidence of Iron Age/Romano-British(?) occupation and a possible early medieval bloomery site were also found. Large quantities of Neolithic/Bronze Age implements including polished stone axes, flint scrapers, scorers, barbed and tanged and leaf-shaped arrowheads, knives, anvils, cores, 'winkle pins' etc were recovered. Associated finds included midden refuse containing shells, charcoal and animal bones, bone objects, a bronze pin and a perforated bronze lozenge. Several worked flints with Mesolithic characteristics were thought to be coeval with the Neolithic/Bronze Age finds.

Fragments of late Neolithic flat-based vessel of the Grooved Ware subcultures were found in 1939. Sherds of a Bronze Age vessel with Neolithic characteristics were also recovered as well as fragments of three Bronze Age beakers. At least eight separate sites were identified by Marjorie Cross and Fred Barnes including an early medieval bloomery site [Site 4].

In April 2012 a series of deposits were visible eroding at the base of the dune face on the western side of the island. These comprised silt/clay basal layers, overlain by beach deposits. A darker line of material with stones visible within a sand deposit was proposed as a former ground surface contemporary with the surfaces that contain the occupation material in the dunes further eastward. Finds including bone, antler, burnt stone and worked lithics were recovered at approximately SD 17810 73535.

A number of spreads of burnt and 'heat-shattered' basalt visible in the dunes probably represent the sites excavated by Cross in the mid-20<sup>th</sup> century, or sites related to these. It seems likely that the sites are actually one large spread of material, which has been seen at different points as the dunes erode. Deposits visible in the dune face may well be contemporary ground surfaces and might represent a large-scale settlement or camp site that has a long-lived habitation, even if not occupied permanently.

Up to five metres of material was eroded away storm activity in 2013. Some former ground surfaces were apparently visible in the dune face, represented by a grey sand horizon overlying a clean sand deposition.

**Period:** Neolithic/Bronze Age/medieval**Site Number: 6****NGR:** 317000 473000**HER No:** 2709**Sources:** HER; Dock Museum**Site type:** hammer stone find spot**Designation:** none

**Description:** cylindrical hammer stone of fine, dark grey, gritstone, found on a heap of metallic slag at North End, Walney Island. It is approximately 5 ½ inches long 1 ¾ inch diameter. One end is partly broken away. At Barrow Museum Acc. No. 5148.

**Period:** prehistoric

---

**Site Number: 7**

**NGR:** 317000 473000

**HER No:** 2720

**Sources:** HER; Cross 1942b, 153

**Site type:** arrowhead find spot

**Designation:** none

**Description:** an iron arrowhead found in 1937 in a partially denuded sand hill at the north end of Walney Island at a "slightly higher level than the prehistoric implements". It measures 3 1/8 in by 1 1/8 inch. The British Museum dates it to the 14<sup>th</sup> century. Its present whereabouts are unknown.

**Period:** medieval

---

**Site Number: 8**

**NGR:** 317430 472720

**HER No:** 16309

**Sources:** HER; Ordnance Survey 1851

**Site type:** floodgate

**Designation:** none

**Description:** site of a floodgate

**Period:** post-medieval

---

**Site Number: 9**

**NGR:** 316818 472655

**HER No:** 44008

**Sources:** HER

**Site type:** practice trenches

**Designation:** none

**Description:** two lines of probable First Worlds War practice trenches within the dunes on North Walney. They appear similar but less well preserved than features to the south covered by HER 43983. The southernmost of the two (316756 472636 to 316846 472636) appears to be better preserved, with an angled castellated appearance in plan, and a surviving length of approximately 100m. The northernmost of the two lines (316776 472672 to 316868 472687) appears less distinct, and less regular in its layout, with an approximate length of 115m. There is potential for the area in between the two systems of practice trenches to also have been the focus of similar exercises, although little trace is visible on current vertical aerial imagery.

**Period:** modern

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**Site Number: 10**

**NGR:** 317000 472500

**HER No:** 5598

**Sources:** HER; Fell 1971, 8

**Site type:** axe find spot

**Designation:** none

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**Description:** a Neolithic polished stone axe (probably type VI). 11cm long and max thickness 2.6cm, with faceted sides, found between the air field and north end of Walney Island in 1969. Now held at the Barrow Museum (Acc. No. 5318)

**Period:** prehistoric - Neolithic

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**Site Number: 11**

**NGR:** 316870 471490

**HER No:** 19874

**Sources:** HER; ARS 2012

**Site type:** rifle range

**Designation:** none

**Description:** remnants of a World War II rifle range recorded as part of the NWRCZA by aerial photo mapping and ground survey. The firing range consists of two large rifle butts aligned in an east to west direction. The iron target runner mechanisms were intact at the time of the survey but have since been removed.

**Period:** modern

---

**Site Number: 12**

**NGR:** 316900 471300

**HER No:** 43984

**Sources:** HER; ARS 2012

**Site type:** air gunnery

**Designation:** none

**Description:** a Second World War air gunnery training school to the west of Walney Airfield. This type of range would normally involve a gun mounted on a platform or trailer and moving targets mounted on narrow-gauge rails. Although overgrown with scrub and partially flooded, elements of the range survive, including concrete walls and platforms. There is a better preserved example of this type of site on the opposite side of the Duddon Estuary at Haverigg (HER 44002).

**Period:** modern

---

**Site Number: 13**

**NGR:** 317580 471165 (the point marked on the HER is marked at NGR. 317580 471165, which is incorrect; the outlined area is correct and centred closer to NGR. 317336 471072)

**HER No:** 41882

**Sources:** HER; [www.walney-island.com/north\\_end\\_farm\\_01.htm](http://www.walney-island.com/north_end_farm_01.htm)

**Site type:** site of a demolished farmstead

**Designation:** none

**Description:** North End Farm; site of a farmstead on the first edition Ordnance Survey map. The farm was demolished in 1940 to make way for the airfield.

**Period:** post-medieval

---

**Site Number: 14**

**NGR:** 317362 471005

**HER No:** 16307

**Sources:** HER; Ordnance Survey 1851

**Site type:** summerhouse

**Designation:** none

**Description:** site of a summerhouse shown on the Ordnance Survey map of 1851.

**Period:** post-medieval

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**Site Number: 15**

**NGR:** 317300 470900

**HER No:** 16262

**Sources:** HER; [www.walney-island.com/north\\_end\\_farm\\_01.htm](http://www.walney-island.com/north_end_farm_01.htm)

**Site type:** site of a demolished windmill

**Designation:** none

**Description:** site of a windmill marked on several early maps. The mill was operational before 1815 until 1870. It was demolished in 1940 to make way for the airfield.

**Period:** post-medieval

---

**Site Number: 16**

**NGR:** 324600 464000

**HER No:** 19094

**Sources:** HER; Shotter 1989, 43

**Site type:** coin find spot

**Designation:** none

**Description:** a 4<sup>th</sup> century Roman coin of Magnetius was found on Foulney Island in 1974. The exact find spot is unknown.

**Period:** Roman

---

**Site Number: 17**

**NGR:** 324680 436910 (centre)

**HER No:** –

**Sources:** walkover survey

**Site type:** peat

**Designation:** none

**Description:** Area of peat exposed along the south-west side of Foulney Island. The peat is apparently not very thick, perhaps only 0.05-0.1m, and below shingle and sand but laid on a lower layer of shingle. It rises up at the north-west end where it is below the turf.



**Plate 25 (left):** Area of peat (Site 17), viewed from the east

**Plate 26 (right):** Area of peat (Site 17), viewed from the south-east



**Plate 27: Area of peat (Site 17), viewed from the north-west**

**Period:** prehistoric?

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**Site Number:** 18

**NGR:** 324820 463830

**HER No:** 18417

**Sources:** HER; Ordnance Survey 1849c; 1892

**Site type:** walls

**Designation:** none

**Description:** site of a structure labelled 'walls' shown on Foulney Island on the first and second edition Ordnance Survey maps but not on modern maps.

**Period:** post-medieval?

---

**Site Number:** 19

**NGR:** 324710 463820

**HER No:** 2620

**Sources:** HER; Shotter 1989, 42

**Site type:** coin and pottery find spot

**Designation:** none

**Description:** a 2<sup>nd</sup> century Roman coin inscribed Commodus was found by a beachcomber on the shore of Foulney Island. Further investigation showed that he had previously found about "two handfuls of similar coins" over the last 20-30 years, which he had given away. Another report of finding "bright red pottery" on the same spot may have been Samian ware.

**Period:** Roman

---

**Site Number:** 20

**NGR:** 320800 462300

**HER No:** 19858

**Sources:** HER

**Site type:** anti-aircraft defences

**Designation:** none

**Description:** according to Alan Rudd there were anti-aircraft defences here, consisting of four guns. Dave Parkin visited the site in 2005 and found no visible remains.

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**Period:** modern

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**Site Number:** 21

**NGR:** 321200 462200

**HER No:** 16729

**Sources:** HER; ARS 2009

**Site type:** ridge and furrow

**Designation:** none

**Description:** a considerable area of ridge and furrow is defined on the western limits by a boundary feature. Much of South Walney is similarly covered in ridge and furrow that may be medieval. Part of this was observed during the walkover survey around the pond at the south end nature reserve. It was orientated south-west/north-east, the ridges 4-5m wide and the furrows 2-3m wide. At the south-west end it is obscured by dumped concrete and brick rubble, probably relating to the gun battery on the shore (**Site 22**).



**Plate 28: Area of ridge and furrow (Site 21)**

**Period:** medieval?

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**Site Number:** 22

**NGR:** 321100 461900

**HER No:** 19875

**Sources:** HER; ARS 2009

**Site type:** coastal battery

**Designation:** none

**Description:** the battery at Walney was preceded by coastal defences constructed in July 1911 and manned by the Lancashire and Cheshire Royal Garrison Artillery. The construction and initial testing of the 1911 battery is recorded in the *Barrow Guardian*. A decoy battery was located alongside in World War II.

**Period:** modern

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**Site Number:** 23

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Client: Cumbria Wildlife Trust

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**NGR:** 321500 461900

**HER No:** 18993

**Sources:** HER

**Site type:** perforated pebble find spot

**Designation:** none

**Description:** a pear-shaped, perforated pebble, possibly Bronze Age, was found "many years ago" at South End. It is 6.9cm long and 5.5cm wide.

**Period:** Bronze Age?

---

**Site Number: 24**

**NGR:** 321600 461900

**HER No:** 19847

**Sources:** HER

**Site type:** pillbox

**Designation:** none

**Description:** Alan Rudd records a World War II pillbox in the general vicinity. No further details given. According to Dave Parkin there are no visible remains of the pillbox. Just north of the pillbox there was said to be a heavy anti-aircraft battery plus a 'Z' rocket battery

**Period:** modern

---

**Site Number: 25**

**NGR:** 321890 461930

**HER No:** 44000

**Sources:** HER; ARS 2009

**Site type:** weapon pits

**Designation:** none

**Description:** a series of weapon pits dug into the dunes at South Walney, recorded by the rapid coastal zone assessment survey air photo analysis phase. There are a group of 11 individual pits recorded over an area of approximately three hectares. It is thought that the features date from the Second World War period, although it is not known whether they were excavated for training or defensive purposes.

**Period:** modern

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**Site Number: 26**

**NGR:** 321730 461850

**HER No:** –

**Sources:** walkover survey

**Site type:** earthwork

**Designation:** none

**Description:** earthwork comprising a circular depression up to 1m deep surrounded by bank 1m wide and covering an area of perhaps 10m diameter. Possibly part of **Site 25**.

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**Plate 29: Circular earthwork (Site 26) viewed from the east**

**Period:** unknown

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## Appendix 2: Significance Criteria

After DoE 1990, Annex 4: '*Secretary of State's Criteria for Scheduling Ancient Monuments*'

- i) *Period*: all types of monuments that characterise a category or period should be considered for preservation;
- ii) *Rarity*: there are some monument categories which in certain periods are so scarce that all surviving examples which retain some archaeological potential should be preserved. In general, however, a selection must be made which portrays the typical and commonplace as well as the rare. This process should take account of all aspects of the distribution of a particular class of monument, both in a national and regional context;
- iii) *Documentation*: the significance of a monument may be enhanced by the existence of record of previous investigation or, in the case of more recent monuments, by the supporting evidence of contemporary written records;
- iv) *Group Value*: the value of a single monument (such as a field system) may be greatly enhanced by its association with related contemporary monuments (such as a settlement and cemetery) or with monuments of different periods. In some cases, it is preferable to protect the complete group of monuments, including associated and adjacent land, rather than to protect isolated monuments within the group;
- v) *Survival/Condition*: the survival of a monument's archaeological potential both above and below ground is a particularly important consideration and should be assessed in relation to its present condition and surviving features;
- vi) *Fragility/Vulnerability*: highly important archaeological evidence from some field monuments can be destroyed by a single ploughing or unsympathetic treatment; vulnerable monuments of this nature would particularly benefit from the statutory protection which scheduling confers. There are also existing standing structures of particular form or complexity whose value can again be severely reduced by neglect or careless treatment and which are similarly well suited by scheduled monument protection, even if these structures are already listed historic buildings;
- vii) *Diversity*: some monuments may be selected for scheduling because they possess a combination of high quality features, others because of a single important attribute;
- viii) *Potential*: on occasion, the nature of the evidence cannot be specified precisely but it may still be possible to document reasons anticipating its existence and importance and so to demonstrate the justification for scheduling. This is usually confined to sites rather than upstanding monuments.