



**Milton Glen Hydro Scheme,
Callander,
Perthshire
Archaeological Monitoring
Data Structure Report**



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Executive Summary

ARCHAS Cultural Heritage Ltd were appointed by babyHydro Ltd on behalf of Annet Burn Hydro Ltd to undertake a programme of archaeological monitoring during ground breaking works associated with the construction of a small scale hydroelectric power scheme at Milton Glen, near Callander. The scheme is sited on the north slopes above Loch Venachar in the Stirling Council area, but within the Loch Lomond and the Trossachs National Park. Development includes construction of an intake (weir) in the burn; trenching and burying of a penstock (high pressure pipe); construction of a powerhouse; construction of a tailrace to return the water to the burn; and a connection to the Grid.

The archaeological monitoring followed the completion of an archaeological assessment in 2014 which identified a mill lade, an area of rig and furrow and two head dykes which would be impacted by development. The assessment also identified the possibility of prehistoric remains surviving along the route.

No previously unrecorded archaeologically significant deposits or artefacts were recovered during the project. The rig and furrow was recorded, as were the head dykes, while the lade was shown to be simple, deep cut channel. ARCHAS Ltd recommend that no further archaeological mitigation be required on site and the planning condition can be discharged.

A record of the evaluation has been deposited with the Online Access to the Index of Archaeological Investigations (OASIS) website hosted by the Archaeological Data Service (OASIS ID archascu1-247915) and with Discovery and Excavation in Scotland (DES), the annual publication of fieldwork by Archaeology Scotland.

1 Introduction

1.1 General

- 1.1.1 ARCHAS Cultural Heritage Ltd were commissioned by babyHydro Ltd. (contact James Hendry) on behalf of Annet Burn Hydro Ltd (contact Rory McLeod) to undertake archaeological monitoring during ground breaking works associated with the construction of a small-scale run-of river hydroelectric power scheme at Milton Glen near Callander. The scheme is sited on the Milton Glen Burn on the north slopes above Loch Venachar in the Stirling Council area, but within the Loch Lomond and the Trossachs National Park. Development includes construction of an intake (weir) in the burn; trenching and burying of a penstock (high pressure pipe); construction of a powerhouse; construction of a tailrace to return the water to the burn; and a connection to the Grid between NGR: NN 57126 07257 and NN 57509 06055.
- 1.1.2 The route of the proposed works was surveyed in 2014¹ and a number of Historic Environment features were identified which had potential to be affected by the development. This report was submitted to Loch Lomond and the Trossachs Planning departments as part of the planning application for the development.
- 1.1.3 The West of Scotland Archaeology Service (hereafter WoSAS) provide archaeological advice to the Loch Lomond and The Trossachs National Park in all matters relating to archaeology. Through planning application 2014/0102/DET, Planning Condition 16, WoSAS and the Loch Lomond and The Trossachs National Park requested that:
- 'No development shall take place until the developer has secured the implementation of a programme of archaeological works in accordance with a written scheme of investigation which has been submitted by the applicant, agreed by the West of Scotland Archaeology Service, and approved by the Planning Authority. Thereafter the developer shall ensure that the programme of archaeological works is fully implemented and that all recording and recovery of archaeological resources within the development site is undertaken to the satisfaction of the Planning Authority in agreement with the West of Scotland Archaeology Service.'*²
- 1.1.4 A Written Scheme of Investigation outlining the standards and methodology to which ARCHAS Ltd would adhere during the project was submitted to, and accepted by, WoSAS on behalf of the National Park on 6th November 2015.
- 1.1.5 Discussion with WoSAS indicated that a watching brief would be maintained on all excavations south of the forestry plantation, with specific attention paid to where the development disrupted the mill lade and the head dyke identified during the 2014 assessment.
- 1.1.6 Site works were monitored by Ross Cameron on a total of seventeen separate days from 05/01/16 to 31/05/16. Weather throughout was changeable from cold and frosty at the onset of the project to bright and sunny at the completion.
- 1.1.7 ARCHAS Cultural Heritage Ltd conforms to the standards of professional conduct outlined in the Chartered Institute for Archaeologists Code of conduct, and relevant Standards and Guidance documents.

¹ CFA Archaeology Ltd 2014 Milton of Callander Hydropower Scheme: Environmental Statement – Archaeology and Cultural Heritage

² Loch Lomond and The Trossachs National Park, Planning Application 2014/0102/DET: Decision Notice

1.2 Site Location and Setting

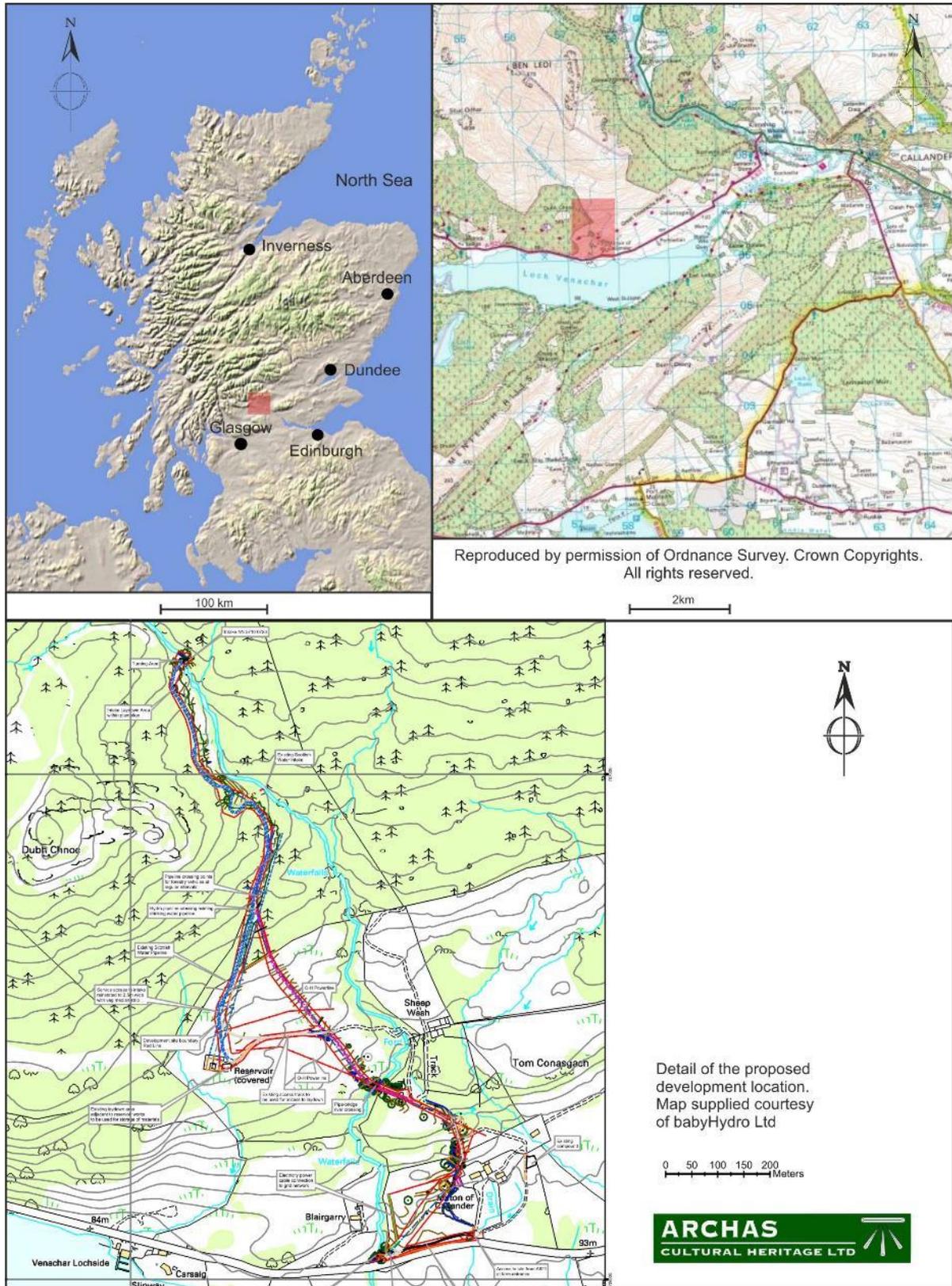


Figure 1: Site location

General

1.2.1 The development site is located at Milton Glen, on the south facing slopes of Dubh Cnoc above Milton of Callander to the west of the town of Callander. The route of the scheme goes from NGR: NN 57126 07257 at its northern extreme to NGR: NN 57509 06055 at its southern end (Figure 1). The route is mostly along the western side of the Milton Glen Burn, the upper reaches of which are fed from the south facing slopes of Ben Ledi before flowing into Loch Venacher.

Study Area

1.2.2 The proposed development site is located in an area comprising sloping and undulating rough pasture on the western flank of Milton Glen Burn.

1.2.4 At the southern end of the scheme adjacent to the A821, the pasture is less undulating and more managed, with short grass prevalent. To the north, the slope of the hill becomes steeper and the topography more severe as the route enters an area of mature deciduous woodland.

1.2.5 The topography of the more upland area of the scheme on the north side of the Milton Glen Burn essentially comprises heather moorland with all the appearance of being unimproved.

1.2.6 The northern half of the proposed development is situated in a modern coniferous plantation and is not subject to archaeological monitoring.

Geology

1.2.7 The drift geology of the upper part of the proposed development site comprises Till, Devensian - Diamicton. These superficial deposits formed up to 2 million years ago in the Quaternary Period in a local environment previously dominated by ice age conditions.

1.2.8 The underlying bedrock geology consists of a Metamorphic Bedrock formed approximately 508 to 635 million years ago in the Cambrian and Ediacaran Periods.³

³ www.bgs.ac.uk – 03/02/15

2 Archaeological and Historical Background

2.1 Location

- 2.1.1 It is recognised that the location of the site is an advantageous one, likely to have been suitable for occupation from an early period. The land, particularly at the southern end of the proposed development, is rich and fertile. While areas of the penstock's route are steep and challenging, large parts are also relatively flat, in particular the area adjacent to the A821, around Milton of Callander itself.
- 2.1.2 Proximity of Loch Venachar and the Milton Glen Burn would also be advantageous to settlement.

2.2 Earlier assessments

- 2.2.1 The proposed development area has been subjected to a walkover survey and archaeological assessment on two separate occasions. Both of these were completed by Tim Neighbour of CFA Archaeology Ltd.⁴
- 2.2.2 The first of these reports was carried out in 2003 and largely covered the eastern portion of the proposed development area.
- 2.2.3 The second walkover survey and archaeological assessment was completed in 2014 during the preliminary stages of the present proposals. This second survey was used to guide the proposals and identified a total of 10 sites of potential archaeological interest.
- 2.2.4 Of the 10 sites identified, two head dykes, a mill lade and an area of rig and furrow are all impacted by the proposed development.

2.3 Baseline

Prehistoric

- 2.3.1 A number of prehistoric sites have been recorded in the vicinity of the proposed development. These include two crannog sites immediately to the south on Loch Venachar (NMRS: NN 50 NE 5 and NN 50 NE 2). These artificial islands have been interpreted as of probable Bronze Age date.
- 2.3.2 A hillfort dated to the Iron Age has also been recorded at Dunmore Hill to the east of the development site (NMRS: NN 60 NW 47).
- 2.3.3 Clearly there is prehistoric occupation of the Milton Glen area from at least the late prehistoric period. It is possible that previously unrecorded prehistoric sites will exist in the vicinity of the proposed development area.

⁴ Neighbour, T 2004 'Callander, Stirlingshire: Archaeological Reconnaissance Survey' Unpublished CFA Archaeology Grey Literature Report 881 & Neighbour, T 2014 'Milton of Callander Hydropower Scheme Environmental Statement' Unpublished CFA Archaeology Grey Literature Report

Post-Medieval

- Settlement/Farmsteads

- 2.3.4 William Roy's Military Survey of Scotland was produced c.1750 and is the first map which can be considered to have any degree of accuracy with regards to pinpointing the locations of buildings and dwelling across the landscape.
- 2.3.5 Roy's map shows a small settlement, or 'fermtoun' at 'Blairgarrie', likely modern day Blairgarry to the immediate west of the proposed route. It also shows extensive cultivation along the banks of Loch Venachar. Blairgarry is also shown on the 1st edition Ordnance Survey (OS) map of 1866 and still survives today.
- 2.3.6 The 1866 1st edition of the OS also shows the first record of 'Milton', one of the farm buildings still in use today.

- Field Systems and Boundaries

- 2.3.7 The surveys of 2003 and 2014 noted a number of features which can be considered post-medieval agricultural features. These included field systems, animal enclosures, boundaries as well as areas of rig and furrow.
- 2.3.8 These features confirm the evidence from the map regression that pre-improvement agricultural activity took place around Milton Glen.
- 2.3.9 Remnants of rig and furrow were noted on aerial photographs, located at the northern part of the development area, south of the modern coniferous plantation, although this was not located during the walkover survey.
- 2.3.10 Two head dykes were also recorded, likely marking the uppermost limits of the pre-improvement cultivated and farmed land

- Mill, ponds and lade

- 2.3.11 The 1st edition map of 1866 depicts a pond and lade feeding an outbuilding on the 'Milton' farm, before running into Loch Venachar. These are not shown on the 2nd edition map of 1901, suggesting the mill was no longer in use. These features were recorded during the walkover survey.

2.4.1 **Conclusions**

- 2.4.1 Analysis of the available online resources (including National Monument record of Scotland and WoSAS Sites and Monuments Record) and the previous assessments completed on the site show a landscape in which there is potential for the presence of Prehistoric sites in the Milton Glen area.
- 2.4.2 The presence of the 'fermtoun' settlements of Blairgarry and Milton, allied to the mill lade, head dyke and rig and furrow suggests that there may be elements of Pre-Improvement occupation and activity present.
- 2.4.3 The presence of other features such as clearance cairns, field systems and turf and stone banks in the wider landscape demonstrate occupation of the area which cannot be adequately dated.
- 2.4.4 Evidence suggests there is potential along the route of excavations for evidence of occupation dating from the Prehistoric period to the present day.

3 Methodology

3.1 Archaeological Monitoring

- 3.1.1 The methodology adopted by the contractor along the route of the pipeline and access tracks involved the removal of the topsoil along a c.8-10m wide corridor to reveal the undisturbed natural subsoil.
- 3.1.2 In line with the archaeological condition recommended by WoSAS, ARCHAS maintained a watching brief on all ground breaking works associated with the installation of the pipeline south of the modern coniferous plantation. Recording was also completed where the excavations disturbed the head dyke within the trees to the north (Figure 2).

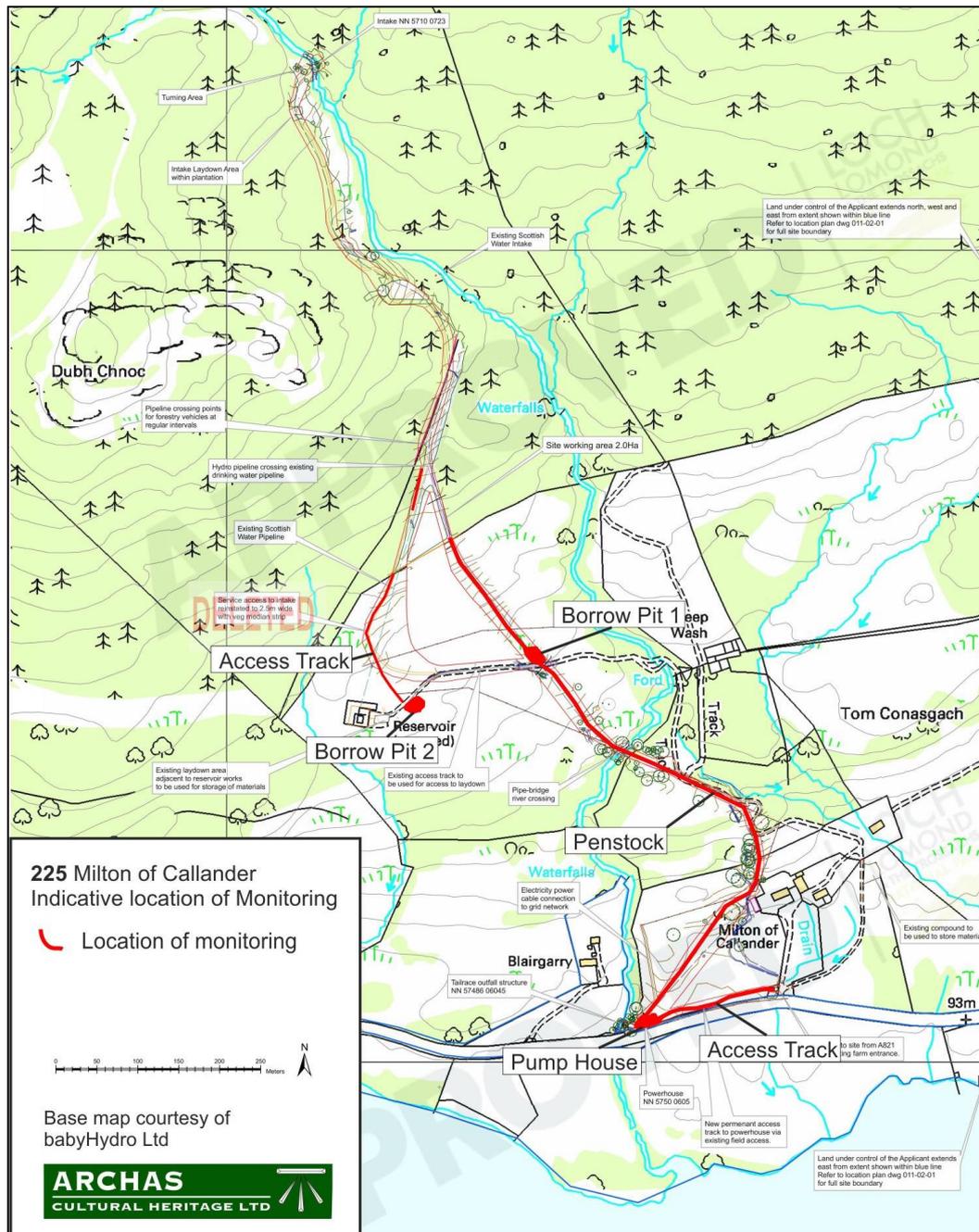


Figure 2: Map showing areas monitored during the watching brief

- 3.1.3 Topsoil was stripped by a mechanical excavator fitted with a toothless bucket under constant archaeological supervision. If any features of archaeological potential were noted, excavation work was halted while these were investigated and recorded to accepted standards as required.
- 3.1.4 A detailed photographic record was maintained of all features and deposits noted. This also included working shots designed to more generally represent the nature of the fieldwork. Details of all photographs taken can be viewed in Appendix B.

4 Results

4.1 General

- 4.1.1 A description of all potentially significant deposits and features identified during the watching brief is provided below. All context numbers for deposits and features are recorded within curved parentheses (**xxx**).
- 4.1.2 While the topsoil and subsoil varied a little across such a large expanse of excavation, these were kept as single deposits and recorded as (**001**) and (**003**) respectively.
- 4.1.3 (**001**) comprised moderately compact mid to dark brown loam. This varied in depth and was noticeably shallower on the steeper slopes, while there was a much greater organic and peat element in the topsoil across the northern limits of the watching brief area.
- 4.1.4 The natural subsoil (**003**) was silty clay with areas of clay silt and gravel. On the whole this was a mixture of orange brown and grey brown.

4.2 The Lade (006)

- 4.2.1 A lade and mill workings (Site **3**) were identified during the 2014 assessment. Two lades were recorded (Sites **3b** and **3c**), both of which were crossed once by the penstock. These were recorded on site as (**006**). At the point of disturbance, **3b** was very well preserved, whereas **3c** was merely a shallow depression notable as a continuation of the more obvious sections to the north and south (Plate 1).



Plate 1: Looking north across lade **3b** (edge of excavations) and **3c** (below treeline) (Photograph 057)

- 4.2.2 Where the penstock cut lade **3b**, this was c.0.50 wide with a depth of >0.50m. The overall depth of the cut lade wasn't clear as the channel had made use of the natural topography to curve around the high ground to the west. Excavation showed this to be a simple excavated channel, with no indication of shoring or stone lining.

4.2.3 At the point of excavation, the second lade channel **3c** was only really visible on its eastern side where the ground dipped slightly from the treeline. Had it not been for the better preserved sections of this feature to the north and south, **3c** would not have merited the description of a lade or channel. The drop from the treeline on the eastern side of the 'lade' was c.0.10m. No features related to the construction of lade **3c** were noted and it must be assumed it was formed by a simple channel excavated through the subsoil in a similar manner to lade **3b**.

4.3 The Head Dykes

Head Dyke (007)

- 4.3.1 The northern limits of the area designated for a watching brief was marked by the presence of a modern coniferous plantation. This plantation was clearly planted along an existing land boundary marked by a 20th century fence and an earlier linear bank or head dyke (**007**). This head dyke was recorded as Site **9** in the 2014 assessment.
- 4.3.2 The head dykes would have been a clear demarcation between the lower lying, improved and more heavily worked farmland from the rough pasture beyond.
- 4.3.3 Preliminary assessment showed head dyke (**007**) to be a well preserved turf bank, possibly containing an element of larger stones.
- 4.3.4 (**007**) was cut in two places during the excavations, with both the access track and the penstock crossing (**007**) in separate locations. In the case of the latter, this area was already much disturbed by earlier forestry work, and the monitored excavations only clipped the edge of the surviving bank, allowing the section to be cleaned, photographed and assessed.
- 4.3.5 The excavations (Plate 2) showed the head dyke (**007**) to be constructed almost entirely from banked, re-deposited natural subsoil. This comprised very clean, firmly compact orange brown gritty clay with a height of c.0.50-1.30m and a width of >1.50m, with gradually sloping sides (Plate 3). There was no evidence of a ditch alongside from which this material had been collated, although the ground to the north was noticeably boggy.



Plate 2: Working shot showing excavations through (007) (Photograph 102)



Plate 3: East facing section of (007) (Photograph 104)

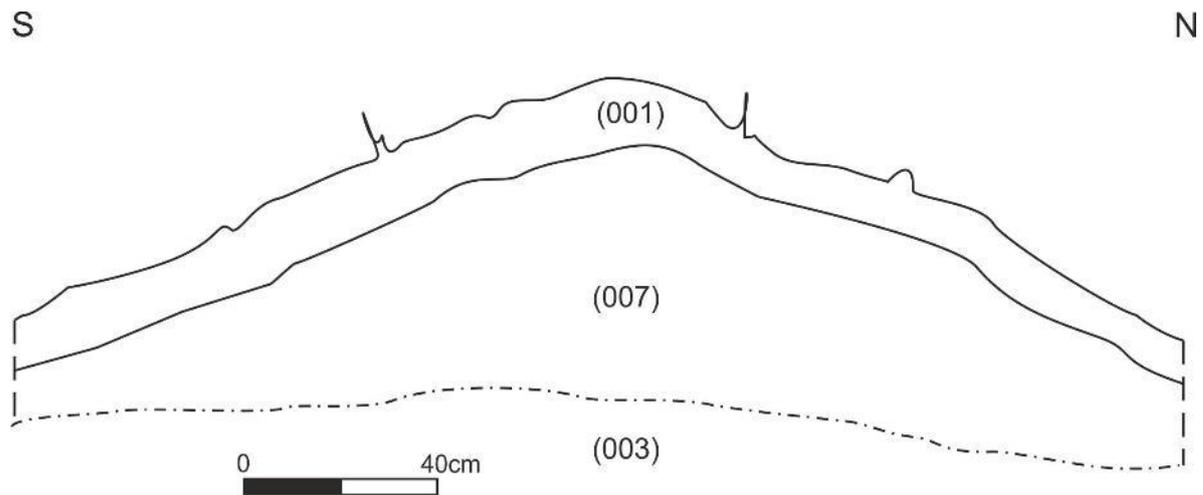


Figure 3: East facing section of Head Dyke (007)

- 4.3.6 A relatively small number of medium to large stones and boulders were recovered from the base of (007). These certainly did not form the core of the head dyke which had clearly been constructed of mounded natural subsoil. It is likely that field stones were perhaps collected from the immediate vicinity where these could be found and placed to help form the base of the bank.

Head Dyke/Drystone wall (008)

- 4.3.7 The head dyke or drystone wall (DSW) (008) recorded in the 2014 assessment as Site 10 ran in a roughly south west to north east direction through the modern coniferous plantation at the northern end of the site.
- 4.3.8 (008) was a much denuded and collapsed drystone wall or field boundary, recorded in 2014 as a head dyke. Like (007), (008) would have been a visible demarcation between the improved and more intensively farmed land, and the unimproved rough grazing or common. The presence of the trees today mask the character of the land, but it would be reasonable to assume that (008) is later than the more rudimentary (007), with the boundary of the farmed infield perhaps pushed northwards as improved farming techniques allowed better exploitation of the land.
- 4.3.9 DSW (008) was located at the south east edge of a break in the trees, adjacent to the natural route of the access track and penstock. The tree break was used to site the excavations as this meant very few trees would need to be removed in advance of works. The presence of a high pressure water main along the south east side of the break meant that space for the excavations was necessarily constricted.
- 4.3.10 While (008) was only actually cut in one location, the placement of the access track along the edge of the trees meant that this often skirted the edge of (008) (Plate 4 and Plate 5).



Plate 4: Looking SW along route of access track. Note DSW (008) along the edge of the road (Photograph 099)



Plate 5: SW facing elevation of (008) (Photograph 100)

4.4 Cultivation evidence

- 4.4.1 The lower slopes of the development around Milton of Callander Farm comprise improved pasture. In areas an intermediate layer of moderately compact mixed grey and brown silty gravel (003) exists between the topsoil (001) and subsoil (003). This is essentially a mixture of the topsoil and subsoil and was predominantly found in the areas alongside the A821.
- 4.4.2 Evidence for rig and furrow was found in the area heather moorland to the north of the Milton of Callander Burn (Plate 6 - Plate 8), predominantly north of the existing access track to the reservoir, corresponding with (and expanding upon) the area of rig and furrow identified in the 2014 assessment as Site 8.



Plate 6: Looking north over an area of rig and furrow visible across Borrow Pit 1 (Photograph 032)



Plate 7: A series of furrows lining the hillside on the access track in the north of the monitored area (Photograph 071)

- 4.4.3 Although this was variable across the site, the linear features tended to be between 1.20 - 2m apart, <0.40m wide and with a shallow depth of 0.05m. The evidence for rig and furrow was recorded as (005) and essentially comprised shallow trenches filled by dark brown topsoil. No dating evidence was recovered from the slots excavated through these.



Plate 8: Evidence of agricultural activity on the penstock in the north of the site (Photograph 089)

4.5 Made Ground

- 4.5.1 In the extreme south west of the proposed development area, in the footprint of the Pump House, an area of made ground (**004**) measuring c.20m² was recorded during excavation. This material contained an abundance of medium sized stones and building material (roughly dressed stones with fragments of bonding material, angular stones, occasional modern lumps of concrete and metallic road signs) (Plate 9). Excavation showed (**004**) to be <0.20m deep.



Plate 9: Excavating made ground (004) (Photograph 019)

5 Summary and Discussion

5.1 General

- 5.1.1 The 2014 archaeological assessment identified the potential for prehistoric occupation evidence to survive across site. However, the primary archaeological concern related to the potential for evidence of pre-improvement farming activity to survive.
- 5.1.2 The mill lade, head dyke and areas of rig and furrow recorded during the 2014 assessment were all noted and recorded during the watching brief.
- 5.1.3 The lade (**006**) was shown to be simple, deep cut channel with no structural integrity.
- 5.1.4 The head dyke (**007**) at the northern end of the site was found to comprise a linear earthen bank of re-deposited natural subsoil. No evidence for stonework was noted incorporated into this, with the exception of occasional stray medium sized stones. Head dyke (**008**) comprised a much denuded drystone wall.
- 5.1.5 It seems unusual that the evidence for cultivation (**005**) was recorded in what today is the more marginal heather moorland in the northern portion of the site, with very little evidence for rig and furrow in the thin soil of the more gently sloping southern part of the site.
- 5.1.6 The area of made ground (**004**) in the south west corner of the development area adjacent to the road is likely an attempt at levelling this area and firming up what may otherwise have been a boggy part of ground in a natural hollow at the foot of the slope. This may also be associated with road works.
- 5.1.7 No previously unrecorded archaeological features or significant artefacts were recovered during the project.

6 Conclusions and Recommendations

6.1 General

- 6.1.1 The archaeological monitoring at Milton of Callander confirmed the existence of the rig and furrow systems recorded in the archaeological assessment of 2014. It also showed the mill lades to be simple channels of little complexity or structure, cut into the natural subsoil. The head dyke running along the treeline at the northern end of the site was shown to be an earthen bank of re-deposited natural subsoil.
- 6.1.2 While all of these elements may relate to the pre improvement farmsteads of Blairgarry and Milton, no other evidence for these was noted during the excavations.
- 6.1.3 The archaeological watching brief failed to reveal any significant, previously unrecorded archaeological features or deposits.
- 6.1.4 ARCHAS Cultural Heritage Ltd do not recommend any further archaeological mitigation associated with this project and recommend the planning condition be discharged.

Acknowledgements

Rory McLeod of Moray Estates and James Hendry of babyHydro Ltd deserve credit for their organisation and their commitment to the Historic Environment, ensuring the project was completed smoothly.

TSL Contractors, and in particular Allan Shields, were helpful in providing updates and regular contact with regards to progress. The flexible nature of the working relationship adopted by both TSL and ARCHAS ensured the project was completed promptly and efficiently. TSL and their staff have our thanks for their good humour and assistance to the archaeologist on site.

Martin O' Hare of the West of Scotland Archaeology Service also deserves our thanks for his assistance during the planning and execution of the project.

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Appendix A Context Register

Context No.	Type	Description	Dimension	Comments	Date	Initial
001	Deposit	Moderately to softly compact mid to dark brown loam. This is much peatier in the northern, upland part of the site.	D: 0.10 - 0.20m	Turf and topsoil	24/02/16	RC
002	Deposit	Moderately compact grey brown silty clay and gravel abundant in small stones	D: <0.20m	Interface layer of mixed ploughsoil from (001) and (003)	24/02/16	RC
003	Deposit	Loose to firmly compact mottled orange brown and grey brown gravel, and clay	-	Undisturbed natural subsoil	24/02/16	RC
004	Deposit	Wide spread of moderately compact mottled mid brown silt and gravel intermixed with abundant large angular stones, rounded stones and occasional modern fragments of Fe sign posts.	D: c.0.25m	Made ground to level corner of field. Contains modern detritus.	25/02/16	RC
005	Features	Linear plough scars found parallel to one another, c.1.20-2m apart. Contain topsoil.	D: 0.05m; W: 0.37m	Evidence of ploughing, found across the upland part of the site N of the Borrow Pits, but also in isolated areas along the penstock.	03/03/16	RC
006	Feature	Irregular linear channel. Heavily overgrown	D: c.1m; W: c.1m	Lade for mill	21/03/16	RC
007	Feature	Linear mound running along north boundary of site. Comprised of mounded re-deposited natural. Very clean, firmly compact orange brown natural subsoil	H: c.0.45-0.50m; W: c. 1.50m	Head dyke	29/03/16	RC
008	Feature	Denuded and collapsed NNE-SSW aligned drystone wall comprised of small to medium angular stones and slabs	-	Head dyke	29/03/16	RC

Appendix B Photographic Register

<i>Image No.</i>	<i>Direction facing</i>	<i>Area</i>	<i>Contexts No.</i>	<i>Description</i>	<i>Date</i>	<i>Initials</i>
001	NW	Compound	-	Working shot - Landscaping previously completed at compound	19/02/16	RC
002	NE	Compound	-	Working shot - Landscaping previously completed at compound	19/02/16	RC
003	W	Access track	-	Working shot - Area of access track completed prior to archaeological supervision	19/02/16	RC
004	SE	Pump House	-	Working shot - Quarry pit for access track completed prior to archaeological supervision	19/02/16	RC
005	E	Access track	-	Working shot - Area of access track completed prior to archaeological supervision	19/02/16	RC
006	E	Access track	-	Working shot - Area of access track completed prior to archaeological supervision	19/02/16	RC
007	SE	Access track	-	Working shot - Area of access track completed prior to archaeological supervision	19/02/16	RC
008	NE	-	-	Pre-excavation view of landscape around mill	24/02/16	RC
009	SE	Access track	-	Working shot - removing topsoil (001) from access track	24/02/16	RC
010	N	-	-	Pre-excavation view of landscape to be crossed by penstock	24/02/16	RC
011	W	Access track	-	Pre-excavation of access track to pump house	24/02/16	RC
012	SW	Access track	-	Working shot - excavating access track to pump house	24/02/16	RC
013	S	Access track	-	Working shot - excavating access track to pump house	24/02/16	RC
014	W	Access track	(003)	Post-excavation view of access track to pump house	24/02/16	RC
015	SE	Access track	(003)	Post-excavation view of access track to pump house	24/02/16	RC
016	SE	Access track	-	Working shot - excavating access track to pump house	24/02/16	RC
017	SE	Access track	-	Working shot - excavating access track to pump house	24/02/16	RC
018	S	Access track	-	Working shot - excavating access track to pump house	25/02/16	RC
019	SE	Pump House	(004)	Working shot - made ground (004) in footprint of pump house	25/02/16	RC
020	W	Pump House	(004)	Working shot - made ground (004) in footprint of pump house	25/02/16	RC
021	N	Penstock	-	Working shot - removing topsoil from penstock	26/02/16	RC
022	NE	Penstock	-	Working shot - removing topsoil from penstock	26/02/16	RC
023	N	Penstock	-	Working shot - removing topsoil from penstock	26/02/16	RC
024	N	Pump House	(003)	Post-excavation view of pump house footprint	26/02/16	RC
025	E	Pump House	(003)	Post-excavation view of pump house footprint	26/02/16	RC
026	WSW	Borrow Pit 1	-	Pre-excavation view of Borrow Pit 1	03/03/16	RC
027	NW	Borrow Pit 1	-	Pre-excavation view of Borrow Pit 1	03/03/16	RC
028	NE	Borrow Pit 1	-	Working shot - stripping topsoil from borrow pit 1	03/03/16	RC

<i>Image No.</i>	<i>Direction facing</i>	<i>Area</i>	<i>Contexts No.</i>	<i>Description</i>	<i>Date</i>	<i>Initials</i>
029	S	Borrow Pit 1	-	Working shot - stripping topsoil from borrow pit 1	03/03/16	RC
030	S	Borrow Pit 1	-	Working shot - stripping topsoil from borrow pit 1	03/03/16	RC
031	W	Borrow Pit 1	-	Working shot - stripping topsoil from borrow pit 1	03/03/16	RC
032	N	Borrow Pit 1	(005)	Post-excavation view of Borrow Pit 1 showing rig and furrow (005)	03/03/16	RC
033	W	Borrow Pit 1	(005)	Post-excavation view of Borrow Pit 1 showing rig and furrow (005)	03/03/16	RC
034	W	Borrow Pit 1	(005)	Pre-excavation view of rig and furrow (005)	03/03/16	RC
035	W/V	Borrow Pit 1	(005)	Post-excavation view of slot through rig and furrow (005)	03/03/16	RC
036	W	Borrow Pit 1	(005)	E facing section of slot through rig and furrow (005)	03/03/16	RC
037	W	Borrow Pit 1	(005)	E facing section of slot through rig and furrow (005)	03/03/16	RC
038	S	Borrow Pit 1	-	Working shot - Location of Borrow Pit 1	03/03/16	RC
039	S	Borrow Pit 1	-	Working shot - Location of Borrow Pit 1	03/03/16	RC
040	SW	Borrow Pit 1	-	Working shot - Location of Borrow Pit 1	03/03/16	RC
041	NW	Borrow Pit 1	(005)	Post-excavation view of Borrow Pit 1 showing rig and furrow (005)	04/03/16	RC
042	NW	Borrow Pit 1	(005)	Post-excavation view of Borrow Pit 1 showing rig and furrow (005)	04/03/16	RC
043	E	Borrow Pit 2	-	Pre-excavation view of Borrow Pit 2	04/03/16	RC
044	E	Borrow Pit 2	-	Working shot - Excavating Borrow Pit 2	04/03/16	RC
045	SE	Borrow Pit 2	-	Working shot - Excavating Borrow Pit 2	04/03/16	RC
046	N	Penstock	-	Working shot - stripping topsoil	07/03/16	RC
047	NW	Penstock	-	Working shot - stripping topsoil	07/03/16	RC
048	NE	Penstock	-	Working shot - stripping topsoil	07/03/16	RC
049	E	Penstock	-	Pre-excavation view of lade area	07/03/16	RC
050	N	Penstock	-	Pre-excavation view of lade area	07/03/16	RC
051	W	Penstock	-	Pre-excavation view of lade area	07/03/16	RC
052	N	Penstock	(006)	Pre-excavation view of lade (006)	07/03/16	RC
053	N	Penstock	(006)	Pre-excavation view of lade (006)	08/03/16	RC
054	W	Penstock	-	Working shot - stripping topsoil	08/03/16	RC
055	N	Penstock	(006)	Working shot - excavating around lade (006)	08/03/16	RC
056	NW	Penstock	(006)	Working shot - excavating around lade (006)	08/03/16	RC
057	N	Penstock	(006)	Working shot - excavating around lade (006)	08/03/16	RC
058	S	Penstock	(006)	Working shot - excavating around lade (006)	08/03/16	RC
059	S	Penstock	(006)	Working shot - excavating around lade (006)	08/03/16	RC
060	N	Penstock	-	Working shot - Location of excavations	08/03/16	RC
061	N	Penstock	-	Working shot - Location of excavations	08/03/16	RC
062	SE	Penstock	-	Working shot - stripping topsoil	21/03/16	RC
063	NE	Penstock	(006)	Working shot - excavating around lade (006)	21/03/16	RC
064	NW	Penstock	(006)	Working shot - excavating around lade (006)	21/03/16	RC
065	S	Penstock	(006)	Working shot - excavating around lade (006)	21/03/16	RC
066	N	Penstock	-	Working shot showing challenging topography	21/03/16	RC
067	SE	Penstock	-	Working shot - stripping topsoil	22/03/16	RC
068	N	Penstock	-	Working shot - stripping topsoil	22/03/16	RC

Image No.	Direction facing	Area	Contexts No.	Description	Date	Initials
069	ENE	Access track	-	Working shot - Stripping topsoil of layby on access track	29/03/16	RC
070	N	N Access Track	(005)	Working shot - stripping topsoil to reveal rig and furrow (005)	29/03/16	RC
071	NE	N Access Track	(005)	Working shot - stripping topsoil to reveal rig and furrow (005)	29/03/16	RC
072	N	N Access Track	(005)	Working shot - stripping topsoil to reveal rig and furrow (005)	29/03/16	RC
073	NW	N Access Track	(005)	Working shot - stripping topsoil to reveal rig and furrow (005)	29/03/16	RC
074	SE	N Access Track	(005)	Working shot - stripping topsoil to reveal rig and furrow (005)	29/03/16	RC
075	S	N Access Track	(005)	Working shot - stripping topsoil to reveal rig and furrow (005)	29/03/16	RC
076	SW	N Access Track	-	Working shot - stripping topsoil	29/03/16	RC
077	N	N Access Track	(005)	Working shot - stripping topsoil to reveal rig and furrow (005)	29/03/16	RC
078	E	N Access Track	(007)	Working shot - Cutting the head dyke (007)	29/03/16	RC
079	E	N Access Track	(007)	Working shot - Cutting the head dyke (007)	29/03/16	RC
080	E	N Access Track	(007)	Working shot - Cutting the head dyke (007)	29/03/16	RC
081	S	Penstock	-	Working shot - stripping topsoil	31/05/16	RC
082	S	Penstock	-	Working shot - stripping topsoil	31/05/16	RC
083	S	Penstock	-	Working shot - stripping topsoil	31/05/16	RC
084	S	Penstock	-	Working shot - stripping topsoil	31/05/16	RC
085	S	Penstock	-	Working shot - stripping topsoil	31/05/16	RC
086	S	Penstock	-	Working shot - stripping topsoil	31/05/16	RC
087	S	Penstock	-	Working shot - stripping topsoil	31/05/16	RC
088	S	Penstock	-	Working shot - stripping topsoil	31/05/16	RC
089	NW	Penstock	(005)	Working shot - rig and furrow (005) visible during excavation	31/05/16	RC
090	NW	Penstock	(005)	Working shot - rig and furrow (005) visible during excavation	31/05/16	RC
091	S	Penstock	-	Working shot - stripping topsoil	31/05/16	RC
092	W	Penstock	(007)	Pre-excavation view of head dyke (007)	31/05/16	RC
093	W	Penstock	(007)	Pre-excavation view of head dyke (007)	31/05/16	RC
094	W	Penstock	(007)	Pre-excavation view of head dyke (007)	31/05/16	RC
095	E	Penstock	(007)	Pre-excavation view of head dyke (007)	31/05/16	RC
096	E	Penstock	(007)	Pre-excavation view of head dyke (007)	31/05/16	RC
097	N	Penstock	-	Working shot - route of penstock into tree line	31/05/16	RC
098	S	Access track	-	Access track in tree line bordered by DSW	31/05/16	RC
099	S	Access track	-	Access track in tree line bordered by DSW	31/05/16	RC
100	W	Access track	-	E facing section of access track through woods showing DSW	31/05/16	RC
101	SE	Penstock	(007)	Working shot - cutting head dyke (007)	31/05/16	RC
102	S	Penstock	(007)	Working shot - cutting head dyke (007)	31/05/16	RC
103	W	Penstock	(007)	E facing section of head dyke (007)	31/05/16	RC
104	W	Penstock	(007)	E facing section of head dyke (007)	31/05/16	RC
105	W	Penstock	(007)	E facing section of head dyke (007)	31/05/16	RC
106	SW	Penstock	(007)	E facing section of head dyke (007)	31/05/16	RC

Image No.	Direction facing	Area	Contexts No.	Description	Date	Initials
107	W	Penstock	(007)	E facing section of head dyke (007) - S part	31/05/16	RC
108	W	Penstock	(007)	E facing section of head dyke (007) - middle part	31/05/16	RC
109	W	Penstock	(007)	E facing section of head dyke (007) - N part	31/05/16	RC

Appendix C Provisional Discovery and Excavation Scotland Entry

LOCAL AUTHORITY:	Stirling Council
PROJECT TITLE/SITE NAME:	Milton of Callander
PROJECT CODE:	225
PARISH:	Callander
NAME OF CONTRIBUTOR:	Ross Cameron
NAME OF ORGANISATION:	ARCHAS Cultural Heritage Ltd
TYPE(S) OF PROJECT:	Archaeological Watching Brief
NMRS NO(S):	N/A
SITE/MONUMENT TYPE(S):	N/A
SIGNIFICANT FINDS:	None
NGR (2 letters, 8 or 10 figures)	NN 57509 06055 – NN 57126 07257
START DATE (this season)	05/01/16
END DATE (this season)	31/05/16
PREVIOUS WORK (incl. <i>DES</i> ref.)	-
MAIN (NARRATIVE) DESCRIPTION: (May include information from other fields)	<p>ARCHAS Cultural Heritage Ltd were appointed by babyHydro Ltd on behalf of Annet Burn Hydro Ltd to undertake a programme of archaeological monitoring during ground breaking works associated with the construction of a small scale hydroelectric power scheme at Milton Glen, near Callander. The scheme is sited on the north slopes above Loch Venachar in the Stirling Council area, but within the Loch Lomond and the Trossachs National Park. Development includes construction of an intake (weir) in the burn; trenching and burying of a penstock (high pressure pipe); construction of a powerhouse; construction of a tailrace to return the water to the burn; and a connection to the Grid.</p> <p>The archaeological monitoring followed the completion of an archaeological assessment in 2014 which identified a mill lade, an area of rig and furrow and two head dykes which would be impacted by development. The assessment also identified the possibility of prehistoric remains surviving along the route.</p> <p>No previously unrecorded archaeologically significant deposits or artefacts were recovered during the project. The rig and furrow was recorded, as were the head dykes, while the lade was shown to be simple, deep cut channel. ARCHAS Ltd recommend that no further archaeological mitigation be required on site and the planning condition can be discharged.</p>
PROPOSED FUTURE WORK:	n/a
CAPTION(S) FOR ILLUSTRS:	n/a
SPONSOR OR FUNDING BODY:	Annet Burn Hydro Ltd
ADDRESS OF MAIN CONTRIBUTOR:	ARCHAS Cultural Heritage Ltd Suite B2 Laws Close 339-343 High Street Kirkcaldy KY1 1JN
EMAIL ADDRESS:	ross.cameron@archas.co.uk
ARCHIVE LOCATION	NMRS and Perth and WoSAS SMR (intended)