# An Archaeological Desk-based Assessment of the

# Dinham Eel Traps, Ludlow, Shropshire, 2016

by H R Hannaford



# **Archaeology Service**





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by

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A report for the

**Severn Rivers Trust** 

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#### SUMMARY

There is currently a proposal for the installation of new a working eel trap and refurbishment of the existing wider eel trap structure at the historic Dinham Weir, Ludlow, Shropshire. The proposed development site lies within the medieval and post-medieval suburb of Dinham, just outside the town's defences on the east bank of the River Teme. Because of the potential historical and archaeological significance of the site, an archaeological desk-based assessment has been carried out of the proposed development site. This assessment suggests that there is a low potential for archaeological features and deposits of medieval and earlier post-medieval date surviving within the site itself. The present eel traps are an unusual mid to late 19<sup>th</sup> century structure, and though largely complete they are in need of repair and refurbishment. It is recommended that a programme of archaeological work accompany any refurbishment work and the installation of a new eel trap.

# 1 INTRODUCTION

- **1.1** Ludlow is situated in south Shropshire, about 37km south of Shrewsbury town centre. Dinham is a suburb located on the western side of the historic core of the medieval town, and is known to have been occupied since the early part of the 13<sup>th</sup> century. There is currently a proposal for the installation of new a working eel trap and refurbishment of the existing wider eel trap structure at the historic Dinham Weir, Ludlow, Shropshire (NGR SO 5072 7451). The site lies on the southern end of Dinham Weir on the River Teme on the western side of the core of the historic settlement of Ludlow (Fig. 1).
- **1.2** The Dinham Eel Traps site lies just outside the historic medieval core of Ludlow as defined by the Central Marches Historic Towns Survey (Historic Environment Record [HER] No. 06293), at the point where the Dinham Weir adjoins the former Castle Mill, now the Ludlow Mill on the Green, run as a visitor attraction by the Dinham Millennium Green Trust.
- **1.3** There has been no previous archaeological work on the proposed development site itself. The proposed development site lies within the area covered by the Central Marches Historic Towns Survey (Dalwood, 1996).
- **1.4** Because of the potential archaeological significance of the proposed development site, the Archaeology Service has been commissioned by the Severn Rivers Trust to carry out this Archaeological Desk-Based Assessment. This is intended to provide an assessment of the archaeological potential of the site, consider the likely impact of the proposed repair and refurbishment work on any heritage assets with archaeological interest, and present recommendations for any further investigation or mitigation.
- **1.5** The scope of this desk-based assessment was agreed with the Senior Archaeological Advisor and the Senior Conservation Officer, Shropshire Council. This assessment includes the proposed development site itself (the site) and an area of archaeological assessment around the site (the study area, see Figs. 1 and 2).

# 2 AIMS AND OBJECTIVES

- 2.1 As part of wider environmental improvements along the River Teme, the Severn Rivers Trust commissioned Fishtek Consulting to carry out a structural condition assessment of the Dinham Eel Trap in support of a Heritage Lottery Funding Application for the installation of new a working eel trap and refurbishment of the existing wider eel trap structure. The structural assessment has suggested that whilst the sluice gates and abutments are in fair condition, the eel trap infrastructure is in poor condition, with some components badly corroded or missing, and is prone to localised failure in the medium term and is at risk of collapse in the longer term. It is advised that a repair methodology be prepared once the history, significance and character of the eel trap ironwork has been established.
- 2.2 The aim of this archaeological desk-based assessment is to provide information that

will enable an informed and reasonable decision to be taken regarding the archaeological provision for the area affected by the proposed refurbishment of the Dinham Eel Trap.

## **2.3** The objectives are:

- a) To provide an assessment of the historical significance of the eel trap structure.
- b) To locate any known archaeological features and deposits within the study area.
- c) To assess the likely survival, quality, condition and relative significance of any archaeological features, deposits and structures.
- d) To assess the likely impact of the proposed works on the designated and nondesignated heritage assets within the study area (as defined in 1.3 above).
- e) To identify and recommend options for the management of the archaeological resource, including any further archaeological provision where necessary.

# 3 METHODOLOGY

- **3.1** The methodology for this assessment is based on requirements agreed with the Senior Archaeological Advisor and the Senior Conservation Officer of the Historic Environment Team, Shropshire Council.
- **3.2** This desk-based assessment aims to examine and assess all appropriate sources. These have included: archaeological databases, historic documents (including cartographic and pictorial documents), aerial photographs, geotechnical information, and secondary and statutory sources. The assessment includes an outline history of the development and land use of the study area, supported by copies of relevant historic maps and documents.
- 3.3 The development site is located on the west side of Ludlow town centre, on the east bank of the River Teme. The study area for this desk-based assessment comprises an area of 75m around the edges of the eel traps (Figs. 1 & 2). The size of the study area has been chosen to ensure that the documentary and cartographic sources provide sufficient information about the proposed development site and its setting to enable an assessment of the potential impacts on the heritage resource. All known heritage assets identified within and immediately adjacent to the boundary of this study area have been considered in this assessment. A wider informal study area has been used to identify designated heritage assets (Scheduled Ancient Monuments and Grade I and II\* Listed Buildings) in the vicinity whose setting may be affected by the development. Although a small number of such designated heritage assets do lie within this wider study area (see sections 4.1.1-2, below) it is considered that the proposed development will not have any impact on the setting of these assets.
- 3.4 The desk-based assessment has identified the likely factors that will be relevant in

assessing the impact of the proposed development on the setting of the various heritage assets in the study area (see section 5.2.4 below).

**3.5** A site visit was also undertaken on 27<sup>th</sup> June 2016 in order to identify any potential archaeological features not recorded by the documentary or cartographic sources, and to assess possible factors and their effect on the survival or condition of the archaeological resource.

# 4 HISTORICAL AND ARCHAEOLOGICAL BACKGROUND

## 4.1 Designated sites and non-designated sites

Site	NHLE	HER PRN	Name	Status
1	1004778	01176	Ludlow Castle	SAM
2	1006278	01177	Town Walls (Ludlow)	SAM
3	1210491	11155	Dinham House, Dinham	LB II*
4	1202915	11156	Dinham Lodge, Dinham	LB II*
5	1202914	11160	Dinham Bridge, Dinham	LB II
6		29165	Dinham Weir, Ludlow	Non-designated
7		06184	Castle Mill (medieval), River Teme	Non-designated
7		15751	Ludlow Castle Mill	Non-designated
8		06179	Open space, outer defences of Ludlow Castle	Non-designated
9		01790	Former alignment of Dinham Bridge	Non-designated
10		06263	Ford, River Teme at Castle Mill, Ludlow	Non-designated
11		06180	The King's Orchard, nr River Teme, Ludlow	Non-designated
12		06155	Castle Foundry at Dinham Bridge	Non-designated
13			Former boat house, Castle Weir House	Non-designated

**Table 1:** Sites identified in the study area (see Fig. 2 for locations)

- **4.1.1 Designated sites** (Designated assets are individually listed in section 7.1.1 of this report). No World Heritage Sites or sites included on the Tentative List of Future Nominations for World Heritage Sites (July 2014) are situated within the study area or its vicinity. There are two Scheduled Ancient Monuments (SAM) situated just to the east of the study area, Ludlow Castle (National List Entry [NHLE] No. 1004778), (Fig. 2; site 1) and the Town Walls (Ludlow) (National List Entry [NHLE] No. 1006278), (Fig. 2; site 2).
- **4.1.2** There are two Grade II\* Listed Buildings Dinham House, Dinham (NHLE 1210491) (site 3) and Dinham Lodge, Dinham (NHLE 1202915) (site 4) in this wider study area. These were included in this study for an assessment of possible affects by the development on their setting. However it is considered that the proposed development will not have any impact on the setting of these assets.
- **4.1.3** There is one Grade II Listed Building in the 75m study area, Dinham Bridge, Dinham, NHLE 1202914 (see Fig. 2, site 5). The development will not have any direct impact on Dinham Bridge.
- **4.1.4 Non-designated heritage assets (summary)** (Non-designated heritage assets are listed individually in section 7.2.1 of this report). The development site itself lies on the southern end of Dinham Weir, a non-designated archaeological site (Shropshire Historic Environment Record [HER] No 29165) (site 6), where it adjoins the non-designated Castle

Mill (site 7, HER 15751). There are in total 10 non-designated heritage assets (including these) recorded on the Shropshire Council Historic Environment Record (HER) within or immediately adjacent to the study area (see Fig. 3).

**4.1.5** The study area lies within the Ludlow Conservation Area.

## 4.2 Previous Archaeological Work

- **4.2.1** There has been no previous archaeological work on, or finds recovered from, the site of the Dinham Eel Traps itself.
- **4.2.2** The study area lies within the area covered by the Central Marches Historic Towns Survey (Dalwood, 1996). This identified the principal components of the medieval and post-medieval settlement. In the 20 years since the compilation of the survey there have been a number of archaeological interventions and observations within the historic core of the town.
- **4.2.3** In 2013 an archaeological watching brief was carried out on groundworks associated with the installation of a fish weir in the eastern bank of the River Teme at the northern end of Dinham Weir. The watching brief noted that the bank here comprised recent reinforcement deposits overlying riverine silts (Hannaford, 2013).

## 4.3 Geology and topography

- **4.3.1** The study area lies on bedrock that comprises sedimentary siltstones of the Lower Leintwardine, Upper Leintwardine, and Whitcliffe Formations formed approximately 419 to 421 million years ago in the Silurian Period. These rocks were formed in warm shallow seas with carbonates deposited on platform, shelf and slope areas (BGS, 2016; Toghill, 1990, pp88-104).
- **4.3.2** The historic town of Ludlow is situated on a hilltop on the eastern side of the confluence of the Rivers Teme and Corve. The town lies on a major routeway (although the modern road, the A49(T) now by-passes the town) and is situated between crossing points of this routeway over the River Teme and the River Corve.

### 4.4 Prehistoric (pre-43AD)

**4.4.1** There is evidence for prehistoric activity on the hill occupied by the modern town centre. Place-name and documentary evidence suggests that a (presumably) Bronze Age barrow over three cist burials on the hilltop was removed when the medieval church was extended in 1199 (Wright, 1852, 13-5). A Neolithic stone axe and a number of flint flakes have been recovered from the general area of the town, and in 1996 a Bronze Age barb and tang flint arrowhead was found in trial excavations for the evaluation of the Library and Museum Resource Centre site (Dalwood, 1996, 2; Hannaford and Stamper, 1996; Wright 1852, 13-15).

## 4.5 Roman (43AD - 410AD)

**4.5.1** It has been suggested that Corve St follows the line of a Roman road, part of a postulated road between Gloucester (*Glevum*) and Wroxeter (*Viroconium Cornoviorum*) (Shoesmith and Johnson, 2000, p6-7). Although the existence of this road between Ashton (Herefs.) and its supposed junction with Watling Street (South) in the Craven Arms area (and particularly its course through Ludlow) is entirely conjectural, Roman occupation has recently been found during excavations (HER Event Record ESA 7638) in the Pepper Street area of Ludlow town centre (Crooks & Logan, 2015).

# 4.6 Early medieval (5<sup>th</sup> century - 1066AD) and Medieval (1066 – 1540)

- **4.6.1** The Medieval Town (HER 06293) There is no mention of either a settlement or a castle at Ludlow in the Domesday Survey of 1086. However, the manor of Ludford on the south side of the crossing of the River Teme is mentioned. There was probably also a small rural settlement, Dinham, with a chapel and a market green on the southwest side of the hill, and possibly also at Galdeford in an area that later in the medieval period became the eastern suburb of the town. (Dalwood, 1996, 2; Lloyd, 2008, p52).
- **4.6.2** A castle was founded on the hill-top in the late 11th century, as a major fortress on the frontier with Wales, and was used as the base for campaigns in Wales and the Marches in the 12th and 13th centuries. A small part of the castle (site 8; Open space, outer defences of Ludlow Castle, HER 06179) lies within the present study area.
- **4.6.3** The town grew up in the shadow of the castle, and it seems that the first elements of the town were laid out in the early 12th century. Ludlow has the appearance of a planned town, and it is generally agreed that it was laid out and expanded in several distinct phases. It has been suggested that the Old Street and Corve Street tenement blocks were the earliest elements, being laid out along an existing road linking crossing points on the River Teme on the south and the River Corve on the north sides of the hill. The Old Street block is thought perhaps to have been the earlier of the two. The first documentary mention of Corve Street comes in 1186, when burgesses are recorded occupying the bottom end of the street. The fat cigar-shape of upper Corve Street might indicate that it may have served as an early market street, before and possibly in addition to the new market place established in High Street towards the end of the 12th century. The town was granted a charter in the 13th century, and there is a documentary reference to the marketplace in 1255. An annual fair was being held by 1241. The mainstay of the town's economy in the Middle Ages was the wool trade, and associated industries developed in the town from the 13th century. The trade in cloth gradually became more important to the town's economy than the trade in raw wool during the medieval period. (Dalwood, 1996, 2-3; Shoesmith and Johnson, 2000, 65)
- **4.6.4 The Town Defences** The town was granted a licence to build defences in 1233, although these do not seem to have been completed on the south side of the town until at least the 1290s. The town defences were built to respect the topography of the hilltop, and so large parts of the town were excluded from the defended area, becoming extra-mural

suburbs. This included the lower part of Old Street to the south and all but the uppermost (southern) end of the Corve Street tenements to the north. (Dalwood, 1996, 2; Lloyd and Klein 1984, 13; Morriss and Hoverd 1993, 36). The study area lies just outside the line of the medieval town defences (Fig. 2; site 2)

- **4.6.5** In 1473 the Council of the March of Wales was based at the castle, which was made a provincial court in 1501. In 1534 the Council of the Marches became a form of regional government for Wales, Herefordshire, and Shropshire, with its capital at Ludlow. This became an important factor in the town's economy, providing a large income and attracting business to the town. The Council was suspended during the Civil War period, and finally abolished in 1689.
- **4.6.6 Medieval Dinham** The foundations of the medieval Dinham Bridge (site 9; HER 01790) are visible in the river bed. Four piers can be seen at low water, on the downstream side of the present bridge. The bridge is shown on a 1684 sketch as a timber bridge on stone piers. The bridge was rebuilt in 1649, possibly following flood damage, and was called the "New Bridge" in the 17<sup>th</sup> century, but the bridge was a narrow single-track bridge for pedestrians only. The upper part of the bridge was replaced in brick and stone in 1733, and rebuilt in 1794. It was demolished and replaced in 1823 by the present Dinham Bridge (site 5; HER 11160), a Grade II Listed Building (NHLE 1202914). (Lloyd & Klein, 1984, pp52 & 80-1). There was also a ford (site 10; HER 06263) across River Teme at Castle Mill used by wheeled vehicles that couldn't cross by the narrow medieval and post-medieval bridge.
- **4.6.7** The Lord's (or King's) Orchard (site 11; HER 06180) lay between the town wall and the River Teme, between Dinham and Mill street. It is documented in the 13<sup>th</sup> century, and was owned by the Corporation from 1461. The chief crop was apples for cider making.
- **4.6.8 Castle Mill** There was a water mill (site 7; HER 06184) on the site of the Castle Mill at Dinham by the early 14<sup>th</sup> century, and in 1368 it was said to be more important than the other mills in Ludlow, requiring more expense but processing more corn and producing more income (Faraday, 1991, p110). The mill is also documented in 1482 and 1619. The mill buildings were sketched in 1684 and the mill is also shown on Stukeley's map (1721) of the castle, locating it adjacent to the weir; it is also shown on various 18<sup>th</sup> century illustrations (Lloyd & Klein, 1984, p52, 60, 62, 72-77). Although the weir is first shown and documented in the 18<sup>th</sup> century illustrations, it is likely that it is considerably earlier in date. The medieval mill will have needed some sort of weir across the Teme as part of its water management systems, and Faraday contends that it was constructed by the medieval lords of Ludlow (Faraday, 1991, p103-4). The medieval mill was replaced in the later post-medieval period (HER 15751) (Dalwood, 1996).

### 4.7 Post-medieval (1540 – 1800) and Modern (1800 – present)

**4.7.1 The Civil War** Ludlow's strategic location on the main routeway along the western side of the country suddenly became important again with the outbreak of the Civil War in

1642. Ludlow was garrisoned by the Crown, and briefly came under threat of attack in May 1643. The defensive strength of the town and particularly the castle enabled the Royalists to maintain control of most of south Shropshire throughout the war, and Prince Rupert used Ludlow as a base when recruiting in Wales and Herefordshire. Charles I also visited Ludlow in 1645 after his defeat at the battle of Naseby. In May 1646 the Royalist garrison surrendered after a month-long siege by a Parliamentarian army under Col. John Birch and Sir William Brereton; Ludlow was then garrisoned by Parliament until 1655. (Shoesmith and Johnson, 2000, 87-8; Bracher and Emmett, 2000, 81-2. Hannaford and Stamper, 1996, 4-5)

4.7.2 The Study Area in the later Post-medieval and Modern Periods The Castle Mill is recorded on the Tithe Apportionment of 1847 for Ludlow, St Lawrence as being owned by the Corporation of Ludlow and occupied by a Joseph Williams (IR 29/208). medieval and early post-medieval Castle Mill was replaced in the later 19<sup>th</sup> century. The new mill buildings (site 7, HER 15751) and water systems are shown on the historic OS mapping of 1885 (1:500 Town Plan) and 1886 and 1902 (25" maps) as Castle Mills. In the later 20<sup>th</sup> century the old Castle Mill premises were used as changing rooms by the Dinham Swimming Pool (Lloyd, 1999, p154). Dinham Weir (site 6, HER 29165) is shown on 18<sup>th</sup> century illustrations and the mid-19<sup>th</sup> century tithe map for St Lawrence, Ludlow (IR 29/208). Recent observations during the installation of a fish weir at the northern end of the weir, however, encountered only modern bank reinforcement deposits over riverine silts (Hannaford, 2013). The Castle Foundry (site 12; HER 06155) was an iron and brass foundry depicted on the large scale OS map of 1886. The site lies immediately to the northeast of the eel traps and is now occupied by "Mr Underhill's Restaurant with Rooms". A boat house (site 13) is also shown on the 1885 OS plan on the east bank of the Teme just to the north of the Castle Foundry. Just beyond the study area, Dinham House (site 3, HER11155), situated 115 metres to the east of the Dinham Eel Traps site, is an early 18<sup>th</sup> century house, now a craft centre, which is protected by Grade II\* Listing (NHLE 1210491). Its neighbour, Dinham Lodge, Dinham (site 4; HER 11156) is a late 18<sup>th</sup> century house, which is also protected by Grade II\* Listing (NHLE 1202915).

#### 4.8 The Dinham Eel Trap

**4.8.1** Fish traps have been used to catch fish in Britain since Prehistoric times, but almost all the examples found in the archaeological record in England date from the Saxon period or later (Jecock, 2011). Fish formed an important part of the medieval diet for both nutritional and religious reasons. In inland areas while dried and salted fish may have been available at a price, most fish consumed was likely to be freshwater. In the medieval period there were three types of fresh-water fisheries: in rivers (usually as fish weirs), in open waters, and in (specially constructed) fish-ponds. Medieval fixed fishing weirs were constructed from wood posts and wattle fences and could be over 50m in length. They worked by directing fish towards fish traps or nets, catching fish migrating upstream and/or eels swimming downstream. A study of fish weirs on the River Severn suggests that each weir was the property of a large estate or manor – many were owned by monastic houses – and were operated by a tenant (Pannett, 1988, p371). On navigable rivers weirs could

be a problem, but bylets were often cut to allow navigation. On tributaries and smaller streams fisheries were often associated with water mills. Eels appear to be the principal catch, but many other species are likely to have been caught. Of the 90 or so water mills recorded in the Domesday Book for Shropshire, five are said to have paid at least part of their tax in eels, and sixteen Domesday manors are recorded as having fisheries (some associated with water mills) three of which are also recorded as paying part of their tax in eels. (Baugh, 1898, pp64-5; Thorn & Thorn, 1986, notes)

- **4.8.2** There is no documentary reference to a fishery attached to the medieval mill at Dinham, though it is possible (if not probable) that eels and other fish were taken. It is likely that the construction of the later post-medieval Castle Mills destroyed any remains of the medieval mill at Dinham.
- **4.8.3** One of the 18<sup>th</sup> century illustrations of the Castle Mill, "The perspective View of Ludlow Castle" originally published in the European Magazine of 1786, shows the Castle Mill and weir, with a set of eel traps at the southeast end of the weir adjacent to the mill (Lloyd & Klein, 1984, p73). A photograph taken in 1870 from Whitcliffe shows the mill and weir, and the sluice and eel traps though these are in the middle distance and details are not clear (Lloyd, 1995, p14). The site of the eel traps is shown on the later 19<sup>th</sup> century OS mapping as a break in the southern end of the weir and labelled "sluices" (OS 1885, 1:500).
- **4.8.4** Nevertheless, the present eel traps comprises a series of channels enclosed by cast iron divider plates and sluice gates set in an iron framework, with cast iron switch gears to operate the sluices. The ironwork appears to be of later 19<sup>th</sup> century date. A 20<sup>th</sup> century steel gridded walkway runs over the traps, connecting the weir and mill. The 19<sup>th</sup> century ironwork of the existing eel trap at Dinham would appear to be an unusual survival. It is possible that other 19<sup>th</sup> century eel traps do survive in the county unrecognised amongst the remains of former watermills but if so these have not been recorded. Locally, there are 40 fish weirs of medieval and or post-medieval date and one possible (medieval) fish trap recorded in Shropshire by the Shropshire HER either as documented sites or as weirs and channels, though none of these are recorded as having any surviving trap components or fixtures. Nationally, recorded surviving river eel or fish traps also appear to be rare (Jecock, 2011).
- **4.8.5** A Condition survey of the Dinham Eel Traps has been produced by Fishtek Consulting Ltd. (Lakin & Fryer, 2016). The survey includes a measured drawn and photographic record of the visible and accessible components of the structure.

# 5 IMPACT ON THE ARCHAEOLOGICAL RESOURCE

- 5.1 Direct impact of the proposed development on heritage assets
- **5.1.1 Significance of recorded archaeological features** This assessment has identified that the proposed development site lies outside Ludlow's medieval town defences in an area on the bank of the River Teme that was occupied by a water mill in the medieval and post-medieval periods. There have been no archaeological finds or observations from the proposed development site itself.
- **5.1.2 Potential for archaeological remains** This desk-based assessment has identified that there is a low to negligible possibility of prehistoric or Roman remains being present on the proposed development site. There is a low potential for significant archaeological deposits of medieval date associated with the medieval mill and weir being present. There are well-preserved remains of the later post-medieval mill, water systems, and eel traps on the site.
- **5.1.3 Survival of archaeological remains** The survival of the post-medieval structural remains within the development site is considered to be high, though their condition is such that repairs are needed in the medium to longer term.
- **5.1.4 Potential impact of the proposed development** The proposed repairs and refurbishment work would be likely to have an adverse impact on any below ground archaeological features or deposits surviving within the development site, and would cause some disturbance to the existing structures.

# 5.2 Indirect impact of the proposed development on heritage assets

- **5.2.1** The indirect physical and non-physical (visual) impacts of the proposed development on the designated and non-designated heritage assets within the study area have been assessed as required under paragraph 128 of the NPPF based upon the standards and guidance issued by Historic England (Historic England, 2015). An assessment has been made of the importance of the setting for each designated and non-designated heritage asset within the defined study area, ranked from very high, through high, medium, low, and none/negligible. The levels of impact were assessed and the significance of the effect was determined from the importance of the resource and the magnitude of the impact upon it.
- **5.2.2 Setting.** PPS5 defined the setting of a heritage asset as "the surroundings in which (the asset) is experienced. Its extent is not fixed and may change as the asset and its surroundings evolve. Elements of a setting may make a positive or negative contribution to the significance of an asset, may affect the ability to appreciate that significance or may be neutral." (English Heritage, 2011, p3.) This definition remains unchanged for the current National Planning Policy Framework (English Heritage Commentary on the National Planning Policy Framework, March 2012).

- **5.2.3** The attribute of the proposed refurbishment work that is considered likely to contribute to effects on the setting of the heritage assets in and around the study area has been identified as, though not strictly limited to, its position in relation to key views.
- **5.2.4** The overall indirect impact of the development on these heritage assets has been assessed using the methodology detailed in: "The Setting of Heritage Assets, Historic Environment Good Practice Advice in Planning: 3" Historic England, 2015.
- **5.2.5 Visual impact** The proposed development site will be visible in the view from the western end of Dinham Bridge towards Ludlow Castle. Whilst this view is considered to be of high value, because of the relatively small size and scale of the development site within this view, and because the development will be partially screened by other existing structures and vegetation, the overall significance of the effect of the proposed development on the view looking northeast from the bridge is expected to be negligible.
- **5.2.6** A number of Designated Heritage Assets lie within the informal wider study area of around the proposed development site. These heritage assets are listed in section 7.2.2 below. It is considered that the proposed development will not have any effect on the setting of these heritage assets and that they will not be indirectly affected by the proposed development.
- **5.2.7** It is considered therefore that no designated heritage assets will be affected indirectly by the proposed development.

# **6 RECOMMENDATIONS**

- **6.1** There is a low potential for the survival within the site of development site of belowground archaeological remains relating to the medieval and early post-medieval water mill and associated features. The 19<sup>th</sup> century eel traps and retaining structure within the weir survive well, though these are in a poor state of repair.
- **6.2** An adequate measured drawn and photographic record of the visible and accessible structure and components of the eel traps has already been made as part of the condition survey undertaken by Fishtek Consulting Ltd (Lakin & Fryer, 2016, Appendices). It is recommended that a selection of copies of the photographs taken as part of that survey be deposited with the Shropshire Historic Environment Record.
- **6.3** There is a proposal to undertake a programme of repair and refurbishment to the 19<sup>th</sup> century ironwork (and later steel additions) of the eel traps, and to install a new working eel trap. If off-site refurbishment of the ironwork were considered appropriate in this instance, then a Level 2 photographic record and an archaeological watching brief should accompany the disassembly of the current structure.
- **6.4** Any refurbishment of the sluice gates and abutments, and the installation of a new eel trap should be accompanied by an archaeological watching brief.

**6.5** The proposed repair and refurbishment work would have a negligible impact on the setting of the heritage assets in the study area or its immediate vicinity.

# 7 REFERENCES AND SOURCES CONSULTED

#### 7.1 Sources

The repositories and sources consulted for the desk-based assessment included the Shropshire Historic Environment Record (HER) and Shropshire Archives (SA).

# 7.2 Shropshire Historic Environment Record Aerial Photography:

Digital Aerial photographs provided by UKPerspectives and GetMapping held as part of Shropshire Council's GIS database

### HER computer files for Primary Record Numbers (PRNs) within the study area:

# 7.2.1 The study area (75m)

# **Grade II Listed Buildings:**

Dinham Bridge, Dinham, NHLE 1202914, HER 11160

## Non-designated sites:

HER 01790, Former alignment of Dinham Bridge

HER 06155, Castle Foundry at Dinham Bridge

HER 06179, Open space, outer defences of Ludlow Castle

HER 06180, The King's Orchard, nr River Teme, Ludlow

HER 06184, Castle Mill (medieval), River Teme

HER 06263, Ford, River Teme at Castle Mill, Ludlow

HER 06293, The Medieval Town of Ludlow

HER 06308, Street system (Post Medieval) Ludlow

HER 06315, Post Medieval urban form, Ludlow

HER 15751, Ludlow Castle Mill

HER 29165, Dinham Weir, Ludlow

# 7.2.2 The wider informal study area

#### **Scheduled Ancient Monuments:**

Ludlow Castle NHLE 1004778, HER 01176

Town Walls (Ludlow) NHLE 1006278, HER 01177

#### **Grade II\* Listed Buildings:**

Dinham House, Dinham, NHLE 1210491, HER 11155

Dinham Lodge, Dinham, NHLE HLUID 1202915, HER 11156

#### 7.3 Shropshire Archives

**7.3.1** Among the various sources consulted at Shropshire Archives, the following proved the most productive sources of information for the particular requirements of this assessment of the study area:

Cartographic sources

Tithe Apportionment and Map

Local history publications

# 7.4 Other sources and bibliography

Bracher, T, and Emmett, R, 2000: Shropshire in the Civil War, Shrewsbury

British Geological Survey 2010: Geology of Britain Viewer. Online resource at

http://www.bgs.ac.uk/discoveringGeology/geologyOfBritain/viewer.html viewed 21st June 2016

Crooks, K, & Logan, W, 2015: Archaeological excavation: land off Pepper Lane, Ludlow, Shropshire, Border Archaeology Report BA1403PLL

**Dalwood, H,** 1996: Archaeological Assessment of Ludlow, Shropshire, CMHTS, Hereford and Worcester County Council Archaeology Service Report No. 327

Eyton, Rev. W, 1857: Antiquities of Shropshire, Vol. v, pp233-301

Faraday, M, 1991: Ludlow 1085-1660, A Social, Economic and Political History, Phillimore

Foxall, H D G, 1981: Fieldname map based on Tithe Apportionment and Map for St Lawrence, Ludlow, 1847

Hannaford, H R, and Stamper, P, 1996: An Archaeological Evaluation at 147-152, Corve Street, Ludlow, Shropshire, SCCAS Report No. 99

**Hannaford, H R,** 2013: A Watching Brief at Dinham Weir, Ludlow, Shropshire 2013, Shropshire Council Archaeology Service report no. 347.

**Historic England**, 2015: The Setting of Heritage Assets, Historic Environment Good Practice Advice in Planning: 3

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Lloyd, D J, & Klein, P, 1984: Ludlow: an Historic Town in Words and Pictures, pp52,60,62,72-77

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Pannett, D J, 1971: Fish Weirs of the River Severn, Shropshire News Letter No. 41 Sept. 1971

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Shoesmith, R, and Johnson, A, (eds) 2000: Ludlow Castle: Its History & Buildings, Almeley

Thorn, F and Thorn, C (eds), 1986: Domesday Book: Shropshire, Chichester

Wright, T, 1852 The History of Ludlow

#### Cartographic sources

1752 Rocque, J, 1752: Actual Survey of the County of Salop

1827 Greenwood, C, 1827: Map of the County of Salop

1885 **OS** 1885 1:500 Ludlow Town Plan, Sheet LXXVIII.7.25

1886 **OS** 1886 25" (1:2,500) 1<sup>st</sup> edition, Shropshire Sheet LXXVIII.7

1903 **OS** 1903 25" (1:2,500) 2<sup>nd</sup> edition, Shropshire Sheet LXXVIII.7

1999 **UK Perspectives**, 1999 (digital aerial photography)

2013 **GetMapping**, 2013 (digital aerial photography)

#### **ABBREVIATIONS**

BAR British Archaeological ReportsBGS British Geological Survey

**CMHTS** The Central Marches Historic Towns Survey

HER County Historic Environment Record, Shirehall, Shrewsbury

**OS** Ordnance Survey

**SA** Shropshire Archives, Castle Gates, Shrewsbury

**SNL** Shropshire News Letter, Shropshire Archaeological Society

**TSAHS** Transactions of the Shropshire Archaeological and Historical Society

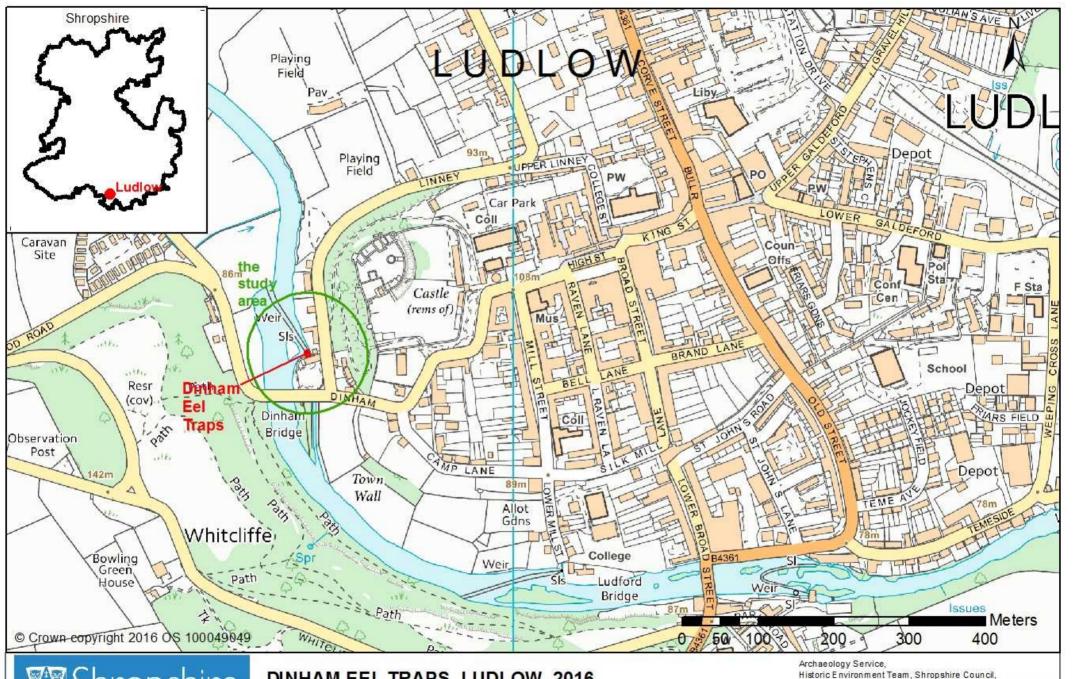




Figure 1: The location of the study area and the eel traps

Historic Environment Team, Shropshire Council, Shirehall, Abbey Foregate, Shrewsbury, Shropshire, SY2 6ND

Scale: 1:5,001

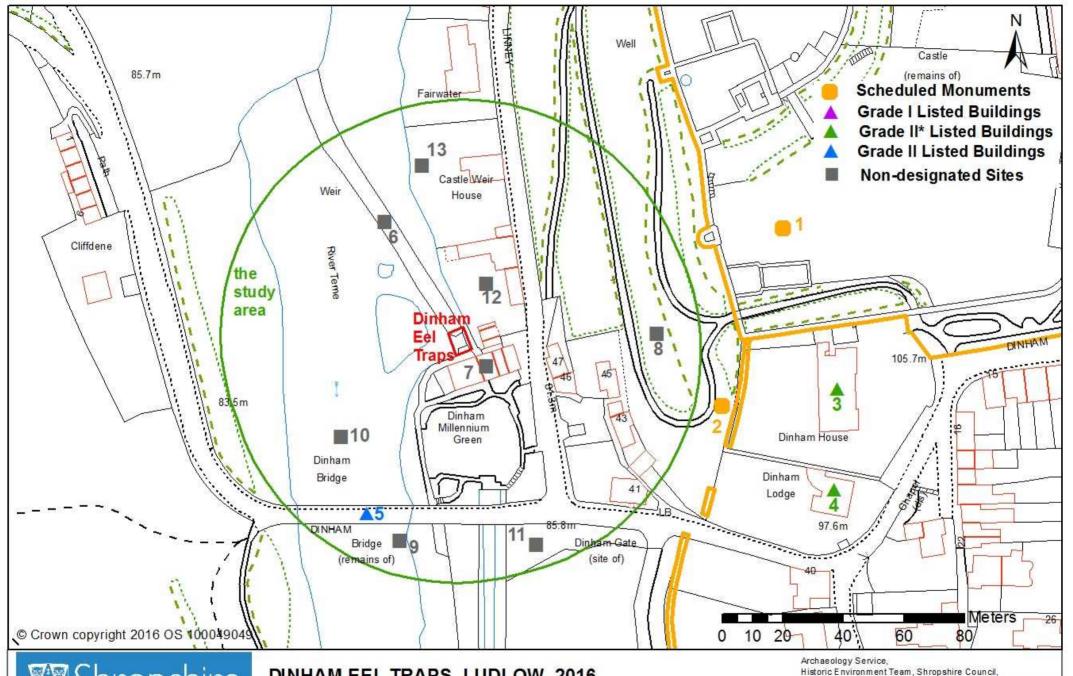


Figure 2: The study area and the location of sites noted in the text

Historic Environment Team, Shropshire Council, Shirehall, Abbey Foregate, Shrewsbury, Shropshire, SY2 6ND

Scale: 1:1,250

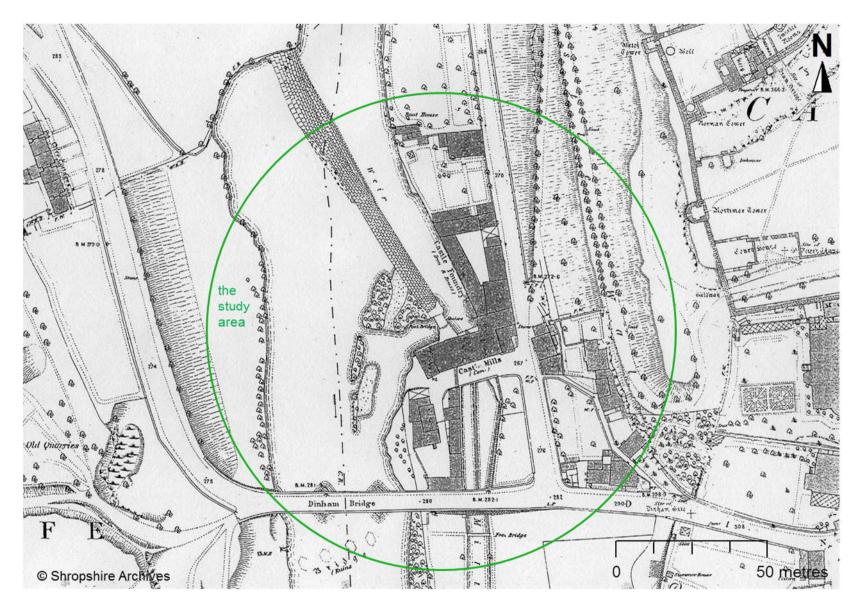


Figure 3: Extract from the Ordnance Survey Ludlow Town Plan, 1885, 1:500 scale (reproduced at 1:1,250 scale) Sheet no. LXXVIII.7.25

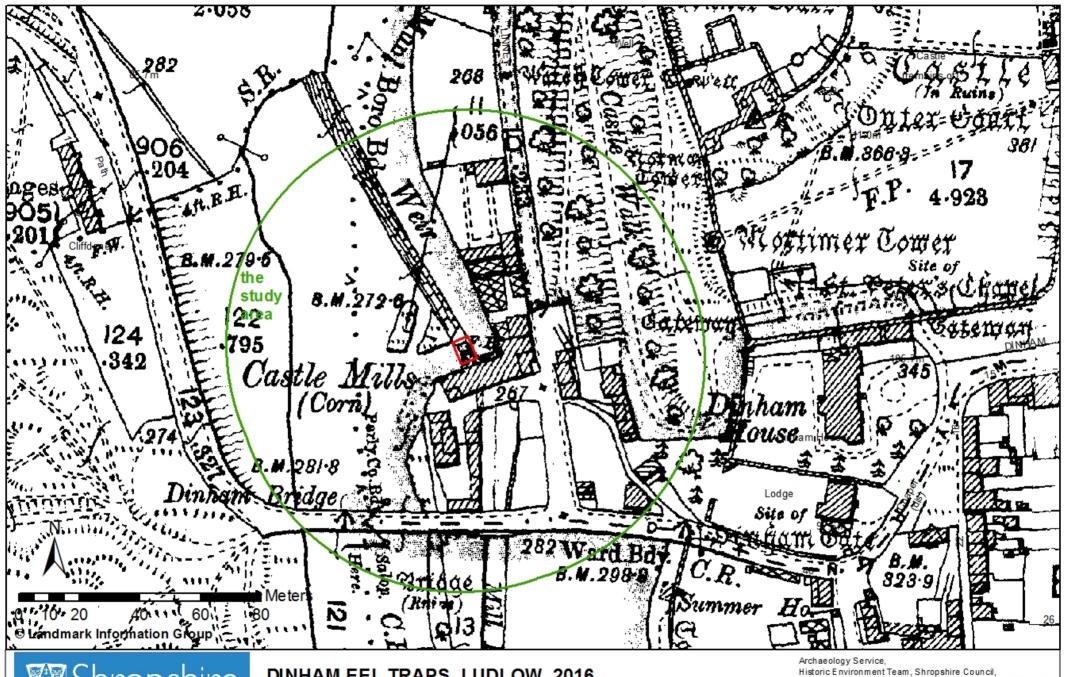


Figure 4: Extract from the OS 25" map, 1903, Sheet No. LXXVIII.7

Shirehall, Abbey Foregate, Shrewsbury, Shropshire, SY2 6ND

Scale: 1:1,250



Photo 1: The study area from Dinham Bridge, looking NE



Photo 2: The eel traps, looking NE



Photo 3: The eel traps and the mill leat, looking N



Photo 4: The eel traps, looking S



Photo 5: The eel trap divider plates, looking N



Photo 6: The sluice gate switch gear and the walkway, looking NE