

RFMG/03



RYEFORD, STROUD, GLOUCESTERSHIRE

Historic Building Recording

commissioned by The Environment Agency

August 2015

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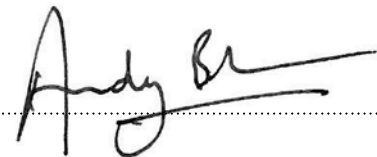
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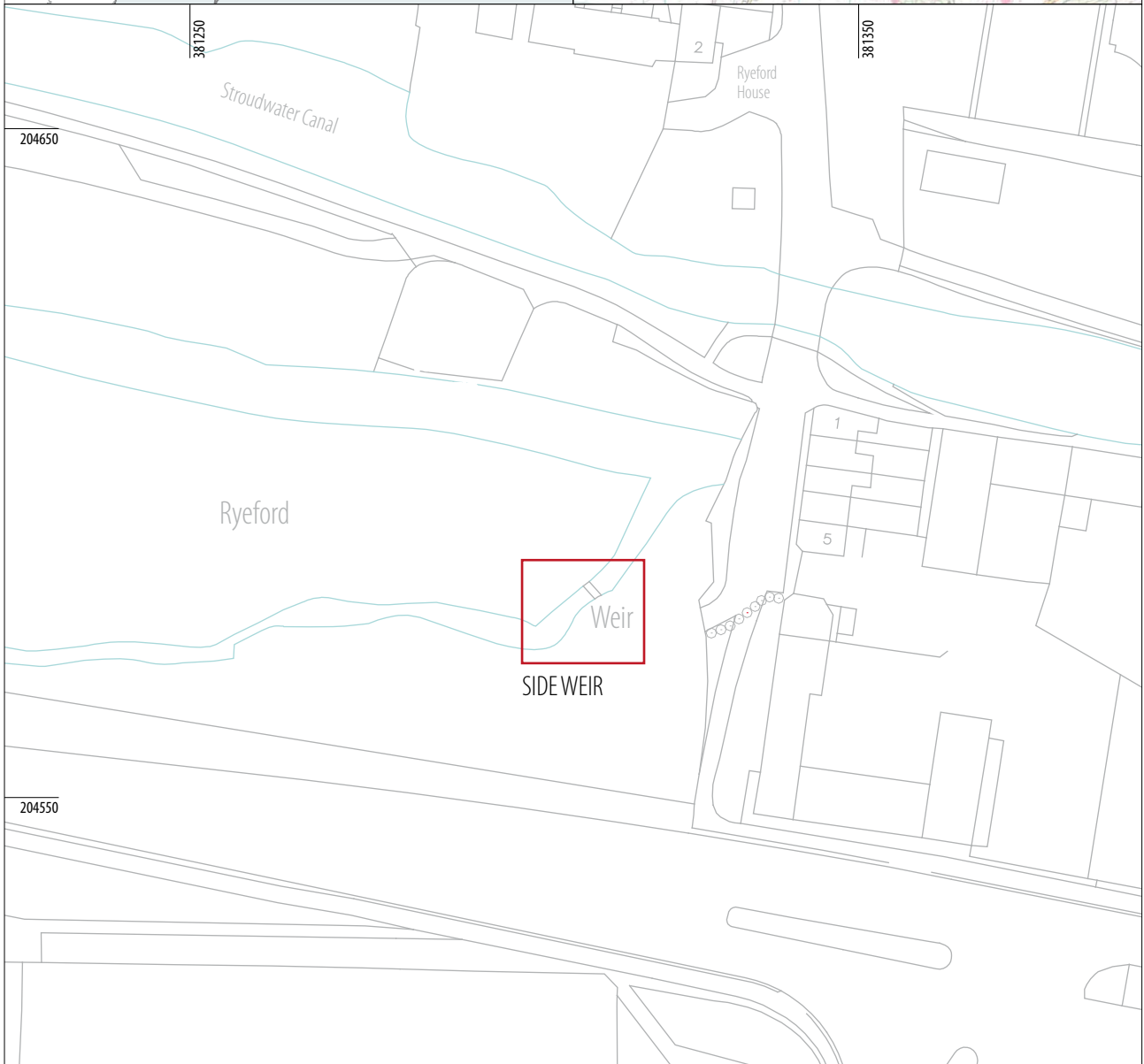
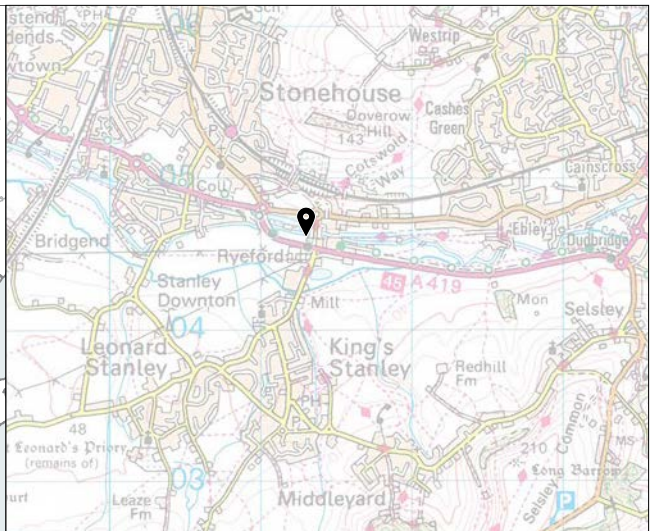


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ILLUS 1
Site location

RYEFORD, STROUD, GLOUCESTERSHIRE

Historic Building Recording

Headland Archaeology (UK) Ltd undertook a programme of historic building recording on a weir associated with Ryeford Mill (NMR 115165), near Ryeford, Stonehouse, Gloucestershire. The installation of a fish pass necessitated the alteration of the structure and features relating to the weirs construction and use were observed.

A stone cut recess was observed within remains of the wing wall of the side weir which indicated that the structure once contained a system of sluice gates which would have allowed the control of the water height within the River Frome. Removal of masonry on the side weir for the installation of the fish pass revealed that the weir was constructed in limestone with a solid stone core in contrast to the weirs downstream, which were stone faced with a brick core.

1 INTRODUCTION

Headland Archaeology (UK) was commissioned by the Environment Agency to undertake a programme of historic building recording related to the alteration of a side weir associated with an historic mill at Ryeford, Stonehouse, Gloucestershire.

Under the terms of the EU Water Framework Directive (2000/60/EC) it is a requirement to enable fish and eels to migrate upstream to areas of the river suitable for spawning and feeding. The weir and its associated features at Ryeford were preventing this migration and changes to the structure, including the installation of a fish pass were required to comply with the EU Directive.

No archaeological mitigation requirement was identified by the Borough Council relating to the proposed scheme, however, the Environment Agency has instigated a scheme of mitigation, through their internal best practice methodologies and structures. This program of mitigation involves the recording of any existing structures affected and monitoring of site work during the initial stages of alterations to the structures.

2 SITE LOCATION

Alterations were undertaken that related directly to the operation and fabric of the side weir located on the River Frome at Ryeford, Stonehouse, Gloucestershire (Illus 1).

2.1 CENTRAL CHANNEL SIDE WEIR (NGR 381307, 204571)

The weir affected by the proposed alterations differs from the others seen on the Frome. Whilst other weirs all align with the left bank of the water channel, the weir near Ryeford is offset partly down the side channel. It is a remnant of the system that controlled the water leaving Ryeford mill and ensured sufficient water levels for the Upper Mill.

3 HISTORICAL BACKGROUND

A historical assessment of the Ryeford Wier site was undertaken by Headland Archaeology (Boucher & Brekmoe 2014) as part of a more extensive desk-based assessment of the heritage assets on the River Frome. The results are summarised below.

'Ryeford Mills (NMR 115165) was a corn mill in the hands of the Gibbs family in 1507, but by 1600 it was a fulling mill. It is referred to tangentially in the will of John Phillips, clothier, dated 1692. In 1717 the fulling mill containing three stocks and one gig mill formed part of the settlement on the marriage of Thomas Phillips, clothier. In 1804 it was sold to Saul Lusty of Neath and was conveyed to R. Hyde in 1819. Cloth manufacture probably ceased soon after 1830 and in 1853 it is recorded as a corn mill with two waterwheels and



six pairs of stones. In the 1880s it was a saw mill. Much of the main mill building has been long demolished, with the chimney being demolished in 1964 (Tann 2012)

The Desk based assessment also took into consideration map regression which was used to plot the course of the bypass channels.

'A map of 1776 relating to Ryeford Mill confirms the configuration of channels that are now buried beneath ground. The map, which predates the construction of the canal, shows the main line of the river running northwest through the location of the current sluice gate and then bearing to the west after 20m. The side channel is also shown running off the main channel roughly southwards before turning west and then turning north-west back to join the main channel again.'

4 OVERVIEW OF THE ALTERATION WORKS

4.1 CENTRAL CHANNEL SIDE WEIR

Changes to the fabric of the existing structure were required to enable the installation of a stainless steel fish pass. An 840mm section of the weir crest was cut through using hand tools to allow the fish pass to be positioned within the water flow.

5 AIMS AND OBJECTIVES

The aims and objectives of the project are specified in a Written Scheme of Investigation (Boucher 2014) prepared by Headland Archaeology and agreed with the client prior to the commencement of works.

The overriding aims of the project were to define the history, character, date, function, phasing, significance and techniques of construction of the remains of the weir.

The objectives of the building recording were to record elements of the standing structures exposed by the proposed works, analyse the results in relation to supporting documentary information, produce a report and deposit the archive with a suitable local repository.

6 METHOD

The historic building recording undertaken on the structures was commensurate with Historic England level 2/3. The overall level of detail of the standing building survey was in line with level 2 standards of recording (a descriptive record with annotation of existing scaled plans and general photography).

The following recording was undertaken:

- General photographs of the structures affected by the proposals (before and after initial works and prior to the installation of the fish pass) were taken with 35mm colour slide and black and white film. Digital photographs were also taken;

- A descriptive written record of the structures;
- Annotated plans and elevations showing detail relevant to the interpretation of the structures;
- Detailed photographic record of details that either assist with interpretation or may be lost during development.
- The locations of all photos were recorded on engineer's plans.

Fieldwork was undertaken on the 26th of August 2014

7 RESULTS

7.1 CENTRAL CHANNEL SIDE WEIR

The weir (**Illus 2**) is positioned at an angle of 90° to the direction of water flow within the southern river channel. The north-western wing wall constructed of limestone ashlar blocks flanks the stepped base of the weir which falls in a south-westerly direction (**Illus 3**). A recess cut into the wing wall (**Illus 4**) is likely to relate to a water management system which formerly controlled the head of water upstream of the weir. The south-eastern wing wall has been lost due to erosion and land slippage of the south-eastern bank. The upper courses of the weir only survive in one location with the remaining stones washed downstream; but at the time of the survey were visible within the stream bed.

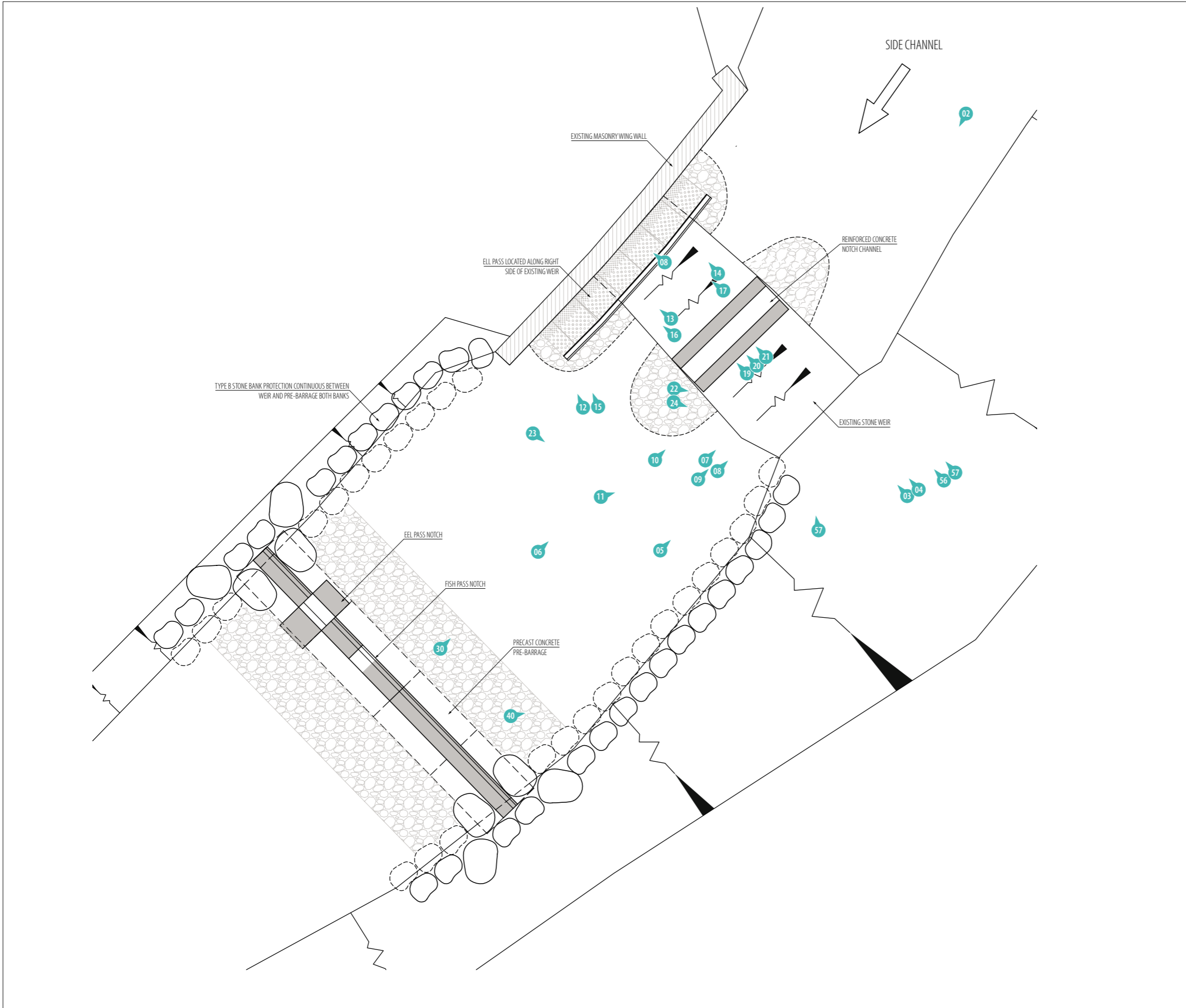
The subsequent alterations to the structure for the insertion of the fish pass involved the cutting and removal of some of the ashlar slabs forming the base of the structure. This allowed the identification of the stone type used in the construction and revealed that, unlike the weirs located downstream, the Ryeford weir was constructed in limestone with a solid stone core (**Illus 5**).

8 DISCUSSION

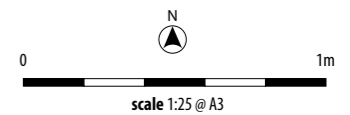
The construction of the fish pass in the side weir has allowed the core work and the construction methods involved in the original construction of the side weir to be examined. The core of the weir is formed of solid stone making it different to the weirs located downstream; which generally had a brick core with stone facing. The location of the weir is also unusual as it is set away from the main course of the river, the different location and change in construction may indicate that the weir belongs to a different phase of construction in relation to the water management schemes in place on the River Frome.

9 CONCLUSION

The installation of the fish pass at the Ryeford Mill weir has allowed a brief examination of the remaining water management structure related to the operation of the site.



KEY
02 photo direction





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ILLUS 3

Photo showing the weir prior to the works

ILLUS 4

Photo showing the slot in the weir wall for a sluice gate

ILLUS 5

Photo showing the weir after the works



11 APPENDICES

APPENDIX 1 PHOTOGRAPHIC REGISTER

Photo	B/W	C/S	Digital	Direction facing	Description
01	Y	Y	Y	—	Site index and identification
02	Y	Y	Y	SW	General view looking downstream towards the Weir
03	Y	Y	Y	W	General view looking down on to the weir top view.
04	Y	Y	Y	W	General view looking down on to the weir top view.
05	Y	Y	Y	N	General view looking north, up stream
06	Y	Y	Y	N	General view looking north, up stream
07	Y	Y	Y	N	Detail view of remaining weir lip
08	Y	Y	Y	N	View of displaced stones
09	Y	Y	Y	W	Surviving wing wall detail
10	Y	Y	Y	W	Surviving wing wall detail
11	Y	Y	Y	W	Cut for sluice gate in wing wall
12	Y	Y	Y	E	Evidence for remaining east wing wall, ground collapse
13	Y	Y	Y	—	Architectural fragment in river, possible from upstream bridge
14	Y	Y	Y	W	Detail of slice gate cut in west wing wall
15	Y	Y	Y	N	Working in progress , cutting the fish pass slot
16	Y	Y	Y	W	Detail of cut fish pass slot in weir , showing limestone and stone core



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