



An Archaeological Assessment of the Hightown Dunes Dune Restoration Works Proposals (Coastal Haul Route)

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Non-Technical Summary

Although there is little direct evidence for settlement in the area study area during the Prehistoric or Romano-British periods, there is a range palaeo-environmental evidence and stray finds from the foreshore which suggest that there is considerable potential for deposits dating to these periods. This potential is further highlighted by the exposure of a suite of human and animal footprints found at Formby Point to the north and a prehistoric trackway excavated on the foreshore within the study area. Within the study area deposits of peat relating to a 'submerged forest' are of particular significance for the Prehistoric period.

There is very little evidence for Roman and post-Roman settlement, though this should be viewed against the regional context in which evidence for this period is generally sparse and poorly understood. There appears to have been a period of coastal instability during the medieval and post-medieval periods, though it is not yet presently clear whether or not this acted to discourage settlement or buried or destroyed evidence of activity at this time. There is some evidence for the site of a former village at Altmouth though this is disputed.

From the 16th century there is documentary evidence for attempts to stabilise the dunes by planting marram grass and there is an increasing range and quantity of evidence for land-use in the area with rabbit warrens being established within the Formby dunes by at least 1667 and extending along the coast through the period.

Hightown only began to develop as a significant settlement in the late 19th century, until then the study area is shown on mapping as an area of dunes and rabbit warrens, the closest settlement being at Alt Grange to the north.

The wider area was used extensively by the military, the construction of Fort Crosby to the south of Hightown began in 1904 and the site eventually covered 18.3 acres. The fort was closed in 1957 and, together with 170ha of foreshore, was sold to the Borough of Crosby in 1963 for £2,000. The remains of block-houses, concrete platforms and tall fence-supports persisted until 1983 when the area was restored with the help of derelict-land grants. Most of the material was broken up and buried in the sand.

The impact of the proposed coastal defences is difficult to assess in the absence of detailed proposals. However, deposits of peat clearly extend beneath the present defences at the Blundellsands Sailing Club and their renewal has the potential to further disturb the peat and it is proposed to monitor this as a watching brief during demolition and construction

The importation of fresh sand to replenish the dunes has the potential to disturb deposits of peat, though sand is to be tipped from the landward side of the existing dunes and the potential for disturbance is limited .

The removal of rubble from around the Broseley outfall may expose surfaces relating to the Prehistoric trackway and this should be monitored as a watching brief.

The haul route will have little or no archaeological impact. A small area of Fort Crosby is crossed by the route but this contains no standing features. There is slight potential for below ground deposits to be disturbed and this should be monitored as a watching brief.

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1. Introduction

This report is a Desk-Based Assessment of proposed dune restoration works at Hightown including the projected coastal haul route north from Crosby. It has been prepared for Sefton Council (hereafter the clients) to a brief produced by the client. The report is an update of an original study which only covered the dune restoration works (Adams 2009).

2. Legislation and Planning Background

Archaeological sites may be protected by a range of legislation, the following summarises that most relevant to the present study.

The Ancient Monuments and Archaeological Areas Act (1979) Provides statutory protection for sites of national importance as scheduled by Secretary of State upon advice from the Department for Culture, Media and Sport (DCMS) as advised by English Heritage. This Act, building on legislation dating back to 1882, provides for nationally important archaeological sites to be statutorily protected as Scheduled Ancient Monuments. There are currently around 19,000 entries in the Schedule, covering 35,000 sites ranging from prehistoric standing stones and burial mounds to Roman forts and medieval villages, and include some more recent structures such as collieries and wartime pill-boxes. The scheduling of a monument means that permission - 'scheduled monument consent' - is required for works to that monument.

National Heritage Act (2002) This extended English Heritage's responsibility for marine archaeology including ancient monuments in, on or under the seabed within a 12 mile boundary around England. Other areas of legislation which may cover marine sites are The Protection of Wrecks Act (1973), The Merchant Shipping Act (1995), The Ancient Monuments and Archaeological Areas Act (1979), The Protection of Military Remains Act (1986). However, the vast majority of archaeological sites have no formal statutory protection and are dealt with through Planning Process.

Planning Policy Guidelines (PPG) 16 and 15 were replaced by Planning Policy Statement (PPS) 5 in March 2010 which covers all aspects of heritage including buried archaeological sites, historic buildings, parks, landscapes and submerged sites into a holistic whole, applying the term 'Heritage Asset' to the diverse components which comprise the Historic Environment. PPS5 is accompanied by a guidance document from English Heritage which sets out how the PPS is to be implemented and interpreted.

PPS5 also states that 'Planning has a central role to play in conserving our heritage assets and utilising the historic environment in creating sustainable places' and sets out the aim that heritage assets should be conserved and enjoyed. To achieve this the planning system should deliver sustainable development by recognising that heritage assets are a non-renewable resource, take account of the wider benefits of conservation and recognise that 'intelligently managed change' may be necessary in some instances. Other objectives are to conserve heritage assets in 'a manner appropriate to their significance' and to contribute to our knowledge and understanding of the past by ensuring that opportunities are taken to 'capture evidence.....and make this publically available'.

Proposals for works which would affect archaeology must therefore take into account any effects on the archaeological importance of the asset or archaeological remains existing within, or likely to exist within it or its surrounding land. It is important that developers assess the archaeological implications of development proposals before applications are determined, and

that appropriate arrangements are made for recording remains that would be lost in the course of works for which permission is being sought.

Further advice on archaeological aspects is given in the guidance to the Planning Policy Statement 5: *Planning for the Historic Environment* and related documents.

3. Background

The study area covers a c. 500 m wide and c. 7 km long strip of coast between Hightown and Crosby (NGR SJ 3123 9733 to SD 2968 0395) (Figs. 1 & 2). It forms part of the Sefton coastal system which extends for 32 km between the Mersey and Ribble estuaries which is one of the largest complexes of sand flats and dunes in Britain forming an important protective barrier for the low lying land to their rear (Ratcliffe, 1977 cited in Houston 1993). Until the 1930s the shoreline between Bootle and Southport was a continuous stretch of dune belt, the only interruption being the mouth of the Alt at Hightown. The coast's significance has been recognised since the 19th century and it forms part of the Sefton Coast Site of Special Scientific Interest.

The process of dune formation is complex and will not be described in detail here. However, along the Sefton coast the key factor appears to be the extensive areas of off-shore sand flats which are exposed for long periods of time as a result of the tidal range of 9 m, one of the highest in Britain (Smith 1999, 20). This allows the surface to dry out and at wind speeds above 10 mph to be transported landward by the prevailing westerly wind. Plants temporarily established upon embryo dunes allow further sand to be trapped beginning the sequence of dune building (Smith 1999, 20-23).

The dune landscape is a dynamic, constantly evolving, landscape particularly sensitive to changes in climate, sea-level and the acts of man. The dunes at Formby Point have been eroding since 1906 since when a strip c. 400 m wide has been lost to the sea. This followed a period of dune building which had been active since at least 1845. Along other sections of the coast, for example at Birkdale a strip 215 m wide has accumulated since 1884 and at Ainsdale the High Water Mark lies 1 km west of its 1890 position. The reasons for these changes are poorly understood but it is likely that there is a link with increased dredging of the Mersey which has reduced the supply of sand and resulted in the growth of Taylor's Bank, focusing wave energy on the point (Smith 1999, 24).

The detailed picture at Hightown is more complex, affected by a mix of natural and human influences; the summary below is largely derived from Coastal Engineering (2009). From c. 1900 the dunes at Formby Point began to erode, whilst the meandering of the Alt resulted in erosion to the dune front at Crosby. In 1930 the local council began tipping slag at Blundellsands in an effort to control the erosion caused by the Alt (this followed attempts to alter its course by blasting a new channel). When this proved ineffective a training bank was constructed at SD 295 015, deflecting the Alt's channel to the south-west. After WWII rubble was tipped to the south of the Broseley outfall in an attempt to stabilise that section of coast. Since the construction of the training bank the course of the channel has been influenced by the Formby Bank which forces it landwards. The location of the channel is now fixed by Formby Bank, the training bank, outfalls constructed since the 1930s and a jetty belonging to Blundellsands Sailing Club.

Floodgates were added to the Alt in 1779 and replaced in 1831, these prevented floodwaters penetrating up-stream but limited drainage of the hinterland at periods of high water. The replacement of the floodgates with a pumping station in 1972 allowed the flow of the river to be regulated.

These factors have combined to have the following effects.

- Accretion across the promontory at the Broseley outfall,
- Erosion and setback of the dunes to the south of the Sailing Club defences,
- Localised setback and development of the reed beds to the north of the Sailing Club defences,
- The dunes between the Sailing Club defences and Hightown outfall are relatively stable,
- Setback of the dunes either side of the Hightown outfall,
- Growth of the dune north of the outfall and reduction of the marsh area there,
- General westerly movement of the channel.

In the long term there is a threat that erosion of the dune system will result in tidal floodwaters reaching the developed areas of Hightown. It is also likely that the defences around Blundellsands Sailing Club will eventually fail resulting in increased erosion in that area.

The proposals for stabilisation include:

- Reinstating the dune toe position either side of the sailing club to its position in 1979 using sand recycled from fixed dunes at Crosby,
- Removal of brick rubble around the Broseley outfall and reinstatement with sand,
- Modification of the Broseley and Hightown Outfalls,
- Modification of the sailing club defences
- Installation of a temporary haul route for the transport of sand from Crosby to Hightown involving heavy vehicles moving backwards and forward for a period of around 6 weeks. The intention is to establish a route with minimal engineering intervention, running on bare ground/sand where possible to avoid unnecessary disturbance.

It is likely that dune replenishment would need to occur every c. 25 years. Detailed proposals for the modifications to the sailing club defences have yet to be prepared. However, it is likely that the existing defences will be removed and reformed using armour stone, gabions or bitumen coated stone, with the crest set back.

4. Statutory Designations

4.1 Scheduled Monuments

There are no Scheduled Monuments within the study area.

4.2 Listed Buildings

There is one Listed Building within the study area. The St Nicholas fountain located on The Sepertine at Blundellsands is a Grade II Listed Building on the eastern side of the study area. A large group of houses on Marine Terrace and Marine Crescent are listed buildings but lie just outside the eastern fringe of the study area.

All of these sites are situated at a sufficient distance to be unaffected by the proposals.

4.3 Conservation Areas

The study area includes part of the Blundellsands Park Conservation Area

Marine Crescent and Marine Terrace, immediately east of the study area, lie within the Waterloo Conservation Area.

Neither will be affected by the proposals.

4.4 Other Designations

The study area lies within the Sefton Coast Site of Special Scientific Interest (SSSI) and the Sefton Coast Special Area for Conservation (SAC).

5. Archaeological and Historical Background

There have been numerous previous studies of the history and archaeology of this section of coast. These range from wide ranging synthetic reports such as Lewis (2002) to detailed reports on fieldwork projects such as Cowell & Innes (1994). However, much of the available literature is scattered across a wide range of publications or is available only as unpublished 'grey' literature. Much of the text below is taken from Adams & Harthen (2007).

The origin of the dunes along Sefton's coast can probably be traced as far back as 8500 BP, when some form of protective barrier or sand bank was needed to produce the calm conditions which allowed the Downholland Silts to accumulate during the marine transgressions which followed the end of the Ice Age (Smith 1999, 18). However, the earliest direct evidence for sand dunes is from cores and is dated at 5100 BP, though Smith (1999) has used the presence of the Natterjack Toad and Sand Lizard to infer the existence of a suitable habitat, such as dunes, in the area from at least 9500 BP. The main early phases of dune building appear to have occurred at 4600-4000 BP, with intermittent phases of activity throughout the Prehistoric period. The most active phases of dune building probably coincided with low sea-levels which would expose larger areas of sand flats to wind blow. However, despite these early origins, most of the present dune system probably originated in the 17th century.

5.1 Prehistoric (by R. Cowell)

Although there is limited direct evidence for Prehistoric occupation along this section of coast, the site is set within a wider landscape which contains significant evidence for human activity.

Following the end of the last ice age, c. 10,000 years ago, the environment of south-west Lancashire was considerably different to that of today. The landscape was clothed in open woodland of birch, hazel and pine, in which bands of mobile hunters and gatherers lived. The coast lay much further to the west, producing a belt of land which has now been lost to sea-level rise, along with many archaeological sites that no doubt once existed in this zone (Tooley, 1978a, 1978b, 1985).

Early prehistoric sites are usually recognised by concentrations of stone tools found on ploughed farmland and other exposed surfaces. The earliest sites in the Merseyside region, probably over 9,000 years old and dating to the Mesolithic period, are found on the higher areas of the Wirral, although there may be a similar site in the Sefton area, at Little Crosby which suggests that this area was also occupied by humans (Cowell and Innes, 1994, 81). During this period people relied solely on wild resources. Mobility was thus a key feature of their lifestyle in order to have a supply of food throughout the year, moving from one environment to another during the course of the changing seasons, in response to the changing availability of natural resources.

The coastal wetlands were rich environments for hunters and gatherers of the Mesolithic with plentiful supplies of fish, wild birds and plants (Cowell, 1991, 26, Cowell and Innes, 1994, 89). Deer, wild cattle and pig, along with fruits and berries were also present in the flanking dryland areas where mainly deciduous woodlands now dominated the rest of the landscape. It is no surprise that a large number of hunter-gatherer sites are concentrated around these coastal wetland fringes in the area between Southport and Crosby (Cowell and Innes, 1994, 89).

The best evidence for the earliest occupation in Sefton, however, starts a little later in the Mesolithic, and probably dates to the period around c. 7000 years ago when rising sea-levels had led to the creation of the Irish Sea (Cowell and Innes, 1994, 82, Jones, Houston and Bateman, 1993a, 3). Over the next several thousand years, within a general trend of rising sea-levels the position of the Sefton coast fluctuated on a cyclical basis, at times being further to the west than presently, at other times reaching further inland than today, probably being at the furthest inland during the late Mesolithic and early Neolithic when the Downholland Silts were deposited (Cowell and Innes, 1994, 83-84). Wherever the coast lay, behind it water logging took place, with the spread of freshwater swamp and fen. Beyond the influence of this wet environment, the slightly higher ground of sand and boulder clay was covered in woodland, which by now was extremely dense, although on the light sandy soils this was probably less so. At times of lower sea level the wetlands dried out and also became wooded.

Prehistoric ground levels were lower than today in the coastal fringe, the inter-tidal zone, the dune systems and the adjacent farmland (which is based on reclaimed former wetlands) cover strata, consisting of muds, clays and peat several metres deep, that are the evidence for these changing environments. As these deposits accumulated they covered earlier land surfaces so potentially burying earlier sites. Consequently the main evidence for human occupation in these areas tends to be concentrated where the deposits are thinner, or have been lowered through drainage and subsequent ploughing of farmland, which is generally slightly inland of the coast, or where erosion is more severe in the tidal areas.

Even though agriculture and the new Neolithic culture was introduced into Britain about 6000 years ago, little changed in the coastal areas of Sefton. The new Neolithic culture is represented by a few polished stone axes found around Hightown (e.g. Sites 21, 36 and 52) and Little Crosby and an arrowhead of this period at Ince Blundell, however settlement patterns and land use changed little (Cowell and Innes 1994, 90).

Settlement sites are still small and found in many of the same places as in the Mesolithic and the stone tools found on them differ little from those used by hunter-gatherers. The landscape was also still heavily wooded with little sign of clearance for arable farming (Cowell and Innes, 1994, 89). Moreover, the earliest evidence for

the use of cereals (i.e. the beginning of arable farming) in the region may have been in the coastal areas, possibly even before Neolithic culture was adopted in Britain (i.e. native hunter gatherers were experimenting with a new economy). At the site of Flea Moss Wood, Little Crosby this may have been taking place c. 6300 years ago and there may be something similar happening at about the same time at a site in Downholland Moss, West Lancashire, (Cowell and Innes 1994, 89).

A particularly evocative illustration of life during this period comes from prehistoric human and wild animal footprints in beach sediments at Formby Point, which date to the late Mesolithic or early Neolithic. Similar deposits have been noted on the foreshore at Hightown (Site 26), though these are not presently exposed and have not been studied in any detail.

These are complemented by a 4 m length of a dated Neolithic wooden structure, possibly a trackway (Site 19, Plate 4), about 1.4 m wide, though evidence of it was traced over a distance of c. 60 m. Only a short section had survived marine erosion but enough was present to show a lattice-work arrangement of roundwood branches woven together. The occasional split oak, and unidentified rootstock, was also used, laid over the lower rods, perhaps as a form of rebuilding, with the final structure being over 0.30 m deep.

The trackway is not a unique example of prehistoric material from this section of coast, sporadic finds have been reported since at least the late 19th century (e.g. Sites 14, 22, 47-52, 63 and 80) and include a collection of animal bone, including possible worked material (Reade 1890) though few have been from securely stratified contexts and most do not have an accurate location or date and some may be later. One exception to this is a collection of animal bone, including Dolphin, found deeply buried in Downholland Silts during the construction of Altmouth pumping station just north of the study area. Although few of these sites were recorded to modern standards they provide direct evidence of human presence along this section of coast and suggest the presence of as yet unlocated settlements.

As sea-levels fell after c. 3000 BC, the rise of freshwater levels and the accumulation of phragmites peat led to the abandonment of the structure, during the late Neolithic. This period saw a relatively prolonged period of low sea-level, in which freshwater peat and subsequently deciduous forest extended to the west of the present inter-tidal zone. A remnant of this can still be seen today on the beach near the Blundellsands Sailing Club with trees lying in a thin band of peat where they fell nearly 5000 years ago, along with other woodland plants such as royal fern (Site 12). It was about this time that the coast became stabilised at about its present position (Cowell and Innes, 1993, 93).

By about 4500 years ago, the first hints of a change in the way people lived is apparent in several coastal areas, such as around Little Crosby, though the archaeological evidence suggests that mobility was still an important part of settlement patterns, and people may still not have settled down permanently in what we would recognise as farmsteads today (Cowell and Innes 1994, 93-94). Again the settlement evidence is restricted to the slightly raised dryland areas at Little Crosby and is represented by stone tools of late Neolithic or early Bronze Age date (Cowell and Innes 1994, 93-94). There are only two other localities, on the lower Mersey at Hale and on the Wirral at Irby, where similar sites are known (Cowell 2000). These sites are very different from earlier settlements. They cover larger areas and have a greater density of stone tools of a very different character from the earlier settlements. The nature of these sites suggests, however, that rather than being permanent settlements, many repeated visits might have been made to the same

locality. It is also highly likely that these sites are associated with domesticated animals, for whom the areas of wetland would provide rich grassland for grazing, perhaps during the summer months. There are also many sites across south-west Lancashire where only single finds of stone tools of this period, such as flint scrapers or knives, occur. These two features suggest that even around 4000 years ago, in the Bronze Age, mobility was still an important element of land-use (Cowell and Innes, 1994, 94; Cowell 2000).

A final period of high sea-level is indicated in the present coastal zone, c. 2300 years ago, in the late Iron Age, represented by a former dune slack deposit under the present dunes at Formby (Tooley 1978), though this did not cause a major transgression of the coast because of the protective sand dune barrier. By about 3,000 years ago settlement and land-use had changed dramatically in many parts of Britain. Farmsteads, as we would know them today, with permanent buildings with paddocks and fields, had come into existence. This suggests that people's concerns had changed and what was most important was a defined area of farmland, which could be passed down in individual families in contrast to the looser territorial arrangements of earlier periods. People's use of land had also changed so that the best soils for permanent settlement and arable farming would be important, although the wetland areas could still be important for a variety of resources other than food. Material culture, particularly the use of pottery, is sparse everywhere during this period making it very difficult to identify where people lived. So far there is no evidence showing where people actually lived in the coastal wetland areas, but it is likely that there will be some. This may be involved with temporary seasonal use of the coastal area or there may be some areas where more permanent settlements occur. For comparative purposes, the nearest evidence comes from further inland at Lathom near Ormskirk, where the earliest farmstead known dates to the period around c. 200 BC. It lies in an area of good farmland on a small area of well-drained sand, which probably includes a former spring. This is surrounded by heavier clayland and the former wetlands of Hoscar Moss. There are four adjacent roundhouses spanning the period from c. 200 BC to the early Romano-British period and adjoining small fields or paddocks of probable late Iron Age date. There are also two granary buildings, a number of storage pits, and a quernstone for grinding corn, that was made from stone from the central Pennines (Cowell, 2005).

Five test pits were excavated in front of the existing sea defences to Blundellsands Sailing Club during summer 2010 to establish the nature of archaeological deposits at the site (Adams, 2010). The test-pitting found that substantial deposits of peat survived in the area immediately to the west of the sea defences and almost certainly extend beneath them. At c. 0.50 m thick they were approximately twice the depth of the beach exposure to the west, probably because of the presence of a protective blanket of sand in this area which has protected them from erosion.

5.2 Roman

West Lancashire has historically been regarded as sparsely populated during this period. As recently as the early 1990s Philpott (1991, 67) noted that despite some advances made elsewhere, in comparison with the rest of Merseyside, the Sefton district had produced fewer traces of occupation dating to the Roman period. It was assumed that towards the coast the predominance of poorly drained mossland with low ridges of higher ground, on which the majority of the Medieval villages were situated, would have tended to limit the potential area for settlement.

This lack of evidence may be, at least in part, a reflection of earlier biases in archaeological research priorities. Until relatively recently most research into this period in the North-West has concentrated upon urban and military sites, civilian settlement was largely ignored. However, recent research using aerial photography has greatly expanded the number of potential rural settlements in the lowland North-West. These generally consist of small sub-rectangular/curvi-linear enclosures; the few which have been excavated date to the Roman period (e.g. Sites in Tarbock (Cowell & Philpott (2002), Irby (Philpott & Adams 1999), Legh Oaks, Nevell (1991)). There also appear to be a separate group of unenclosed settlements (e.g. Lathom (Cowell & Adams 1999); Court Farm, Halewood (Adams, in prep.)). None of these sites produce much artefactual material such as pottery and coin use in rural Merseyside and Cheshire seems to have been relatively low; both factors have contributed to the difficulty in locating settlements of this date. The most successful technique seems to be a combination of aerial reconnaissance and intensive fieldwalking.

Although there is little palaeo-environmental evidence specific to Sefton from this period (Cowell & Innes 1994, 95), in general the climate became warmer and drier, possibly resulting in higher sea-levels and waterlogging inland. This may have rendered the Sefton area unattractive for settlement (Jones *et al* 1993, 5) though Lewis (2002, 14) is of the opinion that this may have actually resulted in an expansion of settlement into such marginal areas. Recent work has shown that the dunes were relatively stable between c. 45 AD-715 AD (Lewis 2002, 15) and it is possible that the light, sandy soils in the coastal strip would have been attractive for settlement.

A thin scatter of Roman material has been found along the coast between Crosby and Formby. This includes a small concentration of finds from within the study area, including a possible Roman needle, an 'ornament', and two fragments of a *mortarium* found at Altmouth, were in Liverpool Museum but were lost in the Second World War (Site 7, Philpott, 2004). Other finds (Sites 9, 63, 64 and 84) are very poorly described and located but are likely to result from settlement, rather than casual loss (Philpott, 2004), though this remains un-located. Furthermore, the mouth of the Alt might have seen some activity as part of the west coast trade route during the Roman period, in that there is some evidence of the use of tidal creeks elsewhere in Merseyside during the Roman period (Philpott, 2004).

During the excavation of test pits in front of the existing sea defences to Blundellsands Sailing Club (Adams 2010) two copper alloy Roman coins were brought to the attention of the excavators. The coins were found c. 1995-2000 on separate occasions, both of which followed heavy storms which had stripped the area of its cover of beach sand, exposing the underlying surface of humic silty sandy clays. The findspots were within a 20 m radius centred upon NGR SD 29565 03230 (Site 9). The coins although badly worn and difficult to read, have been provisionally identified as being of Vespasian (69-79 AD) and Nero (54-68 AD) and form an interesting addition to the previously discussed Roman material found along this coastal area.

It is possible that the coins are modern losses or derive from the demolition rubble deposited to the south which originated from central Liverpool. Alternatively they may have eroded from deposits elsewhere along the coast such as the Roman site at Meols on the Wirral (Philpott 2004). However, although worn and corroded it is more likely that they were found close to their original site of deposition and as such provide valuable evidence for Roman activity in the area.

5.3 Post-Roman/Pre-Conquest

In common with the rest of lowland North-West England the evidence for settlement in Sefton prior to the Norman Conquest is very thin and is largely based on place-names and documentary sources. The documentary sources refer almost exclusively to the major political events of the time and are of little assistance in determining the nature of the settlement and economy of the region. This relative lack of evidence is possibly due to earlier research bias and/or Post-Medieval agricultural practices which may have destroyed any evidence (Lewis, 2002, 17).

The little excavated evidence which is available on Merseyside has arisen largely by chance as a result of work on Romano-British sites. A ditch at Court Farm, Halewood was dated by radiocarbon to the ninth century AD (Adams in prep.) and it now seems likely that the final phase at Irby is actually post-Roman and possibly Norse (Philpott and Adams in prep). The possible church site at Harkirk, Little Crosby is the only site in Sefton known from anything other than place-name evidence. Although place-name evidence suggests a Norse origin for Formby, the accurate location of any settlement remains unknown and there is extensive evidence that the location of settlement shifted at least once in response to changes in sea level and/or dune migration.

The warm dry climate continued into the early part of this period and marginal areas such as the Sefton coast and the wetlands to the east may have continued to be attractive locations, though there is no direct evidence for this (Lewis 2002, 14). The climate began to deteriorate from the mid-7th century and this, with dune formation from about 700 AD would have placed increasing pressure upon settlements on the coast, a process that probably continued into the 10th century when the climate became warmer again (ibid.). The increased storms during the 8th-10th centuries appear to have resulted in a fresh phase of dune building and it is possible that at least some of the organic layers visible in exposed sections of dune represent earlier land surfaces buried at this time (Lewis 2002, 15).

Following the abandonment of Britain by the Romans in the early 5th century the population is likely to have remained largely native. Wainwright (1975, 39-40) put forward the theory that the first Anglian settlement of Lancashire probably took place during the later years of the sixth century AD and that the river valleys of the Pennines provided their routes of entry into the region. Being few in number at first they may well have peacefully co-existed with their British neighbours until the outcome of the battle of Chester c. 614-616 AD, an Anglian victory, after which point the influx of Anglians into Lancashire became more numerous and more aggressive. Ekwall (1922, 225, 230-231) suggested that the outcome of the battle of Chester probably provided the opportunity for the colonisation of Lancashire by English settlers, perhaps from the Anglo-Saxon kingdom of Northumbria and perhaps as early as 617-633 AD.

There is no firm evidence to indicate that the Anglo-Saxons ever occupied the coastal shore of Sefton, placename evidence suggests that the higher ground to the east (e.g. Melling) was preferred (Lewis, 2002, 17). The pattern of settlement in the region only becomes clearer in the 10th century when Norse settlers from Ireland began to colonise the area. Place-name evidence suggests that settlement took place along the coast and up the river Alt, as migrants arrived from Ireland. This may imply that settlement was taking place in under populated areas or that these areas were preferred as result of land use associated with the dunes and wet areas (Lewis 2002, 19).

The Norse who settled in Sefton were not an invading army, but rather farmers seeking to colonise the area (Lewis *ibid.*), as a result of pressure to leave Ireland. However, the process was perhaps not without some violent incidents, a coin hoard of c.915 AD found at *Harkirk* in Little Crosby may reflect a period of unrest. Several of the place names in Sefton indicate Norse settlement in the area, or at least Norse terminology for topographical features, for example *meols* (dunes) as in Ravenmeols. Similarly townships with the suffix *byr*, for example as in Formby, Little Crosby, and Great Crosby indicate Norse settlement prior to the Domesday Survey (Lewis, 2002, 19). It has been suggested that these Norse settlers 'arrived in a sparsely-populated landscape at a time when the coastal strip and Alt valley had either been too hostile and unattractive for permanent occupation or had been abandoned by earlier settlers due to adverse climatic and environmental conditions' (Lewis, 2002, 19). Although the size of the population is not known, Scandinavian influence was clearly sufficient to have an impact upon the local dialect (Lewis 2002, 20).

Although the place names of the area suggest archaeological potential, material evidence in the form of artefacts is sparse (Lewis, 2002, 20). The only significant find is from outside the study area and consists of a hoard of approximately eighty Anglo-Saxon, Norse, and Continental silver coins found at *Harkirk*, near Little Crosby in 1611 AD, during the construction of a Roman Catholic burial ground (Dolley, 1966, 50). The concealment of a coin hoard in a recognisable spot would suggest 'loot' rather than currency in circulation and this, along with a period of unrest associated with the north of England in the first two decades of the 10th century would, perhaps, support this suggestion. A chapel would certainly have been a recognisable location for later retrieval and may suggest a 10th century date for the chapel at *Harkirk* (Lewis, 2002, 20).

No other sites have as yet been identified from this period within the study area. It is likely that many sites lie beneath present settlements, especially in view of the area's limited amount of well-drained land suitable for occupation (Lewis, 2002, 20), though there is evidence that many settlements (e.g. Formby) shifted location as a result of the changing landscape. In addition place-name evidence, in particular Ravenmeols, suggest the former existence of settlements within the dune belt and it is possible that significant evidence remains buried beneath the dunes such as those within the study area.

5.4 The Domesday Survey of 1086

In the Domesday Survey, most of modern Merseyside north of the Mersey is listed under West Derby Hundred, which then formed part of Cheshire (Lancashire was not in existence at the time of the Domesday Survey). West Derby Hundred was one of six Hundreds or Wapentakes situated *Inter Rapam et Mersam* (Between the Ribble and the Mersey) awarded to Roger de Poitou by William the Conqueror (Lewis, 2002, 21), though by the Domesday Survey it was back in the King's hands. There is a curious mixture of Anglo-Saxon and Norse terminology in the Domesday entries for settlements within Sefton. For example, Ravenmeols (an Old Norse place name) was assessed as containing one 'hide' which is an Anglo-Saxon unit of field measurement. Melling (an Old English place name) was assessed as two 'carucates', an Old Norse measurement.

The study area lies within the township of Little Crosby, one of a number of manors held by Uthræd within West Derby Hundred (Williams and Martin, 2002, 737-738). In total he held 17 estates distributed throughout the Hundred (Lewis, 2002, 21). In addition, 'Uthræd held Little Crosby and Kirkdale as 1 hide, and it was quit of every

custom except these 6: breach of the peace, highway robbery, housebreaking, and fighting which continued after the oath was made, and [non-] payment of debt to anyone [when] bound by the reeve's judgement, and of non-observance of the due date given by the reeve; for these he paid a fine of 40s. But he paid the king's geld like the men of the rest of the country' (Williams and Martin, 2002, 738).

In general the values assigned to coastal townships suggest that the greatest concentration of profitable land lay in the Alt valley, away from the coastal zone where mossland and coastal dunes limited productivity (Lewis 2002, 25-26). At present it is impossible to be certain whether this was reflected in population levels and the nature of settlement. However, it is likely that the number of people living within the coastal zone remained low and that settlement patterns were analogous with later periods, i.e. scattered smallholdings, rather than nucleated villages.

5.5 Medieval

The identification of the settlement pattern in the period after the Norman Conquest is very largely dependant on the examination of later 18th and 19th century estate plans and fieldnames. Many of these include large numbers of fields labelled 'moss', 'marsh', 'moor' and 'pool' which provide an indication of land quality and topography prior to the extensive drainage programmes from the 17th century onwards and hence those areas suitable for both settlement and arable cultivation during the medieval period.

During this period the area remained isolated, largely as a result of the surrounding low lying landscape of mosses and meres which rendered it relatively inaccessible by land (Lewis 2002, 5). However, although access inland was difficult, communication between coastal settlements was probably relatively easily achieved along the shore. Aside from the obvious use of transport by boat, the shore was certainly used by later travellers on horseback (Lewis 2002, 8) and it is very likely that the shore was used in this manner during the medieval and earlier periods.

This period seems to have been one of increased coastal instability (RCSILt 2004, Smith 1999, 52). Some of the settlements in the area, such as Argarmeols and Ravenmeols were overwhelmed by the sea or sand dunes as sea levels rose and incursions by sea and sand seem to have resulted in numerous boundary disputes (Lewis 1982, 10) and the frequent redefinition of many township boundaries (Lewis 2002). It appears that settlements were not abandoned without attempts to stabilise the dunes by planting marram or starr grass and other artificial means, since at least since the late medieval period (Lewis, 2002, 15, citing Harrop, 1985, 28-31).

Early township boundaries were frequently defined using topographical features such as rivers or streams. In a landscape subject to frequent flooding and re-cutting of water-courses alternatives frequently had to be found and many of the township boundaries in the study area are marked by long, straight ditches and banks known locally as *cops* (Lewis 2002, 15). Many property boundaries in the area are similarly marked and probably have medieval origins. However, the sale of monastic estates in the 16th century appears to have resulted in the redefinition of many boundaries and many of the straight boundaries (e.g. those between Formby and Ravenmeols and Altcar) appear to date to this period (*ibid*, 16). In addition to ditches boundaries were marked by stones and crosses, the 'Headless Cross' is marked on a plan of 1769 (LRO DDM 14/21 cited in Lewis 2002, 59) and stood on the boundary between Ravenmeols and Altcar. Within the study area Sites 2-4, 32, 33, 37-41, 44 and 45 are boundary stones used to mark the boundary between townships. Whilst they are

likely to date to this period, all have been destroyed either by erosion or modern development.

The nucleated settlements we recognise as villages today are unlikely to have existed in the area in the early part of this period, when most settlement is likely to have consisted of isolated farmsteads and small hamlets.

To the south and west of the Alt, the topography consists of small areas of sandstone ridge covered with drift which rise as low mounds above the mosslands (Lewis, 2002, 44). Little Crosby seems to have lost a carucate of land between 1212 and 1346 though the reason for this is not clear. It is possible that the land was lost with the creation of the sub-manor of Morehouses, perhaps centred on the modern settlement of Hightown, in the 13th century.

The 'manor' of Morehouses is first referred to in the mid-13th century, 14th century documents mention a green and a document of 1310 mentions houses and curtilages close to the boundary with Ince Blundell, whilst a 16th century document refers to an 'old hall of the morehouses' (Lewis 2002, 46). By the mid 19th century the settlement had shrunk to two groups of buildings and sand dunes had encroached onto the fringes of Hightown which now retains no early buildings (*ibid.*).

5.6 The Post-Medieval Period

5.6.1 Settlement and Landscape

Settlement patterns along the Sefton coast appear to have remained largely unchanged from the medieval period into the mid-19th century and the arrival of the railways. Map evidence from the late 18th and early 19th century shows a largely dispersed patchwork of small holdings, with none actually located within the study area (See map evidence Section 5). Although map evidence suggests that no buildings were located within the study area, the possibility of ephemeral structures such as that shown in Plate 1 cannot be eliminated.

Coastal processes continued to exert an influence on settlement. Sixteenth century court proceedings mention the villages of Meanedale, Argameols (north of the study area) and Ravenmeols as being lost to the sea and later maps may show a village of Altmouth near to what is now Altcar Rifle Range (Smith, A. 2002, 7), though Lewis (2002) disputes this interpretation. The word 'Altmouth' is marked on Christopher Saxton's 1577 map of Lancashire, and also John Speed's map of 1610 at the point where the River Alt empties into the Irish Sea although neither shows a symbol indicating a settlement. Robert Morden's map of 1695 is the earliest to show a symbol indicating a village on the south side of the Alt labelled 'Alt Mouth', though no such place is indicated on the Yates map of 1786 (Fig. 10).

The construction of the Southport to Liverpool railway in 1848 greatly reduced journey times to Liverpool, making the area much more accessible. This resulted in the construction of large Victorian 'villas' along the coast from the mid-19th century and culminating in the creation of the large estates of housing which characterise much of the area today.

Hightown only began to develop as a settlement in its own right in the late 19th/early 20th century (See section on map evidence below) and in the 1890's consisted of a few houses and the 'Industrial School for Truants' (Site 6) and the railway station.

5.6.2 Dune Stabilisation

Incursions by sand dunes were clearly viewed as a problem and attempts at stabilisation of the Sefton coastal dunes were made from at least the early 17th century by the planting of marram grass (*Ammophila arenaria*) or 'sea reed'. In the 1630s 'Hawslookers' were appointed by the Manors of Ainsdale and Birkdale to ensure that the marram grass or star was protected. In 1637 three inhabitants of Ainsdale and Birkdale were fined for gathering marram grass (Harrop 1985, 30), probably to use as material for mat making, thatching or besom making (a 'besom' is the traditional type of broom often associated with witches in folklore). Anyone convicted of cutting marram grass was subjected to increasingly severe fines. However, these were manorial appointments and for example, the first recorded appointment for Formby is in a 1729 List of Court officials for Formby which includes for the first time 'lookers that no person get Star and set where need requireth'. (Jones, Houston and Bateman, 1993b, 18).

From the late 17th and early 18th century some landlords began planting marram in an effort to stabilise the dunes; Nicholas Blundell records several instances of this activity in his diary between 1704 and 1710 (Tyrer, 1968, 163). Despite such measures it nevertheless became necessary to introduce further measures to prevent dune erosion and from 1710 Formby leases contained a clause providing for the planting of star-grass, which became part of the service due to the lords of the manors (Farrer and Brownbill, 1907, 45). An Act was passed in 1711 making the planting compulsory Smith (1999, 52). The legal protection for marram was further enhanced by an Act of 1742 which increased the penalties, for a second offence these include up to a year in prison, whipping and hard labour. However, the incentives for cutting it were many as it was useful for making mats, besoms [i.e. brooms], thatch, &c and there were frequent prosecutions.

If the marram was destroyed there was nothing to stop the sand from being blown inland and despite the efforts of the 'Star Lookers' in 1739 a severe storm blew enormous quantities of sand up to a mile (1.5 km) inland from the coast at Ravenmeols and Formby, burying the church and churchyard and filled in a freshwater lake called Kirklake. (Smith, A. 2002, 52, Smith P. H. 1999, 52). Dr. J. Aikin (1795, 327) described a landscape similar to the 'desarts (sic.) of Arabia', perhaps an indication of the level of destruction wrought by the storm of 1739 that buried Ravenmeols.

5.6.3 Rabbit Warrens

Rabbits had been introduced to England by the Normans, no doubt with the intention of rearing them in captivity for profit, and rabbit farming was particularly valuable in that every part of the animal was economically useful (Harrop, 1985, 31-32). The earliest documentary references to rabbits in Sefton date to the early 17th century (Lewis 2002, 13) and a warren is depicted at Alt Grange on an undated plan (LRO DDM 9/11 cited in Lewis 2002, 13) which may have been drawn up in 1702 when Nicholas Blundell and Richard Molyneux marked the boundary with a 'meer stone', supplemented in 1706 by a line of stakes (Lewis 2002, 13).

Rabbit farming continued to be a significant component of the local economy until supplanted by asparagus cultivation in the 19th century, the area around Formby Point continued to be depicted on maps simply as Rabbit Warrens until the mid-19th century.

5.6.4 Asparagus Cultivation

The coastal area generally continued to be viewed as an area of sandy waste, suitable only for rabbit farming into the mid-19th century. The completion of The Liverpool-Southport railway in 1848, opening as 'The Liverpool and Southport line of the Lancashire and Yorkshire Railway' (Farrer & Brownbill 1907, 91) made available 'supplies of 'fertiliser' in the form of 'night soil' from Liverpool (the sewer system at Liverpool had not yet been completed). The cultivation of asparagus became one of the more significant industries in the area at its peak in the 19th and 20th centuries (Yorke, 2005). However, the cultivation of this crop in the area began in the 18th century, Nicholas Blundell recorded growing asparagus at Crosby in a diary entry of 20 March 1711 "I planted the third Bed of Asparagus by the long Brick wall with Sets of one year old. 24 May 1727; I Mesur'd one Asparagus which was in Circumference 3 Insh & 1!/8" (Tyrer 1970).

Asparagus was grown in small fields or "pieces" enclosed by fences of scrap timber and driftwood and cultivated, in some areas into the 1970s, by horse drawn implements. Asparagus growing became a major component of the local economy and Atlantic liners leaving Liverpool offered this regional delicacy to their passengers, during its 6 week season (Yorke 2003). These practices have left distinctive remains in the form of earthworks and standing buildings.

Although the principal asparagus farming area was centred around Formby Point to the north and the available map evidence provides no evidence of farming on or around the study area, there is a slight possibility that the area was farmed earlier. However, the earthworks associated with asparagus cultivation are slight and fragile so it is unlikely that any significant features survive in the study area.

5.6.5 Shipping and Shipwrecks

This period coincides with the beginnings of Liverpool's rapid expansion and increasing prosperity as a port. Although indirect, this would have had a significant impact upon the Sefton Coast and early in the eighteenth century a proposal was made that docks should be constructed at Formby rather than Liverpool (Farrer & Brownbill 1907, 45). Hearsay evidence (Lewis 2002, 8; Kelly 1973, 26-27) suggests that ships could be berthed at Altcar and Formby during the 18th century though there is no direct evidence for this and it is likely that Morton (1981) is correct in suggesting that these traditions refer to the use of anchorages off Formby, rather than to a physical port. Traditionally troops bound for the suppression of the Jacobite rebellion of 1715 were embarked at Formby for Scotland. At the time the area formed part of the administrative harbour of Liverpool, which extended north to the Ribble, and this may be the basis for the tradition (Lewis 2002, 8).

The use of small landing sites outside the central port was probably a result of the relatively hazardous navigation in to the Mersey. This was notoriously treacherous as a result of strong tides, currents and the many sandbanks in the estuary, which in the Roman and medieval periods may have given the approaches more of the appearance of a delta than the present estuary. The Alt may have been in use as a berth during the 16th and early 17th century, Liverpool Town Books record ships of up to 40 tons being registered there in 1571-2 and 1626 (Harvey 2002)

Although several wrecks in the area have been located and identified by local historians, most notably by Mike Stammers and Peter Kendrick, most lie further out to sea towards low watermark. The only exceptions are Sites 15, 16 and 17. However, Miller (2007, 189) describes proposals to remove two sunken fishing

vessels from the mouth of the Alt. There is slight potential for remains relating to earlier prehistoric, Roman and early medieval craft stranded within former courses of the Alt, though these would be impossible to locate from documentary sources and would probably be relatively deeply buried.

5.6.6 Navigation Aids, Lighthouses and Lifeboats

The expansion of trade in and out of Liverpool resulted in increasing losses to shipping, spurring the development of aids to navigation in an attempt to reduce the number of wrecks. The first of these was Formby landmark (a wooden tower or lighthouse) built in 1719. Ship losses clearly continued despite this and sometime before 1776 Britain's first lifeboat station was established at Formby by William Hutchinson (Yorke 2003).

The earliest of these sites within the study area is Crosby Lighthouse (Site 18) was first constructed to replace the Formby Lighthouse to the north which became redundant in 1839 and was finally decommissioned in 1856. The Crosby Lighthouse was designed by Lt Denham in c. 1839. Located on the First edition 6 inch OS sheet, an elevation drawing is given on the 1845 'Approaches to Liverpool' chart (Merseyside Maritime Museum Archives) which shows a wooden structure with a single light. The NGR given in the gazetteer is approximate.

This in turn was replaced by a lighthouse constructed to a design by Jesse Hartley in 1846 (Site 10). It is depicted on the 1858 Approaches to Liverpool chart (Merseyside Maritime Museum Archives). It consisted of a square brick tapering tower 74 feet high with an iron veranda near the top. Above the veranda was a wooden lantern room making a total height of the structure of 95 feet. This and the attached keeper's cottage were painted white. It showed a fixed bright light for a range of 12 miles. Marked as disused on the 1925 OS sheet it has since been demolished. Site 11, a mortuary to the south of Little Crosby Lighthouse and first shown on the 1927 OS Sheet formed part of the complex.

5.6.7 Fishing

Aikin (1795, 327) observed of the Sefton coast in the late eighteenth century 'the sea-shore all along this coast is remarkable for its flatness and number of large sand banks, highly dangerous to shipping in strong westerly winds, which are very prevalent here. The sea is supposed to abound with fish, but few are taken, and those only with hook and line, the fishermen either not possessing boats to go out to sea, or not chusing (*sic.*) to trust themselves to such a boisterous coast'.

Despite Aiken's comments fishing and cockling were important aspects of the local economy, being documented from at least the early 18th century (LRO Ref. DDWW 3/3/1) and are likely to have much earlier origins. However, apart from an eel fishery recorded on the Alt at Ravenmeols in the 13th century (Lewis 2002, 12) there are no specific references to the study area, though 'fishing engines' and the erection of nets on the foreshore at Formby are recorded and it is likely that similar activities took place in the study area.

Old Sniggery Wood on the eastern side of the study area lies on the site of a former eel fishery which presumably pre-dates that constructed to the east by Nicholas Blunsdell in the early 18th century.

5.6.8 Smuggling

The South-West Lancashire coastline was geographically remote, being isolated on its landward side by extensive areas of wetland and must have been attractive to smugglers from at least the later medieval period. The Isle of Man had declared itself independent in 1523 and became a major route for smuggling goods into Britain. By its very nature this activity produces few records, other than court proceedings of those unfortunate enough to have been caught and leaves little or no archaeological trace and the earliest direct evidence for the activity in the area is from 1715 when Customs officials describe the coast as 'a place of the greatest smuggling in the country'.

The involvement of the local populace in the activity is confirmed by the diarist Nicholas Blundell who was involved in smuggling brandy into the country (Tyrer 1968, 1970, 1972) and Blundell's property was searched by customs officers Tyrer (1972, 10, 113). Numerous entries in Blundell's diary relate directly or indirectly to smuggling and it was clearly regarded as an acceptable practice.

Smuggling only began to decline in the area with the establishment of an effective Coast Guard in the early 19th century and the establishment of free trade policies in the 1840s which effectively rendered the activity uneconomic. However, smuggling was by its very nature a clandestine activity and is unlikely to have left significant physical remains in the study area.

5.6.9 Drainage and Landclaim

There had long been a frequent danger of the River Alt flooding the surrounding low-lying lands, Nicholas Blundell recorded in his diary for the 8th of December 1705 that 'Pat: Gelibrond went to Ormskerk, my Wife and I went along with him to see him safe over Sefton Water' (Tyrer, 1968, 98). In a footnote to this passage Tyrer (1968, 98, n.93) observed that 'the River Alt frequently overflowed to flood the low-lying lands around Sefton and made it difficult for travellers to find their way'.

Although an attempt must have been made to control the Alt from at least the mid-18th century, it was not until 1779 that Alt Commissioners were appointed under the Alt Drainage Act, and new floodgates built on the Alt (Jones, Houston, and Bateman, 1993b, 18) and replaced in 1831.

Erosion caused by the eastward migration of the mouth of the Alt remained a problem into the 20th century. Miller (2002) describes an attempt in 1929 by Mellard Treleaven Reade (then surveyor to the Blundell Estate) to divert the Alt into a new channel using explosives with the aim of preventing erosion to Hall Road. However, this failed and the river rapidly reverted to its old course. A groyne inserted opposite Hall Road West in 1930 was also rapidly swept away and was replaced by a training wall close to the present sewer outlet in 1935 (*ibid*).

Reclamation of land from the sea has been actively undertaken along the Sefton Coast since at least the late 18th century (Smith 1999, 59; Lewis pers. comm.) when gorse faggots were used to trap sand blows at Ballings Wharf to the north of the mouth of the Alt to create what is now the Altcar Rifle Range (Site 1). Between 1845 and 1906 similar methods were used at Formby Point (*ibid*), including Massam's Slack.

By 1855 the reclamation of Balling's Wharf (now Altcar Rifle Range, Site 1) was complete and the land rented out for grazing (Jones, Houston, and Bateman, 1993b,

18). However, the land proved unsuitable for agriculture and in 1860 became the Altcar Rifle Range estate’.

From 1942 large-scale tipping of brick rubble from Liverpool bomb sites took place along the dune coast between Blundellsands and Hightown (Site 60). This was used to form an embankment along the dune frontage in an attempt to slow down the effects of coastal erosion (Smith, 2002, 69. See also Jones *et al* 1993b, 19).

5.6.10 Military Land-use

The military use of Sefton Coast dates back 1860 when Altcar Rifle Range (Site 1) was established on Ballings Wharf (Smith 1999, 67) for the 5th Lancashire Rifle Volunteer Corps. Initially the site was leased from Lord Sefton, to provide a rifle range for Liverpool Volunteer Units. In 1885 Lord Sefton made an agreement with the Secretary of State for War for the use of the range by the Regular and Militia. The statement includes that its use is subject to accommodating the volunteers, it being for their “special use”. The range remains in use to the present.

From 1904 the construction of Fort Crosby began to the south of Hightown (Jones *et al* 1993b, 19) and eventually covered 18.3 acres and some of the sites within the study area relate to this. The fort became disused in 1957 and, together with 170ha of foreshore, was sold to the Borough of Crosby in 1963 for £2,000. The remains of block-houses, concrete platforms and tall fence-supports persisted until 1983 when the area was restored with the help of derelict-land grants. Most of the material was broken up and buried in the sand (Smith 1999, 68).

The layout of the fort was mapped from aerial photographs for the North West Rapid Coastal Zone Assessment (Johnson 2009, Fig. 6.1, Fig. 18 this report). Although no dates are given for the aerial photographs from which the information was taken, this presumably represents the fort at its maximum extent in c. 1945-50.

LiDAR data supplied by the client was examined for evidence of the fort (Fig. 19) as a Digital Elevation Model (DEM) and shows a number of features related to the fort. The most extensive are four blocks of circular pits or depressions arranged in an arc around the site. Some of these are easily visible on the ground and are c. 3 m in diameter and 1m deep, however, many are obscured by dense tree cover. The pits are arranged in ranks 3-4 rows deep and relate to the minefields shown on Fig. 17. Other features such as the camps roads are clearly visible, though no surface features appear to be present along the haul route.

Other military sites within the study area include a No. 1 Coast Artillery Searchlight dated to 1940 (Site 20), though the actual position remains unconfirmed and Site 23, a building on dune/hill shown on the 1927 OS map which was probably part of Fort Crosby. Sites 24, 25, 29, 55 and 57 are similar structures shown on historic mapping and also likely to relate to the fort, possibly those shown on the 1931 King map (Fig. 17). Other sites include an anti-aircraft battery (Site 62) and an underground ROC bunker (Site 70).

The militarisation of the area declined after the war, though grenade training at the Cabin Hill area only ceased in 1979 and the area was not officially declared safe until 1983. Some remains still survive above ground, though most features have now been destroyed by erosion or demolition. Some of these survive within the southern half of the study area.

5.6.11 Sand Extraction and Other Industries

The dune belt represented an obvious source of sand for use by the construction and glass industries and sand from workings around Formby was used to fill sandbags in World War II. The principal focus of the industry was the Formby and Ravenmeols areas, though Site 5, a sand pit immediately west of the railway line was in operation between c. 1893 and c.1908 OS 25" map.

The 1929 OS sheet shows a 'Salting' at the northern end of the study area (Site 8), though this appears to have been a relatively short lived operation being shown only on editions to c. 1955.

5.6.12 The Blundellsands Sailing Club

The earliest direct reference to Blundellsands Sailing Club is in 1881, though the club may have been founded in 1887 (Miller 2007). Its relationship to the Altmouth Sailing Club, established in 1899 and dissolved in 1906/7 is unclear. By 1892 the club had a clubhouse, probably on the shore at Crosby, though its location is unclear. Press cuttings of 1892-3 refer to a move to near 'the mouth of the Alt' sometime before 13 April 1893 and this was probably to the site south of Fort Crosby shown on a sketch map of 1931 (Fig. 17). The present clubhouse was erected in 1951 and the site continually added to up to the present day. The concrete sea defences around the club were constructed in 1978 using material leftover from the construction of Crosby flyover. The metal slipway was constructed in 2001 and another added in 2002.

6. Map Evidence

The study area is depicted on many early county maps, e.g. Saxton's 'Map of Lancashire', from the late 16th century onwards. However, many of these are of limited use, depicting little detail beyond the approximate location of significant settlements and buildings.

The earliest map to show significant detail of the area is a map dated 1557-8 (Fig. 6) produced as evidence in a land dispute between the manors of Downholland and Formby (Public Record Office M1/2; Turner 1992). Turner (1992) presents a detailed assessment of the map and its significance, suggesting that it shows the Alt flowing northwards to the west of Formby, with its outfall into the Mersey at c. SD 2707. Formby Chapel and Crosby are also shown on Lord Burghley's 'Map of Lancashire' (The British Library Royal MS 18.D.III,f.81) dated to c. 1590 (Fig. 7). The Alt is shown flowing west on this map too, whilst this suggests a relatively rapid migration south of the course of the Alt, this is not impossible given the historic instability of this section of coast. Later, 17th century, county maps show the Alt flowing directly westwards into the Mersey and appear to support the view that the channel has migrated southwards to its present position.

From the late 17th century onwards Formby Point is regularly depicted on sea charts of the approaches to Liverpool, for example Collins' map of the Mersey area of 1689. However, in common with most of the other 18th and early 19th century charts this merely shows the dunes and landmarks used for navigation, though they do allow the migration of the coastline and the Alt to be plotted.

The area north and south of the Alt is shown on estate maps for Altcar and Ince Blundell produced in 1769 (LRO DDM14/21 and DDM 14/31). Combining the two maps allows the course of the Alt within the northern third of the study area to be partly reconstructed and suggests that at the time it was at broadly its present

location. The Altcar map shows the 'Headless Cross' and a straight boundary with Formby, probably marked by a ditch and/or a bank (Fig. 8). All of the fieldnames have a 'marsh' element (e.g. Great Marsh) indicating the wet nature of the landscape. A set of linear fields along the north bank of the river probably resulted from its migration south. The floodgates on the Alt are marked on both maps and appear to be set on or close to a small islet. The Ince Blundell map (Fig. 9) depicts the Grange as a set of four buildings set within sandhills to the south of the Alt

This area is also depicted on a map of 1778, 'Plan of Damaged Lands Adjoining the River Alt' which shows the landmarks, floodgates and a route to Liverpool over the foreshore used at low tide (No copy available).

The Sefton coast is depicted in some detail on Yates' 'Map of Lancashire', published in 1786 (Fig. 10). This map appears to show individual properties, though in many cases, particularly within towns, this must be assumed to be schematic and simply a broad indication of population densities. However, evidence from other areas within the county has shown that buildings outside the main population centres are often accurately located (For example many of the farmhouses in the region are accurately depicted).

Yates shows the study area as a landscape of sand dunes dotted with small hamlets and individual houses or farms. Whilst difficult to relate to the present landscape, the only features which can be used as 'tie in' points with later maps are the Alt and the Formby Landmarks, several features can be positively identified. The mouth of the Alt is shown significantly North-East of its present position, the area now occupied by Ballings Wharf had yet to be reclaimed. South of the Alt the position of Grange is marked with houses at North End and along North End Lane into Hightown which is shown as a cluster of four buildings, though these seem to lie just to the east of the study area. A trackway (no longer extant) extends south from Hightown to a racecourse and stand just west of Great Crosby.

The Ince Blundell Tithe Map (DRL 1/40) of 1844 shows the Lighthouse (Site 18), the Grange has been reduced to two buildings, whilst the Little Crosby Tithe map of the same year only shows Crosby Lighthouse. The Great Crosby Tithe Map (DRL 1/17) is dated 1844 and shows the area as undifferentiated sand hills, the only features being a 'Bridge covered with sand', a 'Tree' and 'end of old wall'. The significance of these features is not entirely clear, though the bridge may relate to the track depicted on Yates' map.

The First Edition Ordnance Survey map of 1848 (Fig. 11) shows more detail depicting most of the coastal zone as an open area of 'Rough Pasture' and 'Rabbit Warren'. This survey is the first to show Balling Wharf in its full extent. Significant features depicted include Formby Old Lighthouse, The Grange, Floodgate Bridge and new floodgates at the mouth of the Alt and Crosby Lighthouse.

Detailed Ordnance Survey coverage of the area begins with the 1894 25 inch map (Fig. 12) with editions produced regularly afterwards. These show the course of the Alt within the study area to have migrated c. 130 m to the east in the northern half of the study area. The area to the south of the yacht club appears to have been relatively stable, the river at this point being only 50 m east of its position in 1893. The dune front also appears relatively stable in this area, at least in comparison with other sections of the Sefton Coast, having receded only c. 50 m in a c. 400 m strip to north and south of the yacht club. The sections to north and south are in almost the same position as they were in 1893.

Elsewhere within the study area there is relatively little change. Crosby Lighthouse appears on the First Edition and the sand dunes are labelled as rabbit warrens, Site 28 (Plate 5) corresponds with a field boundary shown on this map. The lighthouse is still present on the Second Edition of 1909 but is shown as disused on the Third Edition of 1929, though this map does show the adjacent mortuary (Site 11) for the first time. The Third Edition of 1909 (Fig. 13) is the first map to show the expansion of Hightown into the study area. Later editions (Figs 14-16) show changes to the dune front discussed elsewhere and the gradual expansion of Hightown.

7. Walkover and Survey

The walkover survey was conducted on Wednesday 16th August 2009, weather conditions were dry with some cloud and the tide was out.

The submerged forest and its associated deposit of peat (Site 12, Plate 2) remain clearly visible and extend over an area of c. 300 m north-south by 60 m east-west (the approximate current extents are marked on Fig. 2). The surviving deposits are split into two blocks by an area of erosion c. 50 m wide which has exposed the underlying clay beds. The forest survives as a c. 0.2-0.3 m thick deposit of coarse woody peat. Set within the peat are occasional tree trunks and *in situ* tree stumps. None of these retain obvious signs of having being cut or felled, though that could be a result of erosion. The surface of the peat beds was inspected visually for finds though none were present.

The forest clearly extends further to the east, north and south of the yacht club it appears to be buried by sand dunes whilst erosion at the base of the sea defences around the club show that they are built directly over the peat (Plate 3). In addition a sketch map of c. 1931 (Fig. 17) seems to show the peat outcropping further to the south in an area now masked by rubble from Site 60.

Most of the section of the Prehistoric trackway at Hightown (Site 19) exposed c. 15 years ago has now been destroyed as a result of erosion (Plate 4) and sections of the clay bedding which still survived in 2007 (Adams & Harthen 2007) are no longer visible. However, some fresh sections of wood are beginning to emerge as a result of the erosion of the overlying rubble and it is possible that undisturbed sections lie to the east under areas presently obscured by rubble deposited as part of sea defence works (Site 60) or under the sand dunes to the east.

A linear stone bank (Site 28) to the south of Hightown (Plate 5) appears to be post-medieval, possibly 19th century, and corresponds with field boundaries shown on later 19th century OS mapping.

Relatively little survives of Fort Crosby, the only significant remains relate to the anti-aircraft battery. The outlying buildings identified as having being located in the study area appear to have been destroyed, though the foundations may survive beneath some of the larger dunes in the area and in places sections of rubble can be seen protruding through the sand. Most of the main paths through this area still follow the line of roads through the camp and many sections retain their original surface.

The foreshore south of Hightown is protected by rubble removed from bomb damaged buildings in central Liverpool (Site 60, Plate 6). There are numerous large architectural fragments in a range of materials, though none can be related to individual structures.

8. Conclusions

At first glance the section of Sefton's Coast between Crosby and Formby appears an archaeologically barren landscape of sand dunes fronted by extensive tidal flats. Many periods (for example the Roman occupation and the early medieval) are currently poorly understood and in this area represented only by chance finds. However, this apparent paucity of material may well be, at least in part, a result of the research biases of early generations and masks the area's significant potential to enhance our understanding of the region's past. On the whole, however, the coastal zone of Sefton is not an easy area in which to locate sites due to the extensive dune cover cloaking the landscape which will have deeply buried any deposits which exist.

The earlier prehistoric period is relatively well represented, particularly in terms of palaeo-environmental evidence relating to sea-level change, though there remains significant potential for further work. Most recent research in the area has concentrated upon Formby Point, the work conducted by Gordon Roberts on the exposures of prehistoric human and animal prints on the foreshore at Formby illustrates the potential of the tidal zone for remains of these periods and demonstrates how these are fragile features rapidly lost to erosion. Adams and Harthen (2007) identified the area around the mouth of the Alt as being of special potential for similar remains.

Unfortunately this area has not been consistently monitored and work has been conducted on an *ad hoc* basis. Deposits such as those associated with the Downholland Silts are deeply buried and generally only exposed as a result of deep excavations or groundworks, though all such activity along this section of coast is worth monitoring for archaeological deposits.

The Hightown area has excellent potential for the presence of Prehistoric sites, most (approximately 90%) of the prehistoric finds from within the study area for Harthen and Adams (2007) are from this section of coast. However, features such as the trackway (Site 19) and an outcrop of footprints (Site 26) recorded in 2005 are fragile and rapidly lost to erosion. Most of the finds from this section of coast are known only from antiquarian sources but further illustrate the potential of continuous monitoring of eroding sections of coast and of construction works. The palaeo-environmental evidence from peat and silt beds is significant in its own right, but also allows the likely location of deposits relating to settlement to be located.

The later prehistoric, Roman and early medieval periods are under represented within the study area. This is probably a result of the generally recognised difficulty in locating sites of these periods across North-West England as a whole. In general settlement outside urban and military centres appears to have consisted of sparsely distributed farmsteads with low or very low levels of material culture difficult to detect by conventional archaeological techniques. These problems are probably compounded in the study area by the nature of the environment, i.e. sites are either deeply buried beneath dune material or rapidly destroyed on eroding sections of coast.

Roman finds are documented from the study; Site 7 represents a rare group of material including pottery likely to relate directly to settlement and highlights the potential of this area for sites dating to this period which is particularly under-represented in Sefton. The recent reporting of two Roman coins (Site 9) from this section of coast further underlines the potential of this area. Other undated antiquarian finds from the area may date to this period and a group of metal detector finds of coins from Formby Point and Crosby Beach and coins recently identified from

the area are likely to be related to settlement. The coins may be modern losses of antiquarian finds, though it is probably more likely that they represent material eroded from archaeological deposits, though it is currently impossible to determine their location.

Anglo-Saxon and Norse settlement in the area remains very poorly understood. Placename evidence hints at Norse settlement along the coast, particularly at Formby and Ravenmeols just to the north, though it is likely that any direct evidence lies deeply buried within the dune system.

There is more direct evidence for later medieval settlement in the form of finds from the foreshore to the north, though within the study area there are no positive identifications of medieval material. The analogy with finds recovered from the foreshore at Meols, Wirral in the 19th century (Hume 1863, Philpott 2004) is tempting and this section of coast must be considered to have similar potential, though predicting when similar exposures may occur is haphazard, being presently largely reliant upon the limited documentary sources available. The manor at Alt Grange is of medieval origin, and may relate to a deserted village, though the evidence for this remains largely documentary.

Although better represented in documentary sources the later medieval and early post-medieval periods remain poorly understood in terms of physical remains. In many cases even the location of the historic core of settlements remains unknown and it is likely that the survey methods outlined above would pay similar rewards.

The later post-medieval period is significantly better represented; containing field remains relating to agriculture, shipping, land reclamation and other aspects of settlement and economy. For example the location of the earlier floodgates on the Alt and their preservation remains largely unknown. Shipping, in the form of wrecks also retains significant potential, though many sites are exposed only for short periods and/or are difficult of access. Recording to date has largely been conducted by dedicated, though under resourced amateurs and in many instances even basics such as an accurate location remain unavailable.

Military history is particularly well represented. The site of Fort Crosby covers an extensive area of c. 35 ha. Although there are few obvious surface remains there is the potential for the foundations of buildings to survive below some of the dunes in the area and most of the main trackways in the area originated as roads within the camp. In addition earthworks relating to the minefields which enclosed the site also survive.

In summary the archaeology of this section of Sefton's coast is of significant potential, though its understanding and development is frequently hampered by the nature of the environment, it being likely that many of the more interesting deposits are unpredictably exposed either as a result of natural processes or non-archaeological excavation.

9. Potential Impacts

Each of the Proposed measures are considered below.

Reinstatement of the dune toe position either side of the sailing club to its position in 1979.

The principal impact of this element will be upon the 'submerged forest' (Site 11). The use of heavy plant has the potential to disturb the peat beds which are fragile and sensitive to disturbance. However, sand is to be tipped onto the dune front from the landward side and there should be no requirement for plant to cross the peat beds.

Removal of brick rubble around the Broseley outfall and reinstatement with sand.

These works have the potential to uncover surfaces related to the Prehistoric trackway excavated in this area. The King map of 1931 (Fig. 17) suggests that peat deposits outcropped in this area at the time and it is possible that deposits survive below the rubble. The presence of the trackway (Site 20) would tend to support this conclusion.

Modification of the Broseley and Hightown Outfalls is unlikely to have any direct archaeological impacts. However the tracking of plant across the peat beds should be avoided.

Modification of the sailing club defences.

The peat beds clearly extend beneath the present defences and consequently demolition of the existing defences will potentially disturb or disrupt these deposits.

The current proposals involve the removal of the existing defences and the construction of a new barrier to their rear (i.e. landward) side. Construction will involve excavation below the known level of the peat and therefore has the potential to disturb archaeological deposits.

Coastal haul route from Crosby to Hightown.

The southern half of the route either lies on the beach or follows the deposits of rubble (Site 60) on the foreshore and will therefore have no archaeological impact.

North of NGR SD 2961 0156 the haul route enters the known limits of Fort Crosby but remains on the seaward side to c. NGR SD 2961 0225 where it turns north east to enter the grounds of the fort. The available drawings (ref DES/STR/406/401) contain references to groundworks including the construction of a ramp and these have the potential to disturb below ground remains belonging to the fort though the walkover and LiDAR data provide no evidence of surface remains along the line of the haul route.

Removal of Sand from Crosby.

The dunes in this area are relatively modern accretions and there is little potential for archaeological deposits in this area. In addition it is proposed that the base of the existing sand deposits is left in situ. Consequently there is very little archaeological potential in this area.

10. Recommendations for Mitigation

Reinstatement of the dune toe position either side of the sailing club to its position in 1979.

This element of the scheme will have no archaeological impact, though the contractor should be briefed on the sensitive nature of these deposits and appropriate barriers and/or signage installed as required.

Removal of brick rubble around the Broseley outfall and reinstatement with sand.

Because this element of the scheme has the potential to expose earlier land surfaces it is recommended that this element of the scheme be monitored as an archaeological watching brief. This work should be conducted by an appropriate archaeological contractor to a methodology agreed in advance with the client and the Merseyside Archaeology Service.

Modification of the sailing club defences.

Because this element of the scheme has the potential to disturb deposits of peat behind the sea defences it is recommended that this element of the scheme be monitored as an archaeological watching brief during demolition and construction. This work should be conducted by an appropriate archaeological contractor to a methodology agreed in advance with the client and the Merseyside Archaeology Service.

Coastal haul route from Crosby to Hightown.

Most of the haul route will have no archaeological impact and will therefore require no mitigation. Short sections within Fort Crosby may require some ground works and it is proposed that these are monitored as an archaeological watching brief during construction. This work should be conducted by an appropriate archaeological contractor to a methodology agreed in advance with the client and the Merseyside Archaeology Service.

Removal of Sand from Crosby.

This element of the scheme will have no archaeological impact. Consequently no mitigation is required.

11. Figures



Fig. 1. The proposed haul route (red)

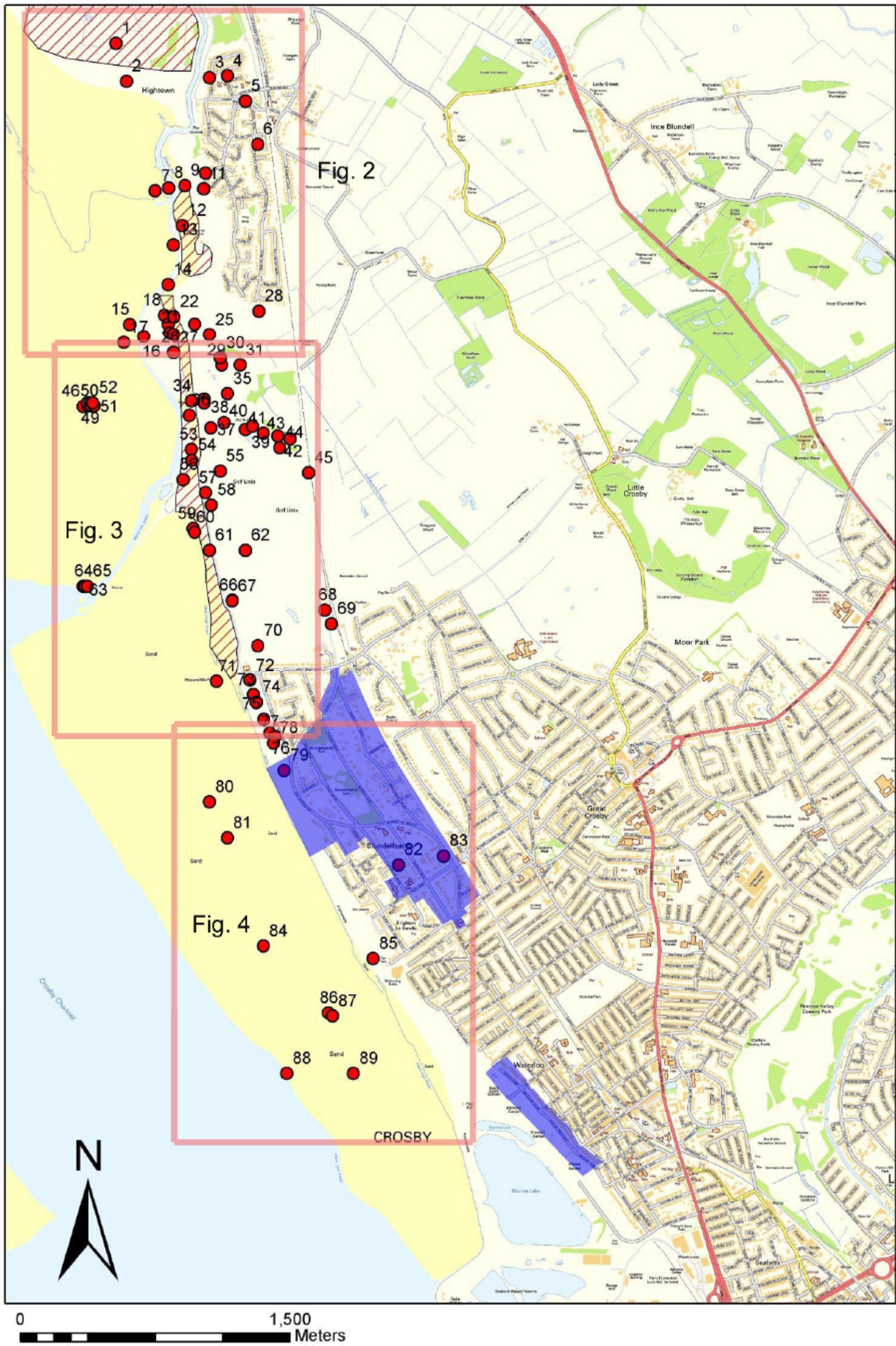


Fig. 2. The study area and sites discussed in the text. The approximate extents of Conservation Areas are shaded blue.

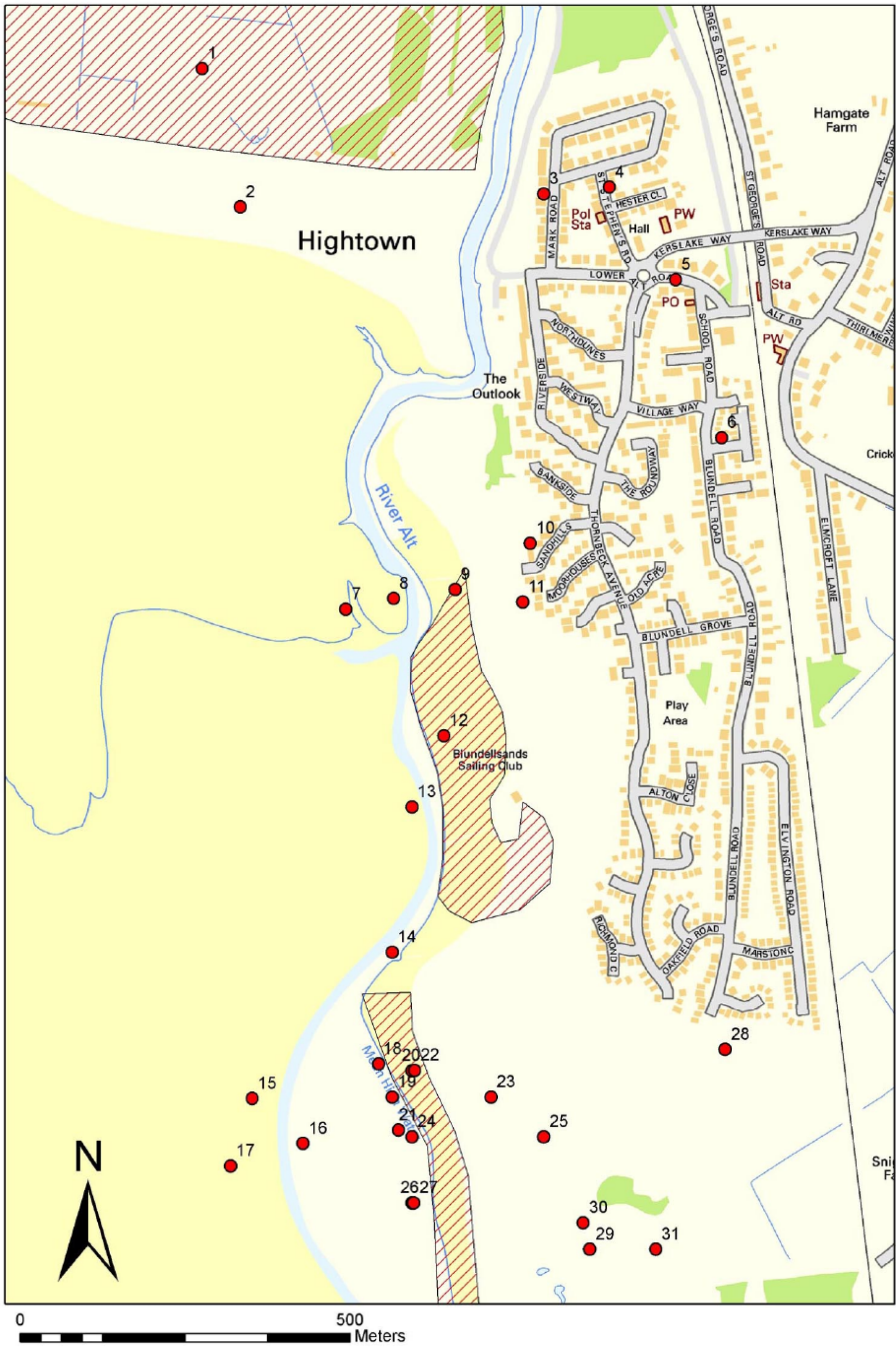


Fig. 3. Detail of north end of study area.

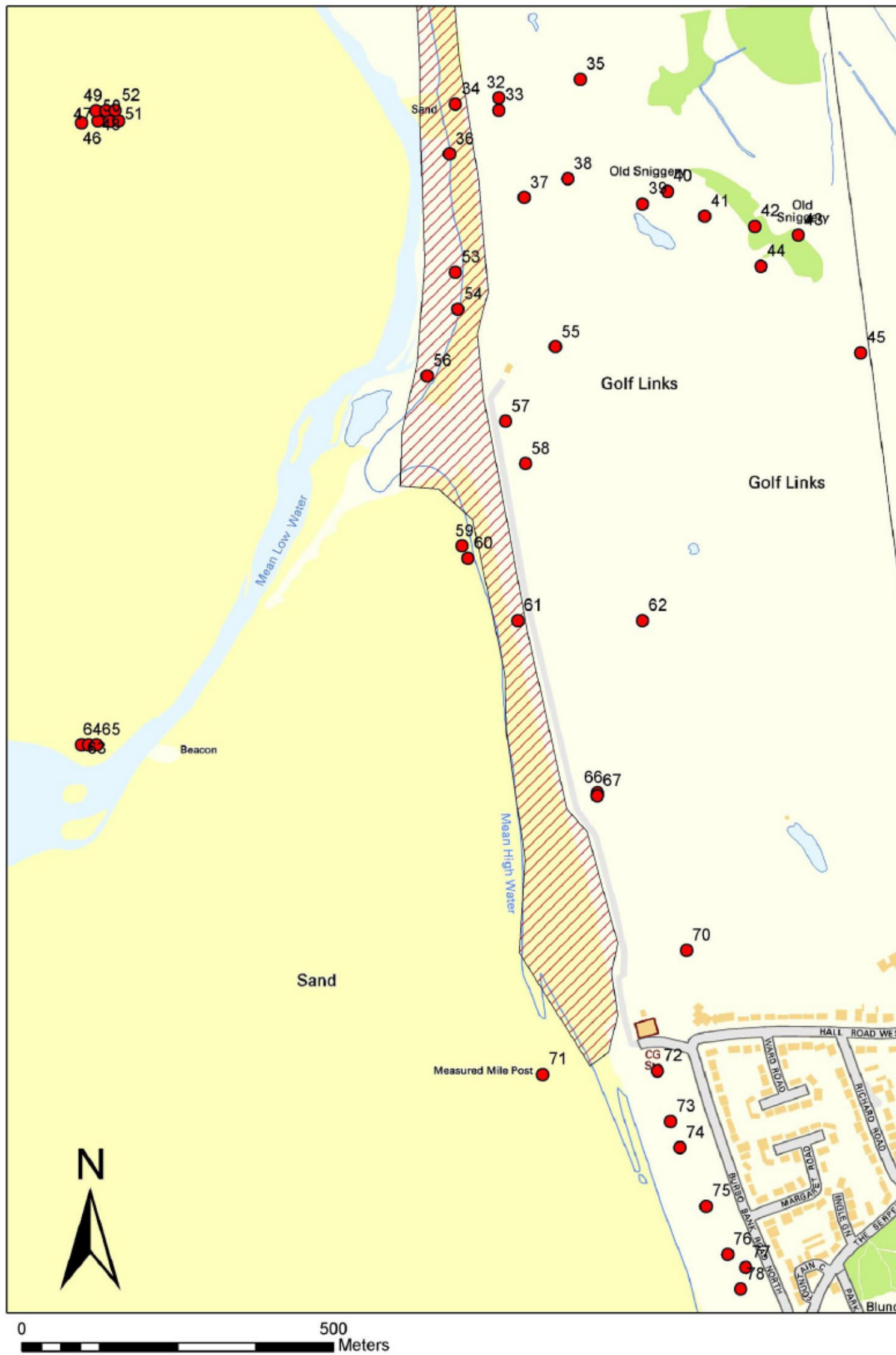


Fig. 4. Detail of central section of study area.



Fig. 5. Detail of south end of study area.

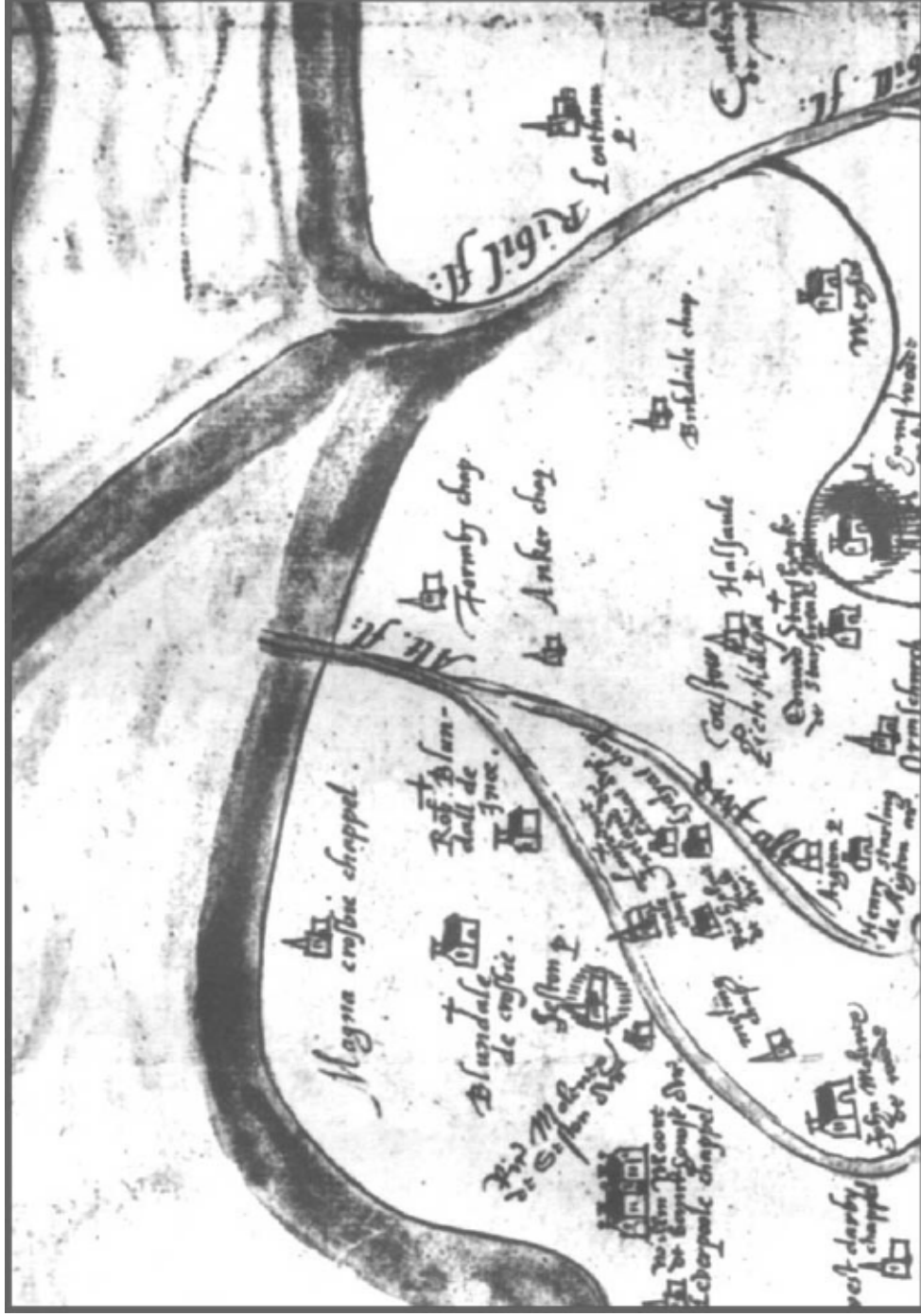


Fig. 7. Part of Lord Burghley's 'Map of Lancashire' (The British Library Royal MS 18.D.III.f.81) dated to c. 1590. North is to the right. Not to scale.

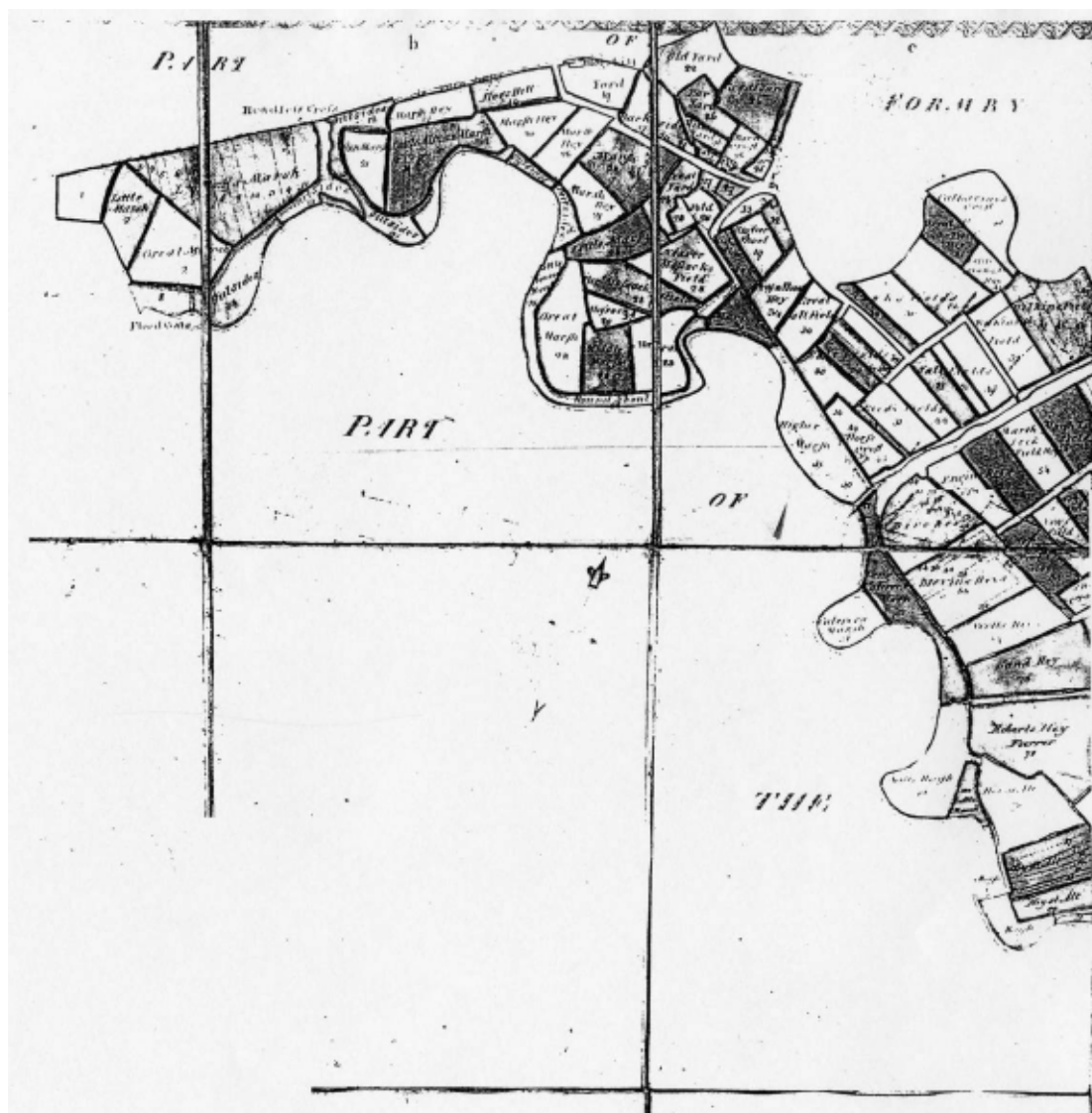


Fig. 8. Part of the Altcar Estate Map of 1769 (LRO DDM14/21 and) showing the boundary with Formby (top left). Not to scale.

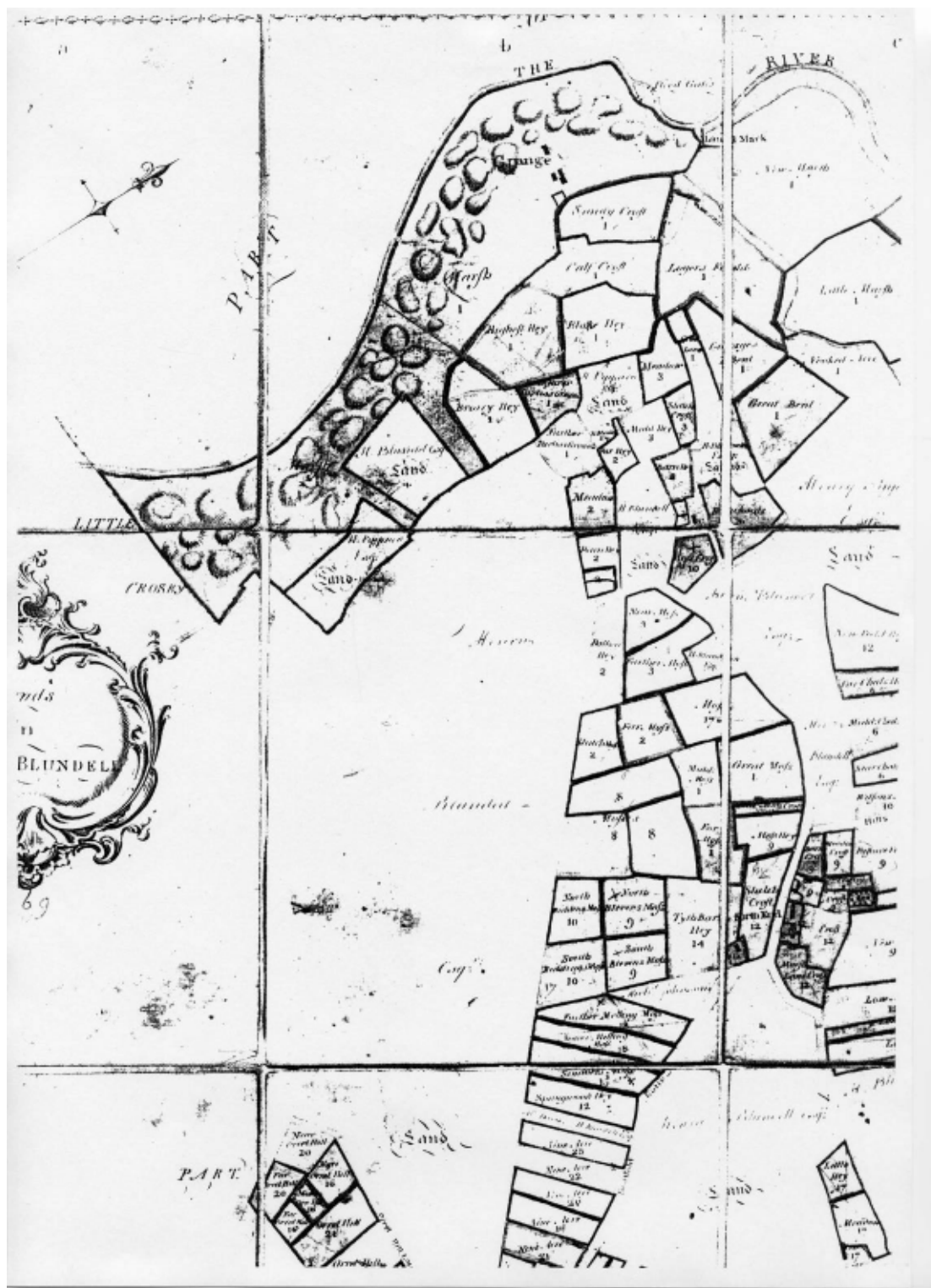


Fig. 9. Part of the Ince Blundell estate map of 1769 (LRO DDM 14/31) showing Alt Grange. Not to scale.

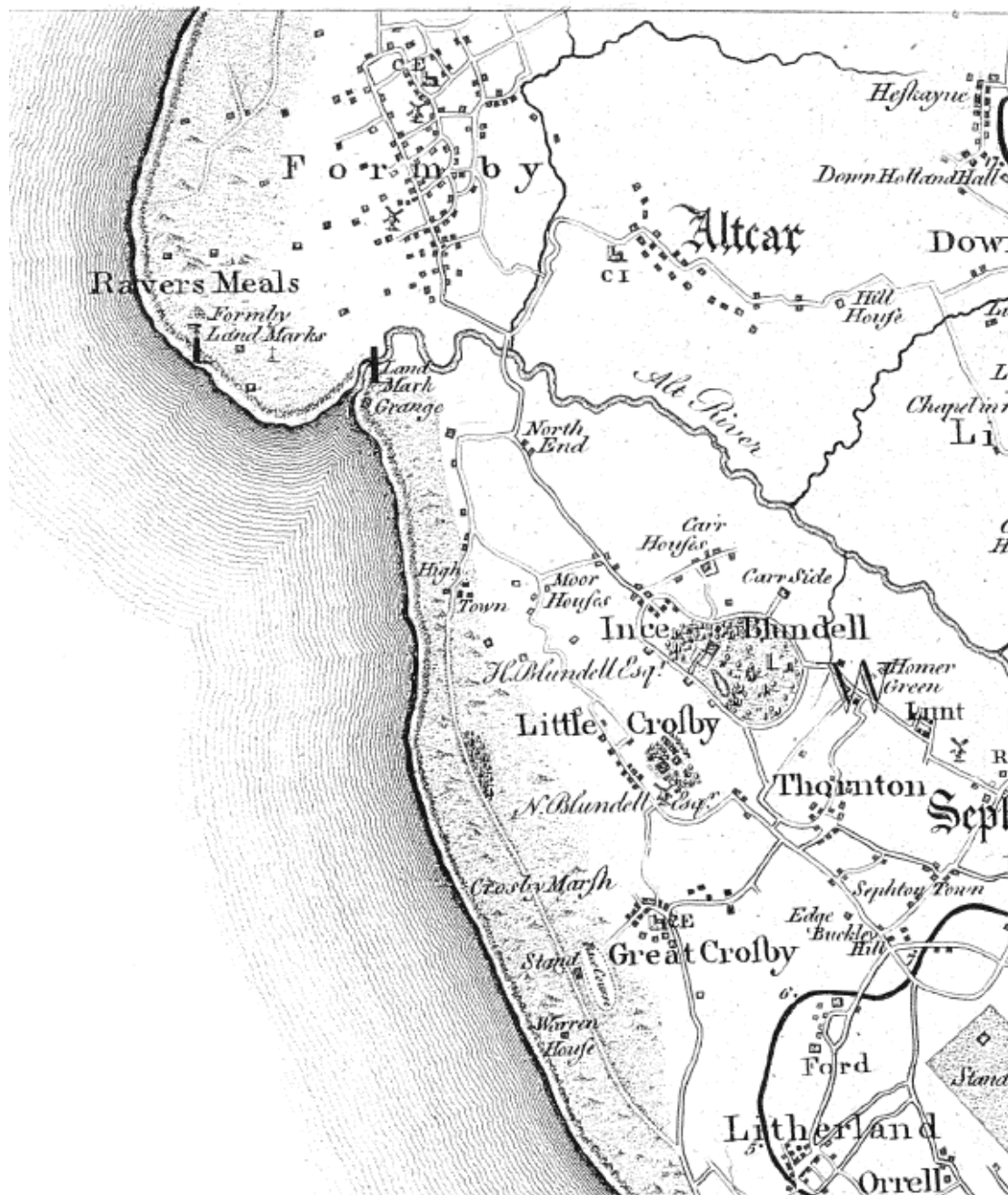


Fig. 10. Part of Yates' Map of Lancashire of 1786. Not to scale.



Fig. 11. Part of the 1848 6 inch to 1 Mile OS map. Not to scale.



Fig. 12. Part of the 1894 25 inch to 1 Mile OS map. Not to scale.



Fig. 13. Part of the 1909 25 inch to 1 Mile OS map. Not to scale.

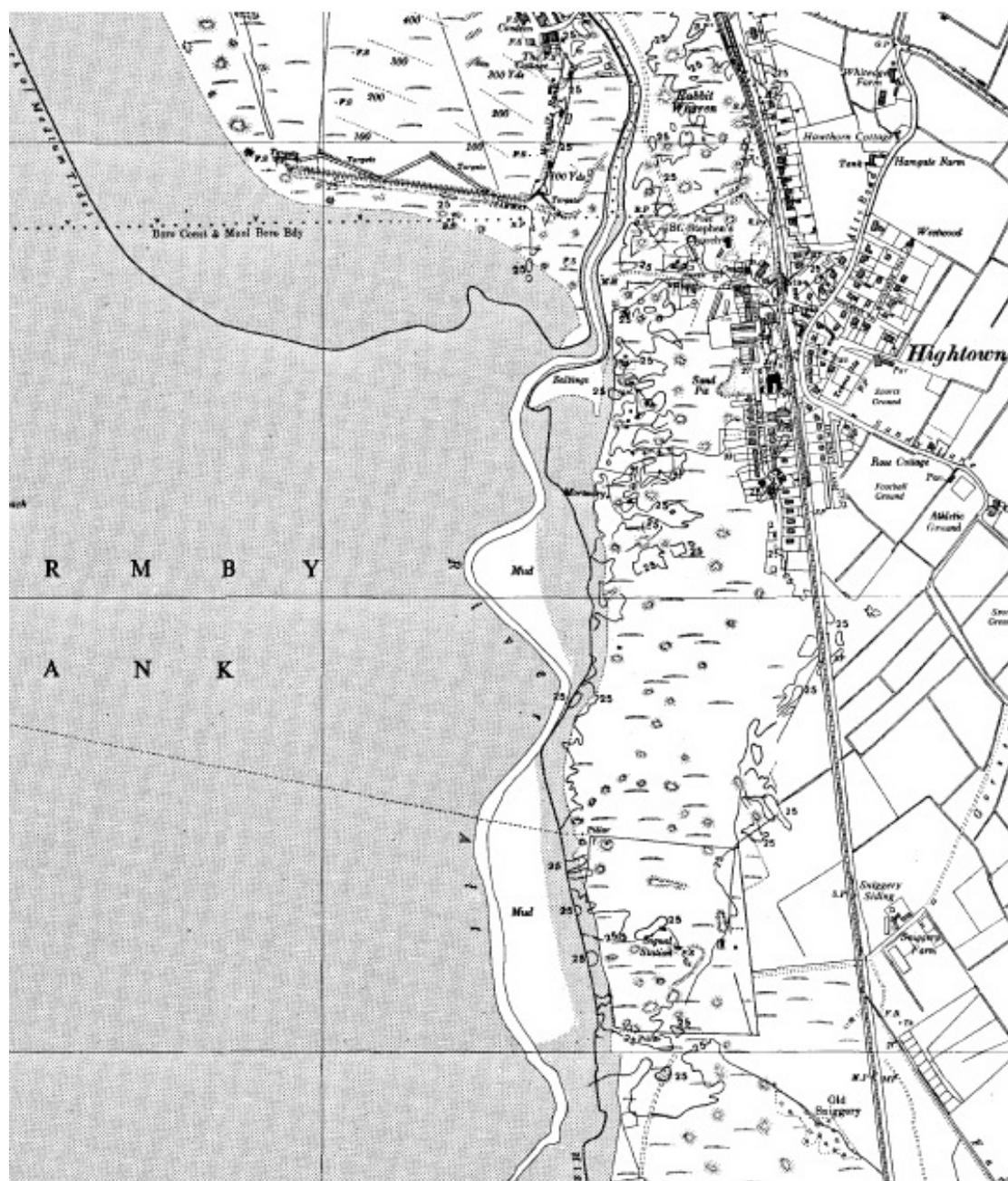


Fig. 15. Part of the 1955 25 inch to 1 Mile OS map. Not to scale.

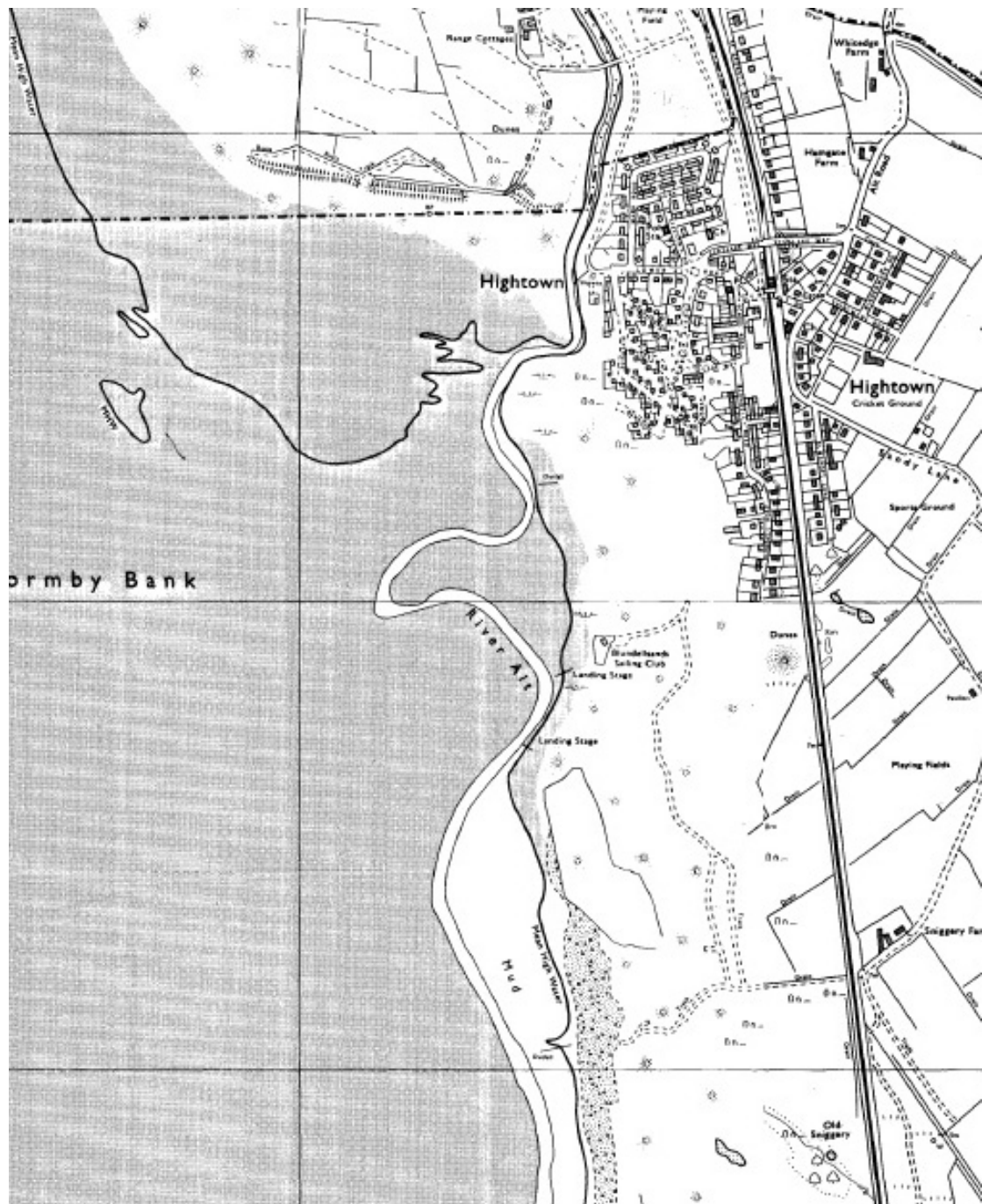


Fig. 16. Part of the c. 1975 25 inch to 1:1250 OS map. Not to scale.

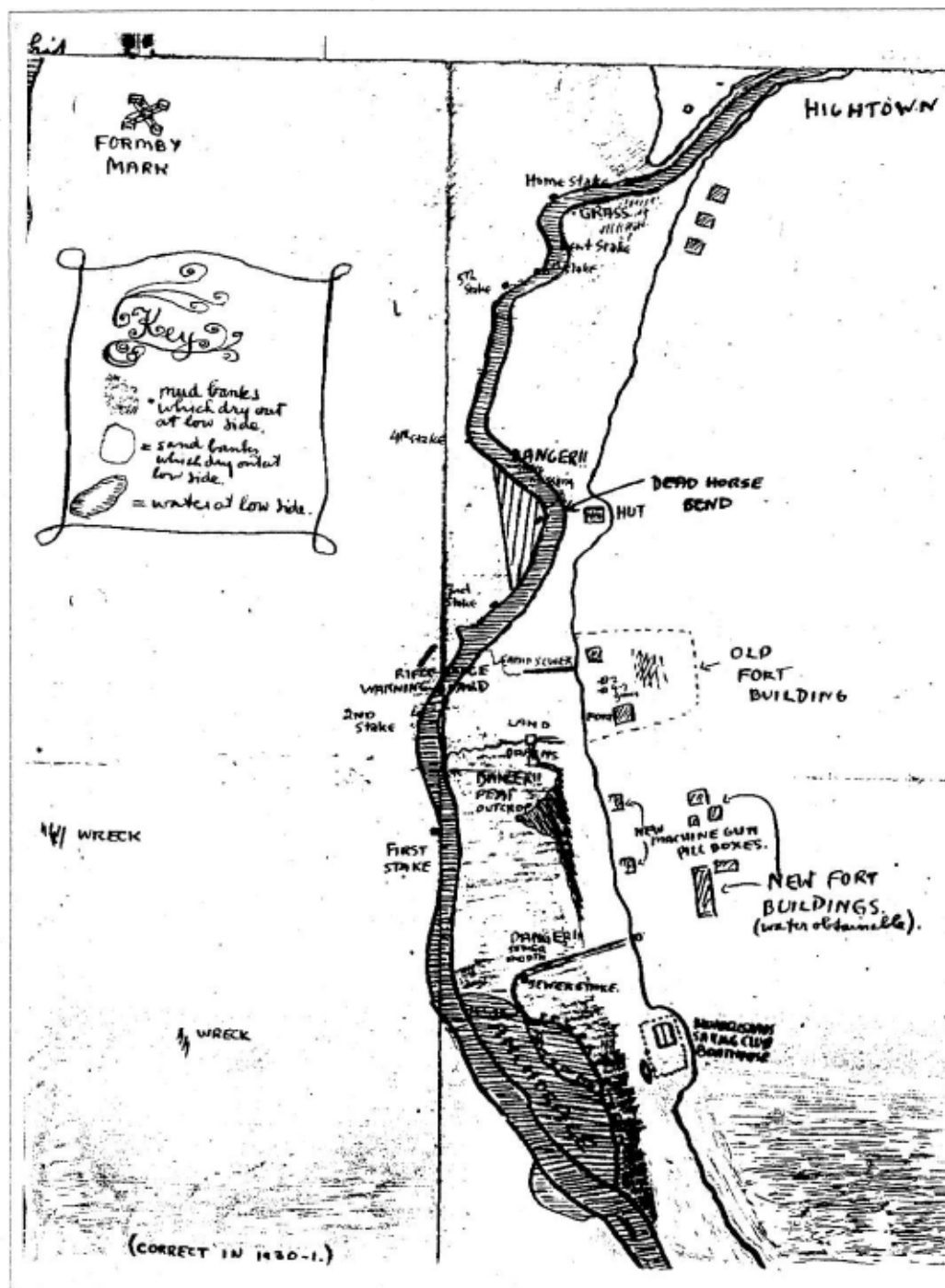


Fig. 17. Sketch map of the River Alt in c. 1931 drawn by J. King (From Miller (2007)).

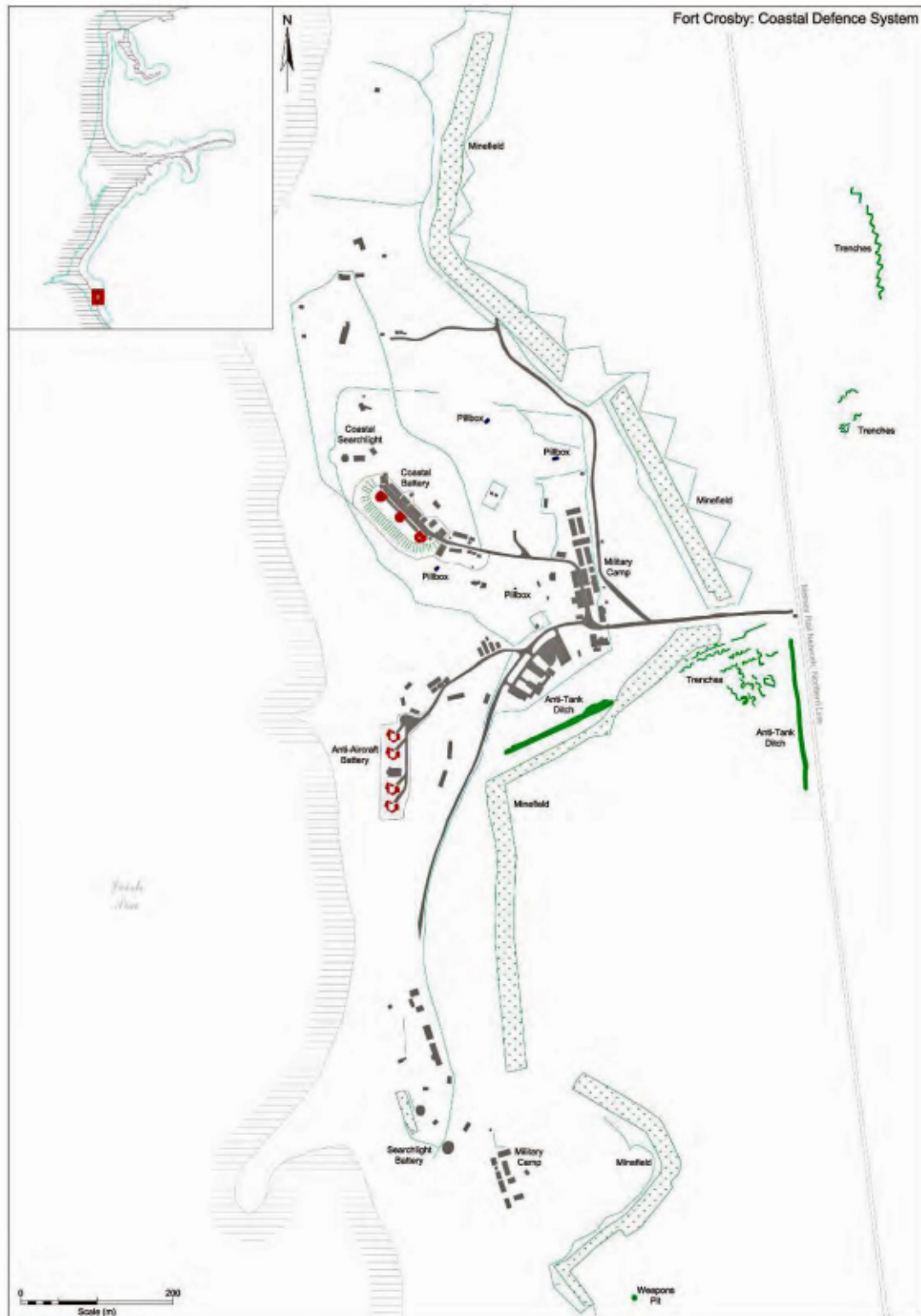


Fig. 18. The layout of Fort Crosby c. 1945 (From Johnson, 2009)

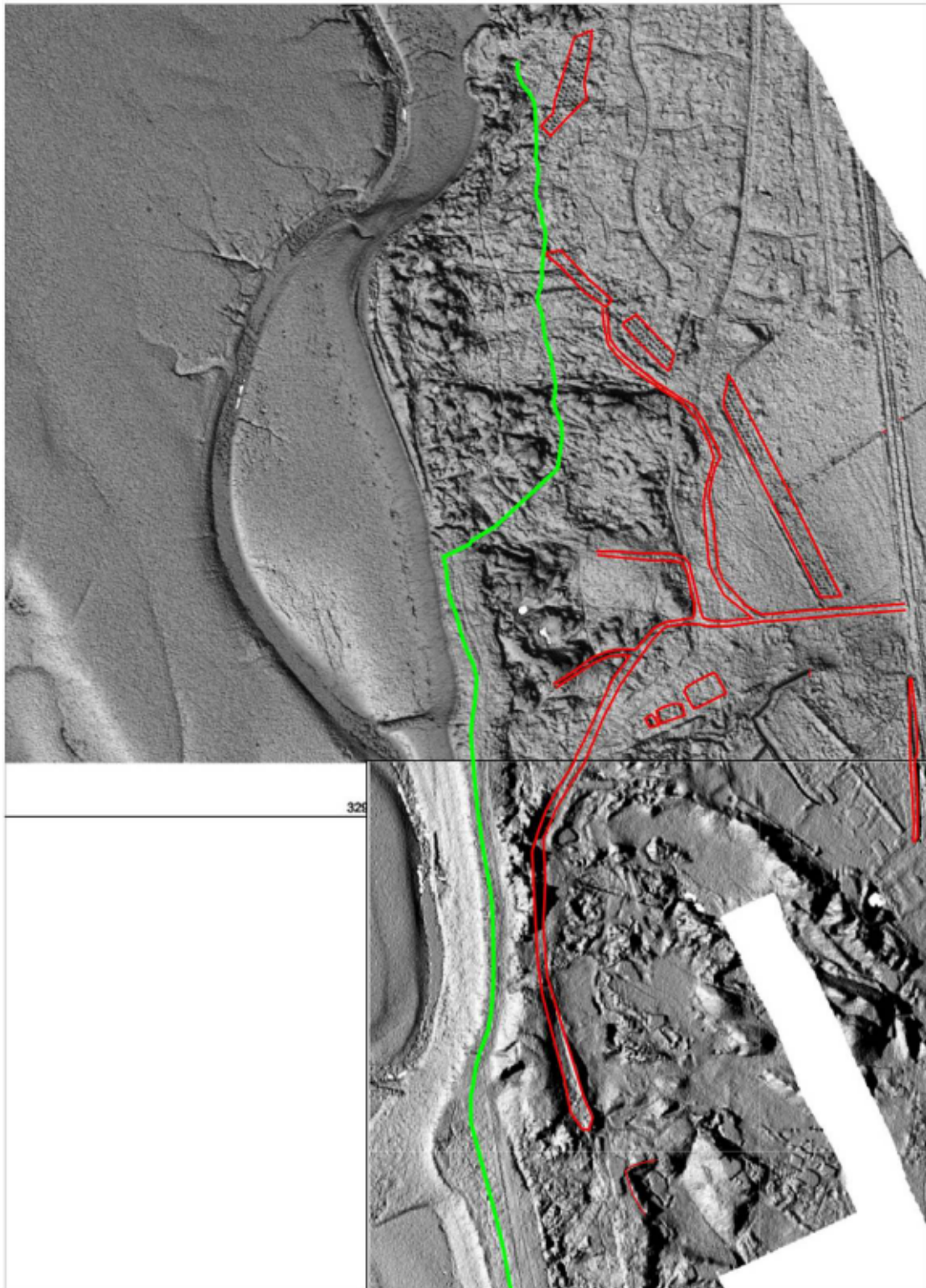


Fig. 19. DEM based upon LIDAR data. Features believed to relate to Fort Crosby are picked out in red, the haul route is in green. Not to scale.

12. Plates



Plate 1. Alt Cottage in 1907.



Plate 2. The 'Submerged Forest' (Site 11).



Plate 3. Deposits of peat surviving below the Sailing Club defences.



Plate 4. Site of the Prehistoric trackway (Site 20) at Hightown photographed in 2007. The site has since been largely destroyed by erosion.



Plate 5. Stone bank (Site 27), former field boundary, to the south-west of Hightown.



Plate 6. Rubble used as coastal defence, Crosby to Hightown (Site 60).

13. Bibliography

- Adams, M.H. 2009 *An Archaeological Assessment of the Hightown Dunes Dune Restoration Works Proposals*. Unpublished report for Sefton Council.
- Adams, M.H. 2010 *An Archaeological Evaluation of the Proposed Blundellsands Sailing Club Defences, Hightown, Sefton, Merseyside*. Unpublished report for Capita Symonds/Sefton Council.
- Adams, M.H. & Harthen, D. 2006 *An Historic Landscape Survey of the National Trust Property, Formby*. Unpublished NMLFAU Report for the National Trust.
- Adams, M.H. & Harthen, D. 2007 *An Archaeological Assessment of the Sefton Coast*. Unpublished NMLFAU Report for Sefton Council.
- Aikin, J. 1795 *A Description of the Country from Thirty to Forty Miles Round Manchester*. London
- Atkinson, D. & Houston, J. (eds) 1993 *The Sand Dunes of the Sefton Coast. Proceedings of the Sefton Coast Research Seminar*. Liverpool 31st May 1991. Liverpool. NMGM.
- Bailey, F. A. 1953 'The Modern period', in Smith W. (ed.) *A Scientific Survey of Merseyside*. Liverpool. University Press of Liverpool, 233-241.
- Baines, E. 1870 *The History of the County Palatine and Duchy of Lancaster II*. London, George Routledge & Sons.
- Bakewell, I. 1982 *Land tenure in Ince Blundell and Sefton*. Merseyside County Museums Occasional Papers 1, Merseyside County Council and Merseyside County Museums.
- Beck, J. 1953 'The church brief for the inundation of the Lancashire coast in 1720', *Transactions of the Historic Society of Lancashire and Cheshire* 105 (1953), 91-105. (Appendix by Thomas Williams).
- Brockbank A. 1999 *Asparagus - No Longer In Season?* Unpublished article on http://www.seftoncoast.org.uk/articles/99summer_asparagus.html
- Brownbill, J. 1904 'Ancient Church Dedications in Cheshire and South Lancashire' *Transactions of the Historic Society of Lancashire and Cheshire*, vol. 54, n.s. 18, pp. 19-44
- Bulpit, W. T. 1908 *Notes on Southport and District*. Southport.
- Carøe, W.D. & Gordon, E. J. A. 1893 *Sefton: A Descriptive and Historical Account*. Longmans, Green and Co.
- Cartwright, J.J. (ed.) 1888 *The Travels through England of Dr. Richard Pococke*, vol. 1, Camden Soc.

- Cheetham, F. H. 1923 'Maghull Chapel' *Transactions of the Historic Society of Lancashire and Cheshire*, vol. 74, n.s. 38, pp. 1-67.
- Cheetham, F.H. 1925 'Notes on North Meols' *Transactions of the Historic Society of Lancashire and Cheshire*, vol. 76, part II, 71-90.
- Coastal Engineering 2009 *Hightown Dunes Dune Restoration Works Scheme Proposals*. Unpublished Report for Sefton Council.
- Cochrane, J. 2005 *Mills, Mollies and Marl Pits – The story of the township of Great Crosby*, Crosby, Crosby Village Publishing.
- Coney, A. 1992 'Fish, fowl and fen: landscape and economy on seventeenth-century Martin Mere' *Landscape History*, vol. 14, pp. 51-64.
- Coney, A. 1995 'Liverpool dung: the magic wand of agriculture', *Lancashire Local Historian*, no. 10, 15-23.
- Cook, A. L. M. 1989 *Altcar: the story of a rifle range*. Territorial, Auxiliary and Volunteer Reserve Association for the North-West of England and the Isle of Man.
- Cowell, R. W. 1991 'The Prehistory of Merseyside', *Journal of the Merseyside Archaeological Society*, 7, 21-60.
- Cowell, R. W. Milles, A. and Roberts, G. 1993, 'Prehistoric footprints on Formby Point beach, Merseyside'. *North West Wetlands Annual Report 1993*, 43-48
- Cowell, R. W. and Innes, J. B. 1994 *The Wetlands of Merseyside*. North West Wetlands Survey 1. Lancaster. National Museums and Galleries on Merseyside /University of Lancaster Archaeological Unit
- Cowell, R. W. & Adams, M. 2000 *Romano-British and Late Prehistoric Excavations at Duttons Farm, Lathom, West Lancashire*. Unpublished NMGM Report.
- Cowell, R. W. & Philpott, R.A. (2000) *Excavations along the A5300 Link Road: Prehistoric, Romano-British and Medieval Sites in Tarbock, Ditton and Halewood, Merseyside*. Liverpool. National Museums and Galleries on Merseyside.
- Dobinson, C. S., 2000a *Twentieth Century Fortifications in England – Volume VI.1 – Coast Artillery, 1900-56 (Text)*. York, Council for British Archaeology.
- Dobinson, C. S., 2000b *Twentieth Century Fortifications in England – Volume VI.2 – Coast Artillery, 1900-56 (Appendices)*. York, Council for British Archaeology.
- Dobinson, C. S., 2000c *Twentieth Century Fortifications in England – Volume VII.1 – Acoustics and radar (Appendices)*. York, Council for British Archaeology.
- Dolley, R. H. M. 1966 *The Hiberno-Norse Coins in the British Museum*, London. British Museum.
- Ecroyd-Smith, H. 1868 'Archaeology of the Mersey District, 1867', *Transactions of the Historic Society of Lancashire and Cheshire* Volume 20 (1867), N.S. 8, 87-130.
- Edmondson, S. E., Gateley, P. S., Rooney, P. J., and Sturgess, P. W., 1993 'Plant Communities and Succession', in Atkinson, D., and Houston, J. (eds), *The Sand*

Dunes of the Sefton Coast, National Museums and Galleries on Merseyside in association with Sefton Metropolitan Borough Council, 65-84.

Ekwall, E. 1922 *The Place Names of Lancashire*. Manchester. The Chetham Society volume 81.

Eyes, E. 1870 'A littoral survey of the port of Liverpool', *Transactions of the Historic Society of Lancashire and Cheshire* Volume 22 (1869-1870), 171-246.

Farrer, W. & Brownbill, J. A. 1907 *The Victoria History of the County of Lancaster*. Volume 3, London. Archibald Constable & Company Limited.

Fishwick, H. 1897 'Places in Lancashire destroyed by the sea', *Transactions of the Historic Society of Lancashire and Cheshire* Volume 49, 87-96.

Fishwick, H. (Ed.) 1879 'Lancashire and Cheshire Church Surveys 1649-1655'. *Record Society*, 70.

Fleetwood-Hesketh, P. 1955 *Murray's Lancashire Architectural Guide*.

France, R. S. (ed.) 1945 *Registers of Lancashire Papists' Estates Part I, 1717*, Record Society of Lancashire and Cheshire, volume 98.

France, R. S. (ed.) 1960 *Registers of Lancashire Papists' Estates Part II, 1717*, Record Society of Lancashire and Cheshire, volume 108.

Gonzalez, S. and Cowell, R. 2004. 'Formby Point Foreshore, Merseyside: Palaeoenvironment and Archaeology'. In Chiverrell, R., Plater, A.J. and Thomas, G.S.P., (eds), *The Quaternary of the Isle of Man & North West England, Field Guide*, Quaternary Research Association, pp. 206-216

Gonzalez, S and Huddart, D 2002 Formby Point. In Huddart, D and Glassner, N.F (eds) *Quaternary of Northern England* Geological Conservation Review Series 25, Joint Nature Conservation Committee, Peterborough, 569-582.

Gonzalez, S. Huddart, D. and Roberts, G. 1997 'Holocene Development of the Sefton Coast: A Multidisciplinary Approach to understanding the Archaeology'. 289-299 in Sinclair A, Slater E, and Gowlett J (eds) *Proceedings of the Archaeological Sciences Conference 1995*, Oxbow Monograph 64, Oxford

Greenwood, E. (ed.) 1999 *Ecology and Landscape Development: A History of the Mersey Basin*. Liverpool University Press and National Museums & Galleries on Merseyside.

Gresswell, R. K. 1953 'The Coast', in Smith W. (ed.) *A Scientific Survey of Merseyside*. Liverpool. University Press of Liverpool, 49-52.

Hall, G. H. and Folland, C. J. 1970 *Soils of Lancashire*. Soil Survey of Great Britain England and Wales. Bulletin No. 5. Harpenden.

Harley, J.B. 1968 *William Yates' Map of Lancashire 1786*. The Historic Society of Lancashire & Cheshire.

Harrop, S. 1985 *Old Birkdale and Ainsdale: Life on the south-west Lancashire Coast 1600-1851*. The Birkdale and Ainsdale Historic Society of Lancashire and Cheshire.

Harvey B. 2002 A Troublesome Little River: A discussion of the course of the River Alt and it's (*sic*) effect on the local landscape and communities. Unpublished paper on <http://www.btinternet.com/~m.royden/mrlhp/students>

Holt, J. 1795 *General View of the Agriculture of the County of Lancaster*. Manchester.

Huddart, D. 1992. Coastal environmental changes and morphostratigraphy in southwest Lancashire, England. *Proceedings of the Geologist's Association*, 103(3), 217-236.

Huddart, D. Roberts, G. and Gonzalez, S. 1999 'Holocene human and animal footprints and their relationship with *coastal environmental change, Formby Point, NW England*'. *Quaternary International*, 55, 29-41

Hume A. 1863 *Ancient Meols-Some Account of the Antiquities near Dove Point on the Sea Coast of Cheshire*, London

Hussey, C. 1958 'Ince Blundell Hall, Lancashire - I-III' *Country Life*, February-April.

Jacson, C. 1910 *The Formbys of Formby Hall*.

Jarvis A. 1998 A Safe Home in Port? Shipping Safety Within the Port of Liverpool. *The Northern Mariner* VIII, 4, 17-33.

Johnson B. 2009 *North West Rapid Coastal Zone Assessment (NWRCZA)*ARS Ltd Report 2009/53 for English Heritage, Archaeological Research Services Ltd

Jones, C. A., Houston, J. A., and Bateman, D. 1993a 'A History of Human Influence on the Coastal Landscape', in Atkinson D. and Houston J. (eds) *The Sand Dunes of the Sefton Coast*, National Museums and Galleries on Merseyside in association with Sefton Metropolitan Borough Council, 3-17.

Jones, C. A., Houston, J. A., and Bateman, D. 1993b 'Appendix to Chapter 1: Chronology of the Sefton Coast', in Atkinson D. and Houston J. (eds) *The Sand Dunes of the Sefton Coast*, National Museums and Galleries on Merseyside in association with Sefton Metropolitan Borough Council, 18-20.

Kelly, E. 1973 *Viking Village - The Story of Formby*.

Large, F. 1998 *Faster than the Wind – The Liverpool to Holyhead Telegraph*. Avid Publications.

Leggett, P. 1990 'Dendrochronological Study of Timbers from the Scotch Piper Inn' *Journal of the Merseyside Archaeological Society*, vol. 6, pp. 69-73.

Lewis, J. M. 1978 'An Abandoned Church at Formby', *Journal of the Merseyside Archaeological Society* 2, 73-74.

Lewis, J. M. 1981 'Sefton Old Hall, Merseyside: excavations 1956-1961' *Journal of the Merseyside Archaeological Society*, vol. 2, pp. 53-72.

Lewis, J. M. 1981 'An Abandoned Church at Formby' *Journal of the Merseyside Archaeological Society*, vol. 2, 73-74.

Lewis, J. M. 1982 *Sefton Rural Fringes Survey*. Archaeological Survey of Merseyside. Liverpool. Merseyside County Museums.

Lewis, J. M. 1991 *The Medieval Earthworks of the Hundred of West Derby*. Unpublished thesis submitted to the University of Nottingham for the degree of Doctor of Philosophy.

Lewis, J.M. 1992 Formby Landscape History Appraisal. Unpublished report for National Trust.

Lewis, J. M. 2000 *Medieval Earthworks of the Hundred of West Derby: Tenorial evidence and physical structure*. British Archaeological Reports (British Series) 310, Oxford.

Lewis, J. M. 2002 'Sefton Rural Fringes', in Lewis J. M. and Cowell R. W. 2002 *The Archaeology of a Changing Landscape: The Last Thousand Years in Merseyside*. *Journal of the Merseyside Archaeological Society* 11, 5-88

Lewis, J. M. and Cowell, R. W. 2002 'The Archaeology of a Changing Landscape: The Last Thousand Years in Merseyside'. *Journal of the Merseyside Archaeological Society* 11.

Lewis, J.M. & O'Hanlon, D. M. 1990 'Excavations at St. Catherine's Chapel, Lydiate, 1979-1980' *Journal of the Merseyside Archaeological Society*, vol. 6, pp. 1-13.

Lewis, J.M. & Stanistreet, J.E (Eds) 2008 *Sand And Sea: Sefton's Coastal Heritage. Archaeology, History and Environment of a Landscape in North West England Proceedings of the conference Sefton's Coastal Heritage, Formby, 15 September 2004*. Sefton Council.

Mathews, K.J. 2000 *The Iron Age of Northwest England: a socio-economic model. Draft paper for forthcoming conference proceedings*.

Mathias, W. T. 1953 'Botany', in Smith W. (ed.) *A Scientific Survey of Merseyside. Liverpool*. University Press of Liverpool, 81-85.

McCarron, K. 1991 *Fort Perch Rock and the Defence of the Mersey*. Merseyside Portfolios, Birkenhead

Miller F.M. 2007 (Eds. J. & G. Goady) *A History of Blundellsands Sailing Club*. Park Press

Mills, D. 1976 *The Place Names of Lancashire*. London, B.T. Batsford.

Milln, J. 1993 *Brook's Field, Wicks Lane, Formby. Sampling Results from Southern Boundary Site 2707/1*. Unpublished National Trust Report.

Milln J. 2002 *A Bunch of Green Sticks: Recording The Formby Asparagus Tradition For The Trust's Sound Archive* National Trust Annual Archæological Review 2001-2002.

Morgan, P. (Ed.) 1978 *Cheshire Domesday Book*.

Morton K. 1981 *An Agricultural Study of Formby with Ainsdale*. Unpublished report for Archaeological Survey of Merseyside (Draft).

Muir, R. 1911 'West Derby Hundred – Liverpool' in Farrer W. & Brownbill J. A. (eds) *The Victoria History of the County of Lancaster*. Volume 4, London. Archibald Constable & Company Limited, 1-57.

Neal, A. 1993 Sedimentology and Morphodynamics of a Holocene Coastal Dune Barrier Complex, North West England. Unpublished PhD Thesis, University of Reading

Nelson, P. 1916 'Ancient Alabasters at Lydiate' *Transactions of the Historic Society of Lancashire and Cheshire* vol. 68, pp. 21-26.

O'Hanlon, D. 1977 'St. Catherine's Chapel, Lydiate' *Journal of the Merseyside Archaeological Society*, vol. 1, pp. 43-57.

Nevell, M. 1991 A Field Survey of High Legh Parish, Pt I: Prehistoric and Roman Evidence. *Archaeology North West*, 2, 16-19.

Pevsner, N. 1969 *The Buildings of England*. North Lancashire.

Philpott, R. A. 1991 'Roman Merseyside'. *Journal of the Merseyside Archaeological Society*, 7, 61-81.

Philpott, R. A. 1999 'Recent Anglo-Saxon Finds from Merseyside and Cheshire and their Archaeological Significance', *Medieval Archaeology* XLVIII, 194-202.

Philpott, R. A. & Adams, M. 1999 'Excavations at an Iron Age and Romano-British settlement at Irby, Wirral, 1987-96', in Nevell M. (Ed) *Living on the Edge of Empire: Models, Methodology and Marginality. Late Prehistoric and Romano-British Rural Settlement in North-West England*. *Archaeol. North-West* 3, 64-73.

Philpott, R. A. 2004 'Searching for Lost Settlements - the example of Meols': Sefton Heritage Coast conference: 15 September 2004

Potter, S. 1953 'English and Scandinavians on Merseyside', in Smith W. (ed.) *A Scientific Survey of Merseyside*. Liverpool. University Press of Liverpool, 221-224.

Purdy, A. 1995 *A Study of Early British Lifeboat Stations With Particular Reference to Formby*. Unpublished undergraduate dissertation, University of Southampton.

Pye, K, and Neal, A. 1993a Stratigraphy and Age Structure of the Sefton Dune Complex: Preliminary Results of Field Drilling Investigations. 41-44 in Atkinson D and Houston J (eds) *The Sand Dunes of the Sefton Coast*. National Museums and Galleries on Merseyside: Liverpool.

Pye, K. and Neal, A. 1993b Late Holocene dune formation on the Sefton coast, northwest England, 201-217 in Pye K (ed) *The Dynamics and Environmental Context of Aeolian Sedimentary Systems*. Geological Society Special Publication No 72.

RCSILt Archaeology North West Region 2004 *An Archaeological Atlas Formby, Lancashire*. Unpublished National Trust Document.

Reade T. M. 1890 Note on Some Mamalian Bones Found in the Blue Clay Below the Peat and Forest Bed at Altmouth. *Proceedings of the Liverpool Geological Society*, 6, 213-4.

Richardson, J. 1974 *The Local Historian's Encyclopaedia*, New Barnet, Historical Publications Limited.

Rimmer J. 1986 *The Decline of Asparagus Farming on the Formby Coast – Merseyside*. Unpublished thesis, Open University.

Roberts G, Gonzalez S, and Huddart D, 1996 'Intertidal Holocene Footprints and their Archaeological Significance' *Antiquity*, 70, 647-651

Roberts P. & Trow S. 2002 *Taking to the Water: English Heritage's Initial Policy for the Management of Maritime Archaeology in England*. English Heritage.

Smith, A. 2002 'History of Tidal Flooding in Sefton', *Coastlines* magazine, Winter 2002, 7-8

Sheppard, B. 1981 'Aerial Photography Aiding Landscape Studies on Merseyside' *Journal of the Merseyside Archaeological Society*, vol. 2, pp. 83-92.

Smith, P. H. 1999 *The Sands of Time: An Introduction To The Sand Dunes of the Sefton Coast*, NMGM and Sefton Metropolitan Borough Council.

Stammers M. 1999 The Archaeology of the Mersey Estuary: Past Work and Future Potential. In Stammers M (Ed) *Mud Flats. Archaeology in Intertidal and Inland Waters Around the Mersey Estuary*. NMGM.

Taylor, H. 1902 'The Ancient Crosses of Lancashire, The Hundred of West Derby' *Transactions of the Lancashire and Cheshire Antiquarian Society*, vol. 19, pp. 136-238.

Taylor, H. 1906 *The Ancient Crosses and Holy Wells of Lancashire*. Sherratt & Hughes. Manchester.

Taylor, H. & Cox, E. W. 1895 'Lydiat Hall, near Ormskirk, Lancashire' *Transactions of the Historic Society of Lancashire and Cheshire*, n.s. 10.

Terrett, I. 1962 'Lancashire' in H.C. Derby and I.S. Maxwell (eds.), *The Domesday Geography of Northern England*, pp. 392-414.

Tooley, M. J. 1970 The Peat Beds of the South-West Lancashire Coast. *Nature in Lancashire*, 1, 19-26.

Tooley, M. J. 1978a, *Sea-level changes in North-west England during the Flandrian Stage*. Oxford Research Studies in Geography. Oxford. Clarendon Press.

Tooley, M. J. 1978b 'The Interpretation of Holocene Sea-level Changes', *Geologiske Foreningens I Stockholm Forhandlingar* 100, 203-212

Tooley, M. J. 1985 'Sea-level changes and coastal morphology in North West England'. In J. H. Johnson (Ed.) *The Geomorphology of North-West England*. Manchester. 94-121.

Turner, E. 1992 A Tudor Map from Lancashire: Downholland, Altcar and Formby. *Lancashire Local Historian*, 7, 19-26.

Tyrer, F. (ed.) 1968 *The Great Diurnal of Nicholas Blundell of Little Crosby, Lancashire, Volume 1, 1702-1711.* Record Society of Lancashire and Cheshire.

Tyrer, F. (ed.) 1970 *The Great Diurnal of Nicholas Blundell of Little Crosby, Lancashire, Volume 2, 1712-1719.* Record Society of Lancashire and Cheshire.

Tyrer, F. (ed.) 1972 *The Great Diurnal of Nicholas Blundell of Little Crosby, Lancashire, Volume 3, 1720-1728.* Record Society of Lancashire and Cheshire.

Watts, A. 1893 'Court Rolls of the Manor of Little Crosby' *Transactions of the Historic Society of Lancashire and Cheshire* vol. 43-4, n.s. 78, pp. 103-122.

Walbank, F. W. 1953 'The Roman Occupation' in Smith W. (ed.) 1953 *A Scientific Survey of Merseyside.* Liverpool, The University Press of Liverpool, 214-20.

Wainwright, F. T. (ed. Finberg, H. P. R.) 1975 *Scandinavian England – Collected Papers.* Chichester, Phillimore & Co. Ltd.

Williams, A. & Martin, G. H. (eds.) 2002 *Domesday Book – A Complete Translation,* London, Penguin Books.

Wilson, G. 1976 *The Old Telegraphs.* London and Chichester, Phillimore & Co. Ltd.

Yorke, B. and Yorke, R. 1982 *Britain's First Lifeboat Station, Formby, 1776 – 1918,* Alt Press.

Yorke 2003 R. *Formby Asparagus* Unpublished Report on http://www.formbycivicsociety.org.uk/learning/full_article.asp?storyid=8&title=FORMBY%20ASPARAGUS

Yorke R. 2003 *Origins of Britain's First Lifeboat Station*

Yorke R. 2004 *The Great Formby Cockle Case* Unpublished Report on http://www.formbycivicsociety.org.uk/learning/full_article.asp?storyid=13&title=THE%20GREAT%20FORMBY%20COCKLE%20CASE*

Yorke 2005 R. The Formby Asparagus Project: Celebrating 2000 years of a special delicacy. *Coastlines* magazine, Summer 2005.

Yorke, R. A. and Lewis, J. M. 2004 'Sefton's Coastal Heritage', *Coastlines* magazine, Winter 2004, 8-9

Youd, G. 1962 'The Common Fields of Lancashire' *Transactions of the Historic Society of Lancashire and Cheshire* vol. 113, pp. 1-41.

14. Gazetteer of Sites

Summary details of sites identified in the course of this study are presented below. Because of the scale of the project a location map is not given, sites are located on a separate Mapinfo Table (Sefton Arch Ass).

Table headings are as follows:

Site Number	Unique identifier for this project
MSMR Ref	Merseyside Sites and Monuments Record Reference Number.
Sites identified via this project have no MSMR Reference.	
Site Name	Geographical Name and/or Location
Monument Type	Monument identifier
Dates	Date of construction/operation where known.
Township	Township location
NGR	National Grid Reference, centred for polygons, terminals for line data.
Images	Catalogue number given is that assigned in the site archive
Field Observation	Date of site visit as appropriate
Condition	Destroyed, partial or standing
Notes	Description of the site or monument, listing of sources as appropriate.

Sites are coded within the Mapinfo table as follows

Red = Prehistoric
 Blue = Roman
 Brown = Medieval
 Pink = post-medieval and modern

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
1	Not Applicable	Altcar Rifle Range	Firing Range	Industrial Revolution 2	Altcar	SD 290 042
Notes	Established in 1860 on the former Ballings Wharf which was reclaimed between 1830-55 (Smith 1999, 67) for the 5th Lancashire Rifle Volunteer Corps. Initially the site was leased from Lord Sefton, to provide a rifle range for Liverpool Volunteer Units. In 1885 Lord Sefton made an agreement with the Secretary of State for War for the use of the range by the Regular and Militia. The statement includes that its use is subject to accommodating the volunteers, it being for their "special use". The range remains in use to the present. Shown on Hill's 1884 chart as 'Altcar Rifle					
Condition	Unknown					
Site No in Adams & Harthen (2007)			23			

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
2	Not Applicable	Boundary Stone, Little Crosby	Boundary Stone	1540 AD – 1750 AD	Formby	SD 2924 0381
Notes	Boundary stone on 1st Edition OS 6 inch map					
Condition	Destroyed					
Site No in Adams & Harthen (2007)			200			

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
3	Not Applicable	Boundary Stone, Little Crosby	Boundary Stone	1540 AD – 1750 AD	Formby	SD 2970 0383
Notes		Boundary stone on 1st Edition OS 6 inch map				
Condition		Destroyed				
Site No in Adams & Harthen (2007)			201			

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
4	Not Applicable	Boundary Stone, Little Crosby	Boundary Stone	1540 AD – 1750 AD	Formby	SD 2980 0384
Notes		Boundary stone on 1st Edition OS 6 inch map				
Condition		Destroyed				
Site No in Adams & Harthen (2007)			202			

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
5	Not Applicable	Sand Pit/Old Sand Pit	Sand Pit	Industrial Revolution 2	Little Crosby	SD 299 037
Notes		Immediately west of the railway line and immediately north of Hightown. Shown on the c.1893 OS 25" map as 'Sand Pit' and as 'Old Sand Pit' on the c.1908 OS 25" map. Does not appear on the c.1927 OS 25" map.				
Condition		Destroyed				
Site No in Adams & Harthen (2007)			27			

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
6	Not Applicable	Truant's Industrial School	Building	Industrial Revolution 2	Little Crosby	SD 2997 0346
Notes		Industrial School first shown on 1893 25 inch OS sheet, labelled a School on the 1929 Edition and on OS Editions to c. 1960.				
Condition		Destroyed				
Site No in Adams & Harthen (2007)			189			

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
7	2902-009	Altmouth	Findspot	43 AD – 409 AD	Little Crosby	SD 2725 0750
Notes		Small concentration of finds, including a possible Roman needle, an 'ornament', and fragments of a mortarium found at Altmouth, were in Liverpool Museum but lost in WWII. N.B. the MSMR number is duplicated with Site 12.				
Condition		Destroyed				
Site No in Adams & Harthen (2007)			261			

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
8	Not Applicable	Salting	Salting	c. 1929	Little Crosby	SD 272 075
Notes		Salting shown on 1929 and 1955 OS maps.				
Condition		Destroyed				
Site No in Adams & Harthen (2007)						

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
9	Not Applicable	Altmouth	Findspot	43 AD – 409 AD	Little Crosby	SD 29565 03230
Notes		Two Roman coins found on the beach 1995-2000.				
Condition		In private collection				
Site No in Adams & Harthen (2007)						

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
10	Not Applicable	Lighthouse	Crosby Lighthouse	1846	Little Crosby	SD 2968 0330
Notes	A lighthouse constructed to a design by Jesse Hartley in 1846. It is depicted on the 1858 Approaches to Liverpool chart (Merseyside Maritime Museum Archives). It consisted of a square brick tapering tower 74 feet high with an iron veranda near the top. Above the veranda was a wooden lantern room making a total height of the structure of 95 feet. This and the attached keeper's cottage were painted white. It showed a fixed bright light for a range of 12 miles. Marked as disused on the 1925 OS sheet it has since been demolished.					
Condition	Unknown					
Site No in Adams & Harthen (2007)			29			

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
11	Not Applicable	Mortuary	Mortuary	Inter-War?	Little Crosby	SD 29668 03211 SW of
Notes	Mortuary south of Little Crosby Lighthouse Shown on OS 1927, Sheet 90.16, 25" to one mile map					
Condition	Destroyed					
Site No in Adams & Harthen (2007)			30			

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
12	2903-002 2903-003 2902-016 2902-017	Altmouth	Findspot	4000 BC – 2351 BC	Little Crosby	SD 2950 0300
Notes	'Sunken forest' recorded by 19 th century antiquarians. Peat beds at the mouth of the Alt, overlain by dune sand and sealing grey clays. Undergoing extensive erosion c. 1980 though sections may survive under deposits of rubble used to revet shoreline. 'Sunken forest' recorded by 19 th century antiquarians. Possibly same as 2902-016 and 2903-002. A sketch map of c. 1931 shows an outcrop of peat c. 100 m south of the present location in an area now masked by rubble from Site 60.					
Condition	Destroyed					
Site No in Adams & Harthen (2007)			147, 148, 151, 152			

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
13	2902-009, 2902-014, 2902-010	Altmouth	Findspot	1540 AD – 1900 AD	Little Crosby	SD 2950 0290
Notes	Pottery fragments, glass and a tobacco pipe found in peat.					
Condition	Unknown					
Site No in Adams & Harthen (2007)			140, 141 & 145			

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
14	2902-004	Altmouth	Findspot	500,000 BC – 2351 BC	Little Crosby	SD 2947 0268
Notes	Flint artefact – fieldwalking find during 1970s.					
Condition	Unknown					
Site No in Adams & Harthen (2007)			135			

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
15	Not Applicable	Wreck west of the Alt, in the vicinity of Hightown	Wreck	Unknown	Little Crosby	SD 29258 02458
Notes	Small sailing ship / Mersey flat / wooden barge wreck (Peter Kendrick Pers. comm.). Location provisionally identified on 1997 aerial photograph. Photograph may actually be Site 17 or 18.					
Condition	Unknown					
Site No in Adams & Harthen (2007)			31			

Site	MSMR	Site Name	Monument Type	Dates	Township	NGR
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Hightown Coastal Defences Archaeological Assessment.

No.	Ref	Site Name	Monument Type	Dates	Township	NGR
16	Not Applicable	Wreck east of the Alt, in the vicinity of Hightown	Wreck	Unknown	Little Crosby	SD 29335 02390
Notes	Small sailing ship / Mersey flat / wooden barge wreck (Peter Kendrick Pers. comm.). Location provisionally identified on 1997 aerial photograph. Photograph may actually be Site 16 or 18.					
Condition	Unknown					
Site No in Adams & Harthen (2007)		32				

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
17	Not Applicable	Wreck west of the Alt, in the vicinity of Hightown	Wreck	Unknown	Little Crosby	SD 29225 02356
Notes	Small sailing ship / Mersey flat / wooden barge wreck. (Peter Kendrick Pers. comm.). Location provisionally identified on 1997 aerial photograph.					
Condition	Unknown					
Site No in Adams & Harthen (2007)		33				

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
18	Not Applicable	Lighthouse	Crosby Lighthouse	1839	Little Crosby	SD 2945 0251
Notes	A lighthouse was first constructed on this site to replace the Formby Lighthouse by Lt Denham c. 1839. Located on the First edition 6 inch OS sheet, an elevation drawing is given on the 1845 'Approaches to Liverpool' chart (Merseyside Maritime Museum Archives) which shows a wooden structure with a single light. Replaced in 1846 by Site 8. NGR given is approximate.					
Condition	Unknown					
Site No in Adams & Harthen (2007)		28				

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
19	2902-018	Trackway – on beach SSW of Sailing Club	Trackway	2350 BC – 751 BC	Little Crosby	SD 2947 0246
Notes	Prehistoric brushwood trackway excavated by NMLFAU					
Condition	Destroyed?					
Site No in Adams & Harthen (2007)		149				

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
20	Not Applicable	No. 1 Coast Artillery Searchlight, Fort Crosby	Coast Artillery Searchlight	Second World War	Little Crosby	SD 295 025?
Notes	Dobinson (2000b, 289) notes that a No. 1 Coast Artillery Searchlight, sited at 'Crosby Point Battery' (Fort Crosby), was <i>planned</i> to be at this NGR location on 1st October 1940, though the actual position remains unconfirmed.					
Condition	Unknown					
Site No in Adams & Harthen (2007)		34				

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
21	2902-005	Altmouth	Findspot	4000 BC – 2351 BC	Little Crosby	SD 2948 0241
Notes	Neolithic polished stone axe found on beach in 1975.					
Condition	Unknown					
Site No in Adams & Harthen (2007)		136				

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
22	2902-015	Altmouth	Findspot	No date	Little Crosby	SD 2948 0241
Notes	Fired clay found in peat with MSMR ref. 2902-002, 2902-011					
Condition	Unknown					
Site No in Adams & Harthen (2007)		146				

Hightown Coastal Defences Archaeological Assessment.

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
23	Not Applicable	Coastal Battery Observation Post?, Fort Crosby	Observation Post?	Empire	Little Crosby	SD 2962 0246
Notes	Building on dune/hill shown on the OS 1927, Sheet 90.16, 25" to one mile map in vicinity of Nos. 1 and 2 Coast Artillery Searchlights and No. 1 gun, Fort Crosby.					
Condition	Unknown					
Site No in Adams & Harthen (2007)			38			

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
24	Not Applicable	No. 2 Coast Artillery Searchlight, Fort Crosby	Coast Artillery Searchlight?	Second World War	Little Crosby	SD 295 024?
Notes	Dobinson (2000b, 289) notes that a No. 2 Coast Artillery Searchlight, sited at 'Crosby Point Battery' (Fort Crosby), was <i>planned</i> to be at this NGR location on 1st October 1940, though the actual position remains unconfirmed.					
Condition	Unknown					
Site No in Adams & Harthen (2007)			35			

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
25	Not Applicable	No. 1 gun, Fort Crosby	Gun Emplacement	Empire/Modern	Little Crosby	SD 297 024
Notes	Dobinson (2000b, 289) notes a battery of three 6" Mark VII guns at notes sited at 'Crosby Point Battery' (Fort Crosby), but gives the NGR only for No. 1 gun of the battery. Site visit noted five concrete and brick bunkers connected by underground passages.					
Condition	Partial					
Site No in Adams & Harthen (2007)			39			

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
26	Not Applicable	Findspot – Organic – Formby Beach	Findspot	500,000 BC – 42 AD	Little Crosby	SD 2950 0230
Notes	Outcrop of footprints observed by M. Stammers in 2005. The beds appear similar to those at Formby though they are presently destroyed or covered.					
Condition	Unknown					
Site No in Adams & Harthen (2007)			255			

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
27	Not Applicable	Unknown	Shipwreck	1800-1900 AD	Crosby	SJ 2950 0230
Notes	Wreck located by Peter Kendrick. Not found on walkover for this study.					
Condition	Unknown					
Site No in Adams & Harthen (2007)			254			

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
28	Not Applicable	Field	Boundary	1836 AD – 1900 AD	Hightown	SD 2992 0247 – SD 3000 0266
Notes	Stone revetted bank, probably 19th century field boundary.					
Condition	Partial					
Site No in Adams & Harthen (2007)			270			

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
29	Not Applicable	Signal Station	Signal Station	Inter-War?	Little Crosby	SD 2977 0223
Notes		Shown on OS 1927, Sheet 90.16, 25" to one mile map.				
Condition			Unknown			
Site No in Adams & Harthen (2007)			40			

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
30	Not Applicable	Fort Crosby	Military Camp	Empire/Modern	Little Crosby/Hightown	SD 2976 0227
Notes		Fort Crosby established 1904, closed 1957 and demolished 1983. The limits given on mapping are approximate.				
Condition			Partial			
Site No in Adams & Harthen (2007)			268			

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
31	Not Applicable	Building and Enclosure	Building and Enclosure	Inter-War	Little Crosby	SD 2987 0223
Notes		Just east of Signal Station (above). Shown on OS 1927, Sheet 90.16, 25" to one mile map. Associated with Signal Station above?				
Condition			Unknown			
Site No in Adams & Harthen (2007)			41			

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
32	Not Applicable	Boundary Stone, Little Crosby	Boundary Stone	1540 AD – 1750 AD	Little Crosby	SD 2967 0204
Notes		Boundary stone on 1st Edition OS 6 inch map. MSMR grid reference (SD 2999 0154). Site now part of golf course.				
Condition		Destroyed				
Site No in Adams & Harthen (2007)			199			

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
33	Not Applicable	Boundary Stone, Little Crosby	Boundary Stone	1540 AD – 1750 AD	Little Crosby	SD 2967 0202
Notes		Boundary stone on 1st Edition OS 6 inch map. MSMR grid reference (SD 2999 0154). Site now part of golf course.				
Condition		Destroyed				
Site No in Adams & Harthen (2007)			197			

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
34	Not Applicable	Sewage Pipe (Outfall Sewer)	Sewer	Modern?	Little Crosby	SD 29600 02030 (Centred at)
Notes		Shown on OS 1927, Sheet 90.16, 25" to one mile map.				
Condition		Unknown				
Site No in Adams & Harthen (2007)			36			

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
35	2902-003	House, Little Crosby	House	1540 AD – 1750 AD	Little Crosby	SD 2980 0207
Notes		NGR checked and appears to be correct – Based on Fearon & Eyes' 1755 map				
Condition		Unknown				
Site No in Adams & Harthen (2007)			134			

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
36	2901-001	Altmouth	Findspot	4000 BC – 2351 BC	SD 2959 0195	SD 2959 0195
Notes	Neolithic Flint tool, lozenge-shaped head NGR places the findspot east of the Alt and west of the West Lancashire Golf Club.					
Condition	Unknown					
Site No in Adams & Harthen (2007)			126			

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
37	Not Applicable	Boundary Stone, Little Crosby	Boundary Stone	1540 AD – 1750 AD	Little Crosby	SD 2971 0188
Notes	Boundary stone on 1st Edition OS 6 inch map. MSMR grid reference (SD 2999 0154) . Site now part of golf course.					
Condition	Destroyed					
Site No in Adams & Harthen (2007)			196			

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
38	Not Applicable	Boundary Stone, Little Crosby	Boundary Stone	1540 AD – 1750 AD	Little Crosby	SD 2978 0191
Notes	Boundary stone on 1st Edition OS 6 inch map. MSMR grid reference (SD 2999 0154). Site now part of golf course.					
Condition	Destroyed					
Site No in Adams & Harthen (2007)			195			

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
39	Not Applicable	Boundary Stone, Little Crosby	Boundary Stone	1540 AD – 1750 AD	Little Crosby	SD 2990 0187
Notes	Boundary stone on 1st Edition OS 6 inch map. MSMR grid reference (SD 2999 0154). Site now part of golf course.					
Condition	Destroyed					
Site No in Adams & Harthen (2007)			194			

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
40	Not Applicable	Boundary Stone, Little Crosby	Boundary Stone	1540 AD – 1750 AD	Little Crosby	SD 2994 0189
Notes	Boundary stone on 1st Edition OS 6 inch map. MSMR grid reference (SD 2999 0154). Site now part of golf course.					
Condition	Destroyed					
Site No in Adams & Harthen (2007)			193			

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
41	Not Applicable	Boundary Stone, Little Crosby	Boundary Stone	1540 AD – 1750 AD	Little Crosby	SD 3000 0185
Notes	Boundary stone on 1st Edition OS 6 inch map. MSMR grid reference (SD 2999 0154). Site now part of golf course.					
Condition	Destroyed					
Site No in Adams & Harthen (2007)			150			

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
42	Not Applicable	Old Sniggery	Fishery	1066 AD – 1800 AD	Crosby	SD 30080 01834
Notes	'Old Sniggery' located on First Edition 6 inch map 1848 and on subsequent OS mapping. Shown on 1997 AP as wooded area in golf course. Same as Site 42.					
Condition	Unknown					
Site No in Adams & Harthen (2007)			188			

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
43	Not Applicable	Fishpond, Little Crosby	Fishpond	1540 AD – 1750 AD	Little Crosby	SD 3015 0182
Notes	Now appears on APs as area of woodland. Same site as 'Old Sniggery' Site 41.					
Condition	Unknown					
Site No in Adams & Harthen (2007)			175			

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
44	Not Applicable	Boundary Stone, Little Crosby	Boundary Stone	1540 AD – 1750 AD	Little Crosby	SD 3009 0177
Notes	Boundary stone on 1st Edition OS 6 inch map. MSMR grid reference (SD 2999 0154). Site now part of golf course.					
Condition	Destroyed					
Site No in Adams & Harthen (2007)			192			

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
45	Not Applicable	Boundary Stone, Little Crosby	Boundary Stone	1540 AD – 1750 AD	Little Crosby	SD 3025 0163
Notes	Boundary stone on 1st Edition OS 6 inch map. MSMR grid reference (SD 2999 0154). Site now part of golf course					
Condition	Destroyed					
Site No in Adams & Harthen (2007)			191			

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
46	2902-007	Altmouth	Deserted settlement	No date	Little Crosby	SD 2900 0200
Notes	Possible deserted settlement, though Lewis 2002 believes it to be a misreading of map evidence.					
Condition	Unknown					
Site No in Adams & Harthen (2007)			138			

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
47	2902-002	Findspot – Bone Artefact – Altmouth	Findspot	No date	Little Crosby	SD 2900 0200
Notes	Un-dated bone artefact found with MSMR ref. 2902-011					
Condition	Unknown					
Site No in Adams & Harthen (2007)			133			

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
48	2902-006	Altmouth	Findspot	4000 BC – 2341 BC	Little Crosby	SD 2900 0200
Notes	Neolithic flint artefact found on beach.					
Condition	Unknown					
Site No in Adams & Harthen (2007)			137			

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
49	2902-008	Altmouth	Findspot	1066 AD – 1539 AD	Little Crosby	SD 2900 0200
Notes	NGR is grid square to S.W. of Hightown. Number of metal finds, no precise location given. Could the finds be in association with the 'deserted' settlement of MSMR ref. 2902-007 ?					
Condition	Unknown					
Site No in Adams & Harthen (2007)			139			

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
50	2902-011	Altmouth	Findspot	500,000 BC –	Little Crosby	SD 2900

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				42 AD		0200
Notes	Animal bone found in peat with MSMR ref. 2902-002, 2902-015					
Condition	Unknown					
Site No in Adams & Harthen (2007)	142					

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
51	2902-012	Altmouth	Findspot	500,000 BC – 42 AD	Little Crosby	SD 2900 0200
Notes	Flint artefact found on foreshore in 19 th century					
Condition	Unknown					
Site No in Adams & Harthen (2007)	143					

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
52	2902-013	Crosby Shore	Findspot	500,000 BC – 42 AD	Little Crosby	SD 2900 0200
Notes	Polished stone axe found on beach c. 1920, artefact of doubtful provenance.					
Condition	Unknown					
Site No in Adams & Harthen (2007)	144					

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
53	Not Applicable	Boat House	Boat House	Empire?	Great Crosby	SD 2960 0176 West of Old Sniggery
Notes	Shown on OS 1908, Sheet 98.4, 25" to one mile map					
Condition	Destroyed					
Site No in Adams & Harthen (2007)	44					

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
54	Not Applicable	Boat House	Boat House	Empire?	Great Crosby	SD 29604 01701 West of Old Sniggery
Notes	Shown on OS 1908, Sheet 98.4, 25" to one mile map					
Condition	Destroyed					
Site No in Adams & Harthen (2007)	45					

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
55	Not Applicable	Uncertain	Military?	1939-1960 AD	Great Crosby	SD 2976 0164
Notes	Group of six structures, possible military such as barracks, visible on 1945 RAF AP.					
Condition	Destroyed					
Site No in Adams & Harthen (2007)	272					

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
56	Not Applicable	Groyne? Or Training Wall?	Groyne? Or Training Wall?	Modern?	Little Crosby	SD 29554 01593
Notes	Shown on aerial photograph (AP 1997, Cat. No. 32904010 and 32904015).					
Condition	Unknown					
Site No in Adams & Harthen (2007)	37					

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
57	Not Applicable	Uncertain	Military?	1939-1960 AD	Great Crosby	SD 2968 0152
Notes		Earthwork on 1945 RAF AP. Possible Gun emplacement.				
Condition		Destroyed				
Site No in Adams & Harthen (2007)			271			

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
58	Not Applicable	Boat Houses	Boat Houses	Inter-War	Great Crosby	SD 29712 01452
Notes		Shown on the c1938 OS 25" map.				
Condition		Destroyed				
Site No in Adams & Harthen (2007)			46			

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
59	2901-006	At Crosby Beach, below MHW, east of course of R. Alt	Findspot – Boat	No date	Great Crosby	SD 2961 0132
Notes		Note from Mike Stammers and sketches of unidentified wreck site. Not seen on walkover, at this NGR would be covered by rubble.				
Condition		Unknown				
Site No in Adams & Harthen (2007)			131			

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
60	2901-007	Crosby Beach Sea Defences	Sea Defences	1918 AD – 1939 AD	Great Crosby	SD 2962 0130
Notes		Architectural fragments used as sea defences. NGR places the site to the west of the sand dunes to the west of West Lancashire Golf Club course. Same as Site 61.				
Condition		Partial				
Site No in Adams & Harthen (2007)			132			

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
61	2901-007	Blundellsands Embankment	Embankment	Post-Second World War	Little/Great Crosby	SD 297 012 (centred at),
Notes		Anti-erosion embankment constructed from Second World War brick rubble from bombsites in Liverpool (Smith, P. H. 1999, 69). Embankment can be seen on aerial photographs to present. Same as Site 60.				
Condition		Partial				
Site No in Adams & Harthen (2007)			42			

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
62	2901-003	Anti-Aircraft Battery – South of Altmouth on coast	Anti-Aircraft Battery	1940 AD – 2050 AD	Great Crosby	SD 2990 0120
Notes		NGR given places A-A battery immediately east of the present dunes on the western edge of West Lancashire Golf Club course.				
Condition		Destroyed				
Site No in Adams & Harthen (2007)			128			

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
63	2901-002	Crosby Shore	Findspot	43 AD – 409 AD	Great Crosby	SD 2900 0100
Notes		Roman coin. OS card SD 30 SW 3 (cited on MSMR 'P' sheet), notes that the NGR of SD 2960 0186 is 'purely hypothetical and should be ignored'. Lost in the Blitz of Liverpool Museum in 1941.				
Condition		Destroyed				
Site No in Adams & Harthen (2007)			127			

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
64	2901-004	Findspot – Metal – Coin – Marshland	Findspot	43 AD – 409 AD	Great Crosby	SD 2900 0100
Notes Roman coin. Both this and MSMR ref. 2901-005 were allegedly found by a 19th century antiquarian.						
Condition Destroyed						
Site No in Adams & Harthen (2007) 129						

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
65	2901-005	Findspot – Stone Artefact – 5ft Above High Water	Findspot	No date	Great Crosby	Findspot – Stone Artefact – 5ft Above High Water
Notes Both this and MSMR ref. 2901-004 were allegedly found by a 19 th century antiquarian.						
Condition Destroyed						
Site No in Adams & Harthen (2007) 130						

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
66	Not Applicable	Boat House	Boat House	Inter-War	Great Crosby	SD 29828 00923
Notes Shown on the c.1927 OS 25" map.						
Condition Destroyed						
Site No in Adams & Harthen (2007) 47						

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
67	Not Applicable	Boat House	Boat House	Inter-War	Great Crosby	SD 29827 00918
Notes Shown on the c.1927 OS 25" map.						
Condition Destroyed						
Site No in Adams & Harthen (2007) 48						

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
68	Not Applicable	Hall Road Dairy/The Farm/Sunnybank	Dairy/Farm	Industrial Revolution 2	Great Crosby	SD 30340 00868
Notes Immediately west of the railway line, north of Hall Road Station. Shown on the c.1893 OS 25" map as 'Hall Road Dairy'. Shown as 'The Farm' on the c.1908 OS 25" map. Shown as 'Sunnybank' on both the c.1927 and c.1938 OS 25" maps.						
Condition Standing						
Site No in Adams & Harthen (2007) 49						

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
69	Not Applicable	Electric Battery Sub-Station	Electricity Sub-Station	Empire	Great Crosby	SD 30378 00791
Notes North of Hall Road Station, and just to the south of the dairy/farm above. Shown on the c.1908 OS 25" map and subsequent maps.						
Condition Standing						
Site No in Adams & Harthen (2007) 50						

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Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
70	Not Applicable	Royal Observer Corps Monitoring Post (Underground), Great Crosby	Royal Observer Corps Monitoring Post	Cold War	Great Crosby	SD 2997 0067
Notes	Defence of Britain database, CBA. Non anti-invasion record no. 3552. Archaeology Data Service Record ID - CBA_DOBNAI-3552.					
Condition	Unknown					
Site No in Adams & Harthen (2007)			51			

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
71	Not Applicable	Blundellsands Sea Beacon	Sea Beacon	Modern?	Great Crosby	SD 2974 0047
Notes	Sea Beacon identified on aerial photographs (AP 1993 folder, Cat. No. 32904000 and AP 1997 folder, Cat. No. 32954000). On beach to West of Coastguard Station.					
Condition	Standing					
Site No in Adams & Harthen (2007)			43			

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
72	Not Applicable	House	House	Empire	Great Crosby	SD 29924 00476
Notes	West of Burbo Bank Road North. Shown on the c.1908 OS 25" map. Not shown on the c.1927 OS 25" map. Appears to have been eroded away.					
Condition	Destroyed					
Site No in Adams & Harthen (2007)			52			

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
73	Not Applicable	House	House	Empire	Great Crosby	SD 29945 00395
Notes	West of Burbo Bank Road North. Shown on the c.1908 OS 25" map. Not shown on the c.1927 OS 25" map. Appears to have been eroded away.					
Condition	Destroyed					
Site No in Adams & Harthen (2007)			53			

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
74	Not Applicable	Netherwood	House	Empire	Great Crosby	SD 29960 00353
Notes	West of Burbo Bank Road North. Shown on the c.1908 OS 25" map. Not shown on the c.1927 OS 25" map. Appears to have been eroded away.					
Condition	Destroyed					
Site No in Adams & Harthen (2007)			54			

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
75	Not Applicable	Beachside/Beachside Towers	House	Industrial Revolution 2	Great Crosby	SD 30002 00259
Notes	West of Burbo Bank Road North. Shown on the c.1893 OS 25" map as 'Beachside'. Shown on the c.1908 OS 25" map as 'Beachside Towers'. Not shown on the c.1927 OS 25" map. Appears to have been eroded away.					
Condition	Destroyed					
Site No in Adams & Harthen (2007)			55			

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
76	Not Applicable	Red House	House	Empire	Great Crosby	SD 30036 00182
Notes	West of Burbo Bank Road North. Shown and named as 'Red House' on the c.1908 OS 25" map. Not shown on the c.1927 OS 25" map. Appears to have been eroded away.					
Condition	Destroyed					
Site No in Adams & Harthen (2007)			56			

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
77	Not Applicable	(Holmside) Stables?	Stables?	Industrial Revolution 2	Great Crosby	SD 30066 00161
Notes	West of Burbo Bank Road North. Shown on the c.1893 OS 25" map, the c.1908 OS 25" map and the c.1927 OS 25" map. Not shown on the c.1938 OS 25" map. Appears to have been eroded away.					
Condition	Destroyed					
Site No in Adams & Harthen (2007)			57			

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
78	Not Applicable	Holmside	House	Industrial Revolution 2	Great Crosby	SD 30057 00126
Notes	West of Burbo Bank Road North. Shown and named on the c.1893 OS 25" map and c.1908 OS 25" map. Not shown on the c.1927 OS 25" map. Appears to have been eroded away.					
Condition	Destroyed					
Site No in Adams & Harthen (2007)			58			

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
79	Not Applicable	Edgewater	House	Industrial Revolution 2	Great Crosby	SD 30116 399974
Notes	North-west of The Serpentine. Shown and named on the c.1893 OS 25" map, and subsequent maps. Not shown on the c.1938 OS 25" map. Appears to have been eroded away.					
Condition	Destroyed					
Site No in Adams & Harthen (2007)			59			

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
80	Not Applicable	Unknown	Shipwreck	1800-1900 AD	Crosby	SJ 2970 9980
Notes	Wreck located by Peter Kendrick. Not found on walkover for this study.					
Condition	Uncertain					
Site No in Adams & Harthen (2007)			253			

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
81	Not Applicable	Matador	Shipwreck	1901-1917 AD	Crosby	SJ 2980 9960
Notes	Wreck of the 'Matador' located by Peter Kendrick. Not found on walkover for this study.					
Condition	Uncertain					
Site No in Adams & Harthen (2007)			252			

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
82	3099-001	Altmouth / Blundellsands	Findspot – artefact - stone	4000 BC – 2351 BC	Great Crosby	SJ 3075 9945
Notes	No details received from MSMR					
Condition	Unknown					
Site No in Adams & Harthen (2007)			179			

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
83	Not	Crosby Racecourse	Racecourse	Industrial	Great Crosby	SJ 310 995

	Applicable	and Grandstand		Revolution 1?		
Notes	Racecourse on Yates' 1786 map. Possibly not in study area? Marked as 'Stand' on Yates' 1786 map. Possibly not in study area? Tyrer (1968, 23) diary entry of N. Blundell for 20-11-1702 says about 'the New Stand'.					
Condition	Destroyed					
Site No in Adams & Harthen (2007)	62, 63					

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
84	3099-002	Shore at Blundellsands	Findspot	43 AD – 409 AD	Great Crosby	SJ 3000 9900
Notes	Roman Coin, Antoninianus Cladius II, found on shore at Blundellsands					
Condition	Unknown					
Site No in Adams & Harthen (2007)	180					

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
85	3098-003	Crosby coastline	Beach Defence	Second World War	Great Crosby	SJ 3061 9893 (centred at)
Notes	NGR checked and correct. Not on printout from HBSMR					
Condition	Unknown					
Site No in Adams & Harthen (2007)	178					

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
86	Not Applicable	Pipeline? Or Groyne?, South-West of Crosby Baths	Pipeline	Modern	Great Crosby	SJ 30361 98628
Notes	Pipeline identified on aerial photograph (AP 1993 folder, Cat. No. 33003980). N.B. Jones <i>et al</i> (1993b, 1119) refer to a training wall being built north of Hall Road in 1936, though this feature is probably a sewage outfall or similar.					
Condition	Standing					
Site No in Adams & Harthen (2007)	60					

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
87	Not Applicable	Sea Beacon/measured mile post South-West of Crosby Baths	Sea Beacon/Landmark	Modern?	Great Crosby	SJ 30384 98611
Notes	Sea Beacon/Landmark identified on aerial photograph (AP 1993 folder, Cat. No. 33003980). Note shadow thrown by landmark to the west.					
Condition	Destroyed					
Site No in Adams & Harthen (2007)	61					

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
88	3098-002	Crosby Beach	Findspot	1751 AD – 1835 AD	Great Crosby	SJ 3013 9829
Notes	Wreck of wooden vessel exposed on Crosby Beach at low tide. First located and recorded by P. Kendrick and M. Stammers.					
Condition	Unknown					
Site No in Adams & Harthen (2007)	177					

Site No.	MSMR Ref	Site Name	Monument Type	Dates	Township	NGR
89	3098-001	Crosby Beach	Findspot (boat)	1900 AD – 1917 AD	Great Crosby	SJ 3050 9829
Notes	Wreck of wooden vessel exposed on Crosby Beach at low tide. The vessel has been identified by P. Kendrick as the 'Lily Baines'.					
Condition	Unknown					
Site No in Adams & Harthen (2007)	176					

