YORK ARCHAEOLOGICAL TRUST

HUDSON DOCK EAST,

BARRACK STREET, SUNDERLAND

DESK BASED ASSESSMENT

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REPORT NUMBER: 2009/53 PREPARED: 14/09/09

YORK ARCHAEOLOGICAL TRUST

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List of Abbreviations

AOD	Above Ordnance Datum
HER	Heritage Environment Record
NMR	National Monument Record
RWC	River Wear Commissioners
YAT	York Archaeological Trust

ABSTRACT

This report is an assessment of the archaeological and historical impact of a proposed industrial development on a site on the east side of Hudson Dock (South Dock), Sunderland. The evidence indicates that prior to the middle of the 19th century this area was not dry land; instead it was part of rock outcrops in the North Sea known as South Rocks. The area was then reclaimed to form the east side of Hudson Dock. The site was devoted to shipbuilding until the late 20th century, when it was used for container storage. It is thought that remains of the shipyard structures survive beneath late 20th century landscaping. The only extant feature of note was a war time concrete pillbox.

1. INTRODUCTION

York Archaeological Trust has been commissioned by Sunrise Renewables Ltd to undertake a desk-based archaeological and historical assessment of land on the east side of Hudson Dock (South Dock), Sunderland (NGR NZ 41435728 centred; Fig. 1). This assessment will be used to support a planning application for the construction of a biomass plant for the purpose of electricity generation. The main element of the development is apparently the construction of a building measuring 60 x 45m towards the centre of the site.

This report has been compiled in accordance with a specification compiled by the Tyne and Wear Archaeology Officer, using guidelines laid down by the Institute for Archaeologists (IFA 2008) and also the internal guidelines of York Archaeological Trust.

2. THE SITE AND STUDY AREA

The site lies on the east side of Sunderland, 1.8km from the city centre and consists of largely open land. The site is an irregular rectangle and measures a maximum of 140m north-south by 120m east-west. It is bounded to the west by an industrial unit and to the east by the North Sea (Fig. 2). The site is fairly flat, ground level being around 6.0m AOD.

The study area is roughly circular and extends 500m from the edges of the site. It includes parts of the west and east sides of Hudson Dock, and the North Sea shore south of Sunderland harbour, up to and including the North East Pier.

Figure 1 *Location of study area*

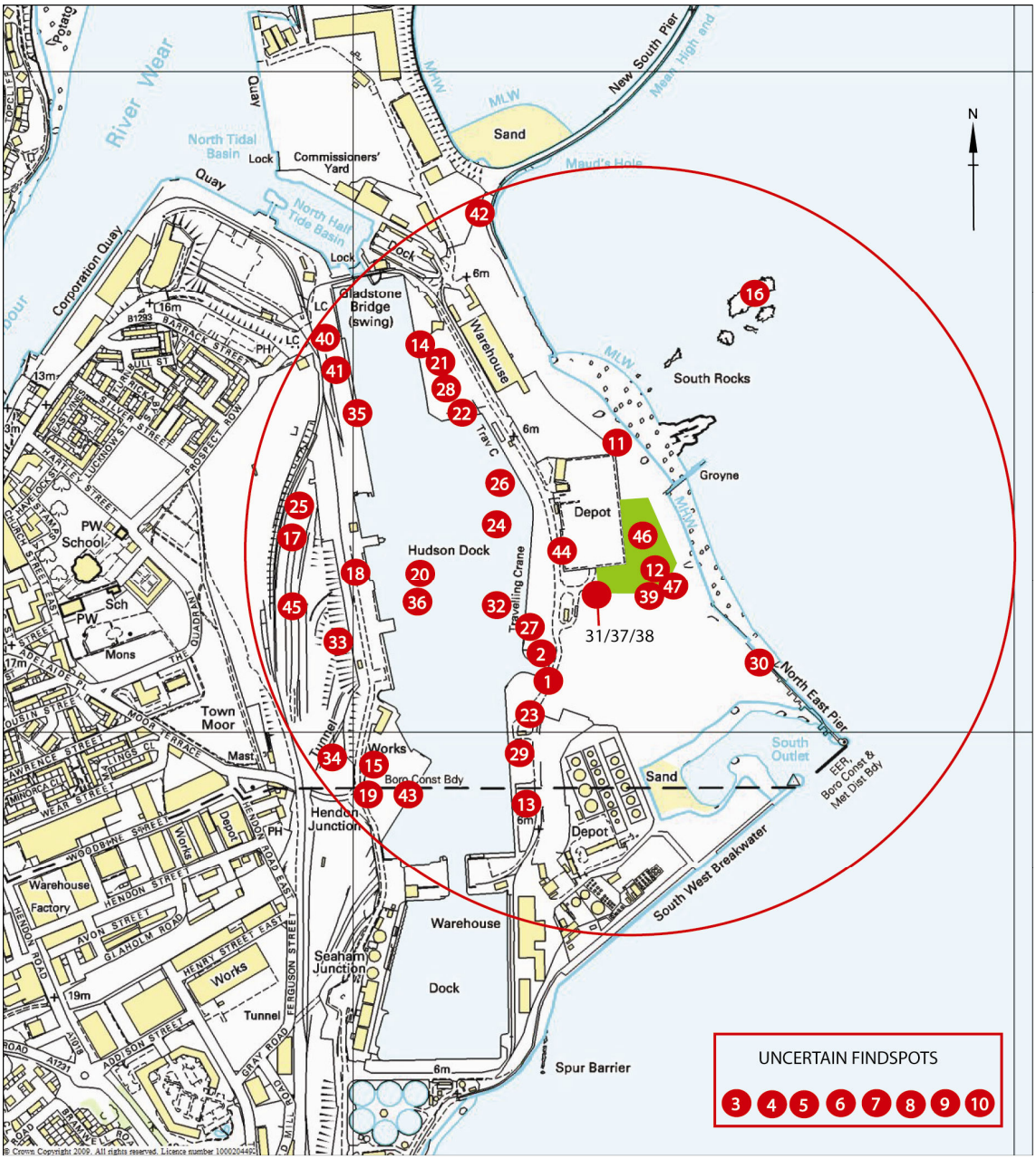

Figure 2 *Location of Listed Buildings, monuments and finds within the study area*

The drift geology is sand, gravel and clay over magnesian limestone. However, the uppermost drift deposits are probably upcast from the excavation of Hudson Dock which were used to form the east side of the dock.

3. AIMS OF THE STUDY

3.1 To elucidate and assess the current state of knowledge about the topography, archaeology and history of the site, using a wide range of accessible sources.

3.2 To undertake a walkover survey of the site in order to establish its current topography and land use, and to ascertain whether these have changed in the past.

3.3 To the make the results available in order to contribute to the development of an archaeological and standing building mitigation strategy in relation to the proposed development.

4. METHOD STATEMENT

The report was compiled using a variety of sources, of varying degrees of accessibility. Online sources included Pastscape; the Heritage Gateway; the British Geological Survey records of groundworks and boreholes; the Cambridge University Collection of Aerial Photographs; and Site Lines, the Tyne and Wear Heritage Environment Record. Several websites featuring local history were consulted. A number of mapping websites were also visited, including Promap.

Hard copy sources examined in detail included the Heritage Environment Record, reports on archaeological interventions and surveys, public records, historical maps and secondary publications.

A walkover survey was carried out, during which a number of photographs of the site were taken. Visits were made to the Tyne and Wear Heritage Environment Record, the Durham County Record Office, Tyne and Wear Archives and Sunderland Libraries Local Studies Centre.

Other sources consulted were the Tyne and Wear Industrial Archaeologist, the Northumberland Museum and Archives and Sunderland City Council.

All original records pertaining to this report are currently held by York Archaeological Trust under the project code 5257.

5. THE ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

5.1 THE ARCHAEOLOGICAL BACKGROUND

Sunderland has been subject to limited archaeological investigation. There are a number of Prehistoric finds from the area, notably a flint scraper found in 1973 (TWHER 5). However, most finds have been made to the north of the River Wear, and there is no evidence of Prehistoric settlement in the Sunderland area.

Evidence of Roman activity is restricted to a handful of Roman casual finds, mostly coins, of uncertain provenance. It has been suggested that Sunderland could be the site of Dictm, a Roman fort listed in the late Roman document Notitia Dignitatum, but there is little evidence to support this.

Bishopwearmouth may have had a pre-conquest church at St Michaels'. Possible Anglo-Saxon stones have been found near the church, but clear evidence of pre-conquest settlement at Bishopwearmouth remains elusive.

The layout of the port of South Wearmouth/Sunderland is evidently medieval in character, with Low Street serving the quays and High Street the focus of the borough and market. Burgage plots extend southwards from High Street for up to 200m, as far as the common pasture (later called Town Moor). The plan of Bishopwearmouth indicates that it was an established settlement in the medieval period, if not earlier. St Michael Bishopwearmouth was the parish church for the area until Sunderland parish was created in the 18th century.

As Sunderland and Bishopwearmouth expanded, the road between the two became lined with good quality housing until the 19th century, when the area became more commercialised and was subsumed into the urban sprawl of the city.

5.2 THE HISTORICAL BACKGROUND

5.2.1 SUNDERLAND

The place-name Sunderland is derived from the Old English *Sundorland*, meaning 'detached land' or 'detached part of an estate.' It is possible that from the late 7th century it was part of the estate of the Jarrow-Monkwearmouth monastery, founded in 673, which lies on the other side of the River Wear (Watts 2002). According to Bede, the vill of South Wearmouth was given to Bishop Benedict by King Aldfrid. It is not clear whether this refers to South Wearmouth, along the south bank of the River Wear, or to the settlement of Bishopwearmouth further south-west. Bishopwearmouth is first documented around 930, but

could have been established some time before that date. A small port could have developed in the Low Street area to serve Bishopwearmouth and the Sunderland estate.

In 1180/1183 Hugh de Puiset, Bishop of Durham granted a borough charter to South Wearmouth, with quays on the south side of the River Wear. The foundation of boroughs, particularly ports, by the church in order to increase income was common during the 12th century. High Street could have been established at this time, along with the market, perhaps as a road connecting the port to Bishopwearmouth. However the privileges of bishops' boroughs such as this were limited compared to royal boroughs such as Newcastle. Consequently the settlement was only moderately successful. On the one hand, a Mayor is mentioned in 1296, and salt and herrings were exported during the 13th century. On the other hand, in 1319 the leading borough official is described as a reeve, and salmon fishing seems to have restricted the growth of the port. In 1358 the borough of Sunderland, with fisheries and Wolton-Yare, was leased to Richard Hedworth of Southwyk. A small amount of coal was being exported by 1396. By the 15th century the port seems to have been little more than a fishing village.

The fortunes of the area began to rise with the development of salt panning. In 1440 a salt pan, held by Wearmouth monastery, is mentioned. By the 16th century the 'township' of Bishopwearmouth Panns had been established to the west of Low Street as salt production increased, and the port began to thrive (see Cartographic evidence). The names of the port - South Wearmouth and Sunderland - seem to have been interchangeable during the medieval period (City of Sunderland 2004, 15ff.). Eventually Sunderland won out, perhaps in order to distinguish the name of the port from the settlement of Bishopwearmouth more easily. A keel was constructed in 1506-7 to carry coal to the salt pan. Nevertheless, a Crown survey in 1565 described Sunderland as 'a fishing town and landing place…in great decay of buildings and inhabitants', with only thirty householders. No ships or boats were based in the port, except for seven flat-bottomed fishing boats known as cobles. In the 1580s the Bowes family leased the borough, anchorage and beaconage from the Bishop of Durham, and this seems to have further invigorated the borough. The salt industry continued to grow and the coal trade developed. By 1615, the population of Sunderland was greater than that of Bishopwearmouth. An entrepreneurial or merchant class arose, such as George Lilburn, who is recorded as a coal merchant in 1622. In 1634 Bishop Morton granted a charter of incorporation and a weekly market to the burgesses and inhabitants by the title of Mayor, twelve Aldermen and the commonalty of the borough of Sunderland; the Bishop built a wharf or staithe, and the rights of the borough to the common pasture of Town Moor was re-stated. Sir William Belasyse of Morton House was the first Mayor. The town steadily increased in size. In 1719 the Parish of Sunderland was established, and the modern borough of

Sunderland was created in 1835. Railways, South Dock and eventually housing subsumed the Town Moor during the early 19th century. In 1853 the freemen and stallholders of the borough relinquished all rights to the Town Moor, as it was being enclosed and built on. With the money they built the Sunderland Orphanage Asylum on the Town Moor (McCombie 1997, 4).

In 1718 the River Wear commissioners were formed, and they set about improving the river channel and constructing piers. A south pier was constructed in stages during the 18th century, and a north pier during 1786 - 1793. By 1840 vessels of up to 300 tons could enter the river (City of Sunderland 2004, 40-1). However, the quays on the river were becoming overcrowded, with up to 700 vessels and numerous smaller craft in an area of less than 80 acres (32ha.). Furthermore, coal was being exported by rail from a new harbour at Seaham. A 9 acres basin was constructed on the north side of the river by the Wearmouth Dock Company, but it proved to be too small for coal exporting needs, not least because it was on the wrong side of the River Wear from the main coalfields and the rail network that had been established to serve them.

George Hudson, the 'railway king', was a prime mover in the establishment of Hudson Dock. When he became Tory candidate for Sunderland in 1845, Hudson promised to promote a new dock in the town. He was Chairman of the York, Newcastle and Berwick Railway, which invested in the Sunderland Dock Company through a subscription of £75,000. A 33 acre dock on the south side of the river was proposed, with a capacity for 350 ships. Work commenced on the South Dock in 1845, and by 1850 a 20 acre dock had been built on land reclaimed from the sea using a series of groynes and material derived from the excavation of the dock basin. It was opened on 20th June 1850. A crowd of 50,000 watched George Hudson lead a procession to the dock. Initially, the main function of the Dock was the transportation of coal from the Durham coalfield. Jetties on the west side of the dock enabled four ships to be loaded with coal simultaneously on each jetty. The dock was clearly a success; in 1851 work on the south extension to the dock, including a south outlet to the sea, began. In 1854 a 300' long graving dock was built to repair ships, and by 1856 there were 18 coal drops in operation. In 1859 the Sunderland Dock Company was taken over by the River Wear Commissioners, and in 1871 the dock was renamed Hudson Dock (NAA 2000, 15-16).

5.2.2 SHIPBUILDING

There was shipbuilding activity in Sunderland from medieval times if not earlier, but on a modest scale. The first record of a shipwright in the Sunderland area is Thomas Menvill of Hendon in 1346. John Foster of Low Street was recorded as a shipwright in 1648. The Goodchilds began shipbuilding in 1672, and their yard remained open until 1821.

Shipbuilding increased during the 18th century, and particularly in the 19th century. By 1814, there were 23 yards building 31 ships, and by 1840 there were 76 yards producing about a third of all ships built in the United Kingdom. Major shipbuilders in the borough included Laing's in 1818, Austin's in 1826, Doxford's in 1840, Short's in 1850 and Pickersgill's in 1851. Wooden sailing ships were gradually being replaced by iron steam ships; the last wooden ship was built in 1880, and the last sailing ship in 1893. In the 1880s steel replaced iron, and from then on most of the ships built in Sunderland were steel cargo ships and tankers. During the first half of the 20th century the shipyards in Sunderland became fewer in number but larger in size, reflecting the increasing size of the ships being built. The shipyards remained busy during both World Wars, continuing to build cargo vessels and with additional naval contracts. However, the shipyards were unable to compete in the face of worldwide competition after the Second World War, and the last, nationalised shipyards closed in 1988.

Shipbuilding had begun at Hudson Dock by the 1860s, when John Haswell is recorded as having a shipyard there. On John Haswell's retirement in 1871, the shipyard was run by Iliff and Mounsey, who began to build vessels in iron. From 1873 the shipyard was owned by Mounsey and Foster. This shipyard was then run by the Sunderland Shipbuilding Company from 1882 until it closed in 1926. This was the first limited company in the area, and consequently the shipyard was known as the Limited Yard.

In 1837 George Bartram opened a shipyard in Hylton in partnership with John Lister and later his son, Robert Appleby Bartram. Shipbuilding upriver had its problems, such as the water freezing over and so delaying launches; consequently the business was transferred to the east side of Hudson dock in 1871 (Anon. 1966; Clarke 1997). George promptly retired, and his son began iron shipbuilding in a partnership with George Haswell, under the name of Bartram, Haswell and Co. When George Haswell retired in 1890, RA Bartram was joined by his two sons and the name of the firm changed to Bartram and Sons. By 1925 the firm was in the hands of RA Bartram's grandsons. During the Second World War the shipyard was very busy; a new berth was built and new platers' and welders' sheds added. The yard launched five ships in 1943. Bartram's was taken over in 1967 by Austin and Pickersgills, and the yard closed in 1978 (Clark 1998).

6. RESULTS

6.1 CARTOGRAPHIC EVIDENCE

The 1843 Tithe Map of Bishopwearmouth Parish shows the township of Bishopwearmouth extending westwards from the Parish and Township of Sunderland along the south side of the River Wear. At least eleven staithes and several inlets/docks point to considerable shipping activity and shipbuilding upstream of Sunderland. Bishopwearmouth Panns is a strip of land on the south bank of the River Wear, between the staithes and Sunderland township, which suggests that this was more an area devoted to salt panning rather than a settlement separate to Bishopwearmouth.

On the 1844 Robson map the east side of Hudson Dock, including the site of the proposed development, was part of the South Rocks and effectively lay in the North Sea until the middle of the 19th century. A railway line crossed the Town Moor close to the coast and ran to staithes alongside the River Wear. A map of the proposed dock, drawn by Stephenson and Murray in 1845, shows that the west side of Hudson Dock would be the existing dry land, with the east side being formed by a new sea wall.

The Meik and Morgan 1851 map shows the northern part of the main South Dock and the northern Half-Tide Basin and Tidal Harbour connecting it to the River Wear. The Durham and Sunderland Railway lines had been extended and now ran to one of the quays on the west side of South Dock. There is no evidence of land use on the east side of the dock. The southern part of the dock and the lock system connecting it to Hendon Bay had not yet been built, but proposed southern extensions to the dock and an outlet south-east to the sea are shown. The 1855 1st edition Ordnance Survey map shows that the southern part of the South Dock and the southern lock system had been built (but not Hendon Dock to the south). A large rail network ran to the South Dock Drops or quays on the west side of the dock. Additional land had been reclaimed to the east of the Dock, and a 'New North Pier' with groynes protected the 'South Entrance' to the Dock from the sea. The east side of the Dock was the home to various industries and other structures, notably two timber yards, a wood processing works and an iron foundry. Furthermore, a 'ship building yard' is shown close to the south entrance, immediately to the north of the southern Half-Tide Basin. The small structures in the yard comprise two smithies, two boilers and two cranes. Buildings further north-east, close to the sea, include a boiler and smithy and could also be associated with shipbuilding. The shipyard, the other industries and the new pier were served by a rail network.

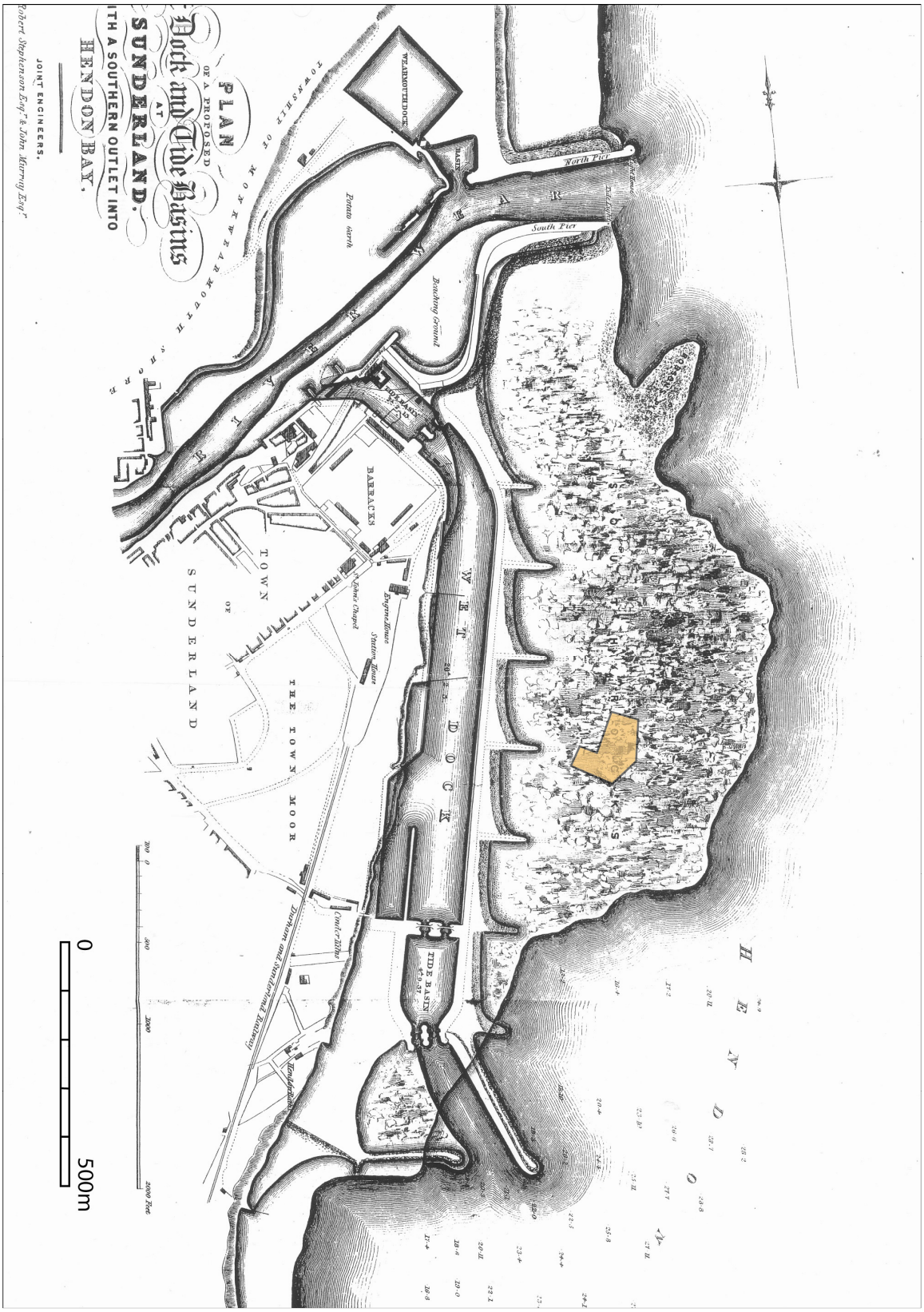

Figure 3 *Approximate location of the site in relation to the 1845 plan of the proposed South Dock*

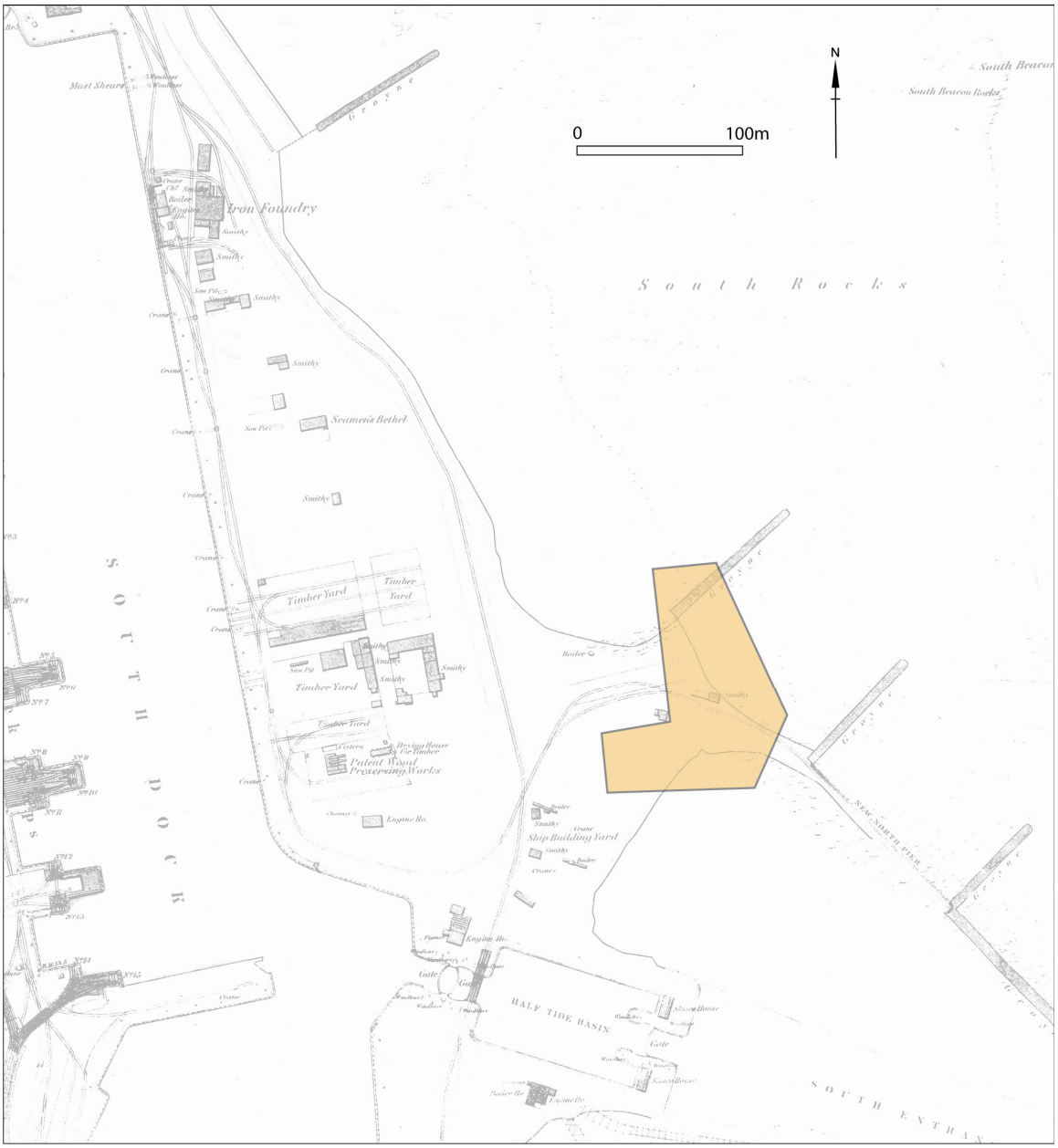

Figure 4 *Location of site in relation to the 1855 Ordnance Survey map*

Not a great deal had changed by the time of the 1897 OS map. However, there was now a second shipyard (unnamed) alongside the south entrance, immediately north-east of the original shipyard, which is named as the South Dock Shipbuilding Yard. Substantial buildings are shown within both shipyards. In addition, further land has been reclaimed to the north-east, and it is occupied by the Sunderland Engine Works. The dock is now named the Hudson Dock, and is separated into North and South parts where a large staithe opposite the south lock almost divides the dock in two. The former New North Pier is now called the North East Pier, and the South Entrance is now described as the South Outlet. On the 1919

OS map, the second shipyard is now named as the Sunderland Shipbuilding Yard. The southern part of the Hudson Dock North had been widened eastwards, at the expense of much of the timber yards and saw mills on that side ot the dock.

By the time of the 1928 River Wear Commission map of the dock, the Sunderland Shipbuilding Yard had been replaced by a timber yard. However, the south-western shipyard remained, and was assigned to Messrs Bartram and Sons. On the 1942 OS map, a rail network runs through the timber yard. The south-western shipyard is here named the South Dock Shipbuilding Yard and extends a little further north-east than previously at the expense of the timber yard. OD levels on this map indicate that the ground level on the east side of Hudson Dock was around 6m AOD. Slipways are shown in front of this shipyard on the sands between the high and low mean tide marks. A similar situation appears on the 1950 River Wear Commission map, except that the shipyard is assigned to Messrs Bartram and Sons and the timber yard is assigned to the East Coast Timber Company.

The 1955 OS map indicates that the 'South Dock Shipbuilding Yard' had expanded even further north-eastwards, to occupy most if not all of the area alongside the South Outlet between the South Dock and the North-East Pier. The shipyard contained several large buildings and two main shipbuilding structures with travelling cranes and slipways. The only other change of note since 1942 was that the Sunderland Engine Works was now called the North Eastern Marine Engineering Works. The 1960 River Wear Commission map shows a similar layout, except that the shipyard is again assigned to Messrs Bartram and Sons.

A 1963 planning application plan (TWA129/68) identified the large building on the north-east side of the shipyard as the Frame Shed. An air-raid shelter is shown adjacent to the south corner of this building, and south-east of that are sixteen concrete defence blocks in four rows. Three berths with accompanying travelling canes are shown. The North-East Pier is now described as 'disused and damaged.' Structural information regarding Berth No.3 indicates that this structure was some 1.5m deep at its north-west end but up to 4.3m deep at its south-east end, in order to create a fall for the launching of ships into the sea. The travelling cranes alongside each berth apparently had similarly massive foundations.

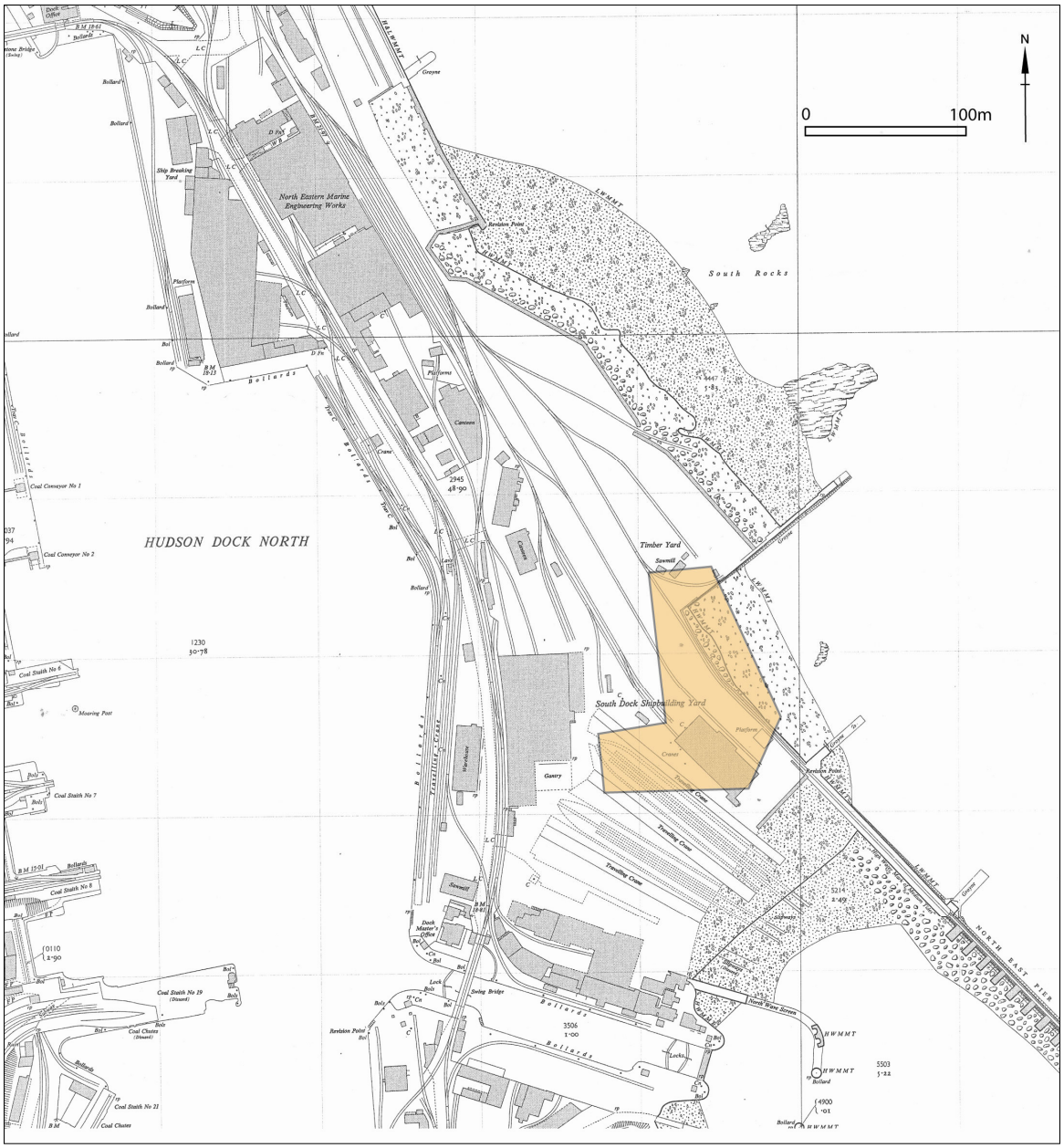

Figure 5 *Location of the site in relation to the 1955 Ordnance Survey map*

6.2 PHOTOGRAPHIC EVIDENCE

A 1950s aerial photo of the site held at Sunderland Library shows the Bartram's shipyard with its main berths. There are 1940s photos of ships being built in the berths, being launched into the south entrance and being fitted out there (Clarke 1998). A search of the Cambridge University Collection of Aerial Photographs online catalogue found three vertical photographs and no oblique photographs within the study area.

6.3 OTHER EVIDENCE

The online GeoIndex database of the British Geological Survey suggested there were five boreholes in the study area, of which three were close to the site. Upon further investigation, one of the boreholes (NZ45NW198) proved to be a duplication of another, dating to 1899, that could not be accurately located (NZ45NW33). This latter borehole could lie in the eastern part of the site or up to 400m to the north-west. In this borehole, the uppermost 8m comprised sands, gravels and clays. Below this was some 67m of magnesian limestone. Some of the drift deposits could be coastal or estuarine accumulation on the South Rocks, but it is likely that much of it was redeposited from the excavation of the South Dock.

The third borehole (NZ45NW76/1-8) proved to be eight separate holes in a small area of the sands in the South Entrance, adjacent to the North East Pier, less than 50m south-east of the site (NZ 41555721 centred). This work is not dated, but was carried out between 1942 and 1955 according to the map evidence available. The top of these boreholes was at 0.0m AOD on average. These boreholes show an average of 4m of sand and gravel over around 1.5m of sandy clay and boulders, probably glacial till. Below the latter was limestone at least 3.5m thick. This sequence is thought to be mostly if not entirely natural.

6.4 STATUTORY LISTINGS

A search of the Tyne and Wear Historic Environment Record and the National Monument Record produced two listed buildings and 43 other sites within the study area (Figure 2). Details of these items are listed in Appendix 1.

There are two Listed Buildings in the study area, both are Grade II. The first is a 19th century iron swing bridge that once carried the railway line over the lock at the south entrance to the dock. (Item 1). The second is a machinery pit for Lock Gates No4, with cast and wrought iron wheels and ashlar lining (Item 2). There are no Conservation Areas within the study area.

6.5 THE WALKOVER SURVEY

The walkover survey was undertaken on 20th August 2009. It involved a visual inspection of the site and the immediately surrounding area, during which a number of colour photographs were taken.

The site was open ground, with industrial compounds to the west and south. The ground surface was mixed soil and rubble, indicative of demolition by machine (Plates 1 and 2). However concrete surfaces were visible in places and a massive concrete foundation, aligned north-south and close to and parallel to the compound to the west, was observed for a distance of about 10m. The surface was level, although about 8m from the industrial

compound to the west the ground sloped down steadily in the space of 4m, so that the compound was about 1m below the site. This difference was at least partly due to raising the ground level of the site as part of the recent demolition/levelling process. Towards the north and east boundaries of the site, this material had been piled up to form a continuous bank, also some 3m high. A sieving frame close to the north-west end of the bank suggests that the soil had been sieved to retrieve material. To the east of the site, overlooking the sea shore, was a bank some 3m high by 5m wide, which continued to the north and south of the site. It comprised massive, irregular stone and (occasional) concrete blocks and is interpreted as a form of sea defences (Plate 3).

The only standing structure of note was a concrete pillbox, which was observed towards the south-east corner of the site (Figure 2, Item 12; Plate 4). It was circular, about 2.5m in diameter, with a conical roof, and a doorway on the west side. There were a number of horizontal gun slits, which were at about the same height but irregularly spaced. The roof was slightly off centre, suggesting that it had been dislodged by a machine. The lower third of the pillbox was obscured by spoil that had been deposited as part of the levelling process.

East of the sea defences, the heavily damaged remains of two massive concrete groynes were observed. Further south, the similarly damaged remains of the concrete North-East Pier were identified. This damage may well have been caused during the formation of the sea wall, hence the presence of concrete fragments in that structure. Concrete sleepers for a railway track, subsequently concreted over, were noted running north from the North-East Pier and curving slightly to the north-west before continuing under the sea defences.

7. DISCUSSION AND CONCLUSIONS

The study indicates that the site that is the subject of this report, and indeed most of the study area, was in the open sea until the middle of the 19th century. Indeed, part of the east side of the site remained as a beach until later 20th century reclamation. Consequently it is most unlikely that archaeological evidence of activity in the area pre-dating the mid 19th century will be unearthed. A number of shipwrecks may have occurred in the vicinity, but it is most unlikely that any of these will have left remains that survive on the site to the present day.

The borehole and documentary evidence indicate that when Hudson Dock was built, the east side of the dock was formed by piling upcast from the excavation of the basin to a height of

some 6m. Further land has been reclaimed from the sea to the east, but it seems the ground surface has not been raised significantly since the construction of the dock.

The site largely overlies the position of the north-east of the two shipyards that lay alongside the north entrance to Hudson Dock, which is thought to have been the shipyard established by John Haswell by the 1860s (perhaps in 1851-1855 according to the cartographic evidence), and was later named the Sunderland Shipbuilding Company (Items 31 and 38). It is possible that at least the foundations and below-ground parts of some 19th century structures associated with this shipyard survive towards the north end of the site. However, most, if not all, of the 19th century features in the southern part of the site will have been completely removed by the construction of the three shipbuilding berths with massive concrete foundations as part of Bartram's shipyard in the middle of the 20th century (Item 37). Any evidence of the development of these shipyards would contribute to key research priority Pmii (industrialisation) of the North-East Regional Research Framework for the Historic Environment, notably regarding transport infrastructure and industrialisation (Petts and Gerrard 2006, 185).

The concrete walls and surfaces observed on the site indicate that the below-ground remains of the 20th century Bartram's shipyard berths survive largely intact. Such evidence could contribute to key research priorities MOi (industry) and MOii (transport and communication), in terms of international trade, society and end of Empire. In addition, a few other 20th century features may survive; notably a Second World War air-raid shelter (Item 39) and a pill box (Item 12). The pill box is of an unusual type; if it dates to the First World War, it would be very unusual. Oddly, the Framing Shed shown on the 1955 OS map seems to have been built around the pill box, and the latter structure also survived the late 20th century clearance of the site. These features could contribute to key research priority MOiv (military and defence); First World War coastal defence, particularly regarding the smaller features, is poorly recorded and understood (Petts and Gerrard 2006, 193).

8. RECOMMENDATIONS

8.1 The pillbox (Item 12) should be investigated and recorded to determine its significance. This information would inform the decision as to how this structure should be treated as part of the proposed development.

8.2 As much of the site either lay in the sea until the 19th century, or was disturbed by 20th century shipyard structures, no other evaluatory excavations are considered necessary.

8.3 A suitably qualified archaeologist should be present during all groundworks associated with the proposed development in order to make a record of any structures or archaeological deposits encountered.

8.4 Any remains of 19th century shipbuilding should be subject to controlled archaeological excavation if encountered.

9. LIST OF SOURCES

9.1 WRITTEN SOURCES

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Petts, D and Gerrard, C, 2006. *Shared visions: the North-East Regional Research Framework for the Historic Environment* (Durham County Council)

Sunrise Renewables Ltd, 2009. *Sunderland Biomass Energy Plant – Hudson Dock East: Archaeological Desk top study*

The Archaeological Practice, 2002. *Shipbuilding on Tyne and Wear – Prehistory to Present*

9.2 MAPS

1843 Bishopwearmouth tithe map

1844 Robson plan of Sunderland and Bishopwearmouth

1845 Stephenson and Murray map of proposed dock

1851 Meik and Morgan

1855 Ordnance Survey

1897 Ordnance Survey 1:2500 map

1914 Planning application 269/629S

1916 Planning application 269/6297

1919 Ordnance Survey 1:2500 map

1923 Planning application 269/6304

1928 RWC plan D/X 1547/13

1942 Ordnance Survey 1:2500 map
1950 RWC plan D/X 1547/11
1955 Ordnance Survey 1:2500 map
1960 RWC plan D/X 1547/12
1963 Planning application T129/68

9.3 INDIVIDUALS AND ORGANISATIONS VISITED OR CONSULTED

Mr I. Ayris (Tyne and Wear Industrial Archaeologist)
Durham Record Office
National Monument Record
Northumberland Museum and Archives
Sunderland City Council
Sunderland Local Studies Centre
Tyne and Wear Archives
Tyne and Wear Heritage Environment Record (Jennifer Morrison)

9.4 ONLINE SOURCES

Archaeology Data Service (www.ads.ahds.ac.uk)
British Geological Survey (www.bgs.ac.uk
Cambridge University Aerial Photograph Collection (www.venus.uflm.cam.ac.uk)
Coal Authority (www.coal.gov.uk)
Durham Record Office (www.durhamrecordoffice.org.uk)
Durham University Library, Archives and Special Collections (www.dur.ac.uk)
Google Maps (www.google.co.uk)
National Monument Record (www.pastscape.org.uk)
Pillbox Study Group (www.pillbox-study-group.org.uk)
Promap (www.promap.co.uk)
Townscape of Sunderland (www.englandspastforeveryone.org.uk)
Tyne and Wear Archives (www.tyneandweararchives.org.uk)
Tyne and Wear Heritage Environment Record (www.twsitelines.info)

10. ACKNOWLEDGEMENTS

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Plate 1 *View of west side of the site, looking south*

Plate 2 *View of east side of site, looking south-east*

Plate 3 *View of coastline east of site, looking north*

Plate 4 *Pillbox, west elevation*

APPENDIX 1: LISTED BUILDINGS, MONUMENTS AND FINDS WITHIN THE STUDY AREA

UNIQUE IDENTIFIER	HER/NMR REFERENCE	GRID REF (NZ)	TYPE	DETAILS
1	HER 4804 NMR 391497	4129157091	Swing Bridge	Swing-bridge and ashlar walls, 1880. Grade II, GV
2	HER 4803 NMR 391496	4128257110	Machinery pit	Machinery pit for Lock Gates No4, +1880. Cast iron and wrought iron wheels, ashlar-lined pit
3	HER 56 NMR 27245	4157	Roman coin	A first brass of Nero (54 - 68 AD) was found in a brickyard near Sunderland (NZ 4157) in 1861.
4	HER 60 NMR 27248	4157	Roman silver spoon	A Roman silver spoon with a short hooked handle was found near Sunderland (NZ 4157). The bowl of the spoon now damaged but inscribed "...NE VIVAS" which had doubtlessly read "BENE VIVAS" when the spoon was perfect.
5	NMR 27251	4157	Mill(S)	15th century Manor Mills (site)
6	NMR 27254	4157	Cist burial	A cist burial found at Langham Tower (unlocated) in Sunderland (NZ 41 57)
7	NMR 27256	4157	Docks	19th century north and south docks with warehouses, granary buildings, dock offices, staithes etc.
8	NMR 971397	4157	Shipwreck	Nightingale, English cargo vessel, lost 1755
9	NMR 1360215	4157	Shipwreck	Mary, English brig, lost 1825
10	NMR 1369737	4157	Shipwreck	Tiny, British yacht on Admiralty service, sunk in South Dock, 1941
11	NMR 1462991	41405743	Tank traps	A line of anti-tank cubes
12	NMR 1462996 HER 1783	41465724	Pill box	World War One pill box [revised grid reference based on walk over survey]
13	HER 1703	41255694	Warehouse	Laing warehouse, 19th century
14	HER 2526	41105758	Engine House	19th century

15	HER 2879	41025695	Limeworks	19th century
16	HER2872	41615766	Beacon	19th century
17	HER 2878	40905732	Railway Station	Town Moor station, 19th century
18	HER 2875	41005727	Coal drop	South Dock Drops, 19th century
19	HER 2881	41015691	Smithy	Blacksmith's workshop, 19th century
20	HER 2874	41105724	Dock	South Dock (Hudson Dock), 19th century
21	HER 2873	41135757	Iron Foundry	19th century
22	HER 2883	41195749	Smithy	Blacksmith's workshop, 19th century [revised grid reference]
23	HER 2889	41265702	Engine/boiler House	19th century [revised grid reference]
24	HER 2885	41215729	Wood works	Wood preserving works, 19th century (destroyed)
25	HER 2895	40935734	Railway	NER. Durham and Sunderland branch, 19th century
26	HER 2884	41215739	Smithy	19th century (destroyed)
27	HER 2888	41285713	Engine House	19th century
28	HER 2882	41155752	Smithy	19th century
29	HER 2890	41245697	Boiler	19th century
30	HER 2891	41625710	Pier	New North Pier, 19th century
31	HER 2886	41375721	Shipyard	John Haswell's shipbuilding yard, 19th century [the north-eastern of the two shipyards]
32	HER 2887	41235719	Engine House	19th century (destroyed)
33	HER 2894	40995714	Railway	Londonderry, Seaham and Sunderland Railway, 19th century
34	HER 4419	40965697	Gun Battery	Sunderland, Town Moor battery, 18th century
35	HER 4418	41015751	Gun Battery	Jockey Dike Nook battery, 1740s, 4 guns (destroyed)
36	HER 4432	411572	Well	Spa Well, 18th century
37	HER 4694	41375721	Shipyard	Bartram and Sons Ltd shipbuilding yard, late 19th – late 20th century [the south-western of the two shipyards]

38	HER 4695	41375721	Shipyard	Iliff and Mounsey shipbuilding yard, 19th century [one of the successors to John Haswell's shipyard (Item 31)]
39	-	41465720	Air raid shelter	20th century
40	HER 5068	40965760	Warehouse	South Dock, Warehouse No 2, 19th century
41	HER 5067	40975757	Warehouse	South Dock, Warehouse No 1, 19th century
42	HER 5335	412578	Pillbox	20th century
43	HER 5431	411569	Loopholed wall	20th century
44	HER 2538	41325727	Railway line	19th century. Served Hudson Dock east. May include stationary engines that provided power to the lines
45	HER 4356	409572	Moor	Town Moor, common pasture, Medieval-19th century
46	-	41445730	Battery	Site of proposed battery, 19th century
47	-	41475721	Tank traps	16 concrete blocks in four rows of four, 20th century