RED HILL MARINA, Ratcliffe on Soar, Nottinghamshire

Environmental Statement: CULTURAL HERITAGE CHAPTER Project No.1756 February 2008

# RED HILL MARINA, RATCLIFFE ON SOAR

**Environmental Statement: Cultural Heritage Chapter** 

# By Samantha Paul

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#### 1.0 INTRODUCTION

- 1.1 This assessment was prepared by Birmingham Archaeology (BA) following a commission by R. S. Morley of Red Hill Marina. It comprises an archaeological assessment of an area of land at Red Hill Farm, Ratcliffe on Soar, Nottinghamshire (hereafter the Study Area; Fig. 1 and Fig. 2).
- 1.2 This assessment forms part of an Environmental Impact Assessment for the proposed development and considers below ground impacts only.

## **Aims and Objectives**

- 1.3 The aim of the assessment is to:
  - I. identify the archaeological sites within the Study Area,
  - II. determine the known and potential survival of the archaeological and historical resource within the Study Area,
- III. assess the significance and value of the resource in a local, regional, national or international context as appropriate,
- IV. assess the impact of redevelopment on each site identified,
- V. assess the effect of future construction and operation on each site identified,
- VI. make provisional mitigation recommendations for any further archaeological work in advance of redevelopment of the Study Area.
- 1.4 This assessment follows standards set out by the Institute of Field Archaeologists (IFA). The general approach and methodology has been to consider the archaeology in terms of the archaeological sites and monuments present within the Study Area. These resources may be nationally or locally designated (by registration, listing or scheduling), may appear in the national or local archaeological record, or may be identified here from specialist scrutiny of the landscape and historic records.

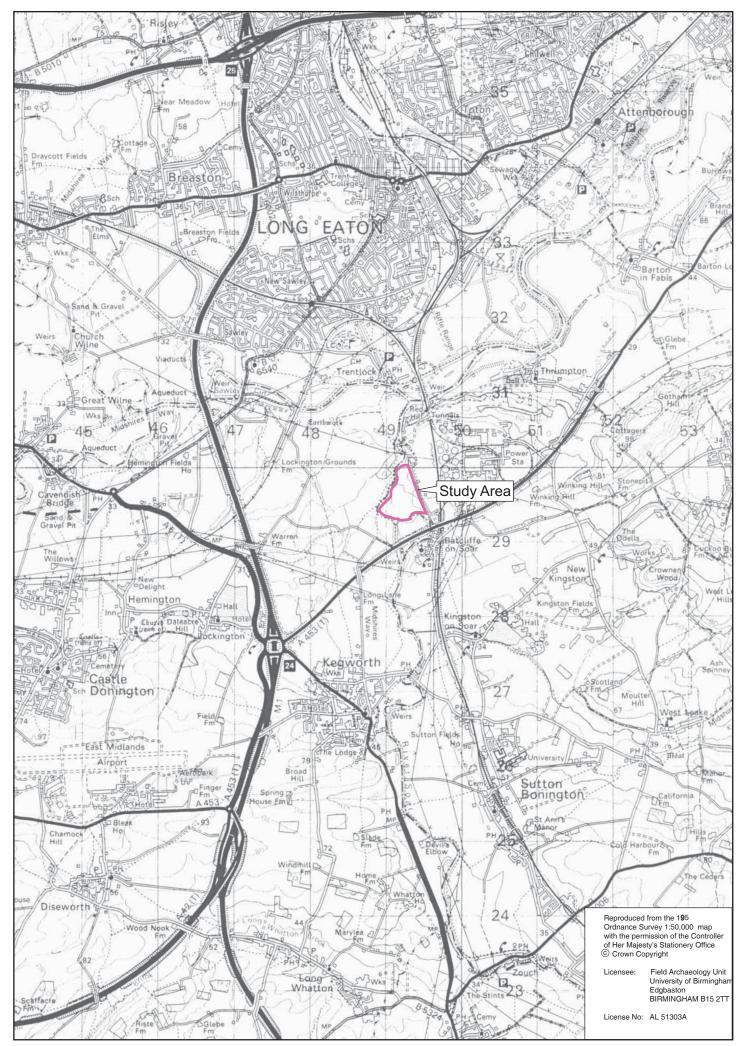


Fig.1

# Methodology

### **Definitions**

1.5 The definition of 'archaeological sites' should be taken to include the upstanding remains, earthworks, buried features, palaeoenvironmental evidence and artefact scatters that may indicate the location of an archaeological site. No listed buildings were recorded within the Study Area.

## Report Framework

- 1.6 The broad framework used in this report is as follows:
  - I. Existing Baseline Conditions
  - II. Identification of Impacts
- III. Evaluation of Significance and impacts
- IV. Mitigation
- V. Summary and Conclusions
- 1.7 An historical and archaeological profile of the Study Area will be given, followed by a description of Existing Baseline conditions in each zone of the Study Area. The development of the Study Area will be traced in detail from a set of historical maps and other published and unpublished sources. An assessment of site value is given, together with identification of Impacts/ evaluation of significance and impacts. Mitigation recommendations for further archaeological fieldwork are given, where considered appropriate.

### The Study Area

1.8 The Study Area is in Ratcliff on Soar, centred on NGR SK 4492 3299 and 200m to the east of the River Soar (Fig. 1). It comprises of four fields within Red Hill Farm and lies to the north of the A453. The western side of the site is bounded by a farm track which leads from the A453 to Red Hill Farm and Red Hill Marina (Fig. 2). Further to the west is the Nottingham to London Railway line, with the Scheduled Ancient Monument of Red Hill approximately 120m to the north-east (SAM Notts 141, SMR 500). A summary of the findings of a desk-based assessment (Stephenson 1999) of the archaeological potential of

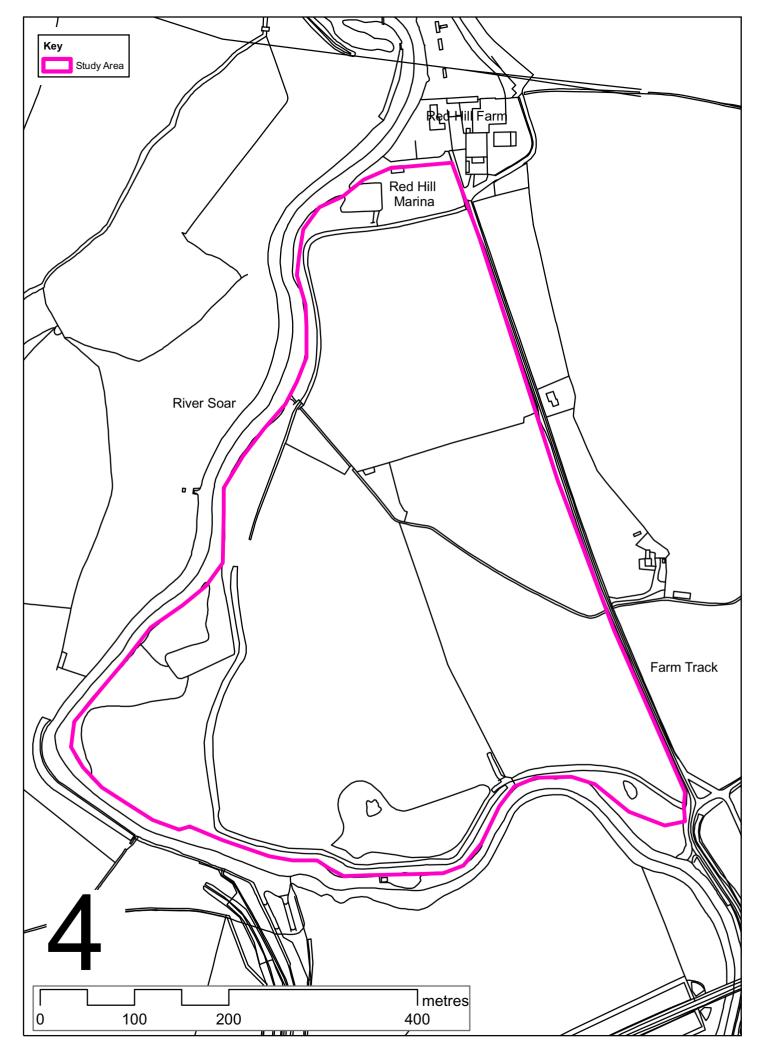


Fig. 2

the area has been included to put the site in its local context, and to help make an assessment of any group value.

### Assessment of Site Value

1.9 The assessment criteria employed in determining the importance of those sites affected by the proposed redevelopment are those laid out in English Heritage Non-Statutory Criteria for the Scheduling of Ancient Monuments. They are as follows:

- I. Period;
- II. Rarity;
- III. Documentation;
- IV. Group value;
- V. Survival and/or condition;
- VI. Fragility and/or vulnerability;
- VII. Diversity
- VIII. Potential.
- 1.10 The assessment has been prepared with reference to the Standard and Guidance for Archaeological Desk- based Assessments (Institute of Field Archaeologists 2001), the assessment section of the Design Manual for Roads and Bridges (Highways Agency 1993), the Transport Analysis Guidance (DfT 2003) by the Department for Transport, the English Heritage Non-Statutory Criteria for the Scheduling of Ancient Monuments and English Heritage's New Approach to Appraisal document.
- 1.11 The archaeological sites, which would be affected by the proposed redevelopment, are categorised according to importance, or potential importance, as follows:
  - I. Sites of national importance, usually Scheduled Ancient Monuments;
  - II. Sites of regional importance;

- III. Sites of local importance;
- IV. Sites of limited importance, including those sites so badly impacted upon or poorly documented that too little now remains to justify their inclusion at a higher grade.

## Sources

- 1.12 Nottinghamshire County Council (NCC) Sites and Monuments Record.
- 1.13 All grey literature relating to previous excavations and assessments within the Study Area and its immediate environs. This is the primary source of existing archaeological information.
- 1.14 Other published sources were consulted in the University of Birmingham Library.
- 1.15 All available Ordnance Survey mapping.

### 2.0 POLICY CONTEXT

# **National Planning Policy**

- 2.1 Department of Environment (DoE) Planning Policy Guidance Note 16, Archaeology and Planning 1990.
- 2.2 DoE / Department of National Heritage (DNH) Planning Policy Guidance Note 15, Planning and the Historic Environment 1994.
- 2.3 Planning Policy Guidance Note 16 (PPG16) Archaeology and Planning (1990) sets out the Government's policy on the preservation and recording of archaeology. Archaeological remains are seen as finite and non-renewable and therefore require appropriate management to ensure their preservation in a good condition. Field evaluations and early consultations with planning authorities are advocated where proposed developments impact upon archaeological remains.
- 2.4 Planning Policy Guidance Note 15 (PPG15) Planning and the Historic Environment (1994) sets out the Government's policy on the identification and protection of historic buildings, conservation areas, and other elements of the historic environment. It explains the role played by the planning system in their protection. It complements the guidance on archaeology and planning given in PPG16.

## **Local Planning Policy**

2.5 Nottinghamshire County Council has a responsibility to protect, either by preservation by record, or preservation 'in situ', cultural remains within its jurisdiction. This conforms to Policy M3.24 (archaeology) which states that:

'Planning permission will not be granted for minerals development which would destroy or degrade nationally important archaeological remains and their settings, whether scheduled or not. Planning permission would only be granted for development which would affect archaeological remains of less than national importance where it can be demonstrated that the importance of the development outweighs the regional or local significance of the remains and where appropriate provision is made for the excavation and recording of the remains.'

### 3.0 BASELINE CONDITIONS

### **Geology and Topography**

3.1 The geology of the site comprises mainly river terrace gravel deposits within the alluvial flood plain. On the higher ground the geology changes to Keuper marl particularly on a raised knoll on the eastern side of the site, and to the north on Red Hill itself.

### **Historical context**

3.2 A desk-based assessment (Stephenson 1999) of the archaeological potential has already been carried out. This section forms only a summary of the archaeological background but does include the findings of the 2007 archaeological evaluation (Krawiec 2007) within the Study Area.

# Mesolithic and Neolithic Periods

- 3.3 A Mesolithic microlith recovered from the surface at Red Hill, and worked Neolithic and Bronze Age flints recovered nearby indicate early prehistoric activity. A Palaeolithic hand axe was found by Leicestershire Archaeology to the east of the study area. Neolithic stone axes have also been recorded locally, one close to the Soar and two from the Trent.
- 3.4 An investigation into the proposed dualling of the A453 between Barton and the M1 also suggested the potential for a ring ditch to the south of Field 4 and to the north of the A453 (Walker 1992).

### Iron Age and Romano-British Periods

- 3.5 In the early 18<sup>th</sup> century human remains were unearthed 400m to the north of the study area during gypsum mining, and during the construction of the rail route 250m to the east of the site, and in the 1840s, further skeletal remains were revealed.
- 3.6 The construction of a rail bridge over the Trent in 1895 produced what were believed to be three pieces of horse armour, but these were not identified, until

later (Watkin *et al* 1996) as the boss and spine from a rare Iron Age shield. Following the donation of the 'horse armour' to Leamington Museum, the *Leamington Morning News* of 18 June 1928 reviewed the story, stating that: "The three pieces of horse armour were found 60 ft below the bottom of the river Trent, near its junction with the river Soar, during the construction of the second Midland Railway over the river Trent, Near Trent Junction, in November 1895".

- 3.7 From the 1950s onwards excavation work and systematic investigation by amateur archaeologists has generated further information about prehistoric and Romano-British activity to the east of the site. A large amount of investigation has also been carried out by metal detectorists, which has identified a spread of Romano-British material within and to the east of the site.
- 3.8 Approximately 120m to the north of the site is the well documented Iron Age and Romano-British site of Red Hill, a Scheduled Ancient Monument (SAM Notts 141, SMR 500, Fig. 3) Red Hill is situated on high ground to the southeast of the confluence of the River Soar and the River Trent. The River Soar may also have been the natural tribal boundary between the Corieltauvi (Coritani) to the east and the Cornovii to the west. While historically rivers were important for communication and commerce, the confluence of rivers appears to have borne particular significance in both prehistory and the Roman Period. It seems likely that this confluence was considered sacred during the Iron Age and was chosen for the site of a shrine, which was later adopted by the Romans for a temple. Springs, marshes, rivers, bogs and wet places were frequently venerated during the Iron Age, a practice often continued after the conquest. Work in the past few years has begun to suggest that the shrine may have encouraged the growth of a small Roman town to the south and west of the scheduled area.
- 3.9 The importance of the site is further illustrated by the proximity of two Roman roads. The first of these is aligned directly from the Trent near Sawley in a northwest direction to the fort and later settlements at Strutt's Park and Little Chester (Derby). Although it has been suggested that this road provided a link between Little Chester and the River Trent (Margary 1973, pp 311), it seems likely that it crossed the Trent and continued to Red Hill, although the exact

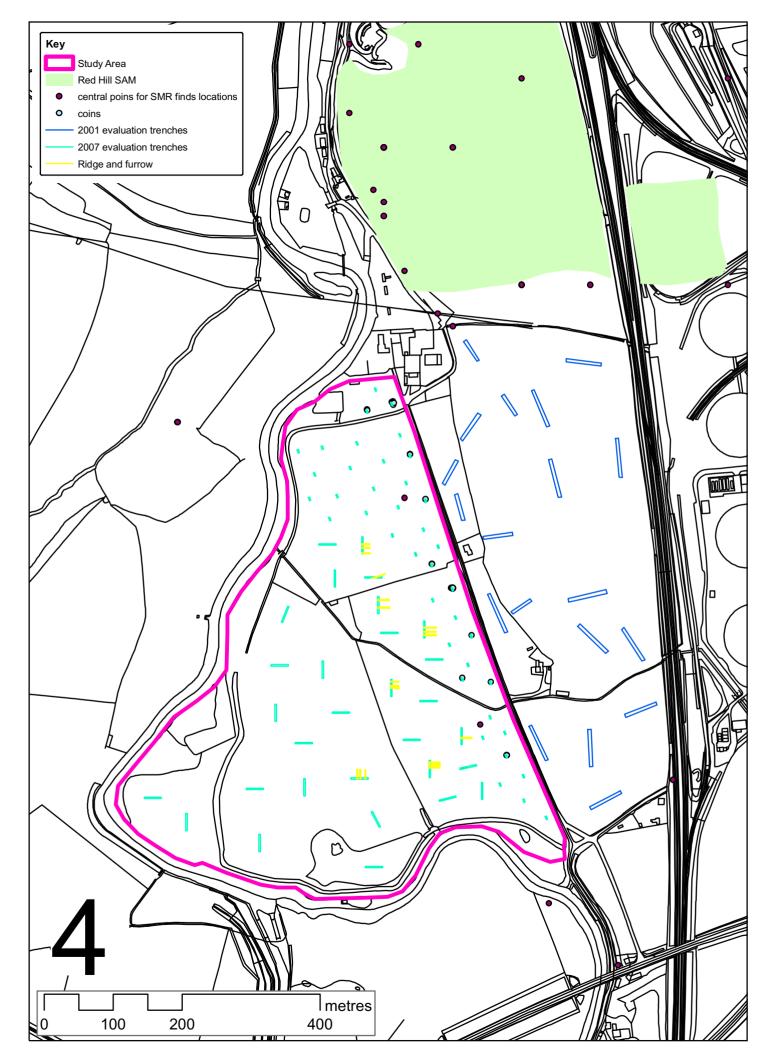


Fig. 3

location has not been identified. The Road probably continued on from Red Hill to Vernemetum on the Fosse Way (Elsdon 1986). A second road (SMR 10) was aligned southwards along the west bank of the Soar to crossing at Kegworth and continues to Shepshed. The exact line of this road at Red Hill is not clear, but it seems likely that the road crossed to the east bank of the Soar somewhere north of the present A453, close to the site.

- 3.10 While artefacts thought to relate to the Roman military have previously been found at Red Hill, no clear defensive features relating to a camp or fortress have yet been discovered. The steep topography of the northern and western sides of Red Hill would have afforded a natural defence, the occupation of which would have controlled traffic on both the Soar and the Trent.
- 3.11 Excavations by Houldsworth on the site at Red Hill in the 1950s uncovered a Roman building which had been identified from aerial photographs (Houldsworth 1963). Fluted stone columns of red Mansfield sandstone were thought to be associated with the building he had excavated since he believed this was the only building on the site. Pottery from the 2nd to 4th centuries AD, a lead tablet, and a 1st century AD burial were associated with the building. Further field walking found traces of tessera, hypocaust tiles, stone flooring, limestone rubble and diamond shaped Roman floor tiles (Elsdon 1982). Red Hill was further excavated by E. Greenfield in the summer of 1963 in advance of building works connected with the power station (Greenfield 1964).
- 3.12 The Leicestershire and Nottinghamshire SMR's have also recorded Romano-British pottery scatters on the western side of the Soar (Fig. 3).
- 3.13 Recent work at Red Hill has concentrated on the cliff side area over looking the River Soar (Reeves 1992), which confirmed the concentration of Roman activity. To the east of the site observations were made during excavations for electrical cable laying, along the line of the Red Hill Farm access track. Here deposits of possible Romano-British date were observed (JSAC 1998).
- 3.14 An evaluation on land to the east of the Study Area in 2001 (Fig. 3) by Birmingham Archaeology, revealed extensive remains of 2<sup>nd</sup> to 4<sup>th</sup> century Romano-British occupation, including buildings, more akin to semi-urban deposits than rural settlement (Cuttler 2001). The archaeology uncovered to

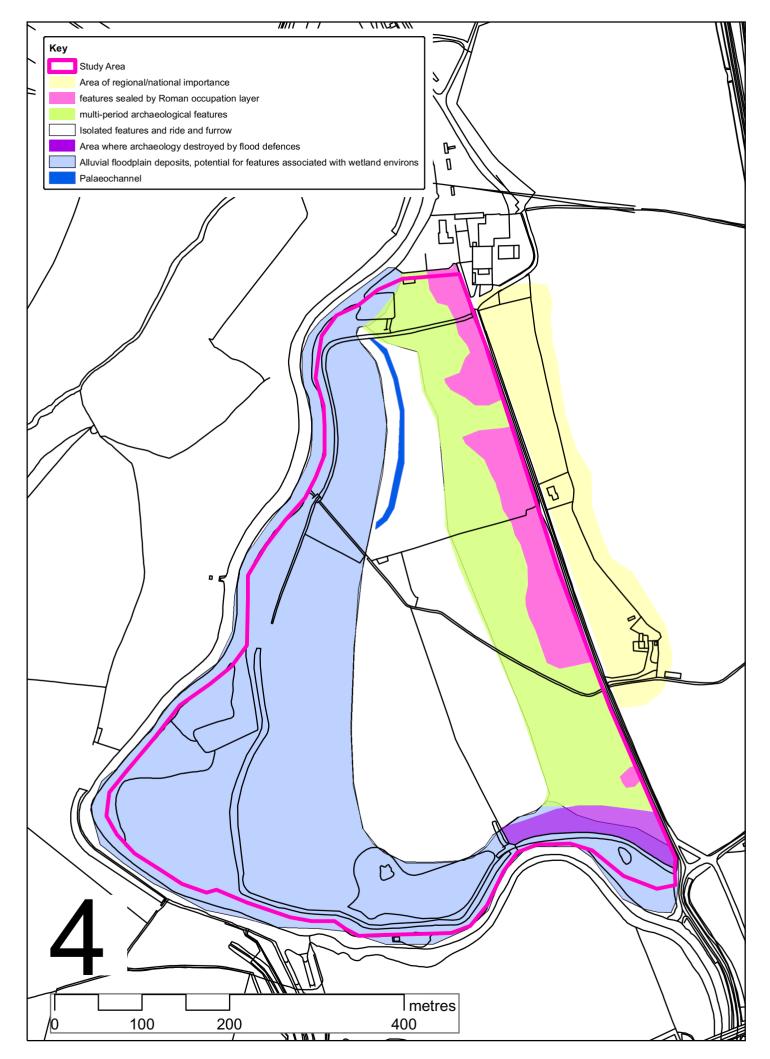


Fig. 4

the immediate east of the farm track is considered to be of regional or national importance (shown in yellow on Fig. 4).

- 3.15 The Study Area was evaluated in 2007 (Fig. 3) by Birmingham Archaeology (Krawiec 2007). The trenches aligned parallel, and close to the farm track revealed the presence of discreet and intercutting features, which cut the natural gravels at a depth of approximately 0.6m from the natural ground surface. The archaeological deposits were characterised by rubbish pits and drainage features. There were also four inhumations with associated grave goods in two of the trenches. A number of metal artefacts were also recovered, mostly comprising Roman coinage. The frequency of imported pottery along with fine tablewares from a variety of sources indicates a thriving community with extensive trade links. The pottery seems to indicate a 2nd to 3rd century date for these features.
- 3.16 These were sealed by a layer of charcoal rich silt clay, which produced a large quantity and variety of finds. Measuring generally 0.2m in depth this was interpreted as a mixed cultivation/occupation layer. The extent of this layer has been interpolated from the trial trenches and is shown in pink on Fig. 4. The layer was deepest closest to the farm track and was no longer evident at a distance of approximately 50m from the farm track.
- 3.17 Further to the west was an area containing discreet features cutting the natural ground surface. These were of various periods, some archaeological in origin and some not. The extent of these features is shown in green on Fig 4. It is interesting to note that there was no evidence of the mixed cultivation/occupation layer in this area. This area curved round a possible palaeochannel on the floodplain edge. Several gravel surfaces were identified although the clear presence of a road was not determined.
- 3.18 No features of archaeological interest were found in the area further to the west, shown in white on Fig. 4. While it is not impossible that some archaeological deposits may be found in this area, the potential for archaeology is considered to be fairly low. Of the features investigated, most were undated were the result of medieval agriculture (ridge and furrow).

#### Saxon and Medieval Period

- 3.19 The probable remains of ridge and furrow relating to medieval or early post-medieval open field cultivation are visible on 1940s aerial photographs, aligned east-west (Stephenson 1999).
- 3.20 The 2007 evaluation revealed evidence of medieval ridge and furrow cultivation as positive as well as negative features (Fig. 3). These features tail off towards the floodplain edge and are good indicators for the limit of dryland exploitation in antiquity.

## Post-medieval Period (Late 18<sup>th</sup> onwards)

- 3.21 A large flood alleviation project was undertaken along the entire river bank during the 1880s. Trenches excavated during the 2007 evaluation within the southeast corner of the Study Area concluded that at least 1m of material was removed during the works and had effectively destroyed all archaeological deposits within areas close to the alleviation scheme. The area of the scheme evaluated in 2007 which showed that archaeological deposits are no longer remaining are shown in purple on Fig. 4. It is likely that material excavated from within the floodplain was used to form the bank which now lies along the south and west sides of the Study Area. The flood alleviation banks are not indicated on the Ordnance Survey maps.
- 3.22 The 1<sup>st</sup> edition Ordnance Survey map of 1889 (Fig. 5) shows the Study Area as a collection of fields with a narrow band of marshland on its western side. No structures are evident within the Study Area. The 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> edition OS maps (Figs. 5 and 6) indicate that the site does not change until the late 20<sup>th</sup> century.
- 3.23 During the latter half of the 20<sup>th</sup> century Red Hill Marina was created at the northern extent of the Study Area. Modern mapping shows access tracks within the northern and southern extremes of the Study Area.

### The floodplain deposits

3.24 The large scale research project recently undertaken upon the Trent-Soar confluence has already suggested a relatively late date for the floodplain deposits (shown in blue on Fig. 4) but no firm dating has been carried out

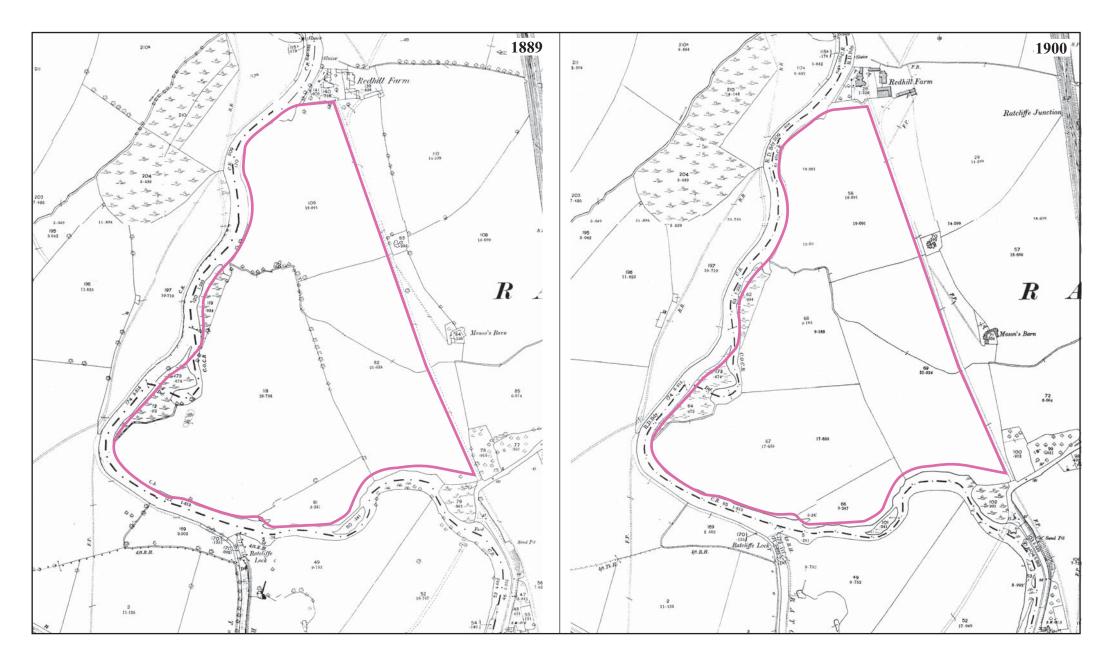


Fig.5

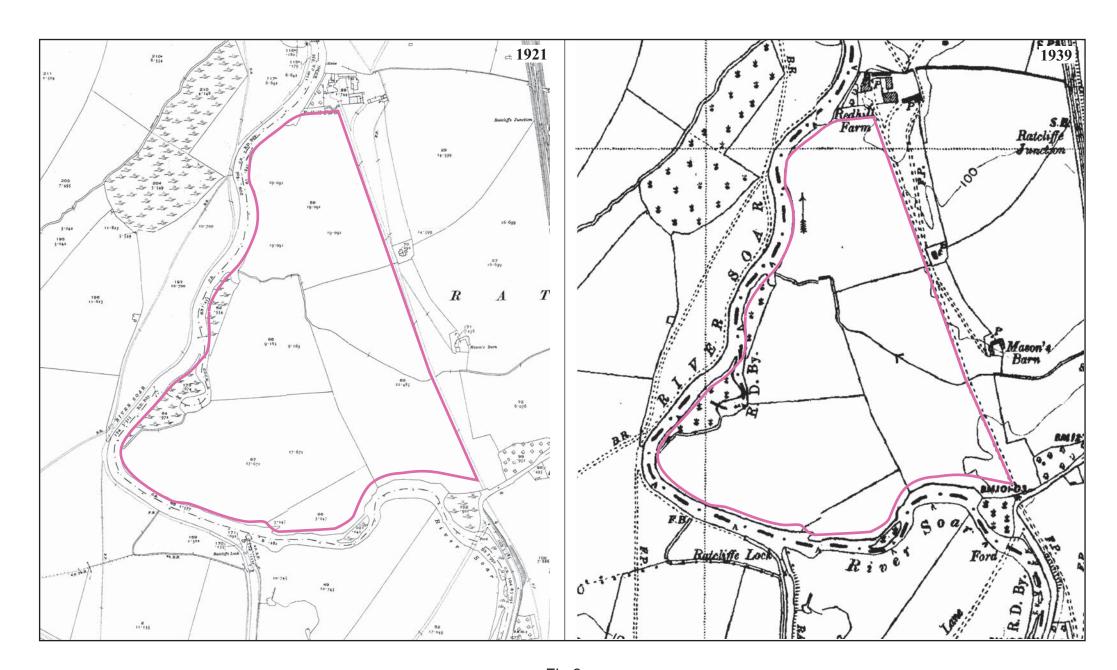


Fig.6

(Brown et al 2007). With such an active river as the Soar the probability that the site will produce not only palaeochannels but also structures associated with exploiting wetland resources is high. The area where possible palaeochannels or associated structures may occur is shown in pale blue on Fig. 4. However, given that any potential structures are likely to be randomly located (although most likely within former river channels) it is it is not possible to evaluate the extent of potential for such structures and deposits.

- 3.25 The location of possible palaeochannel is clearly visible on aerial photography of the Study Area (see Fig. 4 for location) which may contain deposits rich in paleo-environmental data.
- 3.26 The confluence of the Trent and Soar lies to the north east of the Red Hill SAM and the importance and significance of the dryland remains cannot be divorced from the wetland, in both practical and spiritual terms. The positioning of an ancient shrine at the high point in the landscape and its proximity to the confluence of two major rivers indicates the site's importance in terms of its spiritual significance throughout antiquity as well as its significance as an exploitable natural resource.

#### 4.0 IDENTIFICATION OF IMPACTS

- 4.1 The approach to the identification of impacts has been to attribute a value to the importance of each identified archaeological site. The extent of the impact on each of the sites has then been individually appraised.
- 4.2 The archaeological desk- based assessment and archaeological evaluation have enabled some quantification of the possible effects on potential archaeological remains.

## Type of Impacts

- 4.3 Impacts on the cultural heritage resource may consist of:
  - I. direct primary impacts resulting in destruction of standing buildings or buried archaeological remains;
  - II. direct secondary impacts resulting in destruction (e.g. by compression of or by de-watering of waterlogged archaeological remains);
- III. direct impacts upon setting, reducing the appreciation of the resource. e.g. by noise, visual intrusion, dust. These impacts may be attributable to construction and later operation of the proposed redevelopment.
- 4.4 Construction impacts include all those impacts which will result in permanent impacts from construction.
- 4.5 Construction works may involve direct primary impacts, including :
  - I. demolition and clearance works:
  - excavation works (e.g. for structures/ services, cuttings, footings, planting and drainage works);
- III. disturbance of buried archaeological remains by piling;
- IV. Excavation works related to quarrying and/ or extraction.
- 4.6 There may also be secondary direct impacts, for instance:
  - I. vibration damage to historic buildings and other structures by piling;
  - de-watering of waterlogged archaeological remains deposits through drainage alterations;
- III. de-watering may also occur through cumulative minor impacts to drainage.

# Indirect Impacts

- I. Indirect impacts are defined PPG 15 (Paragraph 5.2) as those that arise from complex pathways (one effect leading to another) or from how the proposals may facilitate, encourage or inhibit other developments or changes to the environment not within the control of the developer. Indirect effects may include:
- II. indirect impacts by disconnection involving removing a monument, building or site from its original context;
- III. indirect impacts through the loss of an amenity, (eg historic buildings or scheduled monuments open to the public).
- IV. noise pollution resulting in the fitting of double glazing to buildings.

### 5.0 EVALUATION OF SIGNIFICANCE AND IMPACTS

- 5.1 The significance of impacts on the archaeological remains can be appraised by making an assessment of the importance of the potential archaeological remains. The significance of the majority of sites can be affected by its state of preservation and the regional rarity of the site type.
- 5.2 The significance of archaeological sites affected by the proposed redevelopment has been considered using assessment criteria laid out in English Heritage's Non-Statutory Criteria for the Scheduling of Ancient Monuments (see para. 1.9)
- 5.3 The importance of known potential archaeological sites has been made on the basis of the recent evaluation and desk based assessment. This classification is provisional and may need to be refined in light of fieldwork.
- 5.4 Site numbers have been assigned by Birmingham Archaeology to facilitate discussion of the impacts and potential of the archaeology. These are referenced in Tables 1 and 2 and on Fig. 7.
- 5.5 In assessing the Significance of Effects for the Cultural Heritage. The gravity of the effect is dependent on:
  - the importance of the potential archaeological sites affected.
  - the magnitude of the impacts.

### **Impact Assessment**

### Nature of Construction Impacts

- Impacts can be defined as physical changes to the potential archaeological remains and deposits on the site attributable to the construction phase of the proposed development. Detailed engineering plans of the proposed new development are at present unavailable but for the purposes of this assessment, the following assumptions have been made:
  - Demolition, clearance and ground work preparation.
  - Groundworks (Foundation trench and basement excavation)

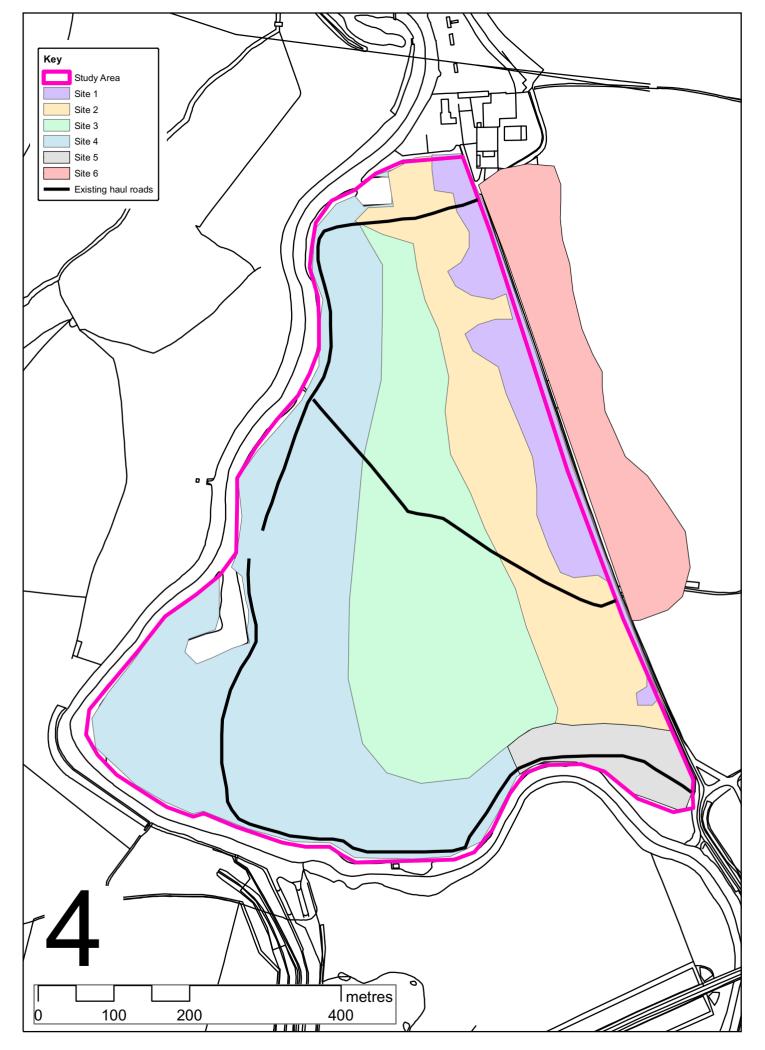


Fig. 7

- Piling for structures
- Services and drainage (service and drainage trench excavation).
- Extraction of sand and gravel from proposed borrow pit.
- 5.7 Reducing ground levels during construction may result in a direct impact upon any archaeological remains that may be located beneath modern deposits. Without archaeological supervision archaeological remains may be damaged or removed before an appropriate archaeological response can take place.
- 5.8 Extraction of aggregates may result in direct impact upon any archaeological remains that lie within the natural sand and gravel deposits.
- 5.9 Unexcavated deposits may yet be disturbed by mobile plant machinery, possible soil and overburden storage areas, and by extraction taking place immediately adjacent to it.
- 5.10 Direct impacts on archaeological remains may also be caused by excavation works for the construction of buildings, roads, drainage and services. These impacts could damage deeply stratified archaeological remains that may be present on the site. Deep piling for foundations will severely impact on buried archaeological remains within the footprint of individual piles. Dense concentrations of piling might have a severely detrimental effect on buried archaeological remains within the piling area. Piling could also have a hydrological effect on the survival of any buried waterlogged archaeological deposits that may be present.

### **Summary of Impacts**

5.11 The archaeological impacts and the consequent environmental effects of the proposed development are summarised in Table 1 (Locations on Fig. 7).

Direct Impacts on Unknown Archaeological Sites

There is some potential for the existence of previously unknown archaeological remains to be impacted upon to an uncertain degree during the extraction and construction phases of the proposed development.

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BA Site No.	Description	Importance of site	Archaeological potential	Magnitude of impact	Significance of environmental effect
1.	Area identified during 2007 evaluation as containing Roman archaeological features and burials sealed by an occupation layer.	High. It is likely that the archaeology within this site is of regional importance as it may denote the expansion of the Roman settlement at Red Hill and/or the position of the Roman cemetery.	Very High. There is no evidence for disturbance along the east edge of the Study Area and the evaluation demonstrated a high level of preservation.	Unclear, potentially low or no impact on archaeology depending on access.	Uncertain but potentially adverse
2.	Area identified during the 2007 evaluation as containing multi-period archaeological features not sealed by the Roman occupation layer.	Medium. The archaeological features within this area are likely to be of local importance. The area contains pre historic, Roman and post-Roman features illustrative of the longevity of the site.	High. There is no evidence for disturbance in the area of Site 2 and the evaluation demonstrated a high level of preservation.	High. Any parts of Site 2 that lie within the proposed borrow pit and marina development are likely to be subject to extraction, and any structures associated with the Marina would have below ground implications.	Uncertain but potentially adverse
3.	Area identified during the 2007 evaluation as containing isolated archaeological features and ridge and furrow.	Low. The majority of the features identified within Site 2 were undated though a few did contain pre historic pottery.	Moderate. There was a definite drop off in the quantity and quality of archaeological features within this area, though those that were excavated were well preserved. There is the potential to recover palaeoenvironmental data from the possible palaeochannel.	High. Ant parts of Site 3 within the area of the proposed borrow pit and marina development would be subject to extraction and therefore all archaeological features would be destroyed.	Uncertain but potentially adverse
4.	Area identified during the 2007 evaluation as containing alluvial floodplain deposits.	Moderate. No archaeological features were recorded within Site 4, however there is the potential for surviving fish weirs, log boats, bridges and structures associated with wetland activities.	Moderate. There is the potential for the survival of organic remains both waterlogged wood and potential for the recovery of environmental remains from the paleochannels.	Moderate. Extraction works would remove any surviving archaeological features or ecofactual information from palaeochannels.	Uncertain but potentially adverse
5.	Area identified during the 2007 evaluation as being altered by the 1880's flood alleviation project.	Low to none. All archaeological features were destroyed during the 188's project.	None- the evaluation demonstrated that a 1m depth of deposits had been removed during the flood alleviation scheme. This would have destroyed any archaeological features or deposits.	None. Any possible archaeological deposits within this area have been previously destroyed.	Uncertain but potentially adverse
6.	Area identified during the 2001 evaluation as containing urban Roman stratigraphy.	Very High. It is likely that the archaeology within this site is of National importance as it may denote the expansion of the Roman settlement at Red Hill.	Very High. The 2001 evaluation demonstrated a high level of preservation.	Potentially Very Low. This is not part of the study area and should not be affected by the proposed extraction scheme and marina construction. However its location should be considered and the area should by no means be used for storage, vehicle turning etc	Uncertain but potentially adverse

Table 1: Summary of Impacts

#### 6.0 MITIGATION

### **Generic Mitigation Measures**

- 6.1 When planning permission has been granted, a written scheme of investigation (WSI) should be prepared for all archaeological works. These will need to be submitted for approval to Nottinghamshire County Council and will cover:
  - methodology;
  - programme;
  - health and safety risk assessments;
  - reporting and archive proposals including named specialists.

### **Site Specific Mitigation Measures**

- 6.2 It is recommended that the following measures be implemented:
  - I. The preservation in-situ of the archaeological remains with Site 1. It is suggested that detailed development design should include a provision to remove the possibility of impact to buried archaeological features within this area, specifically:
    - The area designated within this document as Site 1, should be fenced off from the rest of the development.
    - If heavy machinery or plant is to cross the area designated within this document as Site 1, either the existing haul roads are to be used (see Fig. 7) or a raised road surface (example: metal panels) is to be laid over the topsoil to minimise the compression.
    - No development, including low impact development such as car parks, should take place within the area designated as Site 1 in this document.
  - II. Open area excavation and reporting of all areas in Site 2 to be affected by extraction processes or development associated with the proposed marina.
- III. Strip, map and record of those areas within Site 3 to be affected by the proposed extraction and Marina development. Provision should be made for full excavation and recording within this area if archaeological features or deposits are uncovered which are deemed to justify it. The area of the possible palaeochannel should be subject to full environmental sampling and investigation.
- IV. Archaeological watching brief to be undertaken during the extraction process within Site 4. Provision should be made for full excavation and recording within this area if archaeological features or deposits are uncovered which are deemed to justify it. Any palaeochannels uncovered will require environmental assessment.

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- V. No archaeological mitigation would be required for works taking place within the area designated in this document as Site 5.
- VI. Site 6 lies outside of the study area, though a general awareness of its position is advised.
- 6.3 All archaeological work undertaken should include post-excavation assessment followed by full analysis and publication.
- 6.4 Any scheme of archaeological work should be agreed, well in advance of construction work commencing, with Nottinghamshire County Council.
- 6.5 The proposed mitigations are summarised in Table 2 (below).

BA Site No.	Description	Recommended Mitigation
1.	Area identified during 2007 evaluation as containing Roman archaeological features and burials sealed by an occupation layer.	Preservation in situ of all buried archaeological remains.
2.	Area identified during the 2007 evaluation as containing multiperiod archaeological features not sealed by the Roman occupation layer.	Open area excavation and reporting of all areas affected by the proposed development
3.	Area identified during the 2007 evaluation as containing isolated archaeological features and ridge and furrow.	Strip, map and record and full excavation if appropriate of all areas affected by the proposed development.
4.	Area identified during the 2007 evaluation as containing alluvial floodplain deposits.	Archaeological watching brief and full excavation if appropriate of all areas affected by the proposed development. Assessment of potential to acquire environmental data from palaeochannels.
5.	Area identified during the 2007 evaluation as being altered by the 1880's flood alleviation project.	No archaeological involvement is required.
6.	Area identified during the 2001 evaluation as containing urban Roman stratigraphy.	No archaeological involvement is required however; contractors should be made aware of this sites location.

**Table 2: Summary of Mitigation** 

### 7.0 SUMMARY AND CONCLUSIONS

- 7.1 While there is an area of potentially regional and national importance to the east of the Study Area, archaeological features and deposits within the study area are considered to be of local and regional importance. Every effort should be made for the in-situ preservation of Roman stratigraphy and cemetery within Site 1. The multiperiod archaeological features with the area denoted as Site 2, while certainly of local importance, could be adequately preserved by excavation and record.
- 7.2 There is potential for the survival of buried alluvial sequences, or deposits rich in palaeo-environmental material due to the location of the site on the flood-plain of the River Soar (Fig 7). There is also the potential for as yet unidentified archaeological features relating to the exploitation of wetland resources.
- 7.3 The above sections deal with the known archaeological resource. However, there is the potential for as yet unknown archaeological remains to be impacted to an uncertain degree during the construction phase of the proposed development.

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