



## Weir at Allansford, Advent, Cornwall Historic Building Record and Watching Brief





# **Weir at Allansford, Advent, Cornwall**

## **Historic Building Record and Watching Brief**

<b>Client</b>	Westcountry Rivers Trust
<b>Report Number</b>	2018R060
<b>Date</b>	December 2018
<b>Status</b>	Final
<b>Report author(s)</b>	Jo Sturgess
<b>Checked by</b>	Adam Sharpe/ Andy Jones
<b>Approved by</b>	Andrew Young
<b>Project number</b>	146827
<b>Data location</b>	\\CAU\Archive\Sites\A\Allensford Weir record and WB 146827
<b>Historic England / ADS OASIS online reference</b>	cornwall2-336231

The project's documentary, digital, photographic and drawn archive is maintained by Cornwall Archaeological Unit.

### **Cornwall Archaeological Unit**

Cornwall Council

Fal Building, County Hall, Treyew Road, Truro, Cornwall, TR1 3AY

Tel: (01872) 323603

Email: [enquiries@cau.org.uk](mailto:enquiries@cau.org.uk) Web: [www.cau.org.uk](http://www.cau.org.uk)

## **Acknowledgements**

This study was commissioned by the Westcountry Rivers Trust and carried out by Cornwall Archaeological Unit, Cornwall Council.

The Project Manager was Adam Sharpe.

The views and recommendations expressed in this report are those of Cornwall Archaeological Unit and are presented in good faith on the basis of professional judgement and on information currently available.

## **Freedom of Information Act**

As Cornwall Council is a public authority it is subject to the terms of the Freedom of Information Act 2000, which came into effect from 1st January 2005.



Cornwall Archaeological Unit is a Registered Organisation with the  
Chartered Institute for Archaeologists

## **© Cornwall Council 2018**

No part of this document may be reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior permission of the publisher.

## **Contents**

<b>1</b>	<b>Summary</b>	<b>1</b>
<b>2</b>	<b>Introduction</b>	<b>3</b>
2.1	Project background	3
2.2	Aims	3
2.3	Methods	3
2.3.1	Fieldwork	3
2.3.2	Remodelling works	4
2.3.3	Post-fieldwork	4
<b>3</b>	<b>Location and setting</b>	<b>4</b>
<b>4</b>	<b>Designations</b>	<b>5</b>
<b>5</b>	<b>Site history</b>	<b>5</b>
<b>6</b>	<b>Historic development of the weir</b>	<b>5</b>
<b>7</b>	<b>Weir description</b>	<b>6</b>
<b>8</b>	<b>References</b>	<b>6</b>
8.1	Primary sources	6
8.2	Publications	7
8.3	Websites	7

## **List of Figures**

Fig 1 Location map.

Fig 2 Site extent.

Fig 3 Tithe Map for the parish of Advent, c1840.

Fig 4 Tithe Map for the parish of St Breward, c1840.

Fig 5 First Edition of the Ordnance Survey 25 Inch Map, 1881-2.

Fig 6 Second Edition of the Ordnance Survey 25 Inch Map, c1907.

Fig 7 View of the weir and fish pass looking east.

Fig 8 View of the weir and fish pass looking south-east.

Fig 9 Detail of stepped, reused granite blocks.

Fig 10 View of the weir and fish pass looking south.

Fig 11 North end of the weir adjoining short length of wall.

Fig 12 View of the fish pass looking east.

Fig 13 View of the ford looking north-west.

Fig 14 View of the weir during partial demolition looking north.

Fig 15 Narrow, late 19<sup>th</sup> century drill marks in a reused granite block of the weir.

Fig 16 Reused granite edging blocks of ford with early/mid 19<sup>th</sup> century drill marks.

Fig 17 Existing plan.

Fig 18 Section through weir and ford.

Fig 19 Proposal plan.

Fig 20 Existing and proposed sections.

## **Abbreviations**

CAU	Cornwall Archaeological Unit
CIfA	Chartered Institute for Archaeologists
HE	Historic England
HER	Cornwall and the Isles of Scilly Historic Environment Record
NGR	National Grid Reference
OD	Ordnance Datum – height above mean sea level at Newlyn
OS	Ordnance Survey

## **1 Summary**

Cornwall Archaeological unit was commissioned by the Westcountry Rivers Trust to carry out a historic building record and watching brief prior to the partial demolition of a weir at Allansford in the parish of Advent in North Cornwall located at NGR SX 11034 79983. As part of a European Funded project called Water for Growth, which aims to protect and enhance the value of the Rivers Camel and Fowey by improving in-river spawning areas and removing fish migration barriers, Allansford weir was identified as a barrier for fish migration. In order to improve the passage of the fish, planning permission was sought so that the weir could be reduced in height, along with an area of the river bed to the east of it. In response to pre-planning advice given by Historic Environment Planning Advice the Westcountry Rivers Trust commissioned CAU to undertake a Heritage Impact Assessment to inform the works. As a mitigation measure the HIA recommended that a record should be made of the weir prior to remodelling works and a watching brief undertaken during the work to record the structure and any surrounding features. Conditional planning permission (PA18/05823) for the remodelling of the weir was granted and CAU were commissioned to undertake an historic building record and watching brief during the works.

During the works it became apparent that the existing weir had been built during the 1960s reusing the dressed granite blocks of a late 19<sup>th</sup> century weir which had previously been located a short distance upstream. The existing fish pass adjoining the south end of the weir was inserted in c1991.

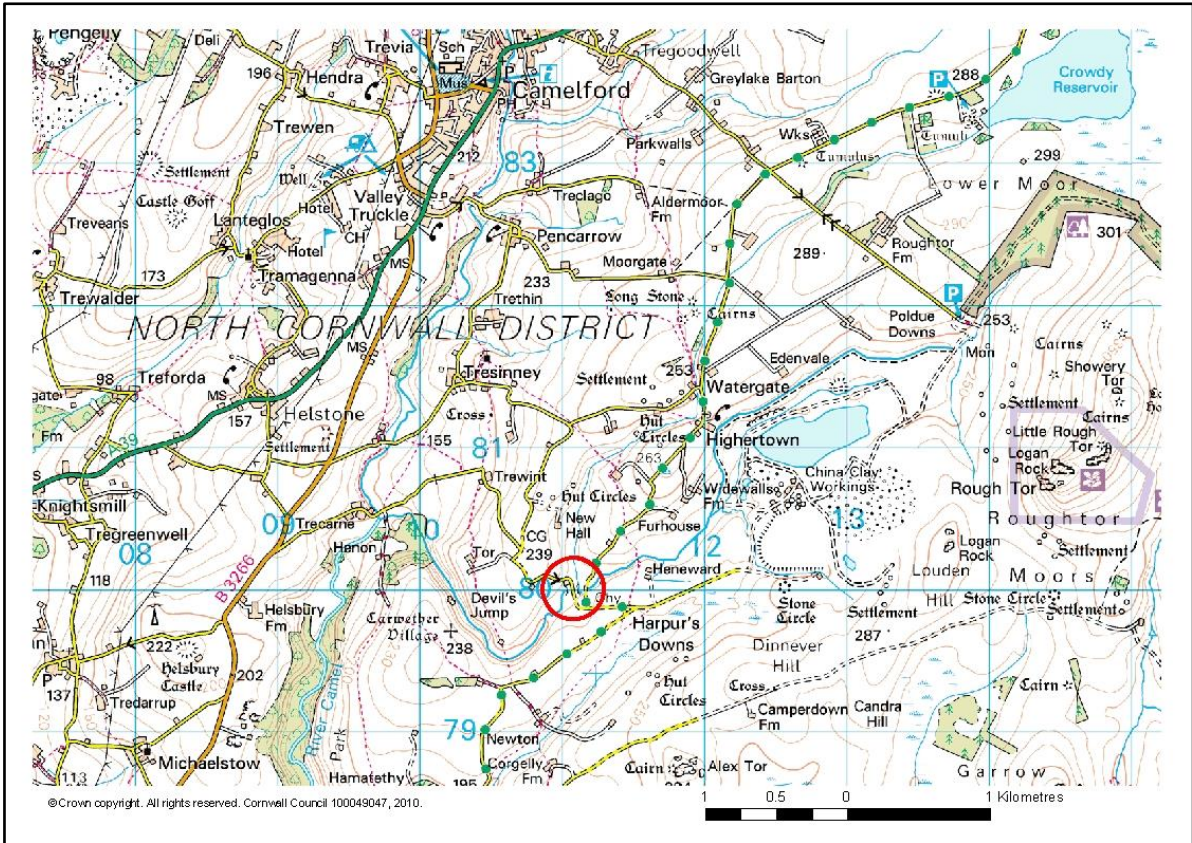


Fig 1 Location map.

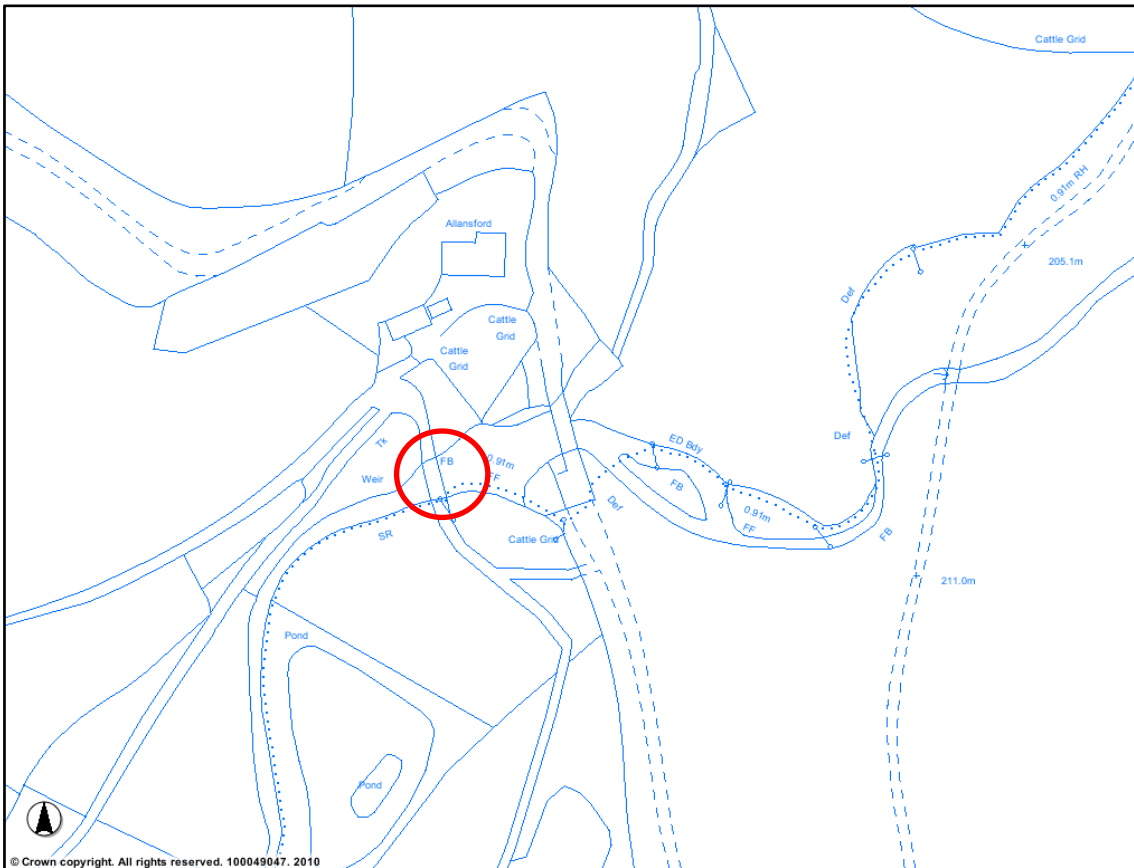


Fig 2 Site extent.



## **2 Introduction**

### **2.1 Project background**

The Historic building record and watching brief were commissioned by Westcountry Rivers Trust in advance of and during the partial demolition of the weir at Allansford. As part of a European Funded project called Water for Growth, which aims to protect and enhance the value of the Rivers Camel and Fowey by improving in-river spawning areas and removing fish migration barriers, Allansford weir was identified as a barrier for fish migration. In order to improve the passage of the fish, planning permission was sought so that the weir could be reduced in height, along with an area of the river bed to the east of it. In response to pre-planning advice given by Historic Environment Planning Advice the Westcountry Rivers Trust commissioned CAU to undertake a Heritage Impact Assessment to inform the works (Sturgess 2018). As a mitigation measure the HIA recommended that a record should be made of the weir prior to demolition works and a watching brief undertaken during the work to record the structure and any surrounding features. Conditional planning permission (PA18/05823) for the remodelling of the weir was granted and CAU were commissioned to undertake an historic building record and watching brief during the works.

### **2.2 Aims**

The principal aims were to produce a historic building record of the weir prior to partial demolition and to carry out an archaeological watching brief during the works to record any further information that came to light.

The Westcountry Rivers Trust stated that their requirements for the archaeological recording were:

- To attend site to carry out an archaeological watching brief during the demolition works to the weir to record any historic details of the structure revealed. This will require attendance on site for one day and will include the taking of photos throughout each stage of the demolition works to update the current photographic record.
- To compile a brief report on the findings and to supply photographs for inclusion within the photographic record.

### **2.3 Methods**

All recording work was undertaken according to Chartered Institute for Archaeologists (CIfA 2014) and Historic England (2016) guidance.

#### **2.3.1 Fieldwork**

The equivalent of a Level 2/3 Building Survey (as defined by Historic England 2016) was produced and a watching brief was maintained during the remodelling works.

Features and details were annotated to copies of existing measured drawings supplied by the client.

Analysis of the fabric was undertaken on site (recorded as notes) to allow a description to be written up at the archive report stage.

A measured section drawing of the weir and ford was created.

Photographic recording included colour photography using a digital SLR camera (with a resolution of 10 million pixels or higher).

The photo record comprised:

- General views.
- All elevations.
- Examples of structural and architectural detail.

A metric scale was included in all views, except where health and safety considerations made this impractical.

### **2.3.2 Remodelling works**

A watching brief was undertaken during the partial demolition and remodelling works. These works involved:

- The removal of the top stone course of the weir besides a couple of blocks left at both ends.
- The removal of the central section of the lower two courses of the weir to form a central notch to act as a fish pass, this notch was continued to both the east and west, through the concrete slabs on either side. The slab to the east (upstream) was stepped down from its outer edges towards the deeper central notch and the slab to the west was taken down 0.2m in a dish shaped profile.

### **2.3.3 Post-fieldwork**

All site materials were prepared for long term storage. This included:

- Finalisation of measured drawings.
- Archiving of drawings, paperwork and digital files.
- Filing of digital colour photographs and limited image editing (eg, composition, lighting) where appropriate.
- Creation of an archive report.
- Completion of the Historic England OASIS record (online access to archaeological investigations).
- Preparation of CAU archive.

## **3 Location and setting**

The weir is situated within the small farming settlement of Allansford on the western edge of Bodmin Moor (Figs 1 and 2). It lies across the River Stannon, a tributary of the River Camel, at NGR SX 11034 79983 on the boundary of Advent and St Breward parishes but within the parish of Advent. The weir is accessible via privately owned land, and adjoining the west (downstream) side of it there is a ford leading to a grassed field to the south and to a Grade II Listed house to the north (presently known as Allensford Farm) (Figs 1 and 2).

A Grade II listed stone-built clapper bridge is sited approximately 30m upstream to the east of the weir at a point where two tributaries meet. This road bridge replaced an earlier footbridge and ford at the same location and was built between 1881 and 1907. At the time that the clapper bridge was built, a weir had already caused the river to slow and widen at this point. Heneward China Clay Works lies upstream to the north-east and, when working, would have produced large amounts of waste water and silts, which are likely to have been discharged into the river. A possible reason for the construction of a weir at Allansford was to prevent the china clay waste from travelling further downstream, but alternatively it may have been constructed to reduce the speed of flow upstream allowing a safer ford crossing point at the location of the present bridge. The present weir appears to have been built in the 1960s reusing the historic masonry of a late 19<sup>th</sup> century weir which was located slight upstream.

The weir and bridge are located on the edge of Upland Rough Ground to the south and east and on the edge of Anciently Enclosed Land to the north and west (as identified by the Cornwall Landscape Character Assessment interactive mapping, Cornwall County Council 1996).

## 4 Designations

The weir structure is not designated in its own right, although it does lie in close proximity to a Grade II Listed bridge (Henneward or Allansford Bridge; List Entry Number: 1328107). The late 19<sup>th</sup> or early 20<sup>th</sup> century clapper bridge is sited approximately 30m to the north-east and upstream from the weir. Approximately 50m to the north of the weir lies a mid 18<sup>th</sup> century Grade II listed house 'Allansford' (now greatly altered and renamed 'Allensford Farm') (List Entry Number: 1142749).

The weir also lies within a series of other designated areas associated with Bodmin Moor including a Site of Special Scientific Interest (SSSI), an Area of Outstanding Natural Beauty (AONB), and an Area of Great Scientific Value (AGSV).

## 5 Site history

Allansford is named as such on the Tithe Apportionment for the parish of Advent c1840 and Gover suggests the name is derived from the family name 'Allen' which is found in the parish register from 1712 (Gover 1948). An alternative theory is indicated by Henderson and Coates who state that the River Camel was formerly called the Allan until the 18<sup>th</sup> century when it became more commonly known as the Camel, hence Allansford was named after a crossing on the River Allan (Henderson and Coates 1928).

Martyn's map of 1748 indicates that the settlement of Allansford existed at this date and also shows the road crossing the river here, suggesting the presence of at least a ford in the 18<sup>th</sup> century. It is possible that a weir had also been constructed by this date to enable a safer ford crossing. Martyn's map also shows the river marked as the 'River Allan'. The OS map (1 inch to 1 mile scale) surveyed in 1805 is not very detailed but also shows the road crossing the river at this date. By c1840 the settlement had become known as Allansford, and it is shown as such on the Tithe Map in the parish of Advent (Fig 3). The Tithe Map for the parish of St Breward c1840 (Fig 4) depicts what is probably a footbridge crossing the river alongside a ford crossing at this time.

The 1<sup>st</sup> edition OS 25 inch map of 1881-2 (Fig 5) is the first map which is detailed enough to show a weir *in situ*. This weir is shown in roughly the same location as the present weir, but is set at a slightly different angle across the river. The map also labels a 'Foot Bridge' crossing the river in the location of the present road bridge. At this date the main vehicle crossing was a ford to the west of the footbridge. By c1907 (Fig 6) the new road bridge had been built. The Second Edition OS 25 inch map of c1907 (Fig 6) shows a weir still *in situ* as it was depicted on the 1881-2 OS map and also indicates that a walled ford area had been built at the same time on the west side of the bridge. The current road bridge was built between 1881 and 1907, and is likely to have been constructed to improve the passage of heavy vehicles from Stannon China Clay Works to the east.

During the 1960s the weir was rebuilt, presumably reusing the granite blocks from the weir shown on the 1881-2 OS map as a result of china clay waste management. In c1991, alterations were made to the left hand side (southern end) of the weir when the existing fish pass structure was inserted there.

## 6 Historic development of the weir

The present weir at Allansford appears to have entirely constructed anew during the c1960s. It seems that at that time, a late 19<sup>th</sup> century weir, which is first shown on the 1881-2 OS map, was removed from a location roughly 2.5m upstream from the present weir, and its finely dressed and pecked granite blocks were reused to build the present weir structure.

Quarry drill marks on some of the granite blocks, which were taken from the earlier weir and reused to construct the present weir, indicate a late 19<sup>th</sup> century construction date for the original weir. The first historic map to show a weir at this location is the 1<sup>st</sup> edition OS 25 inch map of 1881-2 (Fig 5), so it seems likely that the original weir was built just a few years before the OS map was produced.

## **7 Weir description**

(See Figs 17 and 18)

The present weir is aligned north-south across the river and demonstrates clear evidence for its complete reconstruction during the 1960s. Adjoining the left hand side (south end) of the weir and adjoining the southern bank of the river a modern (c1991) Alaskan A fish pass has been inserted (see Figs 7, 8, 10, 12 and 19).

The weir is constructed in three stepped courses of granite blocks with the steps facing west, downstream. Abutting the west (downstream) side of the lowest course a poured concrete slab approximately 0.2m deep and 3m wide has been laid to create a solid surface for a ford crossing the river on the weir's downstream side. Forming the western edge of the concrete surface is a single course of long, roughly faced, granite blocks which have been laid to create an edge for the poured concrete. These blocks bear early or mid 19<sup>th</sup> century drill marks (approximately 2.5cm wide) which were created when they were first quarried; the stones' original use is unknown. Abutting the east (upstream) side of the weir is another area of poured concrete which extends the full height of the structure and for a distance of approximately 2m the east (upstream). The total height of the weir is approximately 0.8m and the top of the structure is just slightly higher than the riverbed upstream to the east. The weir is constructed from reused, later 19<sup>th</sup> century, squared granite blocks dressed on their outer faces with a pecked surface. Quarry drill marks identified on a couple of the blocks were approximately 1.5cm wide, indicating that they were quarried in the later part of the 19<sup>th</sup> century. The fact that the granite blocks had been reused was evidenced by the fact that they were bonded with concrete and some of the dressed faces were set against the poured concrete retaining slab to the east (upstream). In the upper two courses the granite blocks measured on average 0.5m deep by 0.35m high with varying lengths. In the lowest course the granite blocks were of much the same dimensions as those in the upper courses, measuring on average 0.5m deep by 0.31m high.

At the left hand side (south end) of the structure and adjoining the southern bank of the river a modern Alaskan A fish pass has been inserted (see Figs 9, 11, 14 and 15). This walled structure is built from granite blocks bonded with a modern cement mortar.

At the right hand side (north end) of the weir a short section of walling extends approximately 1.5m up the river bank in line with the weir (see Fig 16). It is built from granite rubble and has been repointed with a cement mortar. At its south end, where it adjoins the weir, there is an upright granite post which has wide quarry drill marks indicative of an early to mid 19<sup>th</sup> century date.

## **8 References**

### **8.1 Primary sources**

Ordnance Survey, c1880. 25 Inch Map First Edition (licensed digital copy at CAU)

Ordnance Survey, c1907. 25 Inch Map Second Edition (licensed digital copy at CAU)

Ordnance Survey, MasterMap Topography

Tithe Map and Apportionment, c1840. Parish of Advent (microfiche copy at HE)

Tithe Map and Apportionment, c1840. Parish of St Breward (microfiche copy at HE)

Thomas Martyn's map of Cornwall (1748)

OS 1 inch survey (c1810)

Cornwall Landscape Character Assessment interactive mapping, Cornwall County Council 1996)

## **8.2 Publications**

CIfA, 2014. *Standard and guidance for the archaeological investigation and recording of standing buildings or structures*, CIfA, Reading

Gover, JEB, 1948. *Place-Names of Cornwall*

Henderson, C and Coates, H, 1928. *Old Cornish Bridges and Streams*. Exeter

Historic England, 2016. *Understanding Historic Buildings: A guide to good recording practice*. Historic England, Swindon

Padel, O J, 1985. *Cornish Place-Name Elements*

Sturgess, J, 2018. *Weir at Allansford, Advent, Cornwall, Heritage Impact Assessment*. CAU report

## **8.3 Websites**

<http://www.heritagegateway.org.uk/gateway/> Online database of Sites and Monuments Records, and Listed Buildings

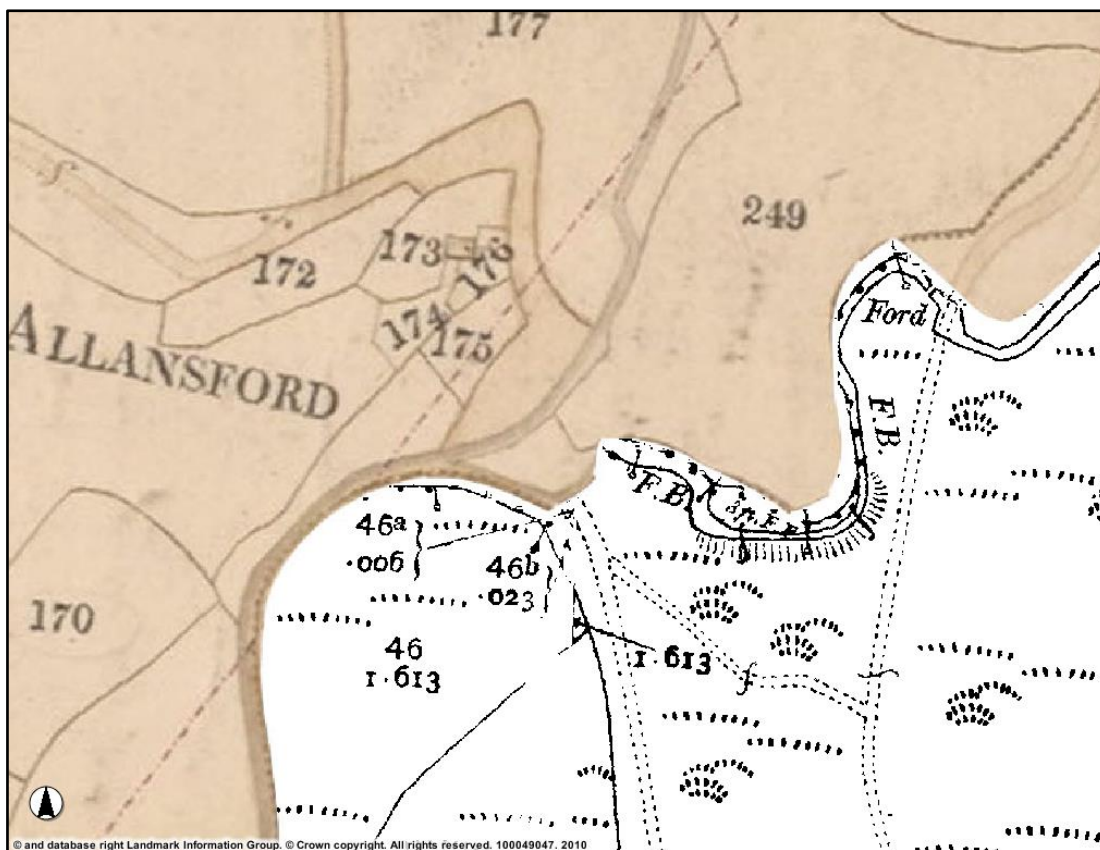


Fig 3 Tithe Map for the parish of Advent, c1840.



Fig 4 Tithe Map for the parish of St Breward, c1840.

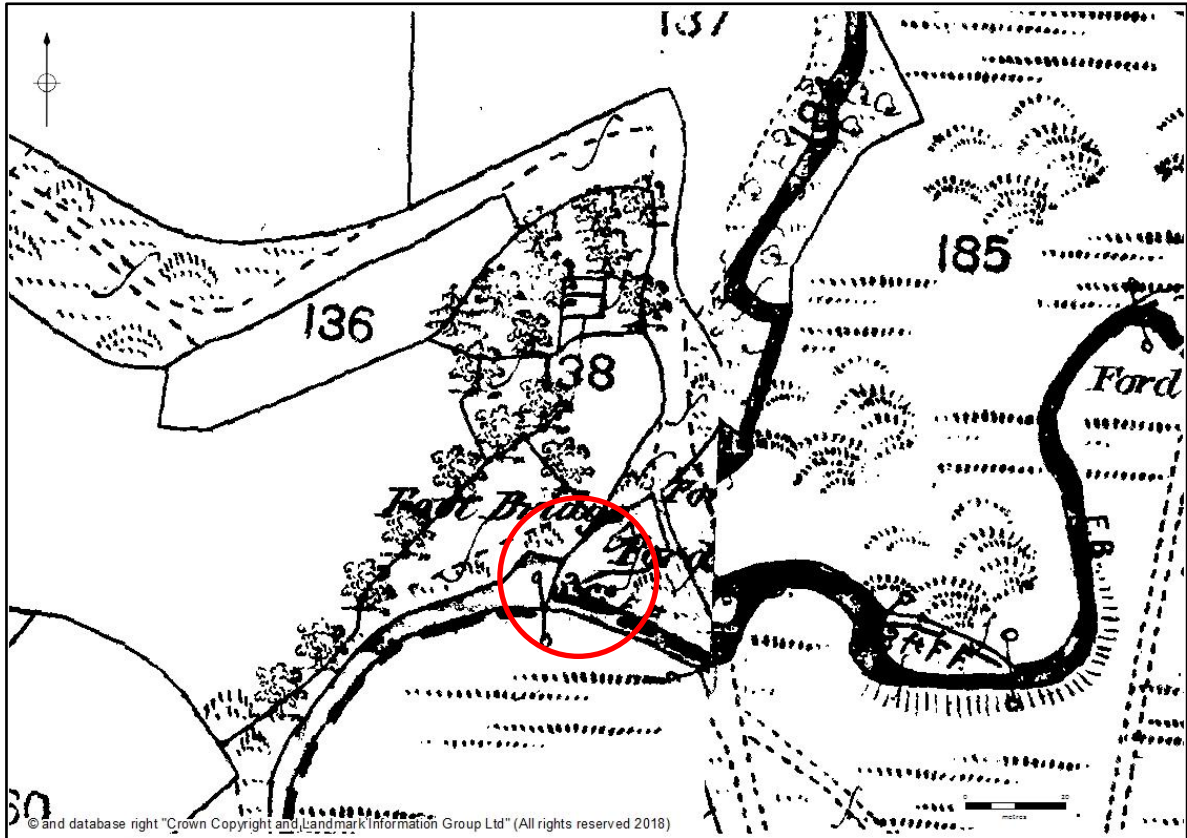


Fig 5 First Edition of the Ordnance Survey 25 Inch Map, 1881-2.

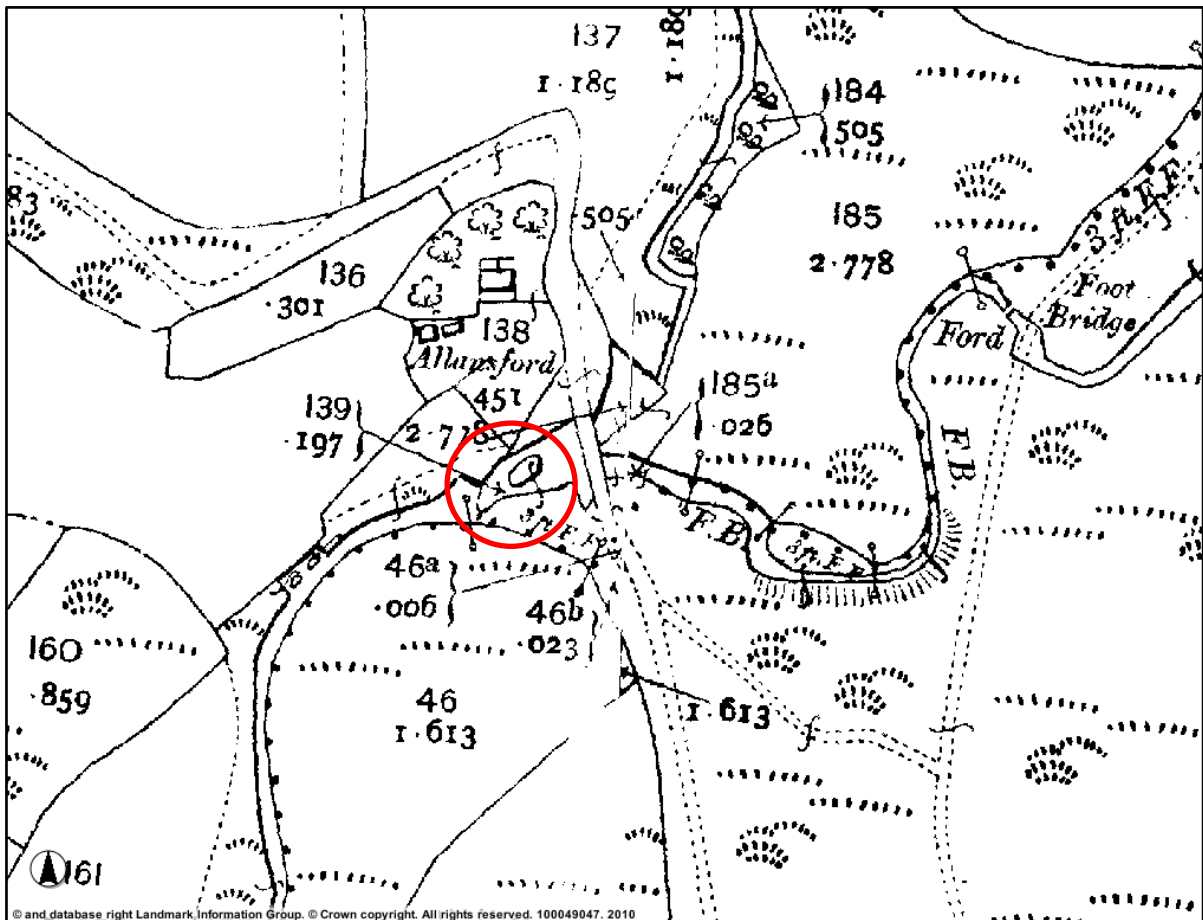


Fig 6 Second Edition of the Ordnance Survey 25 Inch Map, c1907.



*Fig 7 View of the weir and fish pass looking east.*



*Fig 8 View of the weir and fish pass looking south-east.*





*Fig 9 Detail of stepped, reused granite blocks.*



*Fig 10 View of the weir and fish pass looking south.*



Fig 11 North end of the weir adjoining short length of wall.



Fig 12 View of the fish pass looking east.



Fig 13 View of the ford looking north-west.



Fig 14 View of the weir during partial demolition looking north.



Fig 15 Narrow, late 19<sup>th</sup> century drill marks in a reused granite block of the weir.



Fig 16 Reused granite edging blocks of ford with early/mid 19<sup>th</sup> century drill marks.

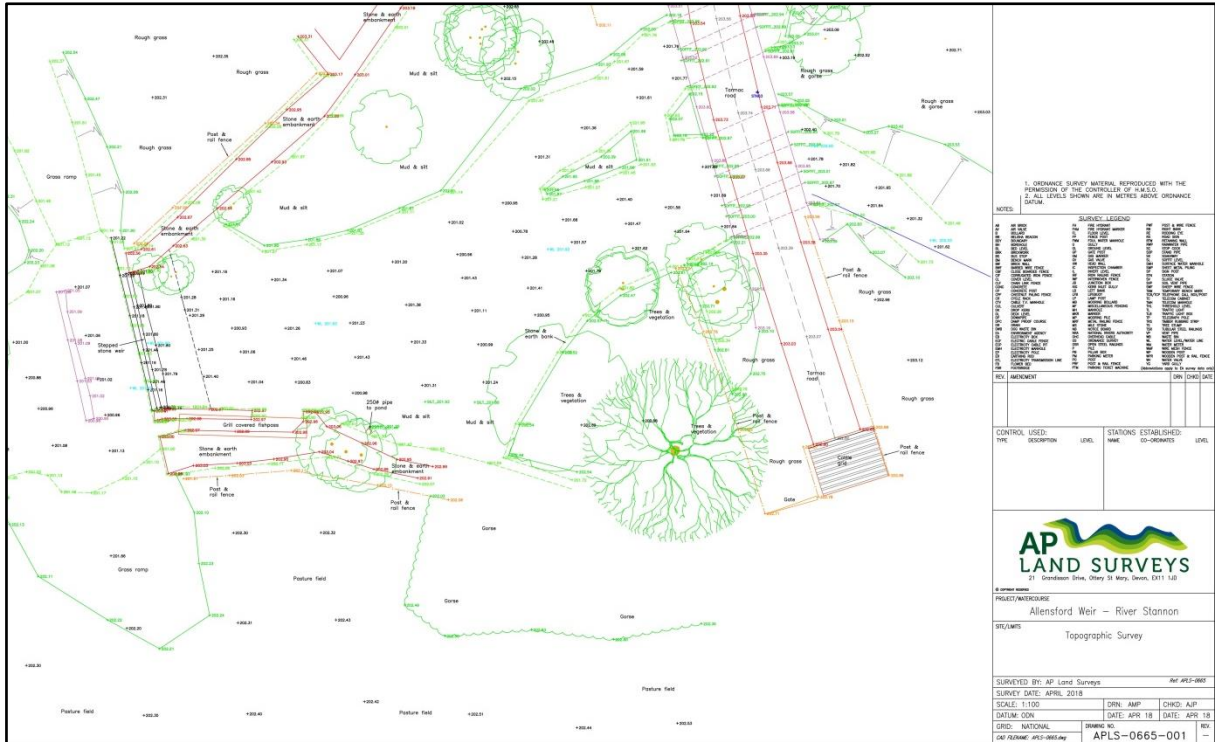


Fig 17 Existing plan.

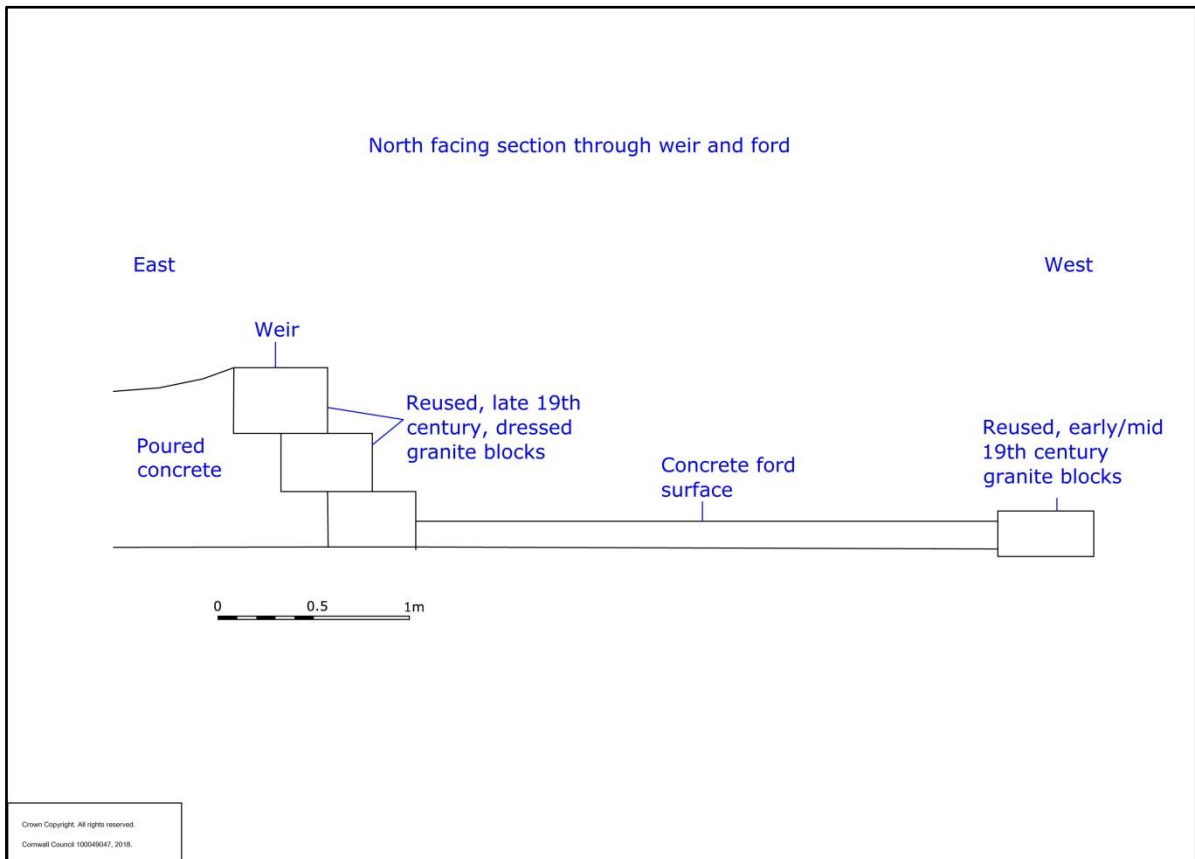


Fig 18 Section through weir and ford.

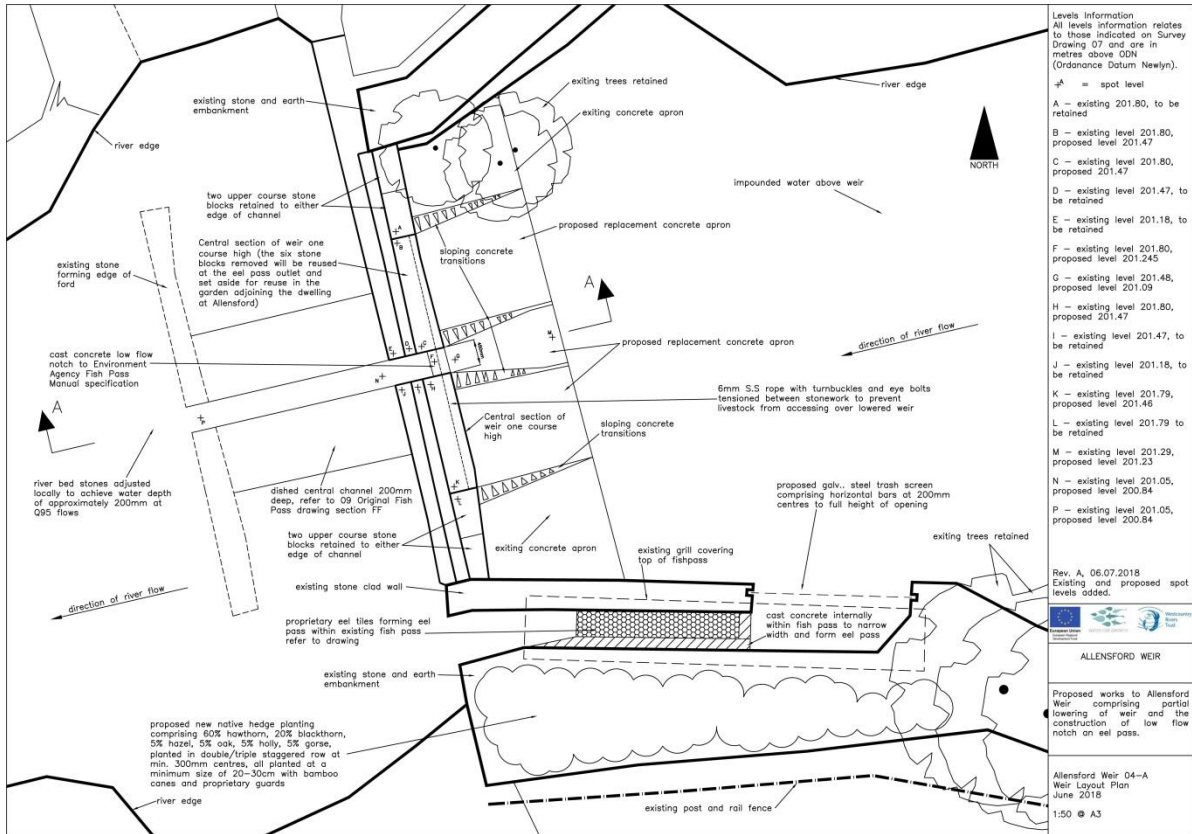


Fig 19 Proposal plan.

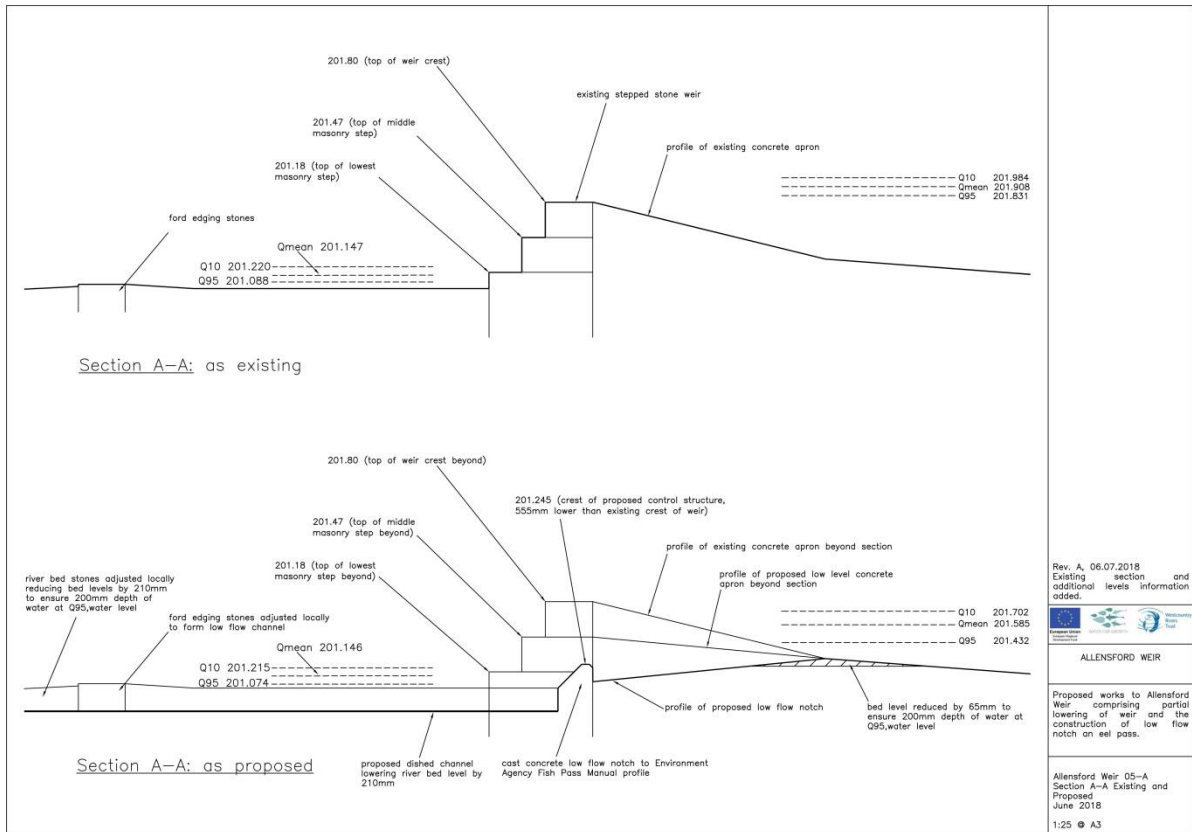


Fig 20 Existing and proposed sections.



## **Cornwall Archaeological Unit**

Fal Building, County Hall, Treyew Road, Truro,  
Cornwall  
TR1 3AY



(01872) 323603  
[enquiries@cau.org.uk](mailto:enquiries@cau.org.uk)  
[www.cau.org.uk](http://www.cau.org.uk)

