

WRITTEN SCHEME OF INVESTIGATION

FOR AN ARCHAEOLOGICAL

DESK-BASED ASSESSMENT AND A HERITAGE IMPACT

ASSESSMENT

AT BRONDANW ESTATE, GWYNEDD

Prepared for:

Renewables First Ltd

Project No: 240

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Figure 1. Site location

Figure 2. Proposed development plan

Summary

This Written Scheme of Investigation (WSI) details the proposal for an archaeological Desk Based Assessment and a Heritage Impact Assessment associated with a proposed installation of a hydro scheme between NGR - SH62610 44257 and SH62380 44060 located on the Afon Croesor just to the southwest of the settlement of Croesor, Gwynedd. It has been prepared by Archaeology Wales Ltd for Renewables First Ltd prior to the proposed submission of a planning application. The associated Planning Reference No. is NP5-68-221B.

In 2016, Archaeology Wales produced a DBA following a previous development design. The work noted that the proposed development was located within Dyffryn Ffestiniog, an area particularly rich in later medieval and post-medieval archaeology. Moreover, the initial design cut across the Historic Park and Garden of Parc (GD35). No Scheduled Ancient Monuments (SAM) were affected by the hydroelectric scheme. The closest SAM was the Unenclosed Hut Circle Settlement East of Garth-y-Foel (ME170) located c. 140m northwest from the proposed intake area. It was noted that due to the topography and vegetation of the area, there would be no intervisibility between the site and the Scheduled Ancient Monument. The proposed turbine house would have a slight visual impact on the sub-medieval structure of Gelli Cornwydydd (NPRN 406470) and on Gelli Mill (NPRN 6399). The penstock route would have intersected the Croesor incline in two places.

All work will be undertaken in accordance with the standards and guidelines of the Chartered Institute for Archaeologists (2014), and in line with Welsh Government best practice guidance Setting of Heritage Assets in Wales (2017).

1. Introduction and planning background

This WSI details the proposal for an archaeological Desk Based Assessment and a Heritage Impact Assessment to be undertaken in association with the proposed development of a hydro scheme between NGR SH62610 44257 and SH62380 44060 located on the Afon Croesor just to the southwest of the settlement of Croesor, Gwynedd (Figure 1 and 2). The associated Planning Application No. is NP5-68-221B.

This WSI has been prepared by Dr Irene Garcia Rovira, Project Manager, Archaeology Wales Ltd (henceforth - AW) at the request of Renewables First Ltd.

The methodology set out in this WSI has been agreed with GAPS in its capacity as archaeological advisors to Gwynedd Council. GAPS has recommended that an

archaeological Desk Based Assessment and a Heritage Impact Assessment of the development site is undertaken prior to the submission of a planning application to assess the impact of the proposed development on the archaeological resource.

All work will conform to the *Standard and Guidance for Archaeological Desk Based Assessment* (CIfA 2014), and the Heritage Impact Assessment will be produced in line with the Welsh Government best practice guidance *Setting of Heritage Assets in Wales* (2017). The work will be undertaken by suitably qualified staff to the highest professional standards. AW is a Registered Organisation with the CIfA.

2. Development Details & Site Description

The proposed development includes the installation of hydro scheme between NGR SH 62610 4457 and SH 62045 43746 located on the Afon Croesor just to the southwest of the settlement of Croesor, Gwynedd (Figure 2).

It is proposed that an intake structure would be constructed taking water through a buried penstock pipe to the turbine house / outfall location. The penstock would run on the opposite side of the water course through lightly wooded areas as well as open hill and moorland.

The underlying geology is defined by the Nant Ffrancon Formation composed of siltstone formed during the Ordovician Period. The British Geological Survey does not hold records of the superficial soils of this area (BGS 2018). The topography oscillates between 75m AOD at the outfall location and 134m AOD at the location of the intake.

3. Objectives

The primary objective will be to assess the impact of the development proposals on the historic environment by means of a Desk Based Assessment, a Heritage Impact Assessment and Site Visit. This work will follow the guidance laid out within *Managing Heritage Impact Assessment in Wales*, produced by Cadw in May 2017, and will conform to the *Standard and Guidance for Archaeological Desk Based Assessment* (CIfA 2014).

The aim will be to take a full account of the archaeological resource, including adjacent and non-designated heritage assets and their settings. It will gather enough information to understand the significance of any heritage assets affected and assess the impact of the proposals on those assets. This will help inform future decision making, design solutions and potential mitigation strategies.

The work will include a comprehensive assessment of regional context within which the evidence rests and will aim to highlight any relevant research issues within national and regional research frameworks. The work will result in a report that will provide information of sufficient detail to allow informed planning decisions to be made which can safeguard the heritage resource.

4. The proposed archaeological work

The aim of the work will be to establish and make available information about the historical significance of the affected area, and its relationship to the wider historical environment. The work will include the following elements:

- Detailed desk-based study (Stage 1)
- A site visit (Stage 2)
- The production of an illustrated report (Stage 3)
- Archiving (Stage 4)

4.1. Method Statement for a Detailed Desk Based Study (Stage 1)

The desk-based study will consider the following:

- a) The nature, extent and degree of survival of archaeological sites, structures, deposits and landscapes within the study area through assessment of various readily available primary sources:
 1. Collation and assessment of all relevant information held in the regional HER Gwynedd Archaeological Trust, within a 1km radius of the centre of the site. This will include both designated and non-designated sites.
 2. Assessment of all available reports and archives including unpublished and unprocessed material affecting the site and its setting.
 3. Assessment of all relevant extant photographic evidence, including available historic photos.
 4. All sources indexed in the County Archive, and as appropriate, site files held by the RCAHMMW.

5. Map regression analysis using all relevant cartographic sources e.g. All editions of the Ordnance Survey County Series, Tithe and early estate maps (as available).
6. Records held by the developer or site owner e.g. bore hole logs, geological/geomorphological information.
7. Aerial photographs, maps, plans, LIDAR data.
8. Assessment of environmental and artefactual potential of the archaeological deposits through existing data or by inference.
9. Place name evidence.
10. Historic documents (e.g. Charters, registers, estate papers).
 - a) The significance of the assets in their context both regionally and nationally and in light of the findings of the assessment.
 - b) The significance of any remains in their context locally, regionally and nationally and in light of the findings of the desk based study.

4.2. The Site Visit (Stage 2)

The site visit will be a visual walked search of the entire development area. The ground surface will be visually inspected for all earthworks, structures and finds. The location of any environmental archaeological deposits, or areas which may have a potential for such deposits, will also be taken into account along with the more traditional 'visible' archaeology.

All located sites or finds encountered during the visit will be accurately fixed by means of GPS. Each individual find or site location will have an accurate NGR reference attached. Where a close cluster of related features is identified a single NGR for the centre of the cluster will be used, and each constituent feature separately described in the text.

The character, function, condition, vulnerability, potential dating and relationship to other features of each identified site or find will be described fully. The importance of the site or find will be assessed in terms of local, regional or national significance.

Written, drawn and photographic records of an appropriate level of detail will be maintained throughout the course of the project. Digital photographs, including metric scales, will be taken using cameras with resolutions of 10 mega pixels or above. Photographs will be taken in RAW format.

Illustrations will be drawn to a scale of 1:50, 1:20 and 1:10 as required, and these will be related to Ordnance Survey datum and published boundaries where appropriate.

4.2. The production of an illustrated report (Stage 3)

A report will be produced which synthesises the results of stages 1 and 2 and thereby assesses the total archaeological resource within the development area.

The results will be presented in such a way that data and supporting text are readily cross-referenced. The regional HER Officer will be contacted to ensure that any sites or monuments not previously recorded in the HER are given a Primary Record Number (PRN) and that data structure is compatible with the HER. The historical development of the site will be presented in phased maps and plans comprising clearly, the outline of the site.

Within the report an attempt will be made to indicate areas of greater or lesser historical significance and the sites will be ranked in level of overall historical importance (locally, regionally and nationally).

All relevant historic photographs and historic maps will be included and be fully referenced. Any site photographs included in the report will be appropriately captioned and clearly located on a suitably scaled site plan.

The report will specifically include the following:

1. a copy of the design brief
2. a location plan
3. all identified sites plotted on an appropriately scaled plan of the proposal site
4. A description of the assets and their setting
5. A summary of the significance of the assets and their setting
6. a gazetteer of all located sites and finds with full dimensional and descriptive detail including grid reference and period

Copies of the report will be sent Renewable First and for inclusion in the regional HER. Digital copies will be provided in pdf format if required.

4.4 Archiving (Stage 4)

A project archive will be prepared in accordance with the National Monuments Record (Wales) agreed structure and be deposited with the National Monuments Records, held and maintained by the RCAHMW, Aberystwyth, on completion of site analysis and report production. It will also conform to the guidelines set out ' *The National Standard and Guidance to Best Practice for Collecting and Depositing Archaeological Archives in Wales 2017* (National Panel for Archaeological Archives in Wales 2017). The digital archive will be deposited with the NMR.

Although there may be a period during which client confidentiality will need to be maintained, the report and the archive will be deposited not later than six months after completion of the work.

Other significant digital data generated by the survey (ie AP plots, EDM surveys, CAD drawings, GIS maps, etc) will be presented as part of the report on a CD/DVD. The format of this presented data will be agreed with the curator in advance of its preparation.

5. Staff

The project will be managed by Dr Irene Garcia Rovira (AW Project Manager) and the fieldwork undertaken by Loretta Nicolik. Any alteration to staffing before or during the work will be brought to the attention of GAPS and Renewable First Ltd.

Additional Considerations

6. Health and Safety

6.1. Risk assessment

Prior to the commencement of work AW will carry out and produce a formal Health and Safety Risk Assessment in accordance with *The Management of Health and Safety Regulations 1992*. A copy of the risk assessment will be kept on site and be available for inspection on request. A copy will be sent to the client (or their agent as necessary) for their information. All members of AW staff will adhere to the content of this document.

6.2. Other guidelines

AW will adhere to best practice with regard to Health and Safety in Archaeology as set out in the FAME (Federation of Archaeological Managers and Employers) health and safety manual *Health and Safety in Field Archaeology (2002)*.

7. Insurance

AW is fully insured for this type of work, and holds Insurance with Aviva Insurance Ltd and Hiscox Insurance Company Limited through Towergate Insurance. Full details of these and other relevant policies can be supplied on request.

8. Quality Control

8.1. Professional standards

AW works to the standards and guidance provided by the *Chartered Institute for Archaeologists*. AW fully recognise and endorse the Chartered Institute for Archaeologists' *Code of Conduct*, *Code of Approved Practice for the Regulation of Contractual Arrangements in Field Archaeology* and the *Standard and Guidance for archaeological watching briefs* currently in force. All employees of AW, whether corporate members of the Chartered Institute for Archaeologists or not, are expected to adhere to these Codes and Standards during their employment.

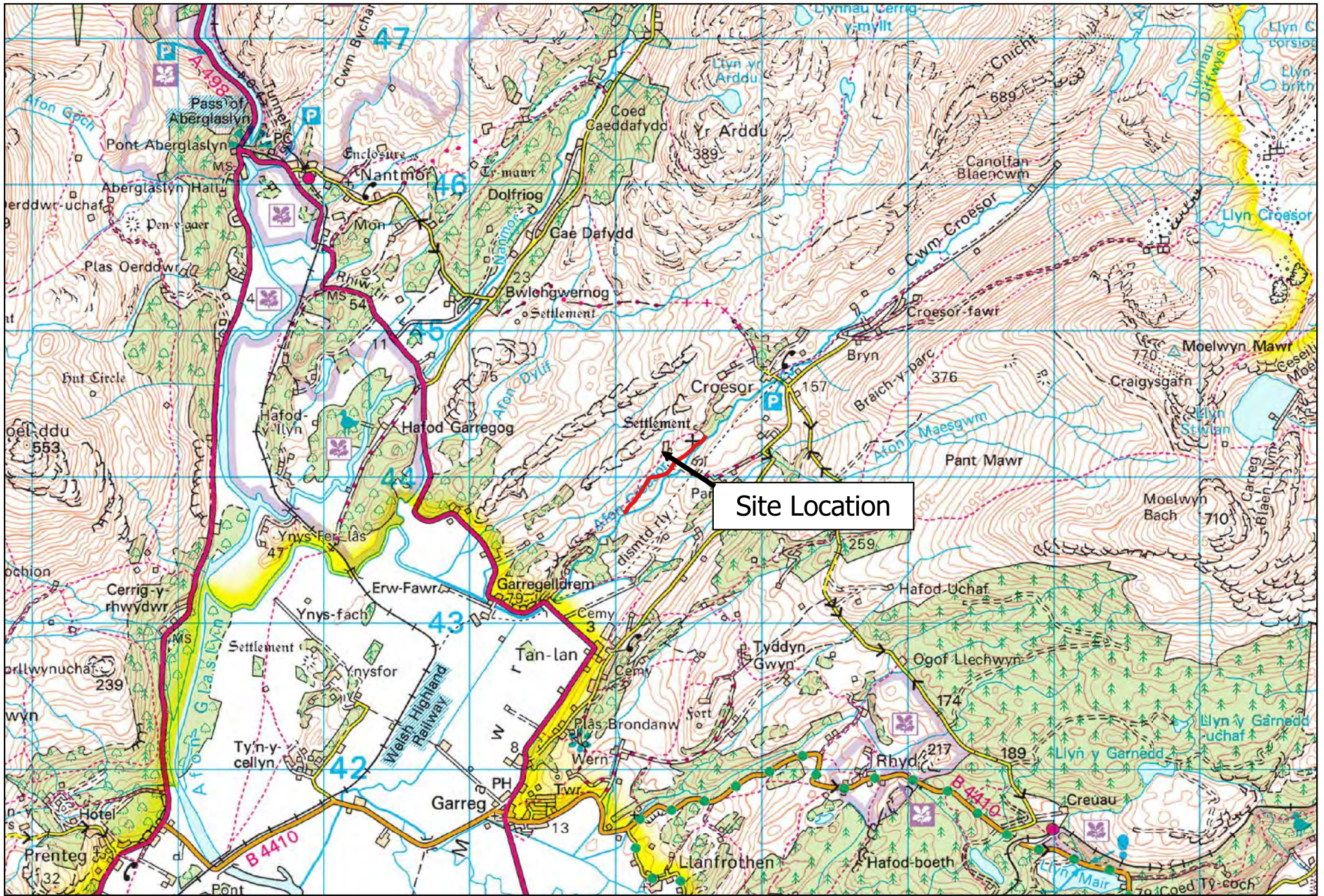
8.2. Project tracking

The designated AW manager will monitor all projects in order to ensure that agreed targets are met without reduction in quality of service.

9. Arbitration

Disputes or differences arising in relation to this work shall be referred for a decision in accordance with the Rules of the Chartered Institute of Arbitrators' *Arbitration Scheme for the Institute for Archaeologists* applying at the date of the agreement.

10. References



Site Location

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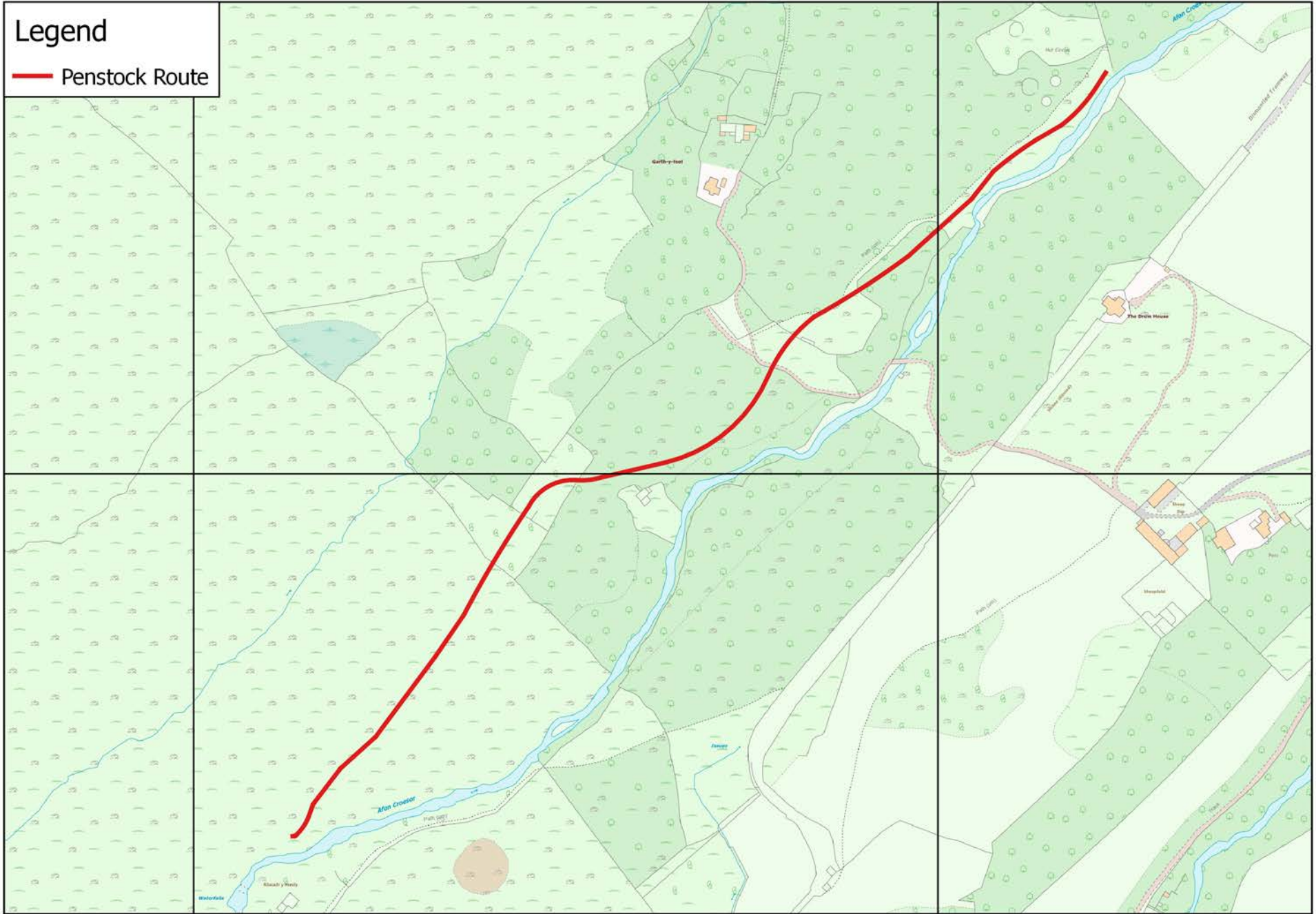
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