

wa-archaeology.com

DESK BASED ASSESSMENTS
ARCHAEOLOGICAL EVALUATION
ARCHAEOLOGICAL EXCAVATION
GEOPHYSICAL SURVEY
TOPOGRAPHICAL AND LANDSCAPE SURVEY
HISTORIC BUILDING RECORDING
ENVIRONMENTAL SERVICES



**UNITED UTILITIES
THE MILL, ENNERDALE, CUMBRIA**

HERITAGE IMPACT ASSESSMENT

June 2016




DATE ISSUED: June 2016
JOB NUMBER: CP11821
OASIS REFERENCE: **wardella2-256140**
REPORT NUMBER: RPT-001
GRID REFERENCE: NY 08163 15308

UNITED UTILITIES

THE MILL, ENNERDALE, CUMBRIA

HERITAGE IMPACT ASSESSMENT

June 2016

PREPARED BY:	EDITED BY:	APPROVED BY:
Arianne Buschmann	Richard Newman	Frank Giecco
		
Assistant Archaeologist	Buildings Project Manager	Technical Director

This report has been prepared by Wardell Armstrong Archaeology with all reasonable skill, care and diligence, within the terms of the Contract with the Client. The report is confidential to the Client and Wardell Armstrong Archaeology accepts no responsibility of whatever nature to third parties to whom this report may be made known.

No part of this document may be reproduced without the prior written approval of Wardell Armstrong Archaeology.



Wardell Armstrong Archaeology is the trading name of Wardell Armstrong LLP, Registered in England No. OC307138.

Registered office: Sir Henry Doulton House, Forge Lane, Etruria, Stoke-on-Trent, ST1 5BD, United Kingdom

UK Offices: Stoke-on-Trent, Cardiff, Carlisle, Edinburgh, Greater Manchester, London, Newcastle upon Tyne, Sheffield, Taunton, Truro, West Bromwich. International Offices: Almaty, Moscow

DESK BASED ASSESSMENTS
 ARCHAEOLOGICAL EVALUATION
 ARCHAEOLOGICAL EXCAVATION
 GEOPHYSICAL SURVEY
 TOPOGRAPHIC AND LANDSCAPE SURVEY
 HISTORIC BUILDING RECORDING
 ENVIRONMENTAL SERVICES

CONTENTS

SUMMARY	1
ACKNOWLEDGEMENTS	2
1 INTRODUCTION	3
1.1 Circumstances of Project	3
1.2 The purpose of the Heritage Impact Assessment	3
1.3 National Planning Policy and Legislative Framework	3
1.4 Local Planning Policies	4
2 METHODOLOGY	5
2.1 Introduction	5
2.2 Documentary sources	5
2.3 Site Visit	5
2.4 Impact assessment tables	5
2.5 Reporting	6
3 DESCRIPTION	8
3.1 Location, Geology	8
3.2 Setting of The Mill, Ennerdale	8
3.3 Site evolution and its historic character	8
3.4 Map regression	10
3.5 Setting of other heritage assets	11
4 SITE VISIT	13
5 DISCUSSION	15
5.1 Summary of the significance of the mill	15
5.2 Magnitude of impact	15
5.3 Assessment of impact	15
5.4 Mitigation Strategy	16
6 BIBLIOGRAPHY	17
6.1 Primary Sources	17
6.2 Secondary Sources	17
APPENDIX 1: HERITAGE IMPACT ASSESSMENT TABLES	19
APPENDIX 2: FIGURES	22

FIGURES

Figure 1: Site location

Figure 2: Detailed site location

Figure 3: Heritage Assets within a 0.5km radius

Figure 4: Hodkinson and Donald map of 1774

Figure 5: Ennerdale Tithe Award Plan 1845, scale 3 chains to 1 inch

Figure 6: First Edition Ordnance Survey Map, 1873, scale 1:2500

Figure 7: Second Edition Ordnance Survey Map, 1899, scale 1:2500

Figure 8: Third Edition Ordnance Survey Map, 1925, scale 1:2500

PLATES

Plate 1: view of the cottage	13
Plate 2: view of mill building.....	14
Plate 3: road to mill, with avenue like plantation.....	14

SUMMARY

Wardell Armstrong Archaeology was commissioned by United Utilities to prepare a Heritage Impact Assessment for Ennerdale Mill, Ennerdale (NY 08163 15308) in support of a planning application for the demolition of the property. The statement consists of a desk based consultation of sources relating to the historic development of the property and its architectural history supported by a site visit and visual inspection.

This Heritage Impact Assessment is designed to show the impact on the heritage significance of the upstanding heritage asset of the buildings of Ennerdale Mill. It further considers the impact on the previously unidentified heritage asset of the earlier Ennerdale corn mill, which may contain archaeological evidence for a medieval manorial corn mill.

The overall direct impact of the demolition on the property of Ennerdale Mill is considered to be major. The impact on the previously unidentified heritage asset of the earlier Ennerdale corn mill is minor. A level 3 to 4 building survey may be required if the extant upstanding remains of Ennerdale Mill are not retained.

ACKNOWLEDGEMENTS

Wardell Armstrong Archaeology thanks United Utilities, who commissioned the project. The site visit and the documentary research was undertaken by Ariane Buschmann. The report was written by Ariane Buschmann and the figures were produced by Helen Phillips. Richard Newman managed the project and edited the report.

1 INTRODUCTION

1.1 Circumstances of Project

1.1.1 WAA was commissioned by United Utilities to prepare a Heritage Impact Assessment for The Mill, Ennerdale (NY 08163 15308), in regard to the proposed demolition of the derelict building (LDNP Planning Ref.: 7/2016/E0139).

1.2 The purpose of the Heritage Impact Assessment

1.2.1 This Heritage Impact Assessment is designed to show the impact on heritage significance of the removal of the upstanding heritage asset of Ennerdale Mill. More specifically, it will look at the direct and indirect impacts on the setting of the ruinous paper mill and its associated outbuildings.

1.2.2 The Heritage Impact Assessment seeks to address in detail the issues of impacts on heritage significance and to do this it both seeks to understand the significance of the assets before evaluating the impact of the demolition proposals upon the assets.

1.2.3 The Heritage Impact Assessment assess the site within the context of a surrounding study area (0.5km radius).

1.3 National Planning Policy and Legislative Framework

1.3.1 National planning policies on the conservation of the historic environment are set out in the *National Planning Policy Framework* (NPPF), which was published by the Department of Communities and Local Government in March 2012. This is supported by *National Planning Practice Guidance* (NPPG) which was published in March 2014.

1.3.2 The NPPF draws a distinction between designated heritage assets and other remains considered to be of lesser significance; 'great weight should be given to the asset's conservation. The more important the asset, the greater the weight should be; substantial harm to or loss of a Grade II Listed building, park or garden should be exceptional. Substantial harm to or loss of designated heritage assets of the highest significance, including scheduled monuments, protected wreck sites, battlefields, Grade I and II* Listed Buildings and Grade I and II* Registered Parks and Gardens and World Heritage Sites, should be wholly exceptional' (NPPF, para 132). Therefore, preservation in-situ is the preferred course in relation to such sites unless exceptional circumstances exist.

1.3.3 The NPPF advises that local planning authorities should look for opportunities for new development within Conservation Areas and within the setting of heritage assets in

order to enhance or better reveal their significance. Proposals that preserve those elements of the setting that make a positive contribution to or better reveal the significance of the asset should be treated favourably (NPPF, para 137).

1.4 Local Planning Policies

- 1.4.1 The *Lake District National Park Core Strategy*, adopted in October 2010, addresses statutorily designated heritage assets and the wider historic environment. The relevant policy is Policy CS27.
- 1.4.2 Historic buildings are an integral element of the Lake District's landscape character. It is crucial to conserve the historic environment, through '*local knowledge and survival of local skills, crafts, traditions and building techniques*' (paragraph 4.59.7).
- 1.4.3 Development proposals will have to seek to conserve and enhance the character, integrity and setting of the historic environment. This includes statutorily designated historic assets of special architectural or historic interest and scheduled monuments.
- 1.4.4 The aim is to reuse buildings of archaeological and historic importance which bring a positive contribution to the landscape character or historic environment of the Lake District National Park. Therefore, '*repairs and alterations will employ, where appropriate, local crafts, skills and traditions and traditional building techniques and materials*' (Policy CS27).
- 1.4.5 The site is within the Lake District National Park which is being put forward for inscription as a World Heritage Site, therefore consideration needs to be given to the potential impact of demolition on the Outstanding Universal Values of the potential World Heritage Site.

2 METHODOLOGY

2.1 Introduction

2.1.1 The preparation of the Heritage Impact Assessment has been undertaken in accordance with guidance recommended by English Heritage and prepared by Bassetlaw District Council (2011). Note is also taken of the English Heritage guidance on understanding place (2010 and 2011) and on the setting of heritage assets (2012). ClfA

2.1.2 The data underlying the Heritage Impact Assessment was gathered through desk-based study of documentary sources and via a site visit. The impact of the development on the heritage assets within the search area were assessed using a series of standard tables (see Appendix 1).

2.2 Documentary sources

2.2.1 The primary and secondary sources were used to provide the background to the historical character of Ennerdale Mill. Much of the information in the Archaeological Assessment was derived from the Whitehaven Archive Centre and Carlisle Archive Centre.

2.2.2 Historic England's guidance on historic area assessments, conservation areas and heritage asset setting was used to establish the compliance of the development scheme proposals with best practice planning guidance.

2.3 Site Visit

2.3.1 The site and its environs were visited on the 24th June 2016. The buildings were fenced off and could not be accessed.

2.3.2 The study area was inspected to:

- examine the impact on the site of Ennerdale Mill of the proposed demolition of the structures
- consider the impact of the proposed demolition of the buildings on the heritage significance of the heritage asset and the River Ehren Special Area of Conservation and the Mill Meadow County Wildlife Site.

2.4 Impact assessment tables

2.4.1 The assessment of the impact of development proposals is undertaken using a series of heritage impact tables (Appendix 1). These tables use standard assessment

methods as used by Government agencies, as for example those used in the Highway Agency's *Design Manual for Roads and Bridges* (2007). These tables first establish the significance of the heritage asset against set criteria, secondly they estimate the magnitude of impact and, taking the results of these two together, allow a calculation of impact on overall heritage significance.

2.5 Reporting

- 2.5.1 A final bound copy of the report will be deposited with the Whitehaven Archive Centre, where viewing will be made available on request.
- 2.5.2 Wardell Armstrong Archaeology support the Online Access to the Index of archaeological investigations (OASIS) project. This project aims to provide an online index and access to the extensive and expanding body of grey literature created as a result of developer-funded archaeological work. As a result, details of the results of this study will be made available by Wardell Armstrong Archaeology, as a part of this national scheme.

2.6 Glossary

- 2.6.1 The following standard terms for compiling a Heritage Impact Statement are used throughout the report:
- Designation – the process that acknowledges the significance of a heritage asset and thus advances its level of consideration/protection within the planning process. Designated assets can either be statutory, like listed buildings, or non-statutory such as registered parks and gardens or conservation areas.
 - Heritage Asset – a building, monument, site, place, area or defined landscape positively identified as having a degree of heritage significance that merits consideration in planning decisions.
 - Historic Environment Record – an information service, usually utilising a database that provides public access to up-to-date and dynamic resources relating to the historic environment of a defined geographic area.
 - Mitigation – action taken to reduce potential adverse impacts on the heritage significance of a place.
 - Setting – the surroundings in which a heritage asset is experienced. The extent is not fixed and will vary according to the historic character of the asset and the evolution of its surroundings.

- Significance – the value of a heritage asset to present and future generations attributable of its heritage interest. That interest may be archaeological, architectural, artistic or historic (including historical associations).

3 DESCRIPTION

3.1 Location, Geology

3.1.1 The mill, is located at Ennerdale, Cleator, CA23 3AS Ordnance Survey grid reference NY 08166 15312. The mill is located on the northern bank of the River Ehen, in a natural meander approximately 750m west of Ennerdale Water. It is within the parish of Ennerdale and Kinniside, situated in the western fringe of the Lake District National Park, with Cleator Moor 4 miles further to the west.

3.1.2 The underlying solid geology in this part of Ennerdale belongs to the Buttermere Formation, comprising sedimentary mudstone and sandstone layers. The base overlying geology is Devensian Till, comprising Diamicton deposits, which has then had alluvium silts, sands, clays and river terrace gravels added by locally derived rivers (BGS accessed: 14th June 2016).

3.1.3 The River Ehen is designated as a Site of Special Scientific Interest (SSSI) and a Special Area of Conservation (SAC).

3.2 Setting of The Mill, Ennerdale

3.2.1 The buildings primarily consists of the a former mill building, with a later added farm house, barns and other associated outbuildings within its approximately 24 acres of land.

3.2.2 The original main mill building comprises stone walls and a locally derived slate roof, but the structure, in part, is ruinous. The existing buildings were flooded in 2009, rendering them uninhabitable (<http://www.lakedistrict.gov.uk/swiftlg/TempMedia/53243-165635.pdf>). While the main house is still in a fair state of repair, the associated barn and mill are in a poor state of repair.

3.2.3 A planning application (7/2011/4063) had been granted in 2011, with regard to the redevelopment of the buildings into a mixed use comprising a visitor centre, owner's accommodation with ancillary bed and breakfast use, camping barn and a two bed flat. This development has not been progressed.

3.3 Site evolution and its historic character

3.3.1 Ennerdale Mill is referred to under two other names: just The Mill and Broadmoor Mill. It is not to be confused with another Ennerdale Mill, situated in Egremont (OA North 2011). The Mill is described as a Paper Mill from about 1774 (Figure 4).

Constructed during the paper boom in the mid-18th century, the paper mill was originally known as Broadmoor Mill (<http://www.cumbria-industries.org.uk/a-z-of-industries/paper>). Most early paper mills were small and were situated in rural areas, some having been converted from grist mills. In the 19th century, there was a shift away from rural locations to urban areas, bringing the mills closer to suppliers and the paper markets. In Cumbria this meant that the paper-making industry became concentrated around Kendal for example. At the same time the small scale mills were replaced by larger mills (<http://baph.org.uk/ukpaperhistory.html>).

- 3.3.2 The original Ennerdale Mill, however, appears to have been a manorial corn mill. In 1321 a survey of the manor of Ennerdale noted, “Eghnerdale within the free chace of Coupland fell; 7. 7. 6.rent from 26 tenants; 34s. 4d. from pasture; 2 vaccaries; 8.12. 8â. from 47 tenants in a place called Kynisheved, a watermill and fulling mill” (Littledale 1931, 165). A 16th century rental refers to a property in Ennerdale township called Mills (Littledale 1931, 173). In 1610 there were three mills in Ennerdale, “all that our watermill in Ennerdale, now or late in the tenure of James Milner; rent 2S. p.a. ; and all that watermill in Ennerdale, now or late in the tenure of Anthony Patrickson; rent 20S. p.a.; and all that fulling mill in Ennerdale (Littledale 1931, 184). The second watermill was a corn mill, generally called Ennerdale Mill, was always in the occupation of the Patricksons, from the 16th century (Littledale 1931, 185). It was burnt down soon after 1671 and rebuilt by Thomas Patrickson. (ibid). It was a manorial corn mill as evidenced by two tenants of the manor being exposed for taking their corn elsewhere (Littledale 1925, 159).
- 3.3.3 Between 1762 and 1829, a paper mill at Broadmoor was in production. Isaac Dixon of Kirkland, in partnership with Joseph Dixon of Whitehaven and Joseph Crosthwaite, ‘*built a paper and glaze mill adjoining the existing water corn mill at Ennerdale*’ (Cracknell 2011, 4). This seems to indicate to two mills being in existence at the site originally. The mill was sold in 1763, to Joseph Dixon, Thomas Horne and James Souter. It was again put up for sale in 1791, but appears to have remained within the Dixon family (ibid). The corn mill presumably went over into the possession of the Earl of Lonsdale in 1822, as part of the property associated with Ennerdale Manor (ibid). John Dixon advertised the paper mill for sale in 1823, but only after his bankruptcy in 1824 did the mill change owner to Peter Hodgson and John Scott. They leased the mill to Johnathan Head, a paper manufacturer (ibid).
- 3.3.4 The paper mill was for sale by auction on the 9th July 1824 (Whitehaven DBT/26/2). The inventory included the cottage and buildings, water wheels, engine, glazing

machine and other associated machinery. At this point it was in the occupation of Mr. Johnathan Head.

3.3.5 Following a fire in 1827, and Johnathan Head's bankruptcy and imprisonment in the following year, the mill was transformed into a water powered corn mill. It was leased to Christopher Hayhurst by Reverend S. Sherwen in 1869. The mill was referred to as a Corn Mill by 1865 (<http://www.lakedistrict.gov.uk/swiftlg/TempMedia/53243-165635.pdf>). It was again auctioned on the 1st April 1874 (Whitehaven DH/78/2), and being sold in two lots. Lot 1 consisted of the water corn mill with all associated machinery, the house, stable and other outbuildings, while Lot 2 comprised of the surrounding freehold land. Both were still under tenancy of Mr. Christopher Hayhurst. As owner, Reverend William Sherwen and Samuel Sherwen are noted. The mill was sold to David Ainsworth and John Stirling (Whitehaven DH/78/2). The Ainsworth family is known as the owner of a bleach works on the southern bank of the River Ehen from 1866, and later as owner of the 'Flax Mill' at Cleator in 1901 (Cracknell 2011, 5).

3.3.6 The mill fell into disrepair in the late 20th – early 21st century. It was owned by the Rickerby family from the 1920s, until after the destructive floods of 2009.

3.4 Map regression

3.4.1 The earliest depiction of Ennerdale Mill is on the Hodkinson and Donald map of 1774 (Figure 4). The mill is clearly shown in a loop of the River Ehen with an east to west aligned millrace. It is labelled as 'Paper Mill'.

3.4.2 On the 1845 Tithe map two structures are shown: an L-shaped complex to the south-west and a U-shaped complex to the north-east, both to the north of the mill race (Figure 5). The U-shaped buildings complex appears to be in the position of the current mill building. The mill was destroyed in a fire in 1827, it is likely that this map shows the buildings just after its destruction. Ennerdale Mill, with the number 121, was noted down under the possession of 'Himself' in the Tithe Award (Whitehaven YPR 42/132), meaning John Dickinson, whose group of occupied properties the mill appears under. The surrounding land, including the mill garden and mill field, however, were named to be occupied by John Mossop.

3.4.3 The L-shaped building range numbered 120 is likely to have been the site of the corn mill on site in the 18th century when the paper mill was added. The building range was clearly a mill and fed by the same mill race as the former paper mill to the north. In 1845 the mill race outlet ran south from building 120 but by 1873 it also ran east from

building complex 121 and building 120 had gone out of existence (Figures 5 and 6)

- 3.4.4 The First Edition OS map, dating to 1873 (Figure 6), shows Ennerdale Mill, specifically referred to as a Corn Mill, as a composite of at least five distinctive buildings straddling an east to west aligned mill race at to its southern side. Several foot bridges and a ford are situated around the mill. There is a weir in the river to the east, helping to control water flow down the mill race. Two footpaths lead from the north to the mill, a further path stretches along the ford to the south. The wider area consists of an enclosed field system.
- 3.4.5 On the Second Edition OS map, dating to 1899, the southern mill race outlet had disappeared. A separate “L” shaped outbuilding has been built immediately east of the main mill complex (Figure 7). This is likely to be the still present stable block. To the east, on the next meander up-river, a new collection of structures had been established as part of the Bleach works. Two cottages had been built c.150m north up the lane from Ennerdale Mill, referred to as Far Broadmoor Cottages. To the south and north-east of the site are two enclosed, mixed forestry plantations.
- 3.4.6 There is no change to the buildings on the Third Edition OS map dating of 1925 (Figure 8). It appears that the watercourse was bridged or culverted to the south-east of the mill.
- 3.4.7 On later Ordnance Survey maps, the building is known simply as The Mill, presumably losing its function as a corn mill to become dwellings, with the mill race described simply as a drain. The majority of the mill complex appears to remain intact, except for two small ancillary structures within the central yard of the complex. A small square outbuilding is shown immediately north of the stable block.
- 3.4.8 There are two heritage assets that are likely to be impacted by the proposals, the site of the post-1827 corn mill, which was a formed out of the fire damaged structures of the Broadmoor Paper Mill. This mill was in existence at least as early as 1762. This structure still stands and it must be assumed that it retains some 18th century fabric. To the south of the upstanding structures is the site of another mill demolished after 1845. This mill is the corn mill that was in existence in the 18th century when the paper mill was built. This is the original Ennerdale mill and is quite likely to be on the site of the medieval manorial corn mill which was in existence by the early 14th century.

3.5 **Setting of other heritage assets**

- 3.5.1 There are no listed buildings or designated heritage assets within a 500m radial visual

envelope of Ennerdale Mill.

3.5.2 Beside the Corn Mill (Asset 1), there are two non-designated heritage asset recorded in the Historic Environment Record within the 500m search radius. This is the site of a potash kiln of uncertain date (Asset 2), and the site of three or more Iron Ore Levels, referred to as Kinney How Iron Ore Levels (Asset 3).

3.6 Gazetteer of sites

<i>Asset</i>	<i>PRN</i>	<i>Site</i>	<i>Description</i>	<i>NGR</i>	<i>Significance</i>	<i>Magnitude of Impact</i>	<i>Impact on Heritage Significance</i>
1	12064	Corn Mill	Historic building, noted as Corn Mill and Paper Mill	308170 515300	District or County (Lesser)	loss	Major impact
2	30461	Potash Kiln	Site of a potash kiln of unknown date	308220 514980	District or County (Lesser)	No change	No appreciable impact
3	11946	Kinney How Iron Ore Levels	Site of disused ironstone workings of post medieval date	308450 514700 (centered)	District or County (Lesser)	No change	No appreciable impact
4	-	Medieval corn mill	Site of corn mill demolished between 1845-1873 and probably the site of the medieval manorial corn mill	308155 575284	District or County (Lesser)	Minor	Very limited impact

4 SITE VISIT

- 4.1.1 A site visit was undertaken on the 24th June 2016. The buildings are set at the south end of a private road. They are situated just to the north of a mill race, supplied from the Ehen River. It is set in a relatively overgrown pasture landscape, with a public footpath going through it. The whole complex is fenced off, so no access to the property itself was possible.
- 4.1.2 With the exception of the two storey cottage, the mill is in a mostly derelict state. Parts of the mill roof are missing, and some elevations appear to have collapsed. A public footpath leads north-south aligned along the east side of the buildings, with a footbridge crossing the mill race and river Ehen.
- 4.1.3 The two storey cottage has a modern cement-based render with lines etched in it to give the appearance of higher value ashlar masonry, while the remaining buildings consist of roughly coursed rubble stone masonry with slate roofs.



Plate 1: view of the cottage



Plate 2: view of mill building



Plate 3: road to mill, with avenue like plantation

5 DISCUSSION

5.1 Summary of the significance of the mill

5.1.1 The extant buildings of Ennerdale Mill may have some original fabric from the 18th century. It is not known how much of this structure was retained after the fire in 1827, therefore it is possible that most of structure dates to the early 19th century. The structure is not listed, however it is noted in the Lake District HER (LDNP: 12064, Asset 1) as a heritage asset. As it is within a protected landscape the heritage asset is of district or county (lesser) significance (Appendix 1, Table 1). The layout of the footprint of Ennerdale Mill has not changed greatly over the last century. The evidential and historical value of the building relates to its potential as an example of Ennerdale's industrial development. The Lake District's industries are discussed within the nomination document for World Heritage Site inscription, but are not part of the outstanding Universal Values ascribed to the English Lake District (Lake District National Park Partnership 2015, 469)

5.1.2 The aesthetic value of the building has been detrimentally affected by continuous decay and possible modernisation over the last decades. As the interior of the building could not be viewed, it cannot be determined to what extent the internal space has been altered over time. The building contributes to the historic character of the area.

5.1.3 To the south of the extant mill buildings is the site of the earlier Ennerdale corn mill and probably the site of the manorial corn mill. This was demolished after 1845 (Asset 4). It is not noted in the Lake District HER, nevertheless it is a distinct heritage asset in its own right. As it is within a protected landscape the heritage asset is of district or county (lesser) significance (Appendix 1, Table 1).

5.2 Magnitude of impact

5.2.1 The impact of the demolition proposals on the extant buildings of Ennerdale Mill (Asset 1) will be direct, as it will directly impact on its immediate setting and the building fabric. This impact will result in the loss of the structure. (Appendix 1, Table 2).

5.2.2 The impact of the demolition proposals on the site of the earlier Ennerdale corn mill. The impact may be direct through machine movements and through changes to its setting. The magnitude of impact impact will be minor (Appendix 1, Table 2).

5.3 Assessment of impact

5.3.1 For the heritage asset of Ennerdale Mill, a loss magnitude of impact on a heritage asset

of district or county significance equates with a major impact on heritage significance (Appendix 1, Table 3).

5.3.2 With regard to the below ground remains of the earlier Ennerdale corn mill (Asset 4), a minor magnitude of impact on a heritage asset of district or county significance equates with a very limited impact on heritage significance (Appendix 1, Table 3).

5.4 **Mitigation Strategy**

5.4.1 As the overall effect of the demolition will result in the loss of the heritage asset of Ennerdale Mill, mitigation, such as a detailed building survey (Historic England level 3 or 4), will be necessary. Retention and reuse may be the favoured planning option though the mill buildings are in a state of considerable disrepair, which has to be taken into consideration with regard to possible retention of some parts of the structures.

5.4.2 Impact should if possible be avoided on the below ground remains of the earlier Ennerdale corn mill. This may be achieved by avoiding demolition during periods when the ground is soft and avoiding tracking across the location of these remains.

6 BIBLIOGRAPHY

6.1 Primary Sources

Hodskinson J and Donald T, 1774, *The County of Cumberland*, London (Cracknell 2011, Figure 3)

YPR 42/132 (Whitehaven) Ennerdale Tithe Award Map 1845: John Donaldson Selby, *Plan of the Township in the County of Cumberland surveyed under the Act of the commutation of tithes, 1845, in two parts, Part 1*

First Edition Ordnance Survey Map, 1873

Second Edition Ordnance Survey Map, 1899

Third Edition Ordnance Survey Map, 1925

Ordnance Survey Map, 1970

DBT/26/2 (Whitehaven) Auction Plan, Inventory of Mill Wheels

DH/78/2 (Whitehaven) Tithe Deeds and related Papers

6.2 Secondary Sources

Lake District National Park, *Ambleside Conservation Area, Conservation Area Appraisal and Management Plan*, accessed 29th April 2016

http://www.lakedistrict.gov.uk/__data/assets/pdf_file/0010/172639/ambleside_conservation_area_as_of_12_aug_2010.pdf, accessed 29th April 2016

Bassetlaw District Council 2011, *A Guide to Heritage Impact Assessments*

Copeland Council 2013, *Copeland Local Plan 2013-2028: Adopted Core Strategy and Development Management Policies*

Cracknell P 2011, *A report on the historical significance of Ennerdale Mill, near Ennerdale Bridge, Cumbria*, Historic Building Survey and Archaeological Illustration: Cockermouth

DCLG 2014, *Technical Guidance to the National Planning Policy Framework*, Department of Communities and Local Government: London

DCLG 2012, *National Planning Policy Framework*, Department of Communities and Local Government: London

English Heritage 2011, *Understanding Place: Conservation Area Designation, Appraisal and Management*, English Heritage: London

- English Heritage 2012, *The Setting of Heritage Assets*, English Heritage: London
- English Heritage 2010, *Understanding Place: Historic Area Assessments in a Planning and Development Context*, English Heritage: Swindon
- English Heritage nd, *Valuing Places: Good Practice in Conservation Areas*, English Heritage: Swindon
- Littledale RP 1931, Ennerdale, *Transactions of the Cumberland and Westmorland Antiquarian and Archaeological Society* **31**, 156-196
- Littledale RP 1925, Some Notes on the Patricksons of Ennerdale, *Transactions of the Cumberland and Westmorland Antiquarian and Archaeological Society* **25**, 128-243
- Rollinson W 1996, *A History of Cumberland and Westmorland*, Butler and Tanner Ltd: London
- BGS <http://mapapps.bgs.ac.uk/geologyofbritain/home.html>, accessed 28th April 2016
- Historic England,
<https://www.historicengland.org.uk/listing/the-list/list-entry/1245006>, accessed 29th April 2016
- Oxford Archaeology North 2011, Ennerdale Weir, Egremont, Cumbria: Desk-based Assessment.
- BAPH, <http://baph.org.uk/ukpaperhistory.html>, accessed 27th June 2016
- <http://archaeologydataservice.ac.uk/archsearch/record.jsf?depositorId=12064&collectionId=801>
- <http://archaeologydataservice.ac.uk/archsearch/record.jsf?depositorId=30461&collectionId=801>

APPENDIX 1: HERITAGE IMPACT ASSESSMENT TABLES

Table 1 Measuring Significance

Significance	Designation	Asset types and justification	Preferred response to negative impact
International	Non-statutorily designated heritage assets.	World Heritage Site (NPPF s132).	Avoid negative impact where asset contributes to the WHS's defined outstanding universal values (NPPF s138).
National	Statutorily designated heritage assets.	Scheduled monuments, Grade I and II* Listed Buildings (NPPF s132).	Avoid negative impact.
National	Non-statutorily designated heritage assets.	Registered Battlefields, Grade I and II* Registered Parks and Gardens (NPPF s132).	Avoid negative impact.
National	Non-designated heritage assets of demonstrable equivalence to a scheduled monument (NPPF s138).	Assets where assessment for designation is pending, assets that have been assessed as being capable of designation but have not been designated at the SoS discretion, assets worthy of designation but which are outside the scope of the 1979 Act (NPPF s139).	Avoid negative impact.
District or County (Higher)	Statutorily designated heritage assets.	Grade II Listed Buildings (NPPF s132).	Limit negative impact (avoid substantial harm) and mitigate.
District or County (Higher)	Non-statutorily designated heritage assets.	Conservation area (NPPF s127), Grade II Registered Park and Garden (NPPF s132).	Limit negative impact (avoid substantial harm) and mitigate.
District or County (Lesser)	Non-designated heritage assets within a national park or AONB.	Any extant heritage assets (NPPF s115).	Limit negative impact and mitigate.
District or County (Lesser)	Non-designated heritage assets.	Heritage assets placed on a local planning authority list (NPPG).	Limit negative impact and mitigate.
District or County (Lesser)	Non-designated heritage assets.	Any area of potential listed in a local plan (NPPG).	Limit negative impact and mitigate.
Local	Non-designated heritage assets.	Any extant heritage assets outside of a national park or AONB.	Mitigate.
Negligible	Non-designated heritage assets.	Heritage assets recorded in the HER that are no longer extant, individual findspots or structures of no heritage value.	No action.

Table 2: Establishing the magnitude of impact

Magnitude of Impact	Heritage Asset		
	Archaeological Remains (Archaeological Interest)	Historic Buildings (Architectural/Artistic Interest and/or Historic Interest)	Historic Landscapes (Historic Interest)
Loss	<ul style="list-style-type: none"> Change to most or all key archaeological materials, such that the resource is totally altered Comprehensive changes to setting 	<ul style="list-style-type: none"> Change to key historic building elements, such that the resource is totally altered Comprehensive changes to setting 	<p>Major change to historic landscape character resulting from:</p> <ul style="list-style-type: none"> Changes to most key historic landscape elements, parcels or components Extreme visual effects Major change to noise or change to sound quality Major changes to use or access
Substantial	<ul style="list-style-type: none"> Changes to many key archaeological materials, such that the resource is clearly modified Considerable changes to setting that affect the character of the asset 	<ul style="list-style-type: none"> Changes to many key historic building elements, such that the resource is significantly modified Changes to setting of an historic building such that it is significantly modified 	<p>Moderate change to historic landscape character resulting from:</p> <ul style="list-style-type: none"> Changes to many key historic landscape elements, parcels or components Visual change to many key aspects of the historic landscape Noticeable differences in noise or sound quality Considerable changes to use or access
Less than substantial	<ul style="list-style-type: none"> Changes to key archaeological materials, such that the asset is slightly altered Slight changes to setting 	<ul style="list-style-type: none"> Change to key historic building elements, such that the asset is slightly different Changes to setting of an historic building such that it is noticeably changed 	<p>Limited change to historic landscape character resulting from:</p> <ul style="list-style-type: none"> Changes to few key historic landscape elements, parcels or components Slight visual changes to few key aspects of the historic landscape Limited changes to noise levels or sound quality Slight changes to use or access
Minor	<ul style="list-style-type: none"> Very minor changes to archaeological materials 	<ul style="list-style-type: none"> Slight changes to historic buildings elements or setting that hardly affect it 	<p>Very small change to historic landscape character resulting from:</p> <ul style="list-style-type: none"> Very minor changes to key historic landscape elements, parcels or components Virtually unchanged visual effects Very slight changes to noise levels or sound quality Very slight changes to use or access
No change	No change		

Table 3 Impact on Heritage Significance

Assessment Matrix to define the degree of impact on heritage asset significance		Magnitude of impact				
		No change	Minor alteration with no reduction in significance	Less than substantial	Substantial	Loss
Significance of Heritage Asset	National	Blue	Yellow	Dark Green	Red	Red
	District/County (Higher)	Blue	Yellow	Light Green	Dark Green	Red
	District/County (Lesser)	Blue	Yellow	Light Green	Light Green	Dark Green
	Local	Blue	Blue	Yellow	Light Green	Light Green
	Negligible	Blue	Blue	Blue	Blue	Blue


Blue (no appreciable impact) = no mitigation necessary
 Yellow (very limited impact) = low level mitigation eg photographic record/watching brief etc
 Light green (limited impact) = may need evaluation to establish appropriate mitigation which may include site survey/excavation etc
 Dark green (major impact) = may not be agreed and then only with significant justification, may require evaluation and will require significant mitigation such as excavation, detailed building survey, visual restoration, some in-situ preservation and on-site interpretation
 Red (very major impact) = unlikely to be agreed except in exceptional circumstances and only with a high level of mitigation

APPENDIX 2: FIGURES



Wardell Armstrong
Archaeology
2016

PROJECT: The Mill, Ennerdale, Cumbria
 SCALE: 1:25,000 at A4
 REPORT No: CP11821
 CLIENT: United Utilities
 DRAWN BY: AB
 CHECKED BY: AB
 DATE: July 2016

KEY:
 Site location



Reproduced by permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stationery Office. © Crown copyright. All rights reserved. Licence number 100019512

Figure 1: Site location.

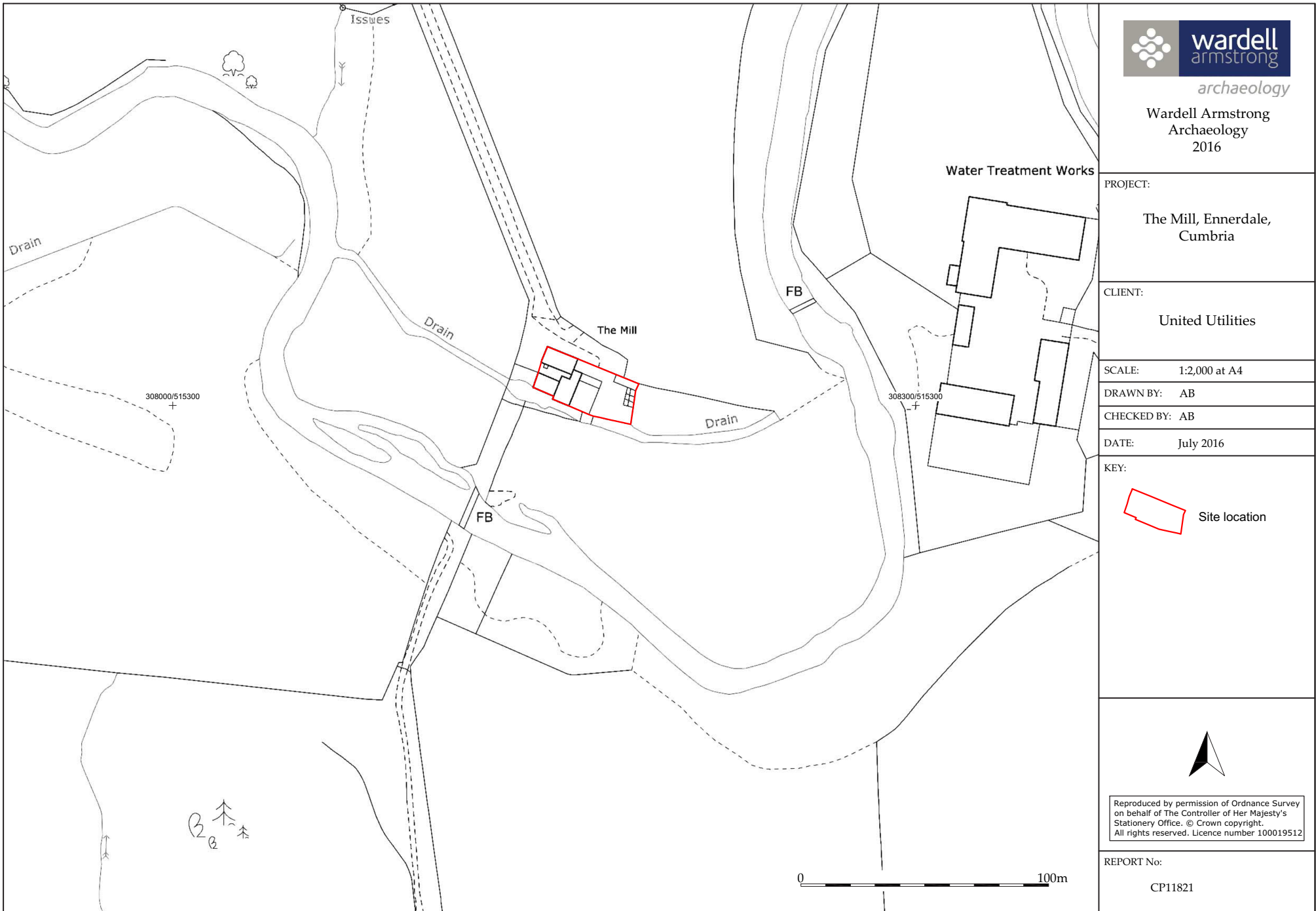


Figure 2: Detailed site location.








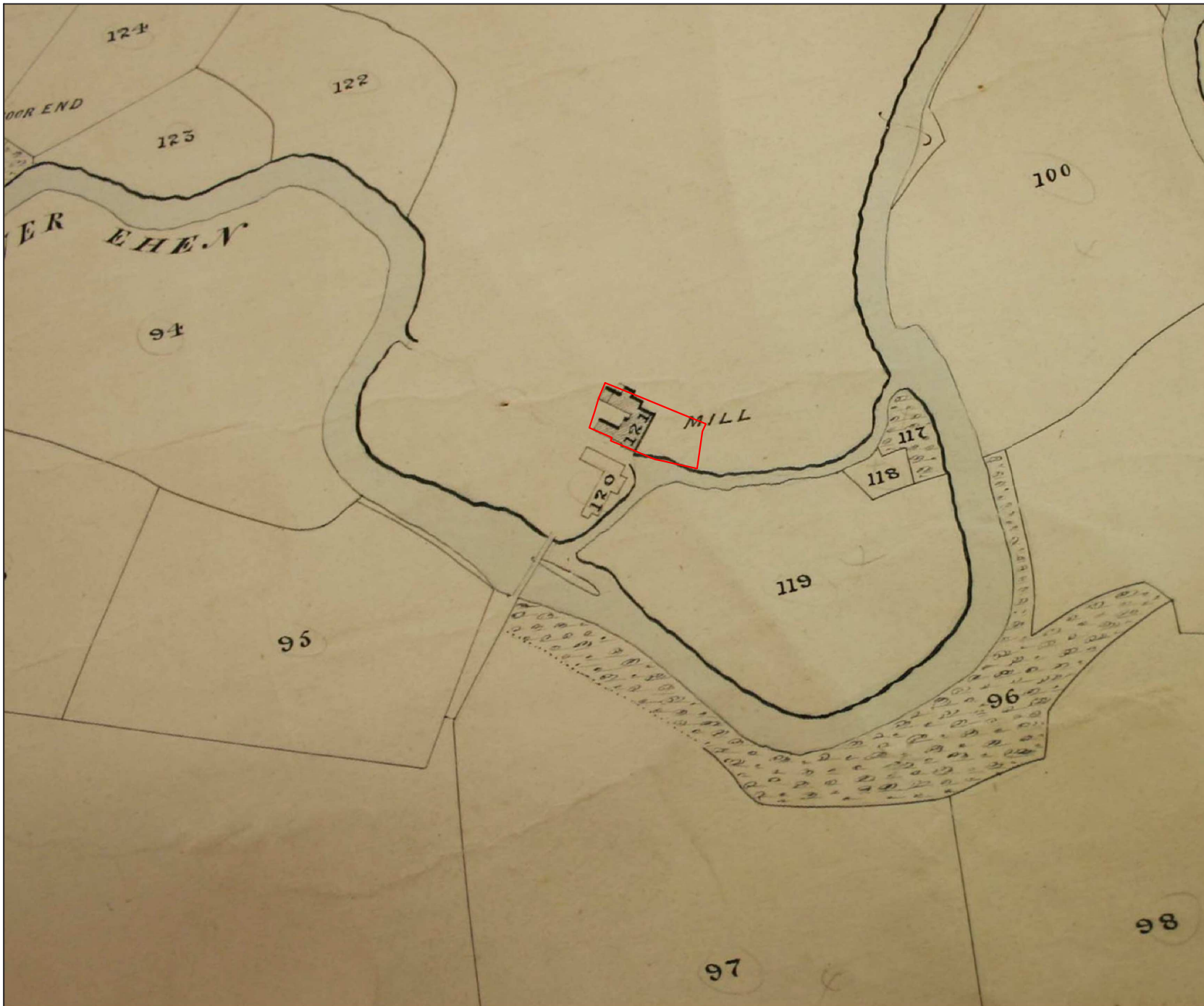
 <p>Wardell Armstrong Archaeology 2016</p>	PROJECT:	The Mill, Ennerdale, Cumbria	KEY:  Site Boundary  0.5km radius  Heritage assets	 <p>Reproduced by permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stationery Office. © Crown copyright. All rights reserved. Licence number 100019512</p>
	SCALE:	1:7,500 at A4		
	REPORT No:	CP11821		
	CLIENT:	United Utilities		
	DRAWN BY:	HP		
	CHECKED BY:	HP		
DATE:	July 2016			

Figure 3: Heritage assets within 0.5km radius.



Figure 4: Hodkinson and Donald map of 1774.



Wardell Armstrong
Archaeology
2016

PROJECT:
The Mill, Ennerdale,
Cumbria


CLIENT:
United Utilities

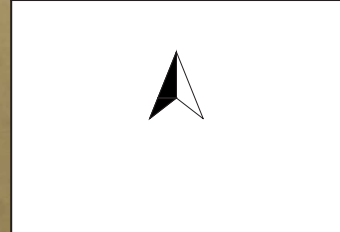
SCALE: 1:2,000 at A4

DRAWN BY: HP

CHECKED BY: HP

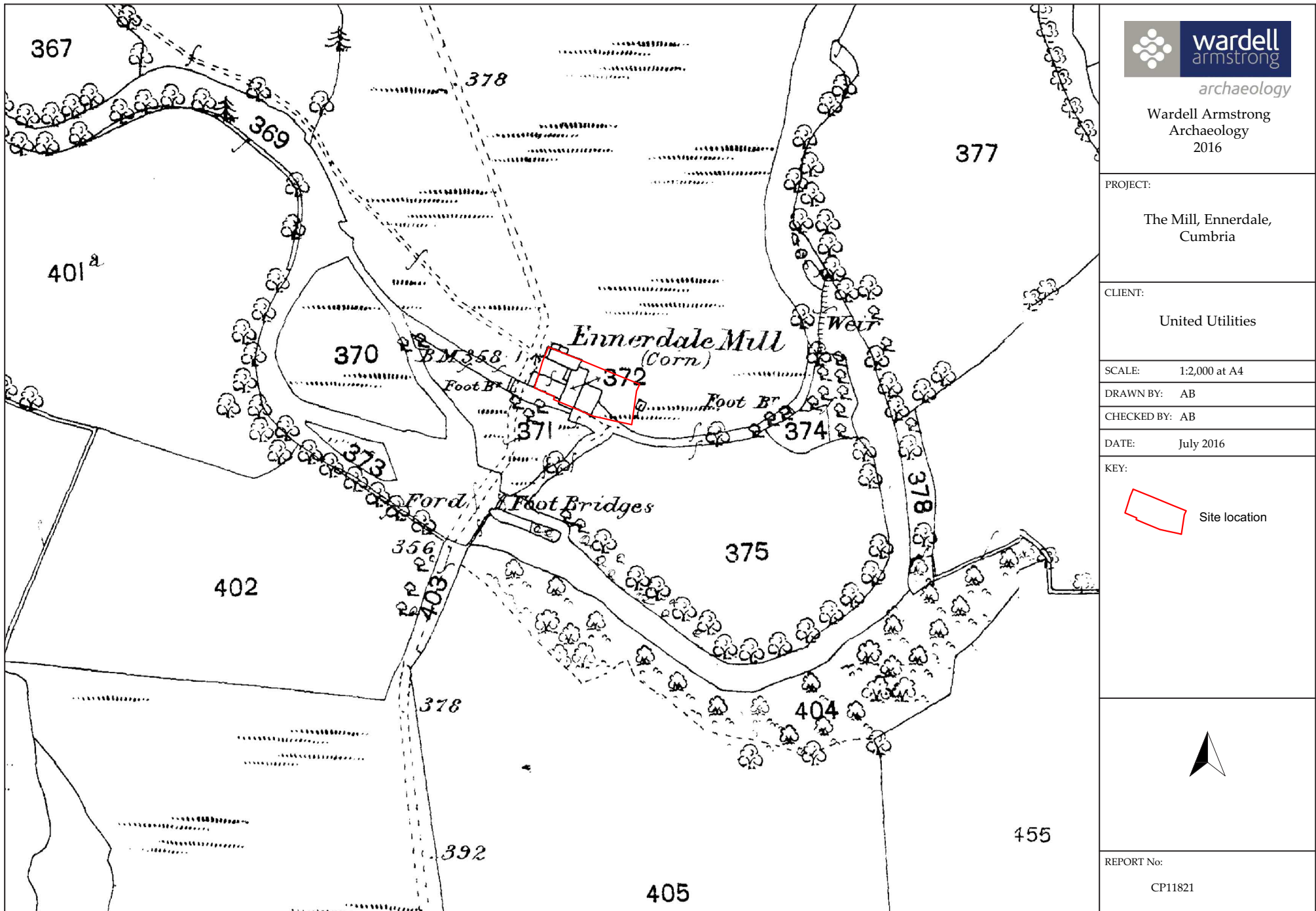
DATE: July 2016

KEY:
 Site location



REPORT No:
CP11821

Figure 5: Ennerdale Tithe Award Plan, 1845 (3 chains to 1 inch scale).



PROJECT:

 The Mill, Ennerdale,
 Cumbria

CLIENT:

 United Utilities


SCALE: 1:2,000 at A4

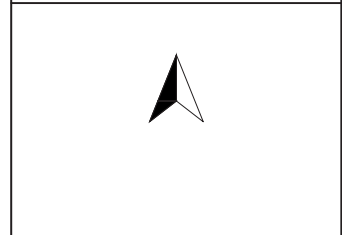
DRAWN BY: AB

CHECKED BY: AB

DATE: July 2016

KEY:

 Site location



REPORT No:

 CP11821

Figure 6: First Edition Ordnance Survey Map, 1873 (25 inches to 1 mile scale).

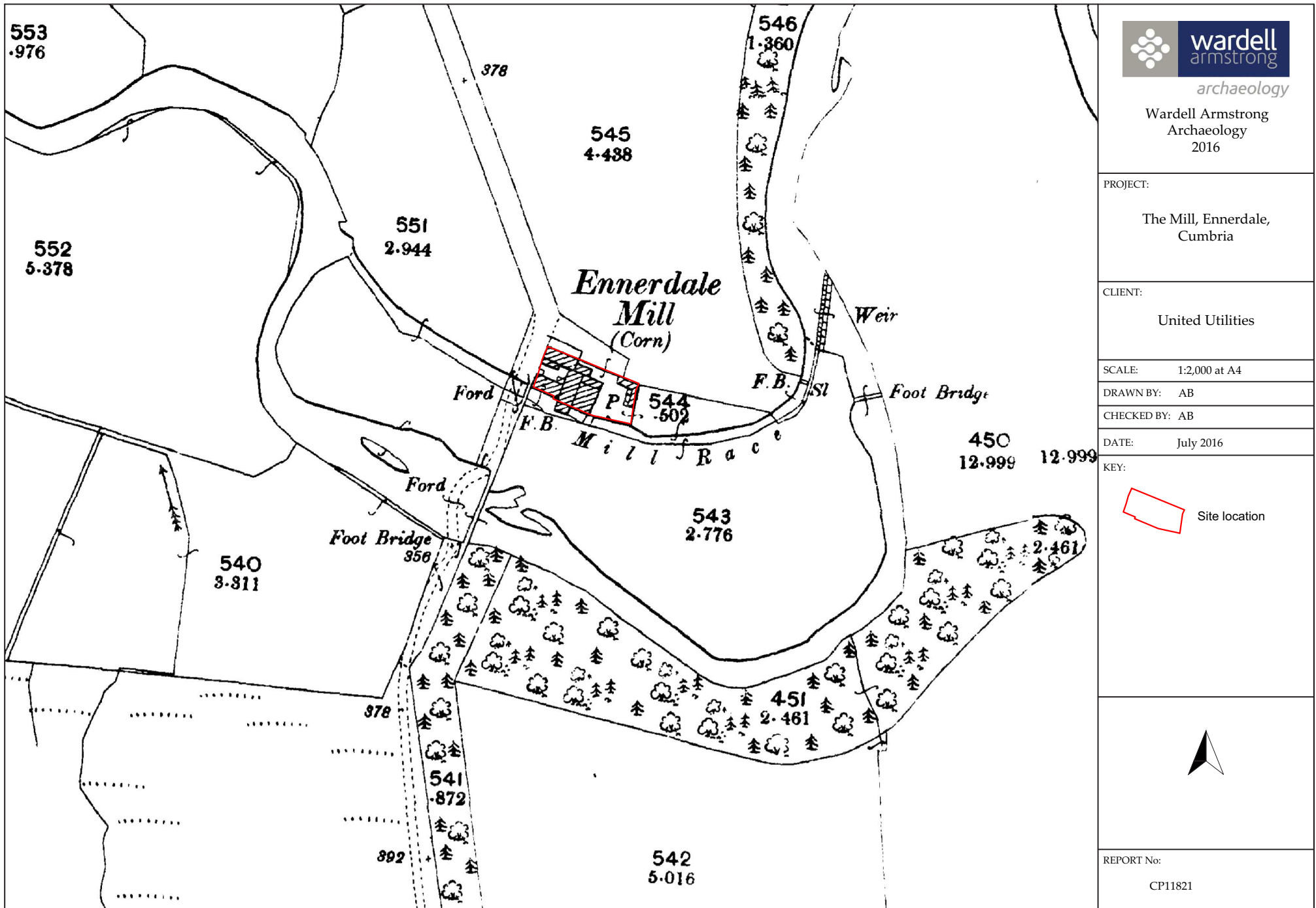


Figure 7: Second Edition Ordnance Survey Map, 1899 (25 inches to 1 mile scale).

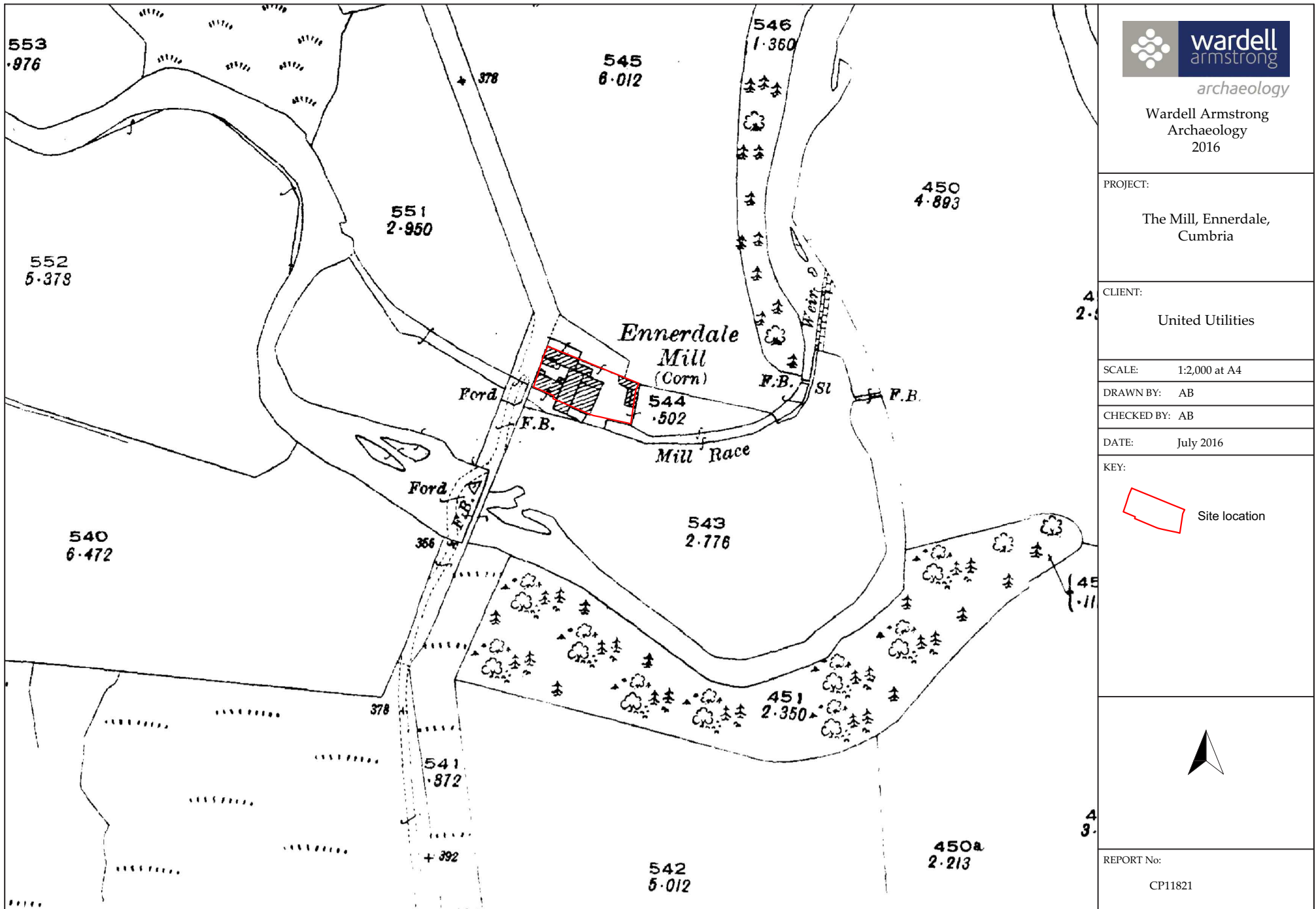


Figure 8: Third Edition Ordnance Survey Map, 1925 (25 inches to 1 mile scale).

STOKE-ON-TRENT
Sir Henry Doulton House
Forge Lane
Etruria
Stoke-on-Trent
ST1 5BD
Tel: +44 (0)845 111 7777

CARDIFF
22 Windsor Place
Cardiff
CF10 3BY
Tel: +44 (0)29 2072 9191

EDINBURGH
Suite 2/3, Great Michael House
14 Links Place
Edinburgh
EH6 7EZ
Tel: +44 (0)131 555 3311

GREATER MANCHESTER
2 The Avenue
Leigh
Greater Manchester
WN7 1ES
Tel: +44 (0)1942 260101

LONDON
Third Floor
46 Chancery Lane
London
WC2A 1JE
Tel: +44 (0)20 7242 3243

NEWCASTLE UPON TYNE
City Quadrant
11 Waterloo Square
Newcastle upon Tyne
NE1 4DP
Tel: +44 (0)191 232 0943

PENRYN
Tremough Innovation Centre
Tremough Campus
Penryn
Cornwall
TR10 9TA
Tel: +44 (0)1872 560738

SHEFFIELD
Unit 5
Newton Business Centre
Newton Chambers Road
Thorncliffe Park
Chapelton
Sheffield
S35 2PH
Tel: +44 (0)114 245 6244

TRURO
Wheal Jane
Baldhu
Truro
Cornwall
TR3 6EH
Tel: +44 (0)1872 560738

WEST BROMWICH
Thynne Court
Thynne Street
West Bromwich
West Midlands
B70 6PH
Tel: +44 (0)121 580 0909

International offices:

ALMATY
29/6 Satpaev Avenue
Rakhat Palace Hotel
Office Tower, 7th Floor
Almaty
050040
Kazakhstan
Tel: +7-727-3341310

MOSCOW
Suite 2, Block 10,
Letnikovskaya St.
Moscow, Russia
115114
Tel: +7(495) 980 07 67

Wardell Armstrong Archaeology:

CUMBRIA
Cocklakes Yard
Carlisle
Cumbria
CA4 0BQ
Tel: +44 (0)1228 564820