### REPORT TO UISGE HOLDINGS LTD

# ARDTALNAIG HYDRO-ELECTRIC SCHEME

## ARCHAEOLOGICAL WATCHING BRIEFS MAY 2015 & FEBRUARY 2016

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#### INTRODUCTION

This document describes the results of archaeological watching briefs undertaken during ground works along sections of a new hydro-electric scheme at Ardtalnaig on the shores of Loch Tay, Perthshire. The penstock and power house are located to the east of the loch from where a cable runs across it to a meter kiosk at Lawers on the west shore.

In July 2012 Perth & Kinross Council granted planning consent to construct a run-of-river hydro-electric scheme on the Ardtalnaig Burn, on the east side of Loch Tay (Planning Application number 2012/01113/FLL). Consent was granted subject to several conditions one being that a programme of archaeological works would be required before and, if necessary, during the construction process. Subsequently, planning consent was also granted for the formation of access tracks to the power house and landing points either side of Loch Tay (Planning Application number 15/00039/FLL).

Scotia Archaeology was commissioned by Robert Smith, on behalf of Uisge Holdings Ltd, to undertake a desk study of known sites in the proposed development area followed by a walk-over survey to identify any sites of archaeological or historical significance that may lie within or close to it. The report of these surveys also highlighted mitigation strategies that might be necessary to protect the archaeological landscape. The site survey was carried out by John Lewis in two stages, on 6 and 16 February 2015.

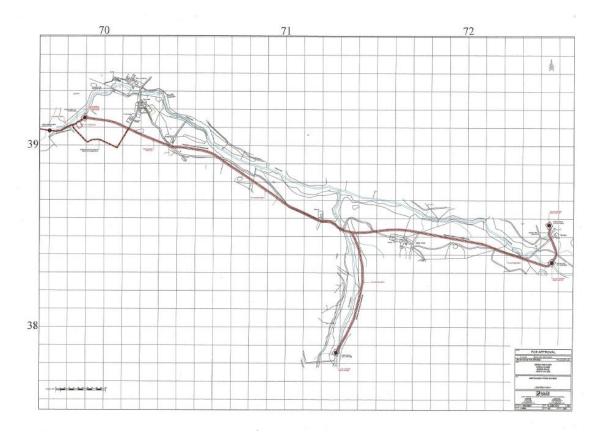
Thereafter, a Written Scheme of Investigation (WSI), setting out proposals for mitigation strategies to protect the archaeological record during construction work in the two areas, was presented to the council and its archaeological advisors, Perth & Kinross Heritage Trust (PKHT). The contents of the WSI were approved before ground works for the hydro scheme commenced.

#### THE SITE

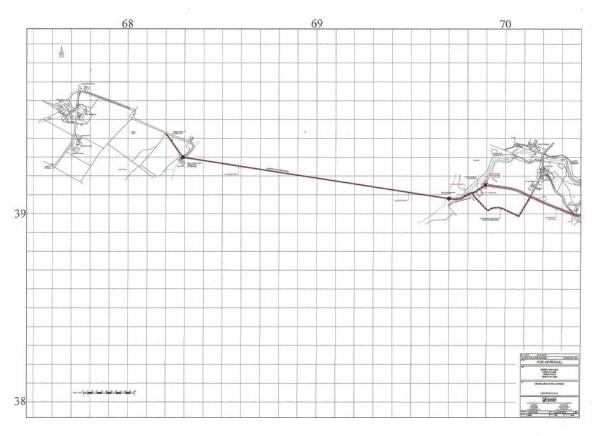
There are three intake points for this scheme. The north intake is on the Allt Aonaich, at NN 72447 38565, from where the penstock runs southwards as far as the east intake on the Allt Coire Othaisg, at NN 72463 38359. The west intake is on the Allt a'Chloid, at NN 71278 37859, its penstock meeting the main one at approximately NN 71360 38530. The combined pipe route continues westwards as far as a power house, sited near the mouth of the Ardtalnaig Burn, at NN 69897 39130.

The overall length of the penstock, including its west arm, is approximately 4km. From the power house an underground export cable has been taken across Loch Tay to a meter kiosk on the west shore, from where a connection will be taken to the national grid in the village of Lawers. The east and west landing points are at NN 69700 39100 and NN 68290 39299 respectively. To allow vehicular access to the power house and the kiosk, new vehicular tracks have been installed on both sides of the loch.

Maps, supplied by the client and showing the overall route of the scheme, are reproduced below.



The location of the penstock and the power house

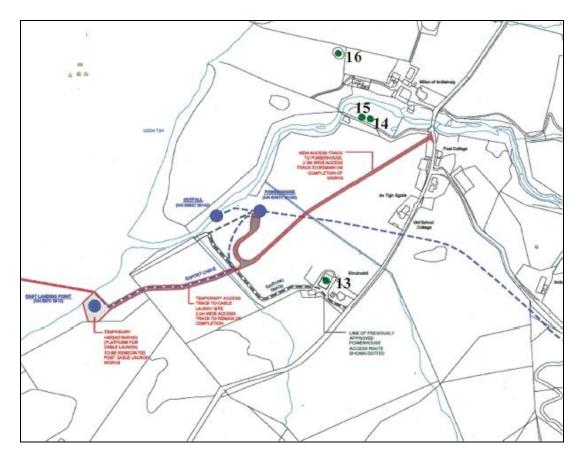


The loch crossing and connection to the grid

#### SUMMARY OF THE SURVEY RESULTS

The only parts of the hydro scheme where the archaeological record might have been compromised by the development are in the vicinity of the power house and the east and west landing points, areas covered by the recently imposed planning conditions. Maps of these areas, showing known sites of archaeological significance, are reproduced below. Site numbers are those used in the report (dated 18 March 2015) of the desk study and walk-over surveys.

#### POWER HOUSE AND EAST LANDING POINT



Power house and east landing areas showing archaeological sites

#### 13 NN73NW 25 Farmstead

The first edition Ordnance Survey (OS) map of 1867 (Perthshire, sheet 69) depicts the farmstead of Kindrochit as two roofed buildings, an enclosure and a lime kiln at NN 70005 39006. The farm is still occupied.

#### 14 NN73NW 3 ?Castle

According to local tradition, a castle (perhaps a hunting lodge) once stood near what is now the farm of Milton of Ardtalnaig, at approximately NN 701 393, although no trace of such a structure is now visible above ground.

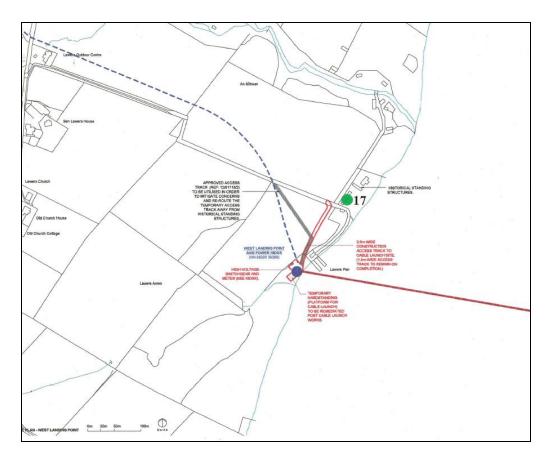
#### 15 NN73NW 19 Mill

A ruined 19th-century mill stands near Milton of Ardtalnaig, at NN 7009 3930.

#### 16 NN73NW 1 Carn Ban

A mound of stones, 17m in diameter and 2.5m high, located at NN 7003 3941 has been interpreted as a probable Bronze Age burial mound. It is a Scheduled Ancient Monument (SAM6238).

#### WEST LANDING POINT



West landing point and archaeological site

#### 17 NN63NE 42 Old Lawers village

The extensive remains of the deserted village of Lawers are centred on approximately NN 6835 3940 and include several substantial stone buildings dating from the mid-17th century or earlier. Among these structures are the House of Lawers, built over the remains of an earlier structure in 1645, Lawers Church (1669), two mills and several more modest structures. Old Lawers village is a Scheduled Ancient Monument (SAM6280).

#### THE WATCHING BRIEFS

Construction work for this hydro scheme was carried out by Highland Water Works Ltd of Duror, Highland. The watching briefs, undertaken by John Lewis of Scotia Archaeology, were undertaken on separate occasions on either side of Loch Tay.

Stripping of topsoil for a new access road to the power house and on the site of a contractor's compound on the east side of the loch was monitored between 12 and 19 May 2015. It was agreed with PKHT that this exercise evaluated enough of the area to obviate the need to monitor trenching for the penstock between the village of Ardtalnaig and the power house.

Unfortunately, an oversight by the developer meant that soil-stripping for a new access road and the excavation of a cable trench at Lawers was not monitored archaeologically. However, a watching brief was maintained during excavations adjacent to the new meter kiosk to provide an area of hard-standing for vehicles turning. This work was carried out on 20 February 2016.

#### ARDTALNAIG VILLAGE

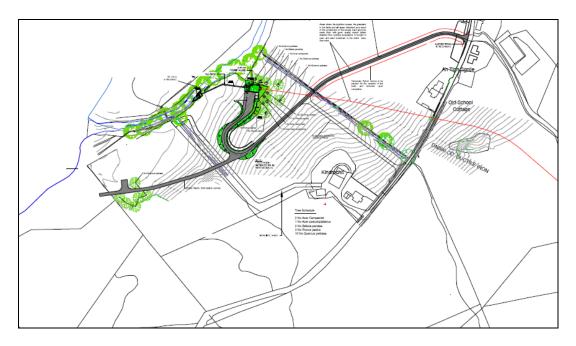
The watching brief on the east side of Loch Tay was undertaken at the site of the contractor's compound and along the route of the new access road to the power house and the crossing point.

The compound was roughly rectangular in shape occupying an area of approximately 40m square, centred on NN 70160 39180 (see below).



Site of the contractor's compound, viewed from the north

From the compound, at NN 70151 39211, the new access road runs westwards across two pasture fields to the site of the power station, at NN 69897 39130, and also to the loch edge although monitoring continued only as far as NN 69727 39001, some 500m south-west of the compound. Between that point and the loch the ground was waterlogged.



Location of the access road from the compound to the power house and loch



Main trench looking towards the contractor's trench from the west

The trench crossed mostly well-drained pasture on ground sloping gently down to the north, towards the loch. Along most of its length the access road trench measured 5m wide although in places it had to be widened for operational reasons. Turf and a maximum of 0.2m of topsoil comprising mid-brown, silty loam with gravel and small pebbles was removed, leaving some topsoil undisturbed. In places, large boulders protruded through the topsoil, suggesting that this field has not been ploughed on a regular basis.



Access road trench, viewed from the east

In addition, a short stretch of road was built from the public road close to the Ardtalnaig Burn, at NN 70187 39272, running up sloping ground to the contractor's compound (see below). This trench measured 5-8m wide and up to 1m deep, depending on topography and operational reasons. Topsoil of mid- to dark brown loam with a few pebbles was up to 0.35m deep and gave onto glacial till of boulders, pebbles, gravel and orange and grey sand.

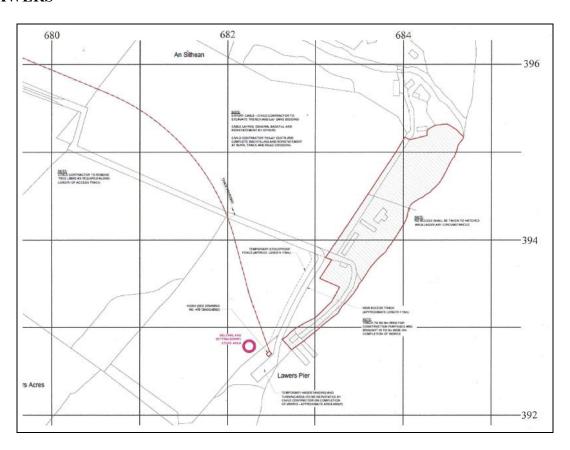
The depth of topsoil in this trench may be an indication that this area was ploughed at some stage or, perhaps more likely, materials from higher levels have been washed into this area.

No structures, features or deposits of archaeological significance were uncovered in these trenches and no pre-modern artefacts retrieved from them.



Excavations for the access road from the compound to the public road

#### **LAWERS**



Lawers: area of investigation

The map reproduced above shows the route of the cable trench from the meter kiosk towards the modern village of Lawers. It also shows the intended position of the access road running between the kiosk and the existing farm track which runs from the A827 in the village to the edge of the loch. Since that drawing was produced, the route has changed and now runs adjacent to and parallel with the cable trench, from NN 68257 39264 northwards to NN 68198 39423.

An error of communication meant that excavations for the new road and cable trench were not monitored archaeology. According to the contractors, only some 0.2m of topsoil was removed for the road (as on the east side of the loch) and it seems unlikely that anything of archaeological importance was disturbed during that particular operation. The cable trench was approximately 1m deep and it is not known what deposits were encountered during its excavation.



View from the north-east along the new access road at Lawers

However, a watching brief was undertaken at one relatively small area at Lawers. On 20 February 2016 an area measuring 15m east/west by 3-6m wide to the west of the meter kiosk was stripped of topsoil to allow the construction of temporary hard-standing for vehicles turning.

Up to 0.3m of boulders intermixed with topsoil, probably resulting from hill wash and field clearance, was removed, revealing similar material below. Nothing of archaeological significance was uncovered during this operation.



Area to the west of the kiosk, viewed from the west

#### **CONCLUSIONS**

Nothing of archaeological significance was found during any phase of monitoring at Ardtalnaig or Lawers. No trace of any features that might be associated with the putative castle (NN73NW 3) or anything contemporary with the Bronze Age burial mound of Carn Ban (NN73NW 1) were encountered at Ardtalnaig village.

At Lawers nothing associated with the old village (NN63NE 42) was found although the area monitored was small and located some 150m from the edge of the scheduled area. Although it is not known what might have been disturbed during excavations for the new access road and cable trench, it is though unlikely that anything of archaeological significance was disturbed during that particular phase of operation.