



# Beeley Wood Weir, Sheffield

Archaeological Survey and Watching Brief

ArcHeritage  
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## Archaeological survey and watching brief at Beeley Wood Weir, Sheffield

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## **NON-TECHNICAL SUMMARY**

This report presents the results of an archaeological survey and watching brief undertaken at Beeley Wood Weir for the Environment Agency. The archaeological works were undertaken prior to and during the cutting of a fish pass through the weir to improve fish movements on the River Don. The survey was requested by The Environment Agency following a Heritage Statement prepared by Nexus Heritage (2015).

The archaeological works recorded the weir and associated features prior to and during construction works. Features identified included the weir and associated goit, sluice and foot bridge. The structure and construction of the weir were recorded during the works, demonstrating that it was built from large, shaped stone blocks held together with metal straps.



## 1 INTRODUCTION

This report presents the results of an archaeological survey and watching brief at Beeley Wood Weir, Sheffield, South Yorkshire. The survey was requested by The Environment Agency following a Heritage Statement prepared by Nexus Heritage (2015). The survey and watching brief were carried out from the 8<sup>th</sup> to the 22<sup>nd</sup> March 2016.

## 2 LOCATION, GEOLOGY & TOPOGRAPHY

Beeley Wood weir is located on the River Don (NGR SK 31875 91982), in the suburb of Middlewood, approximately 5.75km to the north-west of Sheffield city centre (**Figure 1**). The weir is situated within a narrow, deep valley, which runs through Beeley Wood, an ancient woodland area within the Sheffield City Boundary.

On the east bank, to the north of the weir is a large, modern forge called the Abbey Stainless Steel Company. This is located on the former site of the Beeley Wood/Nova Scotia Tilt Company, built in c.1740 by Thomas Boulsover, of which only one original building still stands on the site. Beeley Wood Lane runs east through the woods from the forge. Landscaping associated with the construction of this road has built up the ground level just back from the river's east bank, resulting in a steep slope down to the river and weir from the road.

On the west bank of the river a large revetment bank supports Middlewood Road North. This is overgrown with trees, but there is a popular public footpath next to the river bank which leads to a footbridge further upstream beside the forge. The vegetation and the topography restrict sightlines from the weir up and down the valley, so the only features visible are the river and the modern forge.

## 3 ARCHAEOLOGICAL BACKGROUND

The weir was one of three considered in a recent Heritage Significance Statement for the River Don weirs (Nexus Heritage 2015). The following background information on Beeley Wood Weir has been summarised from the Heritage Statement. A search of Sheffield Archives identified an additional early map of 1797 that showed the weir and goit.

Beeley Wood Weir provided water to the head goit of Hawksley, or Clay Wheels Forge, located downstream of the weir (SMR ref 1678/01). A newly erected wheel was recorded in this location in 1686 in the name of John Hawksley of Wardsend. It fell into disuse between 1715 and 1736 and was rebuilt in 1736 and 1743. Joseph Clay took over the tenancy in 1769, although the site was still recorded as the Hawksley Wheel (Ball *et al.* 2006). The 1797 map depicts the layout of the Wheel (**Figure 2**). The forge continued in use until the 1950s, making scythes. The Clay Wheels site is currently occupied by Hardcores Building and Paving Supplies and Distribution warehouses. The weir and goit are among the last remnants of the forge visible in the landscape, but modern development has left them isolated and their connection to the former forge is now not easily apparent.

Just upstream from Beeley Wood Weir is the tail goit for the former Beeley Wood Forge built a few years later, c.1740, by Thomas Boulsover, and now occupied by the Abbey Stainless Steel Company (SMR ref 1677/01).



Historic map regression shows that a weir was installed in its current position by at least 1779. Two maps from 1779 and 1786 show the head goit diverting water from just upstream of the weir, past a footbridge and into the dam for Clay Wheels. To the north of the weir, a narrow channel connected the tail goit from Beeley Wood Tilt to the Clay Wheels head goit, suggesting that there was some connection between the two works in the mid- to late 18<sup>th</sup> century. According to Ball *et al.* (2006), the overcrowding on the Don could cause inadequate weirs due to insufficient fall, which often led to several weirs being shared by more than one mill site. It is possible that the fall was not sufficient for the Clay Wheels at this early stage and it required assistance from the Beeley Woods Works. The connecting channel is shown on the 1797 map (**Figure 3**) with dashed lines possibly suggesting that it was no longer working but still in existence. The 1855 OS map (**Figure 4**) does not show this channel, suggesting it was no longer in existence by this date and had probably been filled in. This map does show that the forge and goit were largely unchanged from 1797 and the layout of the goit, dam and forge appear to have remained largely unchanged through the 19<sup>th</sup> century as shown on the 1892-3 OS map (**Figure 5**).

It is possible that the weir has undergone modification throughout its use, as many original weirs were being replaced around the mid-19<sup>th</sup> century (Ball *et al.* 2006). Historic maps demonstrate that after 1894 the weir and its associated structures remain largely unchanged throughout the 20<sup>th</sup> century. The 1934 OS map (**Figure 6**) still shows the forge and dam, with some expansion of the forge buildings, and also notes that the woodland to the north formerly contained a ganister mine. OS maps from the 1950s show the dam either drained or silted up, and it had been removed by the 1960s. The head goit remains marked on the OS maps until the 1980s when the 1:10,000 map depicts it as dashed lines which indicate the course but suggest it was dry at that date; however, the more detailed 1:2,500 maps continue to mark and label the course of the goit.

## **4 PROJECT AIMS AND METHODOLOGY**

### **4.1 Project Aims**

The general aim of the survey was to record Beeley Wood Weir prior to alterations undertaken during works to improve breeding potential of salmon and other freshwater fish within South Yorkshire. In order to achieve this the Environment Agency is installing a series of fish passes along the River Don, including the partial removal of some of the weirs along the river, which are currently impassable to fish travelling upstream.

The specific aims of the project were to:

- record the weir and associated features prior to works being undertaken;
- monitor all intrusive work on the weir and record any internal features or associated artefacts observed during removal;
- ensure that the works had minimum impact on any associated water management features.

### **4.2 Methodology**

This archaeological works consisted of three main elements:

- pre-construction recording;
- continual monitoring on all works associated with the removal of the weir structure. Recording the partial demolition of the weir in order that constructional history is understood, within the limitations of maintaining a safe working environment;
- reporting the results of the works.

Details of the methodology employed are set out in the WSI for the project (Appendix 1).

The pre-construction survey was undertaken on 8<sup>th</sup> and 9<sup>th</sup> March 2016 and the watching brief between the 10<sup>th</sup> and 22<sup>nd</sup> March. Access was possible from both banks but most observations were taken from the eastern bank as this had the best observation position. It was not possible to access the river or weir during the works, limiting the potential to take measurements or to closely observe parts of the weir or some of the works undertaken.

A measured survey of the weir was undertaken by Balvac (**Figure 7**). This showed the weir in its local context, along with the retaining walls along the riverside, but did not include some relevant archaeological features, such as the goit, or details of the weir's structure obscured by the river (**Plate 1**), until part of the weir had been removed to lower the water level. Additional archaeological details observed during the survey were added to the Balvac plan (Figure 8). During the watching brief, approximately three-fifths of the weir was removed. No artefacts were encountered during the removal of the weir.

A caterpillar-tracked machine was used for the works (**Plate 2**), with machine access to the weir undertaken via the goit. As the fill of the goit was soft silt, a temporary access route had to be constructed utilising terram fabric and coarse gravel/rubble (**Plate 3**). On completion of the works, the temporary access was removed to leave the goit unchanged (**Plate 4**).

The large stone blocks taken from the weir during the groundworks were used to construct defences around the remaining structure, leaving the surviving parts of the weir visible on both banks (**Plate 5**), thus retaining the remains of the weir as a feature in the landscape while enabling a more natural water flow in the river. The changes in water levels and water flow in the river can be seen through a comparison of the river post works (**Plate 5**) and the river pre works (**Plate 6**).

## 5 RESULTS

The weir was located on a stretch of the river Don that ran almost northwest to southeast. The weir was orientated approximately east to west crossing the river at a slight angle.

The profile of the weir was asymmetrical; although both faces were constructed at similar angles the upstream face and appeared to end approximately 2.5m back from the top of the weir, while the downstream face extended further. The downstream base of the weir was not observed during the works as it extended below the water level the Balvac Survey suggested it could extend for some 6m from the top of the weir.

The weir was constructed of sandstone blocks, with the structure divided into five sections or bays on both the upstream and downstream sides of the weir (**Figure 8**). The sections were defined by long stone blocks, up to 2m in length and up to 0.6m wide (**Plate 7**), that ran vertically up both faces of the weir. Within each section the weir face was formed of

horizontally-laid rectangular stone blocks. These varied in size, but were generally between 0.35 and 0.5 m thick and between 0.7 and 1.5m long. During the removal of the blocks it was clear they were roughly square in cross-section. The top of the weir was formed of specially shaped blocks: the top of these blocks had two faces (**Plate 8**), a flat horizontal face on the downstream side that formed the top of the weir and a slightly angled face that formed the top of the upstream weir face. There were numerous marks, scratches and chips on the blocks on top of the weir, probably damage caused by hard and heavy objects passing over the weir. The upstream and downstream faces of the weir were noticeably different in appearance (**Plate 8**), the upstream face was smoother and more worn with less plant growth, while the downstream face was less worn and had more vegetation on its surface. The difference in the two faces is probably the result of erosion from the force of the water flowing down the river and the material it carries.

The blocks that formed the top of the weir and the vertical bay-defining stones were attached to one another with large ferrous straps that were fixed into holes in the blocks like large staples (**Plate 8**). A number of cuts had been made into the end of the straps that were inserted into the stonework (**Plate 9**). These cuts expanded the ends of the straps and would have helped the straps grip in the holes, as would lead that was observed in some of the strap holes (**Plate 8**). All of the stones used to construct the weir had small rectangular holes on their upper faces (**Plate 8 and 9**), which would have enabled a lewis lifting device to be used in moving the stones. This suggests that a crane or block and tackle on some sort of frame was used to lift the blocks during construction.

The section cut through the weir provided evidence of its internal construction (**Plate 10**). Within the weir there was a line of large blocks that supported the top blocks of the weir and, although it was difficult to see, below the water was a second layer of large blocks formed from two adjacent lines of blocks that supported the single line above. This can be seen as a slightly lighter band of stonework aligned with the weir that is below the water in **Plate 10**. The gaps between the internal core and the sloping faces of the weir were filled with a mix of stone rubble and finer materials. This material appeared to be fairly stable where the weir was cut through, but on the westernmost downstream section of the weir the face had collapsed. The most likely explanation is that the finer material in the core had been washed out and the overlying large blocks had collapsed downwards (**Plate 11**).

Both riverbanks had been revetted with stone walls at either end of the weir (**Figure 3**), the wall on the western bank running for a total of approximately 44m of which 32m was downstream of the weir. This was made up of two main different constructions with possible patching at several places. Adjacent to and upstream of the weir the wall was constructed of large regularly shaped stone blocks, while further south smaller, less well-shaped blocks were used (**Plate 12**). On the east bank the weir butted against a large stone wall 29m long (**Plate 13**). This wall was constructed from large shaped blocks held together with ferrous straps (**Plate 14**). At its north end the wall finished at the entrance to the goit (**Plate 15**) while at its south end it joined to an earlier fragmentary wall (**Plate 16**).

The head goit leading off the river at the weir ran around to the east of the revetment wall on the east bank (**Figure 8**). From the river the northern end of the goit could be traced as a depression with steep banks on either side (**Plate 17**). The goit contains fine silt sediment that

had presumably washed in from the river, resulting in the channel becoming blocked (**Plate 15**). After curving round the east bank revetment wall, the goit continued south, running parallel with the river. As the goit passed the weir there was a three-sided stone constructed chamber (**Plate 18**), probably part of the structure of the sluice. The south side of this structure formed part of a small bridge across the goit (**Plate 19**), with the goit continuing south below the bridge. The rubbish and modern debris that filled the chamber was removed (**Plate 20**) but due to the silt filling the goit it was not possible to examine any surviving remains of the sluice or bridge structures, although these may have been preserved by the silt. The southern section of the goit below the bridge contained the remains of a buried and overgrown stone lining (**Plate 21**). This could not be identified within the northern section, although there were a few stones in the east bank of the goit that could be the remains of a stone lining (**Plate 22**).

## 6 CONCLUSIONS

The recording and watching brief on the Beeley Wood Weir was undertaken during works to cut a fish pass through the weir. The archaeological fieldwork recorded the weir and associated features prior to groundworks being undertaken. Features recorded comprised the weir, head goit, sluice and a footbridge. The intrusive works were monitored and details of the weir's construction were recorded, revealing a substantial stone core and outer faces, with gaps infilled by stone rubble and finer material. The monitoring ensured that any disturbance to associated water management features was minimal and that appropriate actions were taken to minimise such disturbance.

## 7 ACKNOWLEDGEMENTS

ArcHeritage would like to thank Anthony Downing of the Environment Agency, Balvac Ltd. and Jim McNeil of SYAS.

## 8 BIBLIOGRAPHY

Ball, C. Crossley, D. and Flavell, N. 2006. *Water Power on the Sheffield Rivers*. Second revised Edition

Nexus Heritage. 2015. *River Don Weirs, South Yorkshire. Heritage Significance Statement*. Unpublished client report. Nexus Heritage report number 3208.R01B.



## PLATES



Plate 1: Beeley Wood Weir pre works, viewed facing west



Plate 2: Cutting through the weir



**Plate 3: Construction of access along the goit**



**Plate 4: Goit after removal of temporary access**



**Plate 5: Weir on completion of the works showing both ends of the weir and water flow**



**Plate 6 View of weir prior to works showing former river levels**





**Plate 7: Weir sections defined by long vertical stone blocks**



**Plate 8: Shaped blocks on top of weir and connecting straps**



Plate 9: Ferrous strap



Plate 10: Section through the weir showing its internal structure



**Plate 11: Collapsed section of weir at west end downstream side**



**Plate 12: West bank revetment wall showing construction changes**



**Plate 13: East bank revetment wall constructed from large blocks**



**Plate 14: Weir abutting wall on east river bank**



**Plate 15: North end of east bank wall viewed from the goit**



**Plate 16: South end of the east bank wall and continuing earlier wall**



**Plate 17: Line of goit at north end (Scale 2m)**



**Plate 18: Stone-built chamber looking south across bridge to goit south end (Scale 2m)**



Plate 19: View across bridge to the river (scale 2m)



**Plate 20: Chamber and bridge (on left) after cleaning modern debris out of the goit**



**Plate 21: Goit heading south from bridge, with fragments of stone lining on west side**





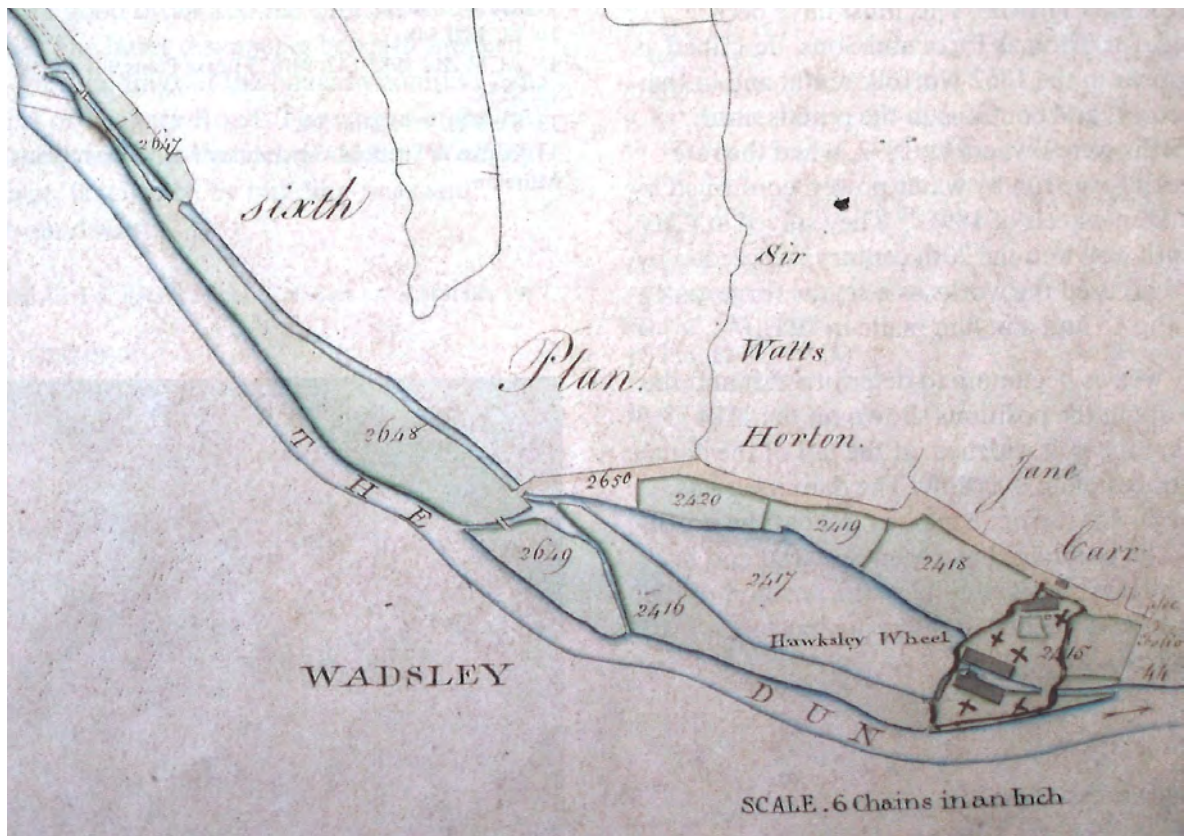
Plate 22: Stones in the east bank of the northern section of goit

## FIGURES

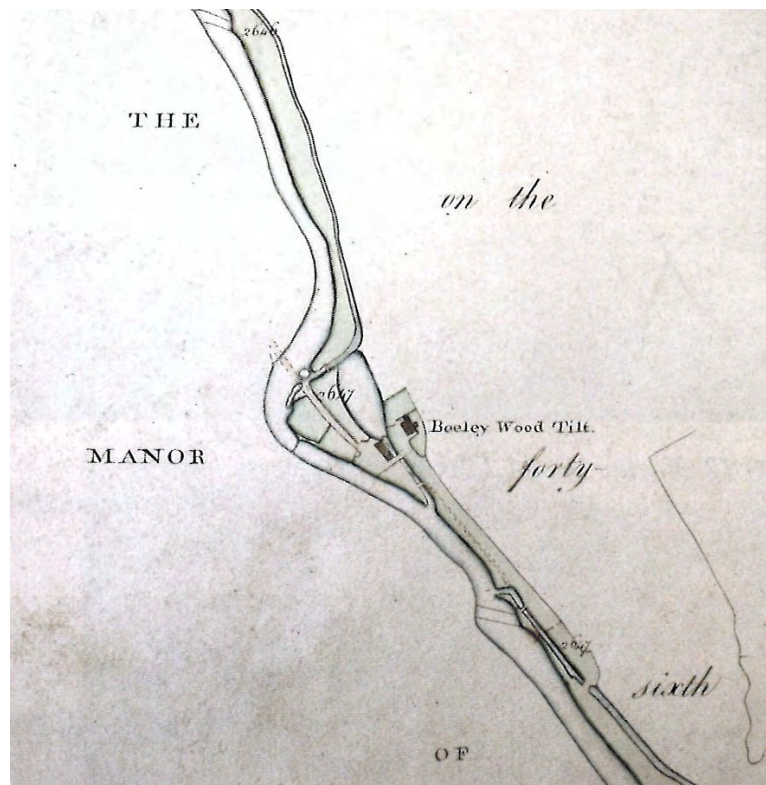




Figure 1: Site Location



**Figure 2:** 1797 plan of Hawksley/Clay Wheels. ACM S92 f44v Sheffield Archives



**Figure 3:** Detail of 1797 plan showing Beeley Wood Weir and Beeley Wood Tilt to the north with possible connection

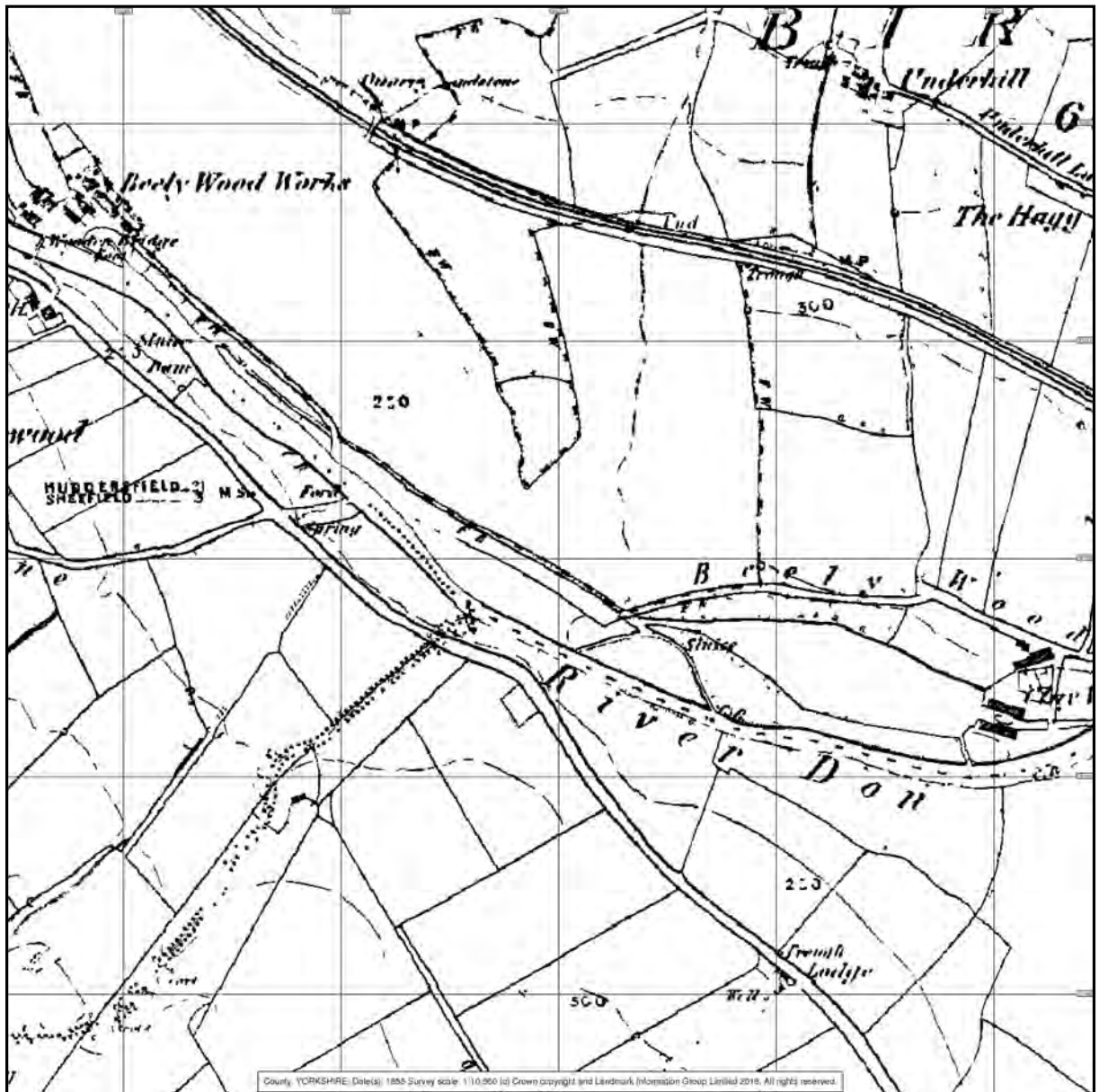


Figure 4: 1855 OS 1:10,560

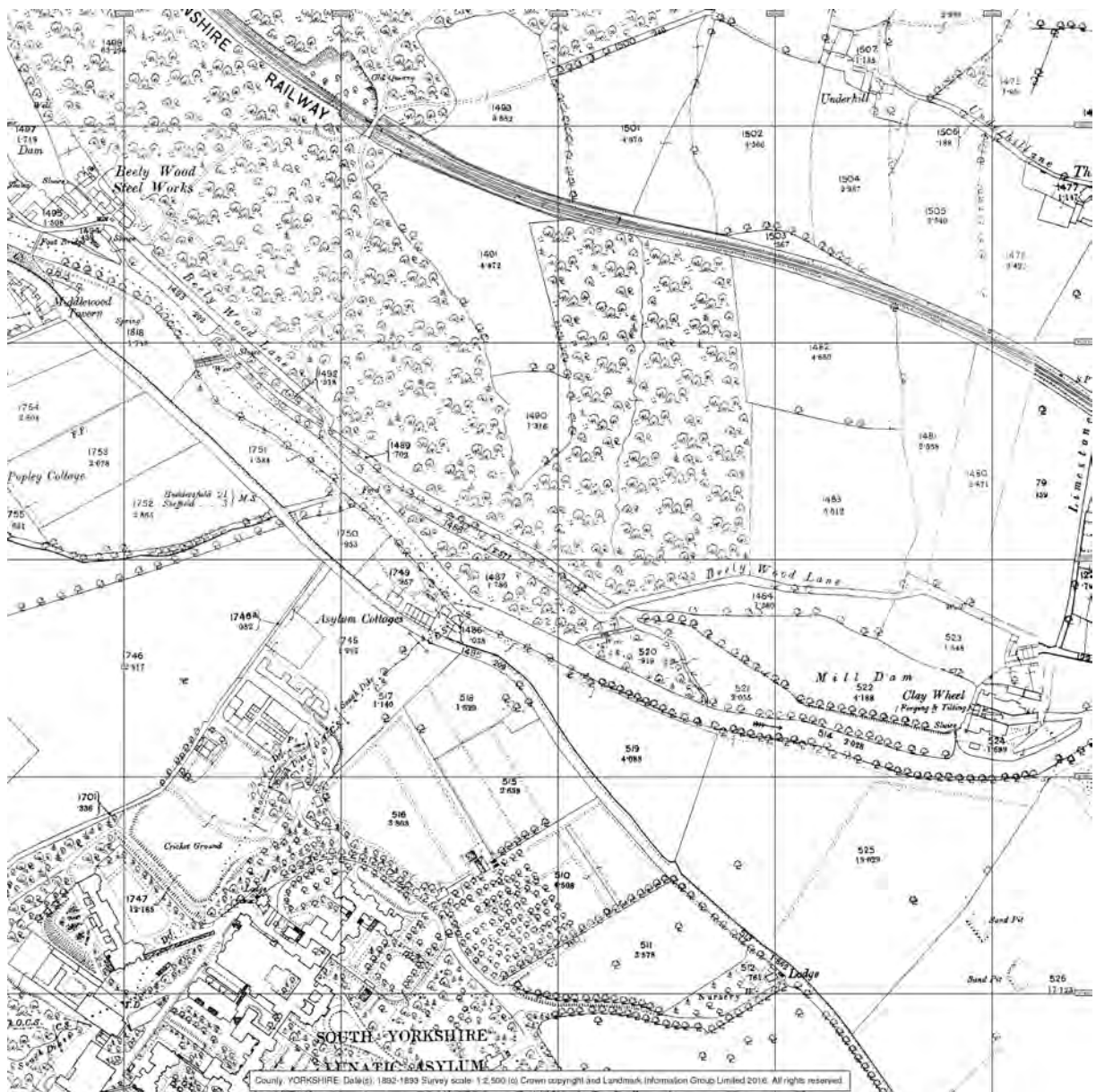


Figure 5: 1892-93 OS 1:2,500

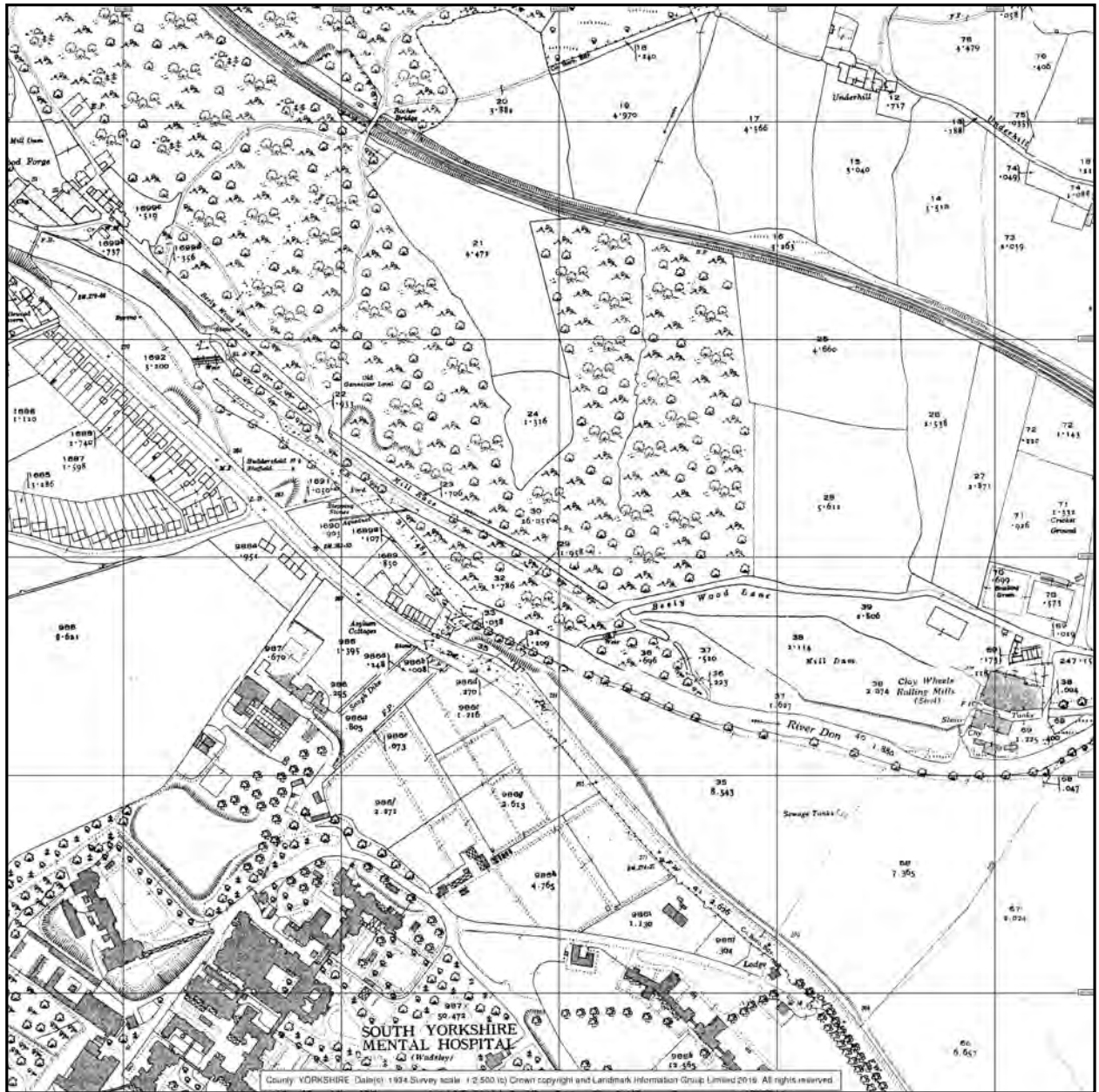


Figure 6: 1934 OS 1:2,500





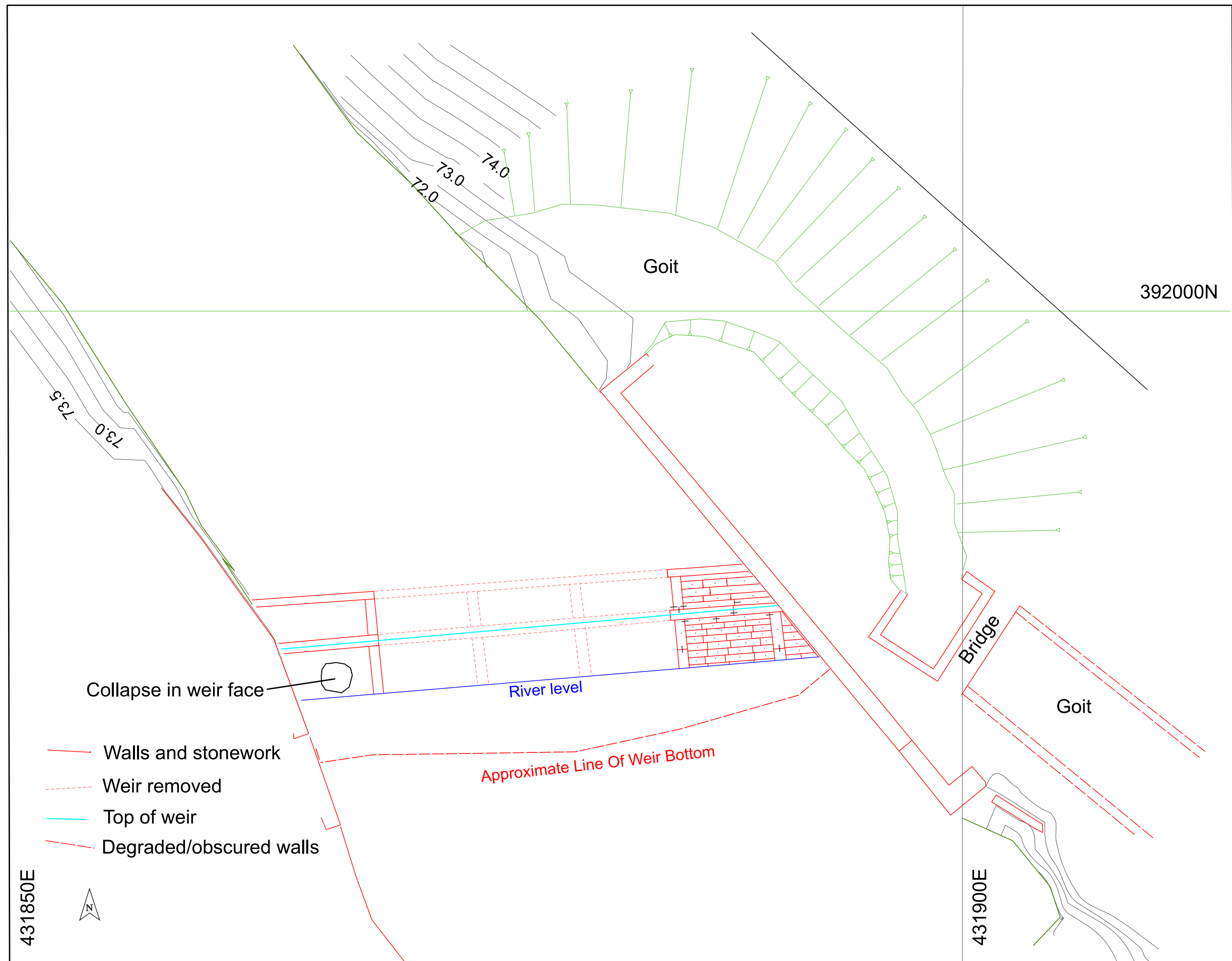




Figure 9: Photo viewpoints

## **APPENDIX 1 WRITTEN SCHEME OF INVESTIGATION**

<b>Site Location:</b>	<b>Beeley Wood Weir, Middlewood, Sheffield</b>
<b>NGR:</b>	<b>SK3187391991</b>
<b>Proposal:</b>	<b>Partial weir removal for installation of fish pass</b>
<b>Prepared for:</b>	<b>The Environment Agency by ArcHeritage, revised 1 March 2016.</b>
<b>Status of WSI:</b>	<b>Final</b>

### **1 SUMMARY**

1.1 As part of an initiative to renew the breeding potential of salmon and other freshwater fish within South Yorkshire, the Environment Agency is installing a series of fish passes along the River Don. This work involves the partial removal of some of the weirs along the river, which are currently impassable to fish travelling upstream. This Written Scheme of Investigation (WSI) relates to work undertaken on the Beeley Wood Weir.

1.2 The Environment Agency has requested that an archaeological watching brief be undertaken on all works associated with the partial removal of the weir.

1.3 This WSI has been prepared in response to consultation with the Environment Agency and Balvac, the contractors undertaking the work. The works are being undertaken under permitted development rights but the South Yorkshire Archaeology Service (SYAS), archaeological planning advisors to Sheffield City Council, have been informed about the works and will be notified of the projects progress and results.

### **2 SITE LOCATION & DESCRIPTION**

2.1 The proposal site is located in the suburb of Middlewood, approximately 5.75km to the north-west of Sheffield city centre, on the River Don. The weir is situated within a narrow, deep valley, which extends through Beeley Wood, one of 35 ancient woodland areas within the Sheffield City Boundary.

2.2 To the north-west of the weir is a large, modern forge called the Abbey Stainless Steel Company. This is on the site of the Beeley Wood/Nova Scotia Tilt Company, built in c.1740 by Thomas Boulsover, although only one building relating to this original forge still stands on the site today. The area between the forge and the weir has been built up and landscaped for parking and road access. To the northeast of the weir are the partial remains of the former Union Carbide factory.

2.3 On the south-western bank of the river there is a large revetment bank made of spoil which supports Middlewood Road North. This is overgrown with trees, but there is a popular public footpath set into the bank which leads to a footbridge further upstream beside the forge. The vegetation and the topography restrict sightlines from the weir up and down the valley so the only feature visible is the river and the modern forge.

### **3 DESIGNATIONS & CONSTRAINTS**

3.1 No designations are applied to the weir.

### **4 ARCHAEOLOGICAL INTEREST**

4.1 The weir has been the focus of a recent Heritage Significance Statement for the River Don weirs (Nexus Heritage 2015), from which the following background information has been summarised:

The weir is located just downstream from the tail goit of Beeley Wood Forge, built in c.1740 by Thomas Boulsover on the site of the current Abbey Stainless Steel Company. However, the weir is actually associated with the head goit of Hawksley or Clay Wheels, which was built in 1686 and was located to the south-east of the weir, currently occupied by Hardcores Building and Paving Supplies and Distribution warehouses, on Penistone Road.

Historic map regression shows that the weir had been installed in its current position by at least 1779. Two maps from 1779-1786 show the head goit diverting water from just upstream of the weir, past the footbridge and into the dam adjacent to Clay Wheels. To the north-west of the weir and the head goit there was another smaller water channel that connected the dam adjacent to Beeley Wood Tilt to the river and the Clay Wheels head goit. This is part of the tail goit for Beeley Wood Tilt. This may suggest that there was some connection between the two Works in the mid to late 18<sup>th</sup> century, but the channel had been infilled and the connection severed by the 1855 OS map. According to Ball (2006), the overcrowding on the Don could cause inadequate weirs due to insufficient fall, which often led to several weirs being shared by more than one mill site. It is possible that the fall was not sufficient for the Clay Wheels at this early stage and it required assistance from the Beeley Woods Works.

It is possible that the weir has undergone modification throughout its use, as many original weirs were being replaced around the mid-19<sup>th</sup> century (Ball 2006). Historic maps demonstrate that after 1894 the weir and its associated structures remain largely unchanged throughout the 20<sup>th</sup> century. The 1949 OS map also shows that the woodland to the north and east was formerly a mine for ganister. The tail goit is also referred to as a mill race. In 2004 the sluice, weir and mill race were, according to the OS map, still fully functional.

## 5. SCOPE OF THE PROJECT

5.1.1 The work has been broken down into the following components:

- Pre-construction recording, including:
  - photographic recording,
  - descriptions of the affected working areas,
  - identification of earthworks and structures in and adjacent to the working areas
  - provision of advice on the protection of adjacent earthworks and structures (advice can be supplied as a plan showing the location of features with an accompanying letter identifying recommended constraints).
- **Continual monitoring** on all works associated with the removal of the weir structure. Recording the partial demolition of the weir in order that constructional history is understood, within the limitations of maintaining a safe working environment
- Post construction images of the completed works
- Supplementary historic archive research to support and extend the findings of Nexus Heritage (2006) on the context of the weir and its group relationships with industry and community
- To report on these findings and deposit the archive in an appropriate museum or depository, which in this case will be Museums Sheffield.

## 6 DEVELOPMENT ACTIVITIES

6.1 All earth-moving machinery must be operated at an appropriate speed to allow the archaeologist to recognise, record and retrieve any archaeological deposits and material.

6.2 It is not intended that the archaeological monitoring should unduly delay site works. However, the archaeologist on site should be given the opportunity to observe and record the exposed section of the weir. In order to fulfil the requirements of this WSI, it may be necessary to halt the earth-moving activity to enable the archaeology to be recorded properly.

6.3 As machine access/egress will involve tracking over the former head goit to gain access to the weir, archaeological monitoring will also include ensuring that the earthworks do not become damaged. The main contractor will lay timber pads along the machine access route in order to protect the goit from the impact of the machine. The attending archaeologist will also ensure that all other visible structural remains, such as the base of the footbridge and the retaining river wall, will remain untouched by the machine.

6.4 Plant or excavators shall not be operated whilst archaeological recording is underway, until the attending archaeologist on site has given explicit permission for operations to recommence at that location.

## **7 RECORDING METHODOLOGY**

7.1 Site constraints may limit recording opportunities, and health and safety considerations must be the top priority at all times.

7.2 Unique context numbers will only be assigned if structural elements of the weir are discernible. Where assigned, each context will be described in full on a pro forma context record sheet in accordance with the accepted context record conventions.

7.3 A survey of the weir (provided by Balvac) will be used as a basic site plan and will be annotated as necessary. All drawings will be related to Ordnance Datum. If possible, an elevation of the weir structure will be drawn. All drawings will be drawn on inert materials. All drawings will adhere to accepted drawing conventions.

7.4 Photographs of archaeological deposits and features will be taken. This will include general views of the weir and details such as sections as considered necessary. The photographic register will comprise 35mm format black and white prints. Digital photography will be used in addition, but will not form the primary site archive. All site photography will adhere to accepted photographic record guidelines.

7.5 Areas which are inaccessible (e.g. for health and safety reasons) will be recorded as thoroughly as possible within the site constraints. In these instances, recording may be entirely photographic, with sketch drawings only.

7.6 All finds will be collected and handled following the guidance set out in the ClfA guidance for archaeological materials. Unstratified material will not be kept unless it is of exceptional intrinsic interest. Material discarded as a consequence of this policy will be described and quantified in the field. Finds of particular interest or fragility will be retrieved as Small Finds, and located on plans. Other finds, finds within the topsoil, and dense/discrete deposits of finds will be collected as Bulk Finds, from discrete contexts, bagged by material type. Any dense/discrete deposits will have their limits defined on the appropriate plan.

7.7 All artefacts and ecofacts will be appropriately packaged and stored under optimum conditions, as detailed in the RESCUE/UKIC publication *First Aid for Finds*, and recording systems must be compatible with the recipient museum. All finds that fall within the purview of the Treasure Act (1996) will be reported to HM Coroner according to the procedures outlined in the Act, after discussion with the client and the local authority.

7.8 If deemed appropriate, an environmental sampling programme will be undertaken for the recovery and identification of charred and waterlogged remains where suitable deposits are identified.

The collection and processing of environmental samples will be undertaken in accordance with Historic England guidelines (2011). Environmental and soil specialists will be consulted during the course of the excavation with regard to the implementation of this sampling programme. The sampling regime will include samples of the two types of deposit sample as appropriate. These are described below:

- **Bulk-sieved Sample (BS).** Sample size will depend upon the context/feature size, but should be up to 40-60 litres in size (if the context size allows). They are taken for the recovery of charcoal, burnt seeds, bone and artefacts. The samples will be processed (flotation) on site where possible with 1mm and 500micron sieves on a rack to collect the carbonised washover. The retents and flots will then be dried, sorted and assessed to advise the potential for further analysis.
- **General Biological Sample (GBA):** These are only taken if a deposit is waterlogged. A 10 litre sample size will be used (if the context size allows). These samples will be processed in the laboratory, to recover macrofossils and microscopic remains such as pollen and insects.

7.9 It is highly unlikely that industrial deposits will be detected within the scope of works. If industrial activity of any scale is detected, industrial samples and process residues will also be collected. Separate samples (c. 10ml) will be collected for micro-slags (hammer-scale and spherical droplets) (English Heritage 2001).

7.10 Other samples will be taken, as appropriate, in consultation with ArcHeritage specialists and the English Heritage Regional Science Advisor, as appropriate (e.g. dendrochronology, soil micromorphology, monolith samples, C14, etc.). Samples will be taken for scientific dating where necessary for the development of subsequent mitigation strategies. Material removed from site will be stored in appropriate controlled environments.

7.11 In the highly unlikely event of human remains being discovered during the evaluation these will be left *in-situ*, covered and protected, in the first instance. The removal of human remains will only take place in compliance with environmental health regulations and following discussions with, and with the approval of, the Secretary of State or the Church of England, as appropriate.

- If **disarticulated** remains are encountered, these will be identified and quantified on site. If trenches are being immediately backfilled, the remains will be left in the ground. If the excavations will remain open for any length of time, disarticulated remains will be removed and boxed, for immediate reburial by the Church.
- If **articulated** remains are encountered, these will be excavated in accordance with recognised guidelines and retained for assessment.
- Any grave goods or coffin furniture will be retained for further assessment.

7.12 Where a licence is issued, all human skeletal remains must be properly removed in accordance with the terms of that licence. Where a licence is not issued, the treatment of human remains will be in accordance with the requirements of Civil Law, IfA Technical Paper 13 (1993) and Historic England guidance.

## 8 REPORT & ARCHIVE PREPARATION

8.1 Upon completion of the groundworks, a short summary of results identifying subsequent stages and supporting research will be submitted to the Environment Agency.

8.2 Within six weeks of completion of fieldwork, a final report will be prepared to include the following:

- a) A non-technical summary of the results of the work.

- b) An introduction which will include the planning reference number, grid reference and dates when the fieldwork took place.
- c) An account of the methodology and results of the operation, describing structural data, associated finds and environmental data.
- d) A selection of photographs and drawings, including an overall plan of the site accurately identifying the areas monitored.
- e) Specialist artefact and environmental reports as necessary.
- f) Details of archive location and destination (with accession number, where known), together with a catalogue of what is contained in that archive.
- g) A copy of the key OASIS form details
- h) Copies of the Brief and WSI
- i) Additional photographic images may be supplied on a CDROM appended to the report

8.3 Copies of the report will be submitted to the commissioning body and the HER/SMR (also in PDF format).

8.4 The requirements for archive preparation and deposition will be addressed and undertaken in a manner agreed with the recipient museum. In this instance Museums Sheffield is recommended and an agreed allowance should be made for the curation and storage of this material.

8.5 Provision for the publication of results, as outlined in the Brief, will be made.

8.6 The owner of the Intellectual Property Rights (IPR) in the information and documentation arising from the work, would grant a licence to the County Council and the museum accepting the archive to use such documentation for their statutory functions and provide copies to third parties as an incidental to such functions. Under the Environmental Information Regulations (EIR), such documentation is required to be made available to enquirers if it meets the test of public interest. Any information disclosure issues would be resolved between the client and the archaeological contractor before completion of the work. EIR requirements do not affect IPR.

## 9 POST EXCAVATION ANALYSIS & PUBLICATION

9.1 The information contained in the evaluation report will enable decisions to be taken regarding the future treatment of the archaeology of the development site and any material recovered during the evaluation.

9.2 If further archaeological investigations (mitigation) take place, any further analyses (as recommended by the specialists, and following agreement with the Environment Agency) may be incorporated into the post-excavation stage of the mitigation programme unless such analysis are required to provide information to enable a suitable mitigation strategy to be devised. **Such analysis will form a new piece of work to be commissioned.**

9.3 In the event that no further fieldwork takes place on the site, a full programme of post excavation analysis and publication of artefactual and scientific material from the evaluation may be required by SYAS.

9.4 If further site works do not take place, allowance will be made for the preparation and publication in a local and/or national journal of a short summary on the results of the evaluation and of the location and material held within the site archive.

9.5 The results of the work will be publicised locally e.g. by presenting a paper at the South Yorkshire Archaeology Day and talking to local societies, as appropriate.



9.6 A summary report accompanied by illustrations will be presented in digital format for publication in the appropriate volume of *Archaeology in South Yorkshire*.

## **10 HEALTH AND SAFETY**

10.1 Health and safety issues will take priority over archaeological matters and all archaeologists will comply with relevant Health and Safety Legislation.

10.2 A Risk Assessment will be prepared prior to the start of site works.

## **11 TIMETABLE & STAFFING**

11.1 The timetable will be managed by the Environment Agency. It is currently expected that the works will begin w/c 7<sup>th</sup> March February, although this is yet to be confirmed. It is not expected that the removal of the weir section will exceed two weeks.

11.2 A qualified archaeologist will be present on site for all of the weir removal works.

## **12 MONITORING OF ARCHAEOLOGICAL FIELDWORK**

12.1 The Environment Agency will monitor the archaeological works. In addition, SYAS will be notified of the works and will be afforded the opportunity to visit the site during on-site works. ArcHeritage will notify the Environment Agency of any discoveries of archaeological significance so that site visits can be made by the Environment Agency, and other bodies if required. Any changes to this agreed WSI will only be made in consultation with the Environment Agency.

## **13 COPYRIGHT**

13.1 ArcHeritage retain the copyright on this document. It has been prepared expressly for the named client, and may not be passed to third parties for use or for the purpose of gathering quotations.

## **14 KEY REFERENCES**

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Neal, V., and D. Watkinson (eds). 1998. *First Aid for Finds: practical guide for archaeologists*. United Kingdom Institute for Conservation of Historic & Artistic Works, Archaeology Section; 3<sup>rd</sup> Revised Edition.

See the website of the ClfA for all Guidance and Standards documentation.

<http://www.archaeologists.net/codes/ifa>

See the Historic England website for a full list of guidance documents:

<http://historicengland.org.uk/images-books/advice-and-guidance>



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