

**GLYNN WEIR  
CARDINHAM  
BODMIN  
CORNWALL**

Updated Heritage Statement and Statement of Significance



South West Archaeology Ltd. report no. 191108



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## Glynn Weir, Cardinham, Bodmin, Cornwall Updated Heritage Statement and Statement of Significance

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By N. Boyd & E. Wapshott  
Report Version FINAL  
8<sup>th</sup> November 2019

Work undertaken by SWARCH for  
The West Country Rivers Trust (The Client)

### SUMMARY

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*South West Archaeology Ltd. was commissioned to produce a heritage statement for a weir located to the south of Bodmin at Glynn Weir, Cardinham, Cornwall. This work was undertaken on behalf of the West Country Rivers Trust in advance of proposals to remove or modify the weir to facilitate fish movement.*

*Glynn weir first appears on the 2<sup>nd</sup> edition OS map, giving a construction date of between 1881 and 1907. It is not designated, nor mentioned in the listing text for Glynn House, despite its relationship with the designed gardens of that building.*

*The weir has undergone repairs during the 20<sup>th</sup> century using inappropriate materials and there is structural damage to the weir that affect its functionality.*

*If works adapting the fish pass move forward in the future monitoring of the feature may be required to ensure adequate recording of the structure beneath the concrete capping can take place. A comprehensive photographic record has been made of the weir in its current state, both with the water and following drainage. Further drawings of the weir could be recorded if works are to take place and it will change from its current form, recording the various layers of repair and alteration.*



NOVEMBER 2019

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## ACKNOWLEDGEMENTS

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WEST COUNTRY RIVERS TRUST  
SOUTH WEST WATER

## PROJECT CREDITS

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## 1.0 INTRODUCTION

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<b>LOCATION:</b>	GLYNN WEIR
<b>PARISH:</b>	CARDINHAM
<b>COUNTY:</b>	CORNWALL
<b>NGR:</b>	SX 10724 65004
<b>SWARCH REF:</b>	CGW19
<b>PLANNING REFERENCE:</b>	PA19/04484
<b>OASIS NUMBER:</b>	SOUTHWES1-361659

### 1.1 PROJECT BACKGROUND

South West Archaeology Ltd. (SWARCH) was commissioned by the West Country Rivers Trust (the Client) to undertake an assessment of the weir at Glynn Weir and produce a heritage statement and statement of significance. This work was undertaken in advance of the modification/removal of the weir to facilitate fish movement and place the weir in its historical and archaeological context.

### 1.2 TOPOGRAPHICAL AND GEOLOGICAL BACKGROUND

The weir at Glynn is located at the base of a steep-sided valley through which Cardinham Water runs. The weir sits at a height of c.33m AOD. The soils of this area are listed as the well-drained fine loamy or fine silty soils over rocks of the Manod Association (SSEW 1993), which overlie the sandstones, siltstones and mudstones of the Staddon Formation (BGS 2018).

### 1.3 HISTORICAL & ARCHAEOLOGICAL BACKGROUND

The manor of Glynn belonged to a family of the same name for a number of generations, until the early fourteenth century, when it passed through the heiress to the Carminow family. Through a co-heiress of the Carminnow family, Glynn subsequently passed to the Courtenay family, who held it until it was purchased back by a younger branch of the Glynn family (Lysons 1814).

Glynn House is Grade II\* Listed. The Listing text notes that the extant house is a mid to late 18<sup>th</sup> century, built on the foundations of an earlier house. It was subsequently re-fronted and largely rebuilt in 1805, before being damaged in a fire in 1819, with alterations and additions in 1833. 20<sup>th</sup> century alterations are also noted, with extensive rebuilding of the interior in the 1950s due to dry rot.

The weir first appears on the 2<sup>nd</sup> Edition OS Map of 1907, indicating a late 19<sup>th</sup> century or early 20<sup>th</sup> century date for the construction of the structure.

### 1.4 METHODOLOGY

The first site visit was carried out by Emily Wapshott on in April 2019. The work was undertaken in line with best practice and follows the guidance outlined in: ClfA's *Standard and Guidance for the Archaeological Investigation and Recording of Standing Buildings or Structures* (2014) and Historic England's *Understanding Historic Buildings: A Guide to Good Recording Processes* (2016). In addition, the closure of the Cornwall Record Office and Local Studies Library has limited the degree and extent of historical research. A return visit made by Emily Wapshott in August 2019 was undertaken in accordance with a WSI (Boyd 2019).

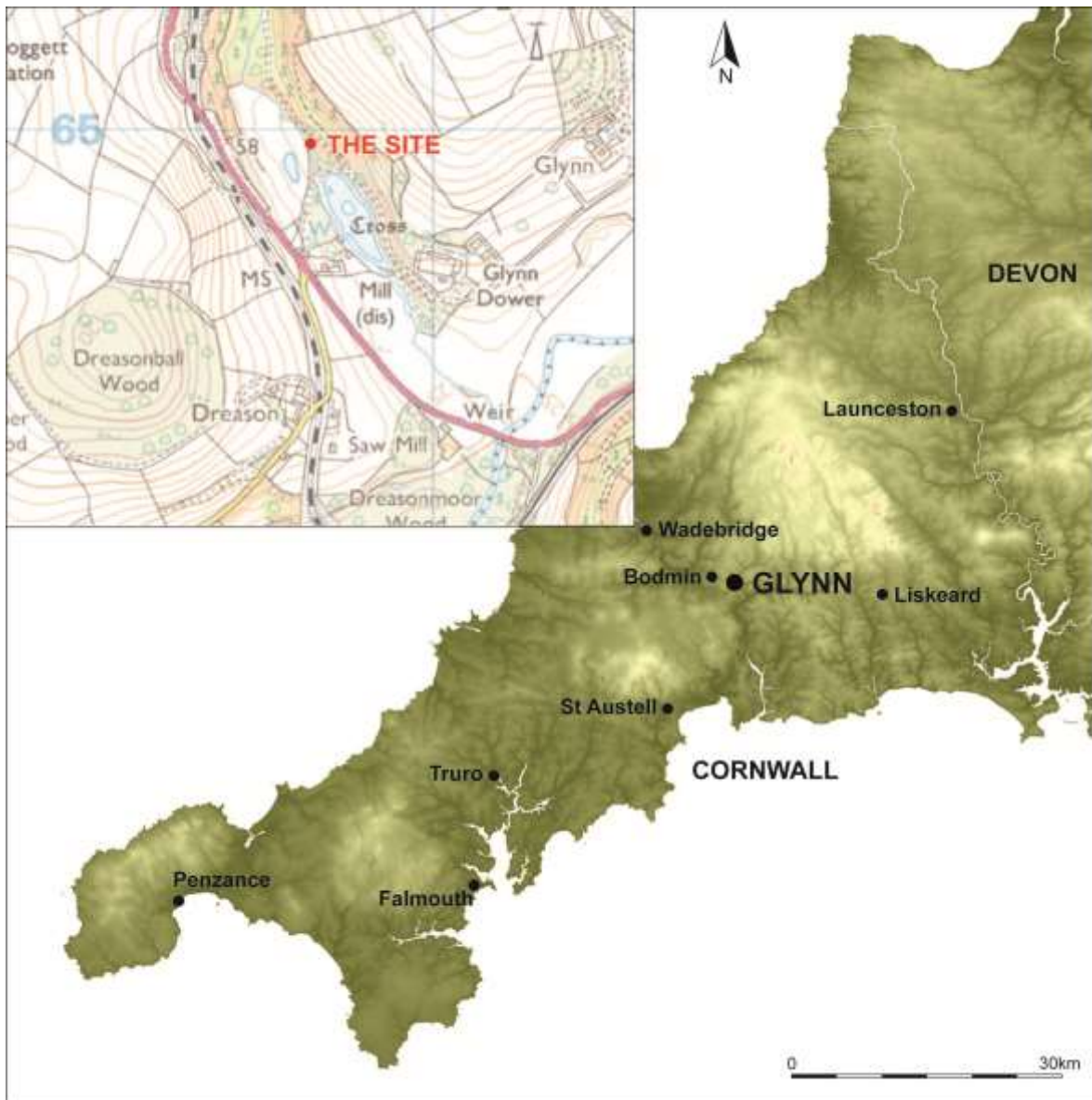


FIGURE 1: LOCATION MAP.



## 2.0 ASSESSMENT

### 2.1 SITE DESCRIPTION

The current weir and associated leat sit in the steep sided Glynn valley in Cardinham parish, south-east of Bodmin, within part of the former grounds of the Grade II\* listed Glynn House. The site is part of a water management system for a 'picturesque' lake within the gardens, whilst the water had been previously harnessed by an earlier leat associated with a historic flour mill to the western side.

To create valley water gardens, significant engineering and water management systems needed to be employed, to carry the river away from the lake but maintain a 'feed' via a leat". This transformed the landscape and allowed the development of a more ornamental role for the lake, which previously had the river rushing in and out, as well as the creation of a 'temple' on the southern shore. The weir sits within the upper part of the wider designed landscape and there is planting of rhododendrons, bamboo and other ornamental shrubs along the river bank, along with evidence of old stumps, representing the clearing of native trees apart from aesthetic groupings, opening the views along the valley floor. All of these features would indicate the influence of Victorian plantsmen visiting the Himalayas and other mountain regions. The eastern slopes are steep and fairly even in their gradient, the western slopes are irregular and shallower, with several twisting coombes running down into the base. The A388 has been terraced into the western slopes and is partly cantilevered at one steep point, almost opposite the weir. The noise from this road is aurally intrusive on the otherwise peaceful arboreal valley setting.



FIGURE 2: ANNOTATED AERIAL IMAGE INDICATING THE WEIR AND LEAT SYSTEMS.

Both eastern slopes of the valley belong to the Forestry Commission and are a relatively young conifer plantation. Land ownership is somewhat complicated around the site, as the Forestry Commission also owns the banks of the leat and possibly the ground between the leat and river, but the owner of the lake to the south and the grounds of Glynn Mill House has the rights to the water from the leat and owns the river and drive, across which the Forestry Commission have a right of way. Separate owners who own Glynn Lodge, at the gates to the former estate, own the west bank of the river.

2.2 CARTOGRAPHIC SOURCES

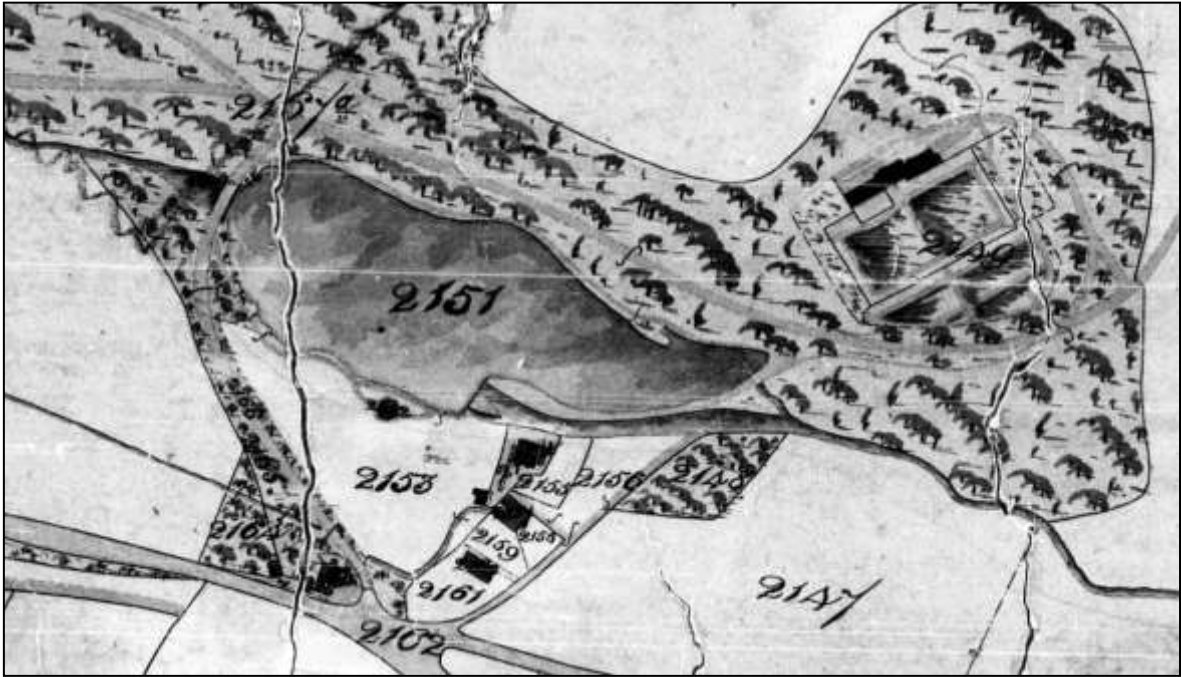


FIGURE 3: EXTRACT FROM THE 1839 TITHE MAP.



FIGURE 4: EXTRACT FROM THE 1907 2<sup>ND</sup> EDITION 25" OS MAP (NLS).



## 2.3 PHYSICAL STRUCTURE

### 2.3.1 THE WEIRS

One chunky, relatively short weir has been built across the river, where it narrows in a shallow curving bend. Further back from the weir, upstream to the north, on the east banks, a small section of chunky shaped stones mortared together can be seen eroding out of the bank, suggestive of the riverbanks here having once been retained, either for strength or for aesthetics, framing the weir. To the east side, closer to the weir retaining banks become more consolidated as built flank walls, of large shaped and faced slate slab blocks, in coursed build, capped with concrete but mortared, where it survives in a hard grey lime mix; these have been formed framing a leat and sluice system. The weir is built at a very slight oblique angle to the flow, intended to maximise its effect on water flow; this is referred to as a 'diagonal' weir. The current shape of the weir, (the upper layer of which is of a coarse mix concrete with pebble inclusions), is of 'Ogee' form, with a prescribed curve to the profile, c.4-5m long and c.1.75m wide. The angle is gradual and shallow, the water running smoothly over the weir for most of the channel (Figure 5). There is a step to the base, with a straight drop beyond. A narrow fish pass has been cut into the east side, framed by slate slabs.



FIGURE 5: THE WEIR IN ITS SETTING, AS VIEWED FROM THE SOUTH-SOUTH-EAST (NO SCALES).



FIGURE 6: THE EXPOSED WEIR; FROM THE EAST-SOUTH-EAST (1M SCALES).

Once the water was drained from the river during works, far more detail on the structure and its narrative was exposed and could be recorded. Firstly, the concrete appearance of the weir is a 'capping' layer (104); the river pebbles and gravel inclusions in the upper layer of this concrete, show this material was mixed onsite, using bast from the riverbed. This concrete layer is reinforced with square-profile re-bar mesh, of solid not spiralled form, so may be c 1970s or older. The thin depth of the concrete and its somewhat irregular 'smoothed' or 'smeared' appearance would suggest it was poured loosely over the mesh.

Below the concrete capping is a thick, very loose and degraded layer (103); of greyish-white soft limecrete, very gritty with slate fragments and quartz and granite grit; suggesting this may have been sourced or mixed with mining waste deposits. This limecrete has been used as the bond for piles of river stones, clearly dredged from the riverbed in and around the weir and along the river's length. This thick, very crude layer raises the weir to its current 'Ogee' form and appears to be addressing flow issues with the river and possibly water level problems with the leat and lake it was designed to serve. Whilst the limecrete here may have been brought in, including lots of crushed quartz and granite fragments, it could be mixed with or have originated from mine waste deposits; this alteration of the weir is very localised and immediate in character and materials and slapdash, a change made by estate staff or the gardeners?

Beneath these two upper layers is a lower, much shallower elongated sloping weir; of 'crump' weir form (102). The first phase clearly needed to be adapted quite quickly after construction, but the quality of build is quite different from the later repairs. Aesthetics have been considered in this build, in the wing walls and leat flanking walls. This phase is of blocky shaped stones, like the wing walls, mixed and capped by a much more solid and smooth textured harder concrete, without obvious inclusions of stones or pebbles. Massive timbers brace the weir, wing walls and fish pass, which is framed in large flat slates. Further back from the weir, upstream to the north, a small section of more chunky shaped stones can be seen eroding out of the bank, suggestive of the riverbanks here having once been retained, either for strength or for aesthetics, framing the weir and leat. The weir appeared on the historic mapping between the 1st and 2nd Edition OS



maps, 1881-1907. This better quality, lower weir is likely that structure, directly associated with the garden transformations at Glyn House.

There is a fish pass cut into the weir at the east end, c.0.2m wide; once the water was drained it best exposed the profiles of the different phases of alteration and repair. The fish pass is a narrow rectangular cut in the weir with a straight drop, which is currently not working to the benefit of the fish stocks in the river. The slight oblique angle of the weir to the water flow and the fish pass have created an effect where an eddy of water gathers and pours over the side of the fish pass, as well as down its vertical line. This eddy has caught what was likely a slight lip in the concrete and worked at it, pushing a large chunk of the weir apart. The weir, possibly due to its significant change in height and shape, is moving the water in such a way across its form that it is scouring and undermining its own structure. The riverbed, once drained, is significantly washed away under the east wing wall and weir, hence the collapse at the front end.

The flanking walls of the weir are very much obscured by mossy overgrowth but are of roughly dressed/shaped stone blocks in a crudely coursed build; capped by later concrete. These may be of more considered design, since the weir is part of a wider landscaped garden. Above the weir, the east abutment wall has been blown out by water damage in the recent past and strengthened using cement and dumpy bags, which are becoming overgrown, likely within the last 20 years or so. Whilst the need to patch the banks is understandable, the materials used here were not appropriate for a historic feature. The walls may be capped in places with more modern concrete or cement.

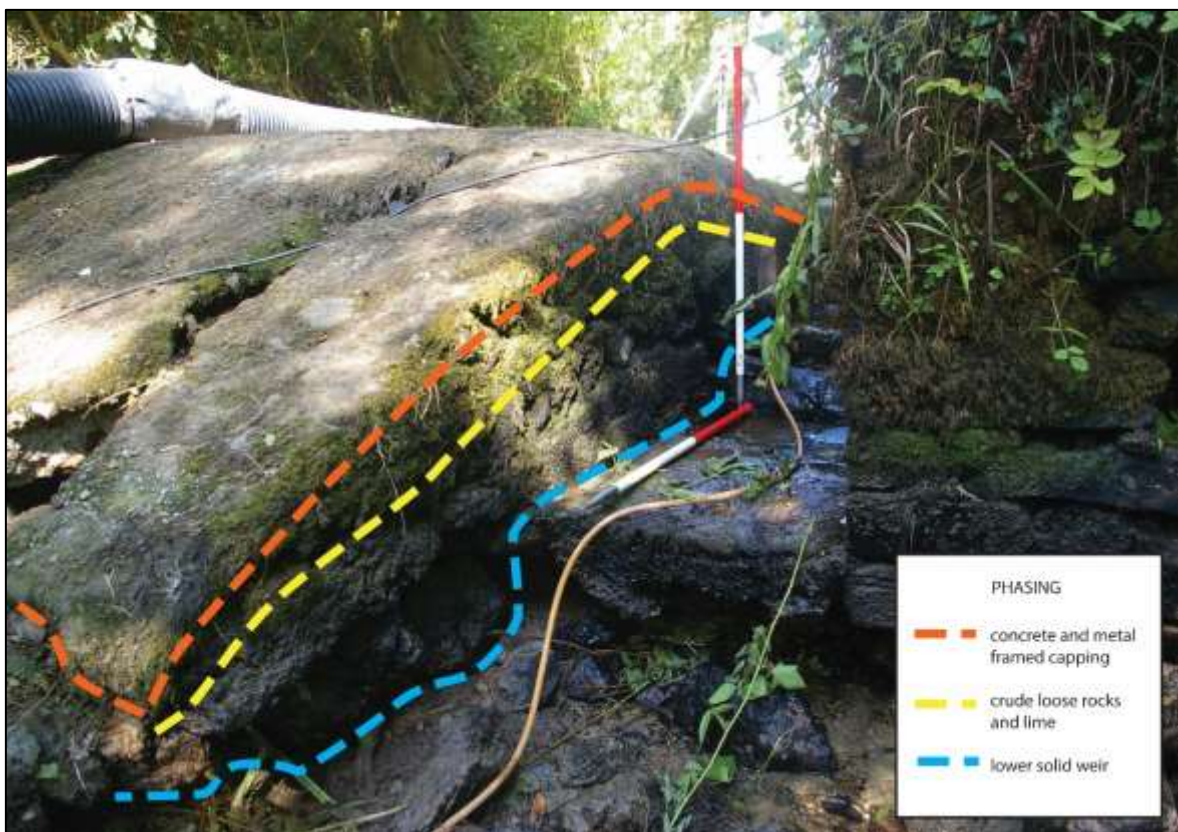


FIGURE 7: THE WEIR IN PROFILE, SHOWING THE HISTORIC PHASING; FROM THE EAST-SOUTH-EAST (1M SCALES).

### 2.3.2 THE SLUICE

The sluice gate sits above the weir on the east bank and serves a deep leat, c.1m wide, which is still operational and feeds a large ornamental lake to the south, south-east. Its north flanking wingwall is the part of the abutment on the east side which has been crudely patched in the past

with dumpy bags of rubble and cement. The sluice gate runners are I-profile galvanised girders, set into the bank with later cement. The boards which sit within the runners are thick and chunky and relatively recent in appearance, likely less than about 20 years old. The leat curves to the southeast away from the river, the abutment walling angled to respect the flow of water, clearly patched with cement and concrete along its length on the west side of the leat, more overgrown so likely less altered from the original form on the east side, appearing to be stone-reinforced banks, with at the north end, near the entrance shaped stonework visible. The leat is quite silted up, with c.0.45-0.5m of sludgy sandy beige brown silt in the base. The water in the leat flows slowly but constantly into the lake. Along its length there is some build-up of green invasive weed species. The leat runs in a straight line south along the base of the eastern slope, into the top of the lake, the river runs away to the south, south-west, as the valley widens, with a wedge shaped mossy meadow with small shrub trees on land between, with some historic ornamental planting.

### 2.3.3 THE OLDER LEAT

As one follows the forestry path from the weir north along the eastern bank, further up the valley, it becomes very clear a mere 10m or so upstream that there is an earlier leat which runs parallel to the river at the base of the eastern slope, in the same position as the later leat associated with the lake. At the southern end this is still quite waterlogged, the entrance where it spills into the river still visible as a partially silted up ditch, from the weir. Higher up it has infilled with silt, only defined by a slight hollow linear which is filled with brambles. This leat is c.1m across, like that to the south, which feeds the lake. It is not immediately obvious where this leat runs from, but it can be followed along the valley for some time, around the bend in the river. A further historic leat is noted on the mapping, running down the eastern slopes of the valley from the fields above, but significantly further along the valley. This is a relict of the working agricultural character of this landscape and the various mills on the Glyn river, before the gardens were established.

## 2.4 CONDITION

There is a large visible crack in the weir, approximately 0.5-0.6m into the weir from the eastern abutment, approximately 0.2m from the fish pass. The slight oblique angle of the weir to the water flow and the fish pass have created an effect where an eddy of water gathers and pours over the side of the fish pass, as well as down its vertical line. This eddy has caught what was likely a slight lip in the thin concrete capping layer and worked at it. This has now burst open, forcing water into a narrow channel and into the looser limecrete build of the second phase of construction, washing out stones from under the concrete cap, leaving it hollow beneath. The crack is now as much as 10-15cm or so wide in places, weakening the weir and disrupting the flow of the water.

The weir, possibly due to its significant change in height and shape, is moving the water in such a way across its form that it is scouring and undermining its own structure. The riverbed, once drained, is significantly washed away under the east wing wall and weir, hence the collapse at the front end, the front rectangular upright concrete kerbs, which likely framed the vertical drop, are now loose, lying away on a bed of scoured stones. The east bank below the weir has suffered from being blown out by the river, making a very thin spit of riverbank between the river and leat. The west wing wall is being damaged by the roots of a large tree and is slowly tipping into the river.

## 2.5 PHASING

The weir appears on the historic mapping between the 1881 1st Edition OD map and the 2<sup>nd</sup> Edition of 1907, giving us a very tight timescale for the initial construction. It is constructed of killas and slatestone rubble, with thick concrete forming the first low crump weir slope, the abutments coursed stonework. It may have been thought that this low weir would be enough to

manage flow into the leat and of course intensive farming, forestry operations, etc., may have significantly altered the flow here in quite a short period.

The ogee raise suggests not enough water was being fed to the lake and it required speedy adaption. The concrete capping in the c.1970s seems to be a very reactionary response to issues with the failing structure and does not exhibit considered design or quality of build, so would not suggest specialists were brought in but likely estate staff.

Whilst there is significant evidence of repair to the weir and some historic fabric replacement, such as the sluice gate, it presents as being of a single phase of construction; with a clear planned layout and intended design/function, fitting cohesively within a wider designed landscape.

#### **Weir Evidence Recap**

- Larger dark-coloured coursed stone blocks visible on abutments; heavier, more overengineered build, typical of the Victorians.
- Similar stone and massive beams in base of weir, with smooth dark very heavy concrete; a crump form, more historic in shape.
  - Large ogee weir created by raising the height of the crest in dredged river stone and bonding it with limecrete which may be mining waste deposits; a later, more 'modern' form.
  - Weir crest capping materials are now pebble inclusion concrete, shows the concrete was mixed onsite using bast from the riverbed. Combined with iron mesh, an odd combination of localised and modern solutions to the repair.
  - Associated with a complete, linked and still working water management system, with working leat. The whole landscape has been adapted here, as part of a planned garden design, with a massive lake having been dug and a sweeping drive carried over the river, the river being diverted past the lake to the south-west.



## 2.6 STATEMENT OF SIGNIFICANCE

### 2.6.1 EVIDENTIAL VALUE

The site has further evidential value in the weir structure, if later cappings were to be removed and within the leat system and structures.

### 2.6.2 HISTORICAL VALUE

The weir and associated features are a distinct reflection of the narrative of the area, moving from a working to a 'polite' landscape; it is a good example of the typical Victorian attitude of landscape adaptation and large scale engineering, managing the river around the man-made water garden features. The site holds local importance as it is closely associated with Glynn House.

### 2.6.3 AESTHETIC VALUE

Potentially, the aesthetics of the abutments were considered, appearing to be coursed stonework. It has serious detracting negative aesthetic elements in the concrete capping and later poor-quality repairs.

### 2.6.4 COMMUNAL VALUE

No known communal value.

### 2.6.5 INTEGRITY

The weir's integrity is quite high, although its abutment banks and the sluice gates have been quite heavily repaired with modern materials. The significant modern changes are considered to build in some natural flexibility for further adaptation. The continual alterations of the past provide precedence for this.

### 2.6.6 AUTHENTICITY

The site is almost entirely authentic in wider setting character; with only functional repairs to the fabric over the last 100 years, the weir itself whilst considerably damaged, still functions as intended and can be instantly identified as a water management system.

### 3.0 CONCLUSIONS AND RECOMMENDATIONS

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#### 3.1 CONCLUSIONS

Glynn weir first appears on the 2<sup>nd</sup> edition OS map, giving a construction date of between 1881 and 1907. It is not designated, nor mentioned in the listing text for Glynn House, despite its relationship with the designed gardens of the house.

The weir has undergone at least one significant phase of alteration of its 'line' – crump to ogee and one significant phase of repairs during the 20<sup>th</sup> century using inappropriate materials and there is structural damage to the weir in places due to a lack of maintenance that affect its functionality.

#### 3.2 RECOMMENDATIONS

If works adapting the fish pass move forward in the future monitoring of the feature may be required to ensure adequate recording of the structure beneath the concrete capping can take place. A comprehensive photographic record has been made of the weir in its current state, both with the water and following drainage. Further drawings of the weir could be recorded if works are to take place and it will change from its current form, recording the various layers of repair and alteration.

## 4.0 Bibliography

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- The Genealogist** 2019: Census and tithe maps (from PRO)  
<https://www.thegenealogist.co.uk/>

APPENDIX 1: PHOTOGRAPHIC ARCHIVE



1. DOWN THE GLYNN VALLEY, WITHIN THE GARDENS, TOWARDS THE WEIR, SHOWING EVIDENCE OF ORNAMENTAL PLANTING AND LANDSCAPE DESIGN; FROM THE NORTH.



2. A STRAIGHT SILTED UP CHANNEL, INFILLED BY BRAMBLES, WITH AN EARTHEN BANK TO THE WEST, WHICH APPEARS TO RUN PARALLEL TO THE RIVER ON THE EAST SIDE, SIMILAR TO THE WORKING LEAT TO THE SOUTH; FROM THE SOUTH, SOUTH-EAST.





3. VIEW OF WHERE THE SILTED UP LEAT ADJOINS THE RIVER, JUST ABOVE THE WEIR; FROM THE SOUTH-EAST.



4. THE WEIR AND SECOND, WORKING LEAT, SHOWING THE GARDEN SETTING; FROM THE NORTH, NORTH-EAST.





5. VIEW SHOWING HOW THE WORKING LEAT SEPARATES FROM THE RIVER JUST ABOVE THE WEIR AND THE SETTING OF BOTH RIVER AND LEAT; FROM THE EAST, NORTH-EAST.



6. THE EASTERN ABUTMENT OF THE LEAT, JUST ABOVE THE WEIR, WITH 2M SCALE; FROM THE NORTH-EAST.





7. THE WESTERN ABUTMENT OF THE WEIR, SHOWING DARK COLOURED, COURSED STONEWORK, TOPPED BY A CEMENT CAP; FROM THE EAST, NORTH-EAST.



8. VIEW OF THE RIVER BELOW THE WEIR, SHOWING A WIDE ANGLED EXTENSION ON THE EAST BANK, FLANKED BY ABUTMENT WALLS, WHICH IS AN OVERFLOW FROM THE WORKING LEAT; FROM THE NORTH, NORTH-EAST.





9. THE SLUICE GATE TO THE WORKING LEAT, WITH GALVANISED I-PROFILE GIRDERS AND MODERN BOARDS, FIXED WITH CEMENT TO OLDER STONE AND CONCRETE CAPPED ABUTMENT WALLS; FROM THE NORTH.



10. DETAIL OF A HEAVY CARVED STONE SLAB IN THE BASE OF THE LEAT, JUST PAST THE SLUICE GATE, EVIDENCE OF AN EARLIER SLUICE GATE OR SIMILAR? FROM THE NORTH.





11. THE ANGLED CURVE WHICH CARRIES THE LEAT AWAY FROM THE RIVER AND THEN CORRECTS TO RUN SOUTH WITHIN THE VALLEY, SHOWING DEEP BUILT UP OF SANDY SILT IN THE BASE OF THE LEAT; FROM THE NORTH, NORTH-WEST.



12. VIEW DOWN THE LEAT, FROM THE EAST ABUTMENT TO THE WEIR; FROM THE NORTH, NORTH-EAST.





13. WIDE ANGLED VIEW ACROSS THE VALLEY JUST BELOW THE WEIR, SHOWING THE RIVER, LEAT AND OVERFLOW GATE, AS WELL AS THE DESIGNED HIMALAYAN STYLE CHARACTER OF THE GARDEN SETTING; FROM THE NORTH-EAST.



14. WIDE ANGLED VIEW OF THE WEIR, RIVER, LEAT AND OVERFLOW GATE; FROM THE EAST, SOUTH-EAST.





15. THE SILTED UP OVERFLOW GATE TO THE LEAT; FROM THE EAST.



16. LEFT: VIEW UP THE LEAT, TOWARDS THE WEIR, WITH 2M SCALE; FROM THE SOUTH, SOUTH-EAST.

17. RIGHT: VIEW DOWN THE LEAT, HEADING TOWARDS THE LAKE; FROM THE NORTH, NORTH-EAST.





18. WHERE THE VALLEY WIDENS, JUST ABOVE THE LAKE, WITH RIVER AND LEAT, TO THE LEFT OF THE PICTURE THE SECOND LEAT, PART CULVETTED, WHICH CARRIES WATER AWAY BACK TOWARDS THE RIVER; FROM THE EAST, NORTH-EAST.



19. THE LAKE, WITH CENTRAL ISLAND, THE FOCUS OF THE DESIGNED LANDSCAPE PLANTING; FROM THE NORTH.





20. THE CULVERT WHICH CARRIES THE LEAT WATER INTO THE LAKE, IN ITS NORTH-EAST CORNER, INFILLED WITH FALLEN TWIGS AND BRANCHES; FROM THE NORTH-WEST.



21. CLOSER VIEW OF THE PART OBSCURED CULVERT WHICH FEEDS THE LAKE; FROM THE NORTH, NORTH-WEST.





22. VIEW BACK UP THE RIVER TOWARDS THE WEIR; FROM THE SOUTH, SOUTH-WEST.



23. VIEW OF THE SECONDARY OVERFLOW LEAT, WHICH FEEDS BACK INTO THE RIVER; FROM THE EAST, NORTH-EAST, MARKED AS DITCH ON THE HISTORIC MAPPING.





24. VIEW UP THE MAIN WORKING LEAT; LOOKING TOWARDS THE WEIR; FROM THE SOUTH.



25. VIEW DOWN THE LEAT, BACK TOWARDS THE LAKE, SHOWING THE PROFILE OF ITS EASTERN COUNTERSCARP BANK; FROM THE NORTH.





26. VIEW OF THE LEAT AT IT RUNS NORTH TOWARDS THE WEIR, WHERE IT BECOMES MORE SILTED UP AND OVERGROWN; FROM THE SOUTH, SOUTH-WEST.



27. VIEW OF THE WEIR AND ANGLED EASTERN ABUTMENTS, WITH OVERFLOW GATE; FROM THE SOUTH.





28. THE SLUICE WITH AND LEAT LOOKING SOUTH DOWN THE RIVER.



29. THE SLUICE, LEAT AND WEIR; FROM THE EAST.



APPENDIX 2: PHOTOGRAPHIC ARCHIVE OF INVESTIGATION WORKS



30. THE FLANK WALL OF THE LEAT AND SLUICE GATE, SHOWING ITS REPAIR WITH DUMPY BAGS FULL OF RUBBLE AND ROCKS, WITH SOME CEMENT PATCHING; WITH 2M SCALE; FROM THE SOUTH-WEST.



31. THE EXPOSED WEIR DURING DRAINAGE WORKS; FROM THE NORTH-EAST (1M SCALES).





32. THE SHORT SECTION OF GOOD FLANK WALL TO THE SLUICE, COVERED IN CEMENT RENDER, WITH 2M SCALE; FROM THE SOUTH-WEST.



33. THE LOWER ANGLED SECTION OF FLANK WALL, WHICH BRACES THE WEIR, OF DRESSED SLATESTONE BLOCKS AND CEMENT RENDER CAPPING AND SIDES; WITH 2M SCALE; FROM THE WEST-SOUTH-WEST.





34. THE CONCRETE CAP OF THE WEIR, WITH WATER DRAINED OFF, SHOWING A RELATIVELY MODERN TOP-COAT, HELD IN PLACE BY STEEL SQUARE MESH; WITH 2M SCALE; FROM THE EAST-SOUTH-EAST.



35. THE WEST FLANK WALL TO THE WEIR, SHOWING HEAVY BLOCK CONSTRUCTION, CAPPED WITH CONCRETE, WITH THICK POORLY EXECUTED CEMENT REPOINTING; WITH 2M SCALE; FROM THE EAST.





36. PROFILE OF THE LONG-ANGLED SLOPE OF THE WEIR, WITH 2M SCALE; FROM THE WEST.



37. DETAIL OF THE STEEL MESH WHICH IS HOLDING THE UPPER CONCRETE CRUST OVER THE DAM, CLEARLY A FAIRLY RECENT REPAIR TO THE STRUCTURE; FROM THE NORTH-NORTH-WEST.





38. THE LARGE CRACK IN THE CONCRETE, TO THE EAST END OF THE WEIR; FROM THE WEST.



39. DETAIL SHOWING THE MASSIVE ROOT OF A TREE WHICH HAS GROWN INTO THE WEST FLANK WALL OF THE WEIR STRUCTURE, WITH 2M SCALE; FROM THE EAST-SOUTH-EAST.





40. LONG VIEW OF THE RIVER BANK, RUNNING NORTH AWAY FROM THE WEIR, UPSTREAM, SHOWING A SMALL SECTION OF MORTARED ROUGH BLOCKS, WHICH ARE COMING FREE FROM THE BANK, SHOWING THE SCOURING PROBLEM ON THE EASTERN SIDE OF THE RIVER HERE; FROM THE SOUTH-SOUTH-WEST.



41. THE MODERNISED SLUICE GATE, WITH 2M SCALE; FROM THE WEST-SOUTH-WEST.





42. DETAIL OF THE SLATE SLAB EDGING TO THE CHANNEL ABOVE THE FISH PASS; FROM THE SOUTH-WEST.



43. THE FISH PASS IN DETAIL; FROM THE SOUTH.



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