

Archaeological Desk-Based
Assessment and Walkover Survey
Dubh Choirein
Glen Artney
Comrie
Perth and Kinross

CM07



Pipeline route looking towards Ben Vorlich and Stùc a' Chroin

For Campbell of Doune Ltd on behalf of Drummond Estates

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**ARCHAEOLOGICAL
DESK-BASED ASSESSMENT &
WALKOVER SURVEY
DUBH CHOIREIN
GLEN ARTNEY
COMRIE
PERTH AND KINROSS**

<i>1</i>	<i>Introduction.....</i>	<i>1</i>
<i>2</i>	<i>Methodology and Approach.....</i>	<i>1</i>
<i>3</i>	<i>Results.....</i>	<i>2</i>
<i>4</i>	<i>Mitigation and Recommendations</i>	<i>7</i>
	<i>References</i>	<i>10</i>
<i>Appendix 1</i>	<i>Sites Identified in Desk-Based Assessment</i>	<i>12</i>
<i>Appendix 2</i>	<i>Sites Outside the Study Area Affected by Proposed Development.....</i>	<i>13</i>
<i>Appendix 3</i>	<i>Further Sites Discovered in Walkover Survey</i>	<i>15</i>
<i>Appendix 4</i>	<i>Photographic Register</i>	<i>18</i>
<i>Appendix 5</i>	<i>Discovery & Excavation in Scotland Entry</i>	<i>21</i>
<i>Appendix 6</i>	<i>Criteria for Assessment of Significance.....</i>	<i>22</i>

Illustration 1: Location of Sites

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ABSTRACT

Alder Archaeology was commissioned by Campbell of Doune Ltd on behalf of their client, Drummond Estates, to undertake a desk-based assessment and walkover survey of a proposed mini-hydro scheme in Glen Artney, Perth and Kinross. The Alder site code for the project is CM07. The proposed pipeline follows part of the presumed course of a Roman road between Bochastle and Dalginross and a former medieval/drove road between Comrie and Callander, on which a bridge was under construction in 1780 at 'Dalchlachat' (Dalclathick?) The walkover revealed two revetments along the bank of the Water of Ruchill and a pre-agricultural improvement stone boundary dyke. No definite trace of the possible Roman road was observed, although two former bridges across the Allt an Dubh Choirein were as previously described.

1 Introduction

1.1 Introduction

Campbell of Doune Ltd, on behalf of their client, Drummond Estates, commissioned Alder Archaeology Ltd to undertake an archaeological desk-based assessment and walkover survey on the site of a proposed hydroelectric scheme in Glen Artney, Comrie, Perth and Kinross. Alder Archaeology were informed on the eve of the Walkover that the locations of the Powerhouse and Outfall had been changed but the plan was not available until after the first day of the Walkover, which was conducted on the base plan for the original proposed pipeline route. This Desk-based Assessment covers both the original and new locations for the Powerhouse and Outfall.

The proposed pipeline is on the north side of the Allt an Dubh Choirein, from an intake at NN 62115 15615 to a powerhouse at NN 69510 15249 (formerly NN 69730 15780) and an outfall on the Water of Ruchill at NN 69544 15222 (formerly NN 69755 15768). The site is predominantly hill pasture, currently for sheep, with two areas of non-coniferous woodland and one coniferous woodland.

This programme of archaeological works has been undertaken as part of the background scoping exercise for a planned hydro-electric scheme. Planning permission has not yet been sought.

1.2 Objectives

The main aim of this desk-based assessment and walkover was to establish the presence/absence, date, character and quality of any archaeological remains surviving within the development area. The results of this assessment have been used to inform future mitigation strategies for this area of the proposed development.

2 Methodology and Approach

Alder Archaeology Ltd abides by the Codes of Conduct and Approved Practice and Standards of the Institute for Archaeologists.

2.1 Desk-Based Assessment

A rapid desk-based study of the proposed development area was undertaken, involving the examination of all readily available information sources relevant to the area. The following sources of information were searched:

- *Historic Scotland*: the Schedule was checked for any Scheduled Ancient Monuments or listed buildings within or close to the proposed development area..
- *The Royal Commission on the Ancient and Historical Monuments of Scotland (RCAHMS)*: sites recorded in the National Monuments Record of Scotland (NMRS) and vertical aerial photographs held in the Air Photographs Collection were examined.
- *Perth and Kinross Historic Environment Record (PKHER)*: no additional sites were recorded in the local HER.

- *The Map Library of the National Library of Scotland*: all Ordnance Survey and pre-Ordnance Survey maps of the area were examined.
- *The National Records of Scotland*: one estate plan relevant to the proposed development area was found and some correspondence to the Forfeited Estate Commissioners from the parish minister of Comrie and others concerning bridges over the Water of Ruchill: one proposed on the road between Crieff and Aberuchill (not built?) and another being built in 1780 at ‘Dalchlachat’ (Dalclathick?).
- *Any previous research relevant to the area*: the routes of a possible Roman road between the forts at Bochastle, near Callander and Dalginross, Comrie, and of an old drove road between Callander and Comrie have been recorded in previous surveys in 1979, 1985 and 2002 (*DES* 1979, 43; *DES* 1985, 51; *DES* 2002, 91-2).

2.2 Walkover

The Walkover was conducted by two archaeologists on the 19 and 20 November 2013. The first day was cold, dry, sunny and windy weather; the second day was cold and showery, with some sunny intervals and occasional sleet flurries. The ground conditions were generally dry, locally wet on the first day, generally wet after overnight rain and a dusting of snow on the second day. The terrain was partially obscured by long grass and dying bracken. Investigations focused particularly on areas identified in the Desk-Based Assessment as presenting a particularly high probability of past human activity. The proposed pipeline passes through an area of non-coniferous woodland, enclosed behind a deer fence, in Gleann an Dubh Choirein and a coniferous woodland on Monadh Odhar behind an electric fence; these were not investigated in the Walkover. The pipeline route was not marked out, except for the location of the original outfall.

All archaeological features encountered were logged using monument record sheets, photographed and planned in sketch, and their map reference numbers located using a GPS system. Modern landmarks and features were also recorded, in order to calibrate the GPS record and tie it securely to the base map.

3 Results

All sites identified during this project are discussed below and summarised in Table 1 (within the development area) and Table 2 (outwith the development area). Italicised numbers in brackets are identifiers assigned as part of this study. Site locations are shown in Illus 1. A full gazetteer of sites identified in the both the Desk-Based Assessment and Walkover is given in Appendices 1-3 at the end of this report.

3.1 Cartographic Sources

Early historic maps by Pont (c1583-96), Roy (1747-55), Stobie (1783), Stobie (1805) and Thomson (1827) and an estate plan by John Leslie (1772) were examined.

Pont shows a settlement at ‘Achnashellach’ on the E side of Ben Vorlich, possibly Auchinner (6).

Roy shows settlements on both sides of the un-named stream (Allt Strath a’ Ghlinne) at ‘Achennie’, of which the western settlement is probably Auchinner (6).

Leslie shows that the land through which the proposed pipeline will pass was part of the farm of Auchinner on the forfeited estate of Perth. The farmstead comprised two clusters of buildings (6, 7), the 'Over and Nether Auchinners' listed in the Abstract. The settlements are surrounded by arable land in the angle of the confluence of the 'Water of Strachline' (Allt Strath a' Ghlinne) and the 'Water of Rouchell' (Ruchill). The old road (1) between Comrie and Callander is shown. The Allt an Dubh Choirein is called the 'Water of Griehan'.

Stobie in 1783 shows 'Glen Graehan' for Gleann an Dubh Choirein, a settlement at Auchinner (6) and a road (1) from Callander to Comrie by Glen Artney. In 1805 he shows only a settlement at 'Achinnar' (6).

Thomson shows 'Glen Grachan' for Gleann an Dubh Choirein, a settlement at Auchinner (6) and the road (1) from Callander to Comrie through Glen Artney.

The OS 'First Edition' shows a settlement of three buildings, one with two attached enclosures, and a well at Auchinner (6), and an un-named settlement (7) of five buildings and an enclosure to its S. A direct track (8) links the two settlements, as well as another (9) curving to the W alongside a boundary (10), while another track (11) leads from Auchinner to a bridge over the Water of Ruchill. A boundary (33) follows the W bank of the Water of Ruchill at the location of the new Outfall. A boundary (12) crosses the old road (1) from Comrie to Callander. A 'Footpath' (13) on N side of the Allt an Dubh Choirein branches off the old road (1).

The OS Second Edition shows a settlement of eight buildings and five enclosures at Auchinner (6), and two roofed and one unroofed building at the settlement (7) to its S. The boundary (33) by the Water of Ruchill is not shown. A new boundary (38) is shown. The previous boundary (12) across the old road (1) is no longer shown but a new boundary (14) is shown and another new boundary (15) crosses the footpath (13). A footpath (16) leads from the old road to Glenartney Lodge.

By 1977 the two tracks (8, 11) at Auchinner are no longer shown but a new boundary has been erected (17). The boundary along the Water of Ruchill (33) is shown again as is a track (30). The path (16) to Glenartney Lodge is not shown. Three other new boundaries have also been erected (18-20).

In 2001 a new path (21) to Glenartney Lodge is shown and conifers have been planted beside the boundary (18). Non-coniferous trees have been planted near Auchinner and the proposed Intake by 2010.

3.2 Aerial Photographs

The aerial photographs confirm the cartographic evidence. The terrain is open hill pasture, crossed by streams and drainage ditches, with some agriculture at Auchinner. By 1947 and 1948 the track (11) was still apparent but not the track (8) and a new path or track (21) had replaced the southern end of the former footpath (16) to Glenartney Lodge. A linear feature (22) is evident to the S of Glenartney Lodge. The boundary (18) was evident. By 1988 the track (11) was not evident and the land E of boundary (18) was ploughed for trees.

3.3 Sites found during Walkover

Two revetments (23, 32) along the bank of the Water of Ruchill represent attempts to prevent erosion of the river bank by the spates of the Water of Ruchill. The former revetment is covered by a line of mature trees. The latter revetment borders a step in a natural terrace and seems to have been adapted from a natural rock face at its N end exposed by floodwaters of the Ruchill, built on with large boulders. Of the remaining sites, the former boundary (28), which meanders across a hillside, probably predates the agricultural improvements of the 18th and 19th centuries. The remaining sites are of little archaeological interest and mainly reflect current deer stalking or grouse shooting on the estate.

3.4 Sites with Statutory Designation

There are no Scheduled Ancient Monuments or Listed Buildings within the study area.

3.5 Sites with no Statutory Designation

All the sites recorded within the study area have no statutory designation. This does not mean that they may not have some local or even national importance.

The most important site on the pipeline route is the old road (1) between Callander and Comrie. The date of the road is unknown, but it seems to have followed an earlier road, possibly a Roman road between the forts of Bochart, near Callander, and Dalginross, Comrie. A previous survey suggested that the (Roman?) road SW of Auchinner, alongside three fields, may have been on the N side of the old road at the first and third fields and on the S side alongside the second field, continuing more or less directly to a ford (2) across the Allt an Dubh Choirein. The presence of three former crossing points on the Allt an Dubh Choirein, two bridges (4, 5) and a ford (2), indicate the importance of the route into the late 18th century, if not the 19th century, and the need to cross the river before the present bridge. The road was still being used by drovers in the mid-19th century (NRAS 2654). Elsewhere, probably to the east of the proposed pipeline, a bridge across the Water of Ruchill was being constructed in 1780 at 'Dalchlach' (Dalclathick?; cf Leslie 1772: 'Dalthlathicks' for Dalclathick) (NRS, E777/92/3). The footpath (13) led past a settlement of two buildings and a sheepfold at Dubh Choirein, recorded on the OS 'First Edition', over the E side of Ben Vorlich to Ardvorlich on the S side of Loch Earn.

Since Glen Artney was a royal hunting forest, farming settlements or fermtouns would have been prohibited. A fermtoun at Auchinner (6, 7), with arable land and paths (8, 9, 11), was in existence by the mid-18th century, if not the late 16th century, but it is unclear when it was founded. The presence of a possible shieling hut (3) nearby, and of others on the E side of the Water of Ruchill, suggests that pastoral farming had been introduced before the agricultural improvements of the late 18th century, possibly after Glen Artney had ceased to be a royal hunting forest after 1603.

Two revetments (23, 32) along the W bank of the Water of Ruchill represent attempts to prevent erosion of the river bank by that river in spate; the latter revetment is set into a step in the river terrace, possibly along a former channel of the river. A drystone dyke (33) along the W bank of the river controlled livestock from straying into the river. An old drystone wall of large natural boulders (28), meandering along

the hillside before turning towards the Allt an Dubh Choirein, is the remains of a pre-improvement field boundary.

Most of the other sites along the pipeline route are boundaries and features of little or no significance, representing the current use of the land for deer stalking, grouse shooting or farming.

3.6 Assessment of Significance (see Appendix 6 for criteria)

Only sites directly affected by the proposed pipeline and its associated works are considered here.

No sites within the study area are considered to be of exceptional significance.

The old road between Comrie and Callander (1) is of considerable significance, as it follows a medieval route between Glasgow and Strathearn. No definite evidence (quarry pits or causeway) was found in the Walkover of the Roman road by Glen Artney between the forts at Bochastle near Callander and Dalginross, Comrie, although it has been recorded SW and NE of the study area.

The footpath (13) is of some significance as it follows an old route over to Ardvorlich and Loch Earn. The old boundary (28) is of some significance as it is a relic of the pre-improvement farming system. The revetment (32) is also of some significance as it represents an attempt to prevent erosion of the river bank; its construction is similar to the old boundary (28) and it may be of similar date: large natural boulders, glacial erratics or waterborne boulders. The old boundary is completely unlike the ‘ordinary’ drystone dyke (33).

The other sites within the study area are considered of little significance.

3.7 Table 1: Summary of Sites of Cultural Heritage Interest Inside the Study Area

<i>Medieval / Post-Medieval</i>				
<i>No</i>	<i>NMRS No</i>	<i>Name</i>	<i>Type</i>	<i>Significance</i>
1	NS61SE 3	Upper Glen Artney	Track (Roman road?)	Considerable
13	None	Gleann an Dubh Choirein	Footpath	Some
28	None	Monadh Odhar	Boundary	Some
32	None	Water of Ruchill	Revetment	Some
33	None	Water of Ruchill	Boundary	Some
<i>Modern</i>				
<i>No</i>	<i>NMRS No</i>	<i>Name</i>	<i>Type</i>	<i>Significance</i>
12	None	Monadh Odhar	Boundary	Little
14	None	Monadh Odhar	Boundary	Little

15	None	Gleann an Dubh Choirein	Boundary	Little
16	None	Glenartney Lodge	Footpath	Little
18	None	Monadh Odhar	Boundary	Little
19	None	Gleann an Dubh Choirein	Boundary	Little
20	None	Gleann an Dubh Choirein	Boundary	Little
21	None	Glenartney Lodge	Footpath	Little
26	None	Glenartney Lodge	Footbridge	Little
27	None	Monadh Odhar	Bridleway	Little
30	None	Auchinner	Track	Little
31	None	Auchinner	Boundary	Little
34	None	Gleann an Dubh Choirein	Footbridge	Little
35	None	Gleann an Dubh Choirein	Footbridge	Little
36	None	Gleann an Dubh Choirein	Causeway	Little
37	None	Gleann an Dubh Choirein	Footbridge	Little
38	None	Monadh Odhar	Boundary	Little
<i>Unknown</i>				
29	None	Monadh Odhar	Quarry (possible)	Little

3.8 Table 2: Summary of Sites of Cultural Heritage Interest Outside the Study Area

<i>Medieval / Post-Medieval</i>				
<i>No</i>	<i>NMRS No</i>	<i>Name</i>	<i>Type</i>	<i>Significance</i>
2	NS61SE 2	Allt an Dubh Choirein	Track (Roman road?)	Considerable
3	NN61SE 7	Monadh Odhar	Shieling hut (possible)	Some
4	NN61SE 12	Allt an Dubh Choirein	Bridge	Some
5	NN61SE 13	Allt an Dubh Choirein	Bridge	Some
6	None	Auchinner	Farmstead	Some

7	None	Auchinner	Farmstead	Some
8	None	Auchinner	Track	Little
9	None	Auchinner	Track	Little
10	None	Auchinner	Boundary	Little
11	None	Auchinner	Track	Little
23	None	Auchinner	Revetment	Some
<i>Modern</i>				
17	None	Auchinner	Boundary	Little
24	None	Auchinner	Bridge	Some
25	None	Auchinner	Quarry	Little
<i>Unknown</i>				
<i>No</i>	<i>NMRS No</i>	<i>Name</i>	<i>Type</i>	<i>Significance</i>
22	None	Glenartney Lodge	Boundary?	Some

4 Mitigation and Recommendations

4.1 Sites inside the Study Area

At worst, development may destroy archaeological sites completely, or, at best, avoid them completely. It is the aim of this assessment to determine the likely threats to and impacts upon sites and to suggest appropriate mitigation measures. Archaeological features can be impacted directly by development, or indirectly by affecting issues such as setting. Likewise, measures such as the re-direction of watercourses or drainage of waterlogged areas may indirectly affect sites by changing the preservation of the environment. Sensitivity varies with each archaeological site but, in general, any ground disturbance greatly affects buried remains: hence current legislation and guidance tends towards preservation in situ.

4.1.1 Threats

The proposed development will involve the cutting of a trench, in which the pipe will be laid, on the N side of the Allt an Dubh Choirein and the Water of Ruchill from its intake to a powerhouse to be constructed at the outfall. At both the intake and outfall, temporary construction/laydown areas, 30m by 30m, will be constructed with a temporary access, 3m wide, from the existing footpath (I3) to the intake. In addition, along the length of the pipeline a working corridor, 6m wide, will be required for movement of vehicles, machinery, equipment and spoil. Finally, the existing track/old road (I) and footpath (I3) will become the construction and permanent access route. These all have the potential to cause ground disturbance.

Any activities involving ground disturbance have the potential to cause damage to underlying archaeological remains but, if carefully sited, significant damage to known remains can be avoided. They will need to be carefully controlled in order to avoid

any damage to known archaeological remains nearby, and could result in damage to any unknown archaeological remains that may be present.

4.1.2 Impacts

In line with current legislation, there should be a general predisposition for preservation in situ. Of the sites within the study area, only one is considered to be of considerable archaeological importance, the old road (1), which is the successor to a medieval road between Callander and Comrie and possibly of a Roman road between Bochart and Dalginross. The footpath (13) is of some significance as it represents an old routeway between Glen Artney and Loch Earn. Both these routes are to become the construction and permanent access routes for the proposed pipeline. Before they are upgraded trial excavations across both routes should be undertaken to establish their composition and to look for dating evidence. This would be followed by an archaeological watching brief during the cutting of the pipeline trench in the area of the possible Roman road.

The boundary (33) and revetment (32) are linear features that cannot be avoided by the proposed pipeline route. If possible the pipeline should be routed to the W of the revetment (32) and make use of a gap in the boundary wall (33) for the outfall. If this is not possible, any damage to them should be kept to a minimum. The old pre-improvement boundary should be avoided.

The other sites are not considered of sufficient significance to merit any mitigation.

These recommendations are made subject to the views of Perth and Kinross Heritage Trust, who advise Perth and Kinross Council on archaeological matters.

4.2 Sites Outside the Study Area

The proposed development is not considered to have any impact on sites outside the study area.

4.3 Summary Table of Recommendations

<i>Site No</i>	<i>Archaeological description / site type</i>	<i>Threat from:</i>	<i>Potential result:</i>	<i>Mitigation</i>
1	Upper Glen Artney, Callander to Comrie road	Upgrade for construction traffic	Destruction / Damage	Trial excavation; archaeological watching brief in area of possible Roman road
2	Allt an Dubh Choirein, ford	No threat		None
3	Monadh Odhar, shieling hut (possible)	No threat		None
4	Allt an Dubh Choirein, bridge	No threat		None
5	Allt an Dubh Choirein, bridge	No threat		None
6	Auchinner, fermtoun	No threat		None

<i>Site No</i>	<i>Archaeological description / site type</i>	<i>Threat from:</i>	<i>Potential result:</i>	<i>Mitigation</i>
7	Auchinner, fermtoun	No threat		None
8	Auchinner, track	No threat		None
9	Auchinner, track	No threat		None
10	Auchinner, boundary	No threat		None
11	Auchinner, track	No threat		None
12	Monadh Odhar, boundary	Construction	Destruction / Damage	None
13	Gleann an Dubh Choirein, footpath	Upgrade for construction traffic	Destruction / Damage	Trial excavation
14	Monadh Odhar, boundary	Construction	Destruction / Damage	None
15	Gleann an Dubh Choirein, boundary	Construction	Destruction / Damage	None
16	Glenartney Lodge, path	Construction	Destruction / Damage	None
17	Auchinner, boundary	No threat		None
18	Monadh Odhar, boundary	Construction	Destruction / Damage	None
19	Gleann an Dubh Choirein, boundary	Construction	Destruction / Damage	None
20	Gleann an Dubh Choirein, boundary	Construction	Destruction / Damage	None
21	Glenartney Lodge, path	Construction	Destruction / Damage	None
22	Glenartney Lodge, boundary?	No threat		None
23	Water of Ruchill, revetment	No threat		None
24	Water of ruchill, bridge	No threat		None
25	Auchinner, quarry	No threat		None
26	Glen Artney Lodge, footbridge	Construction	Destruction / Damage	None
27	Monadh Odhar,bridleway	Construction	Destruction / Damage	None

<i>Site No</i>	<i>Archaeological description / site type</i>	<i>Threat from:</i>	<i>Potential result:</i>	<i>Mitigation</i>
28	Monadh Odhar, boundary	Construction	Destruction / Damage	Avoid
29	Monadh Odhar, possible quarry	Construction	Destruction / Damage	None
30	Auchinner, track	Construction	Destruction / Damage	None
31	Auchinner, boundary	Construction	Destruction / Damage	None
32	Water of Ruchill, revetment	Construction	Destruction / Damage	Cannot be avoided on existing route; avoid if possible, otherwise keep damage to a minimum
33	Water of Ruchill, boundary	Construction	Destruction / Damage	Cannot be avoided on existing route; avoid if possible, otherwise keep damage to a minimum
34	Gleann an Dubh Choirein, footbridge	No threat		None
35	Gleann an Dubh Choirein, footbridge	No threat		None
36	Gleann an Dubh Choirein, causeway	Upgrade for construction traffic	Destruction / Damage	None
37	Gleann an Dubh Choirein, footbridge	Upgrade for construction traffic	Destruction / Damage	None

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Appendix 1 Sites Identified in Desk-Based Assessment

<i>No</i>	<i>Name</i>	<i>Type of Monument</i>	<i>Significance</i>	<i>Period</i>	<i>NMRS No</i>	<i>NGR (NN)</i>	<i>Current Condition / Description</i>	<i>Dimensions</i>	<i>Statutory Designation</i>
1	Upper Glen Artney, Callander to Comrie road	Old road	Considerable	Roman?, Medieval, Post-medieval	NN61SE 3	681 146 – 693 154	Fair; roughly metalled road of cobbles and pebbles	c2m wide	None
12	Monadh Odhar	Boundary	Little	Modern	None	687 149	Good; wooden post and wire fence	1.1m high	None
13	Gleann an Dubh Choirein	Footpath	Some	Post-medieval	None	688 152	Poor; roughly metalled track of cobbles and pebbles, grassed over in places, except for tyre tracks; very wet and boggy in places; crosses burns by fords	c2.2m wide	None
14	Monadh Odhar	Boundary	Little	Modern	None	690 152	Good; wooden post and wire fence with metal gate across across road; electric fence on N side of road; deer fence alongside on N side	1.13m high on S side; 0.9m high on N side of road	None
15	Gleann an Dubh Choirein	Boundary	Little	Modern	None	675 147	Good; wooden post and wire fence	1.04m high	None
16	Glenartney Lodge	Footpath	Little	Modern	None	685 148	Fair; drain? on site of former footpath	0.9m wide, 0.6m deep	None
18	Monadh Odhar	Boundary	Little	Modern	None	680 149	Good; electric deer fence with metal gate across road	2.03m high	None

<i>No</i>	<i>Name</i>	<i>Type of Monument</i>	<i>Significance</i>	<i>Period</i>	<i>NMRS No</i>	<i>NGR (NN)</i>	<i>Current Condition / Description</i>	<i>Dimensions</i>	<i>Statutory Designation</i>
19	Gleann an Dubh Choirein	Boundary	Little	Modern	None	672 150	Poor; wooden post and wire fence; fence knocked down	1.12m high	None
20	Gleann an Dubh Choirein	Boundary	Little	Modern	None	668 153	Good; 2 wooden post and wire fences: deer fence alongside older fence	deer: 2m high; old: 0.94m high	None
21	Glenartney Lodge	Footpath	Little	Modern	None	687 148	Fair; grass track	c1m wide	None
38	Monadh Odhar	Boundary	Little	Modern	None	692 152			None

Appendix 2 Sites Outside the Study Area Affected by Proposed Development

<i>No</i>	<i>Name</i>	<i>Type of Monument</i>	<i>Significance</i>	<i>Period</i>	<i>NMRS No</i>	<i>NGR (NN)</i>	<i>Current Condition</i>	<i>Distance from study area</i>	<i>Statutory Designation</i>
2	Allt an Dubh Choirein	Track	Considerable	Medieval/ Post-medieval	NN61SE 2	677 143	No visible remains on E side of river, but old farm gate may mark route of former road	c250m	None
3	Monadh Odhar	Shieling hut (possible)	Some	Medieval/ Post-medieval	NN61SE 7	679 142	Not visited	c380m	None
4	Allt an Dubh Choirein	Bridge	Some	Medieval/ Post-medieval	NN61SE 12	6751 1459	Raised grassy causeways to bridge abutments; W abutment not visited; large boulder kerb stones on S side of causeway of E abutment, up to 0.75m high, then road passes through cutting in	c120m	None

<i>No</i>	<i>Name</i>	<i>Type of Monument</i>	<i>Significance</i>	<i>Period</i>	<i>NMRS No</i>	<i>NGR (NN)</i>	<i>Current Condition</i>	<i>Distance from study area</i>	<i>Statutory Designation</i>
							embankment		
5	Allt an Dubh Choirein	Bridge	Some	Medieval/ Post-medieval	NN61SE 13	6778 1422	Raised grassy causeways to bridge abutments; stone revetting on S side and possible revetting on N side of W abutment (not visited); E causeway 5.5m wide, with possible revetting on S side	c120m	None
6	Auchinner	Farmstead	Some	Medieval/ Post-medieval	None	692 157	Buildings in good repair, occupation and use	c400m	None
7	Auchinner	Farmstead	Some	Medieval/ Post-medieval	None	693 154	Buildings in good repair, occupation and use	c150m	None
8	Auchinner	Track	Little	Post-medieval	None	693 155	No visible remains	c150m	None
9	Auchinner	Track	Little	Post-medieval	None	692 154	Metalled road of cobbles and grit, 3.7-8.5m wide	c150m	None
10	Auchinner	Boundary	Little	Post-medieval	None	692 154	Drystone curvilinear wall, 1.1m high, with metal post and wire fence, 0.63m high, on top	c150m	None
11	Auchinner	Track	Little	Post-medieval	None	695 156	No visible remains	c350m	None
17	Auchinner	Boundary	Little	Modern	None	694 156	Good; wooden post and wire fence, c1m high	c200m	None
22	Glenartney Lodge	Boundary?	Some	Unknown	None	692 154- 687 152	Not visited	c100m	None

Appendix 3 Further Sites Discovered in Walkover Survey

<i>No</i>	<i>Name</i>	<i>Type of Monument</i>	<i>Significance</i>	<i>Period</i>	<i>NMRS No</i>	<i>NGR (NN)</i>	<i>Current Condition</i>	<i>Dimensions & Distances</i>	<i>Statutory Designation</i>
23	Auchinner	Revetment?	Some	Medieval/ Post-medieval	None	69714 15717- 69738 15746	Poor	0.7m high	None
Drystone river-washed boulders set into N bank of Water of Ruchill, up to 4 courses high; large trees growing on top of wall.									
24	Auchinner	Bridge	Some	Post-medieval/ Modern	None	69713 15719	Fair	1.2m long, 1.05m wide, 0.7m high	None
Cement-bonded squared rubble stones, 4 courses high with 2 courses of rubble/smaller stones on top, forming W abutment of a (footbridge?) across Water of Ruchill; E abutment (not visited) visible on opposite bank, with large fragment/block in the river.									
25	Auchinner	Quarry	Little	Post-medieval/ Modern	None	69556 15602	Fair	108m circumference around top; 42m long, 26m wide, c2m deep	None
Roughly oval grass-covered depression with 2 areas of large boulders and discarded rubbish (old metal).									
26	Glenartney Lodge	Footbridge	Little	Modern	None	68711 14917	Fair	c1m wide, c2m long	None
Wooden planks bound together by straps along each edge.									
27	Monadh Odhar	Bridleway	Little	Modern	None	67802 14526- 67605 14597	Fair	224m long, c0.5m wide	None
Muddy track in grass with hoof prints.									
28	Monadh Odhar	Boundary	Some	Medieval/ Post-medieval	None	67692 14581- 67506 14686- 67453 14641	Poor	217m E/W, 69m NE/SW	None
Line of unworked natural boulders along hillside, some upright, with southward return at W end to edge of ravine above river ; gaps in places and obscured by bracken and grass.									

<i>No</i>	<i>Name</i>	<i>Type of Monument</i>	<i>Significance</i>	<i>Period</i>	<i>NMRS No</i>	<i>NGR (NN)</i>	<i>Current Condition</i>	<i>Dimensions & Distances</i>	<i>Statutory Designation</i>
29	Monadh Odhar	Quarry (possible)	Little	Unknown	None	67542 14668	Fair	39m circumference along base; 15m SW/NE, 20m NW/SE	None
Semi-circular, grassy scoop in hillside occasional stones apparent (some of wall Site 28, which crosses mouth of this feature)									
30	Auchinner	Track	Little	Modern	None	69393 15336-69324 15436	Fair	110m long; c2.2m wide	None
Grass track with wheel ruts, crosses burn by ford									
31	Auchinner	Boundary	Little	Modern	None	69396 15344-69421 15334-69409 15312	Fair	1.05m high; 28m long E/W, 25m long N/S	None
3 upright metal posts, comprising one 'corner' post with ratchets for wire, the 2 end posts are set into stones and have bracing.									
32	Water of Ruchill	Revetment	Some	Medieval/ Post-medieval	None	69502 15220-69557 15292	Poor	114m long; 'returns' 5m , 3m , 4m long; up to 0.7m high	None
A natural rock edge exposed by floodwater of Water of Ruchill, on to which large natural boulders have been placed; 3 apparent short returns on river side – breakwaters, tumble or river-borne stones?									
33	Water of Ruchill	Boundary	Some	Post-medieval	None	69564 15286-69475 15179	Fair	162m long; 0.65m high	None
Drystone dyke along river edge, up to 5 courses in places; a gap 3m wide at one point.									
34	Gleann an Dubh Choirein	Footbridge	Little	Modern	None	66299 15549	Good	2.72m long, 1.49m wide	None
Wooden planks bounded by 2 straps along each side, with pointed stakes for foot grip, nailed to planks; footbridge on footpath.									

<i>No</i>	<i>Name</i>	<i>Type of Monument</i>	<i>Significance</i>	<i>Period</i>	<i>NMRS No</i>	<i>NGR (NN)</i>	<i>Current Condition</i>	<i>Dimensions & Distances</i>	<i>Statutory Designation</i>
35	Gleann an Dubh Choirein	Footbridge	Little	Modern	None	66279 15562	Good	2.1m long, 1.1m wide	None
Wooden planks bounded by 2 straps along each side, with pointed stakes for foot grip, nailed to planks; footbridge on footpath.									
36	Gleann an Dubh Choirein	Causeway	Little	Modern	None	66318 15703	Fair	c12m long, 1.05m wide	None
Wooden planks and straps laid across wet, boggy ground in footpath/track, Site 13.									
37	Gleann an Dubh Choirein	Footbridge	Little	Modern	None	66683 15346	Fair	2.2m long across burn, 2.9m wide	None
9 railway sleepers, tied by wire, reused as footbridge on footpath/track, Site 13.									

Appendix 4 Photographic Register

<i>Number</i>	<i>View</i>	<i>Description</i>
		<i>Tuesday 19 November 2013</i>
001	W	Auchinner, N side of courtyard, Site 6
002-003	NE	Site of original outfall
004	E	Site of original outfall
005	NW	Site of original construction area at original outfall
006-007	SW	Revetting wall along riverbank, Site 23, with bridge abutment, Site 24, in distance
008	N	Bridge abutment, Site 24
009	E	Bridge abutment, Site 24, on opposite bank of Water of Ruchill and fallen fragment in river
010	E	Bridge abutments, Site 24
011-014	SW, W, E	Quarry, Site 25
015-016	W, NW	Fence, Site 17
017-018	E	Stone wall, Site 10
019-020	W	Track, Site 9
021	E	Track, Site 9 and Auchinner, Site 7
022	NE	Old road, Site 1, with Auchinner, Site 7 in distance (direction arrow wrong)
023	SW	Old road, Site 1, with fence, Site 14 in distance (direction arrow wrong)
024-025	SW, W	Fence, Site 14 and old road, Site 1 (direction arrow wrong)
026	NW	General view with Glenartney Lodge in distance
027	W	Fence, Site 14
028	NE	General view of pipeline towards Auchinner
029	NW	Glenartney Lodge in distance
030	N	Fence, Site 12 and Path, Site 21
031	N	Fence, Site 12
032	NW	Gate at entrance to path, site 21
033	NW	Path, Site 21
034-037	NW, N	Footbridge, Site 26 on path, Site 21

038-039	NE	Path, Site 16 (direction arrow wrong)
040	NE	General of pipeline route
041-043	W, NW	Gate at fence, Site 18, on old road, Site 1
044-045	NW	General of pipeline route towards Ben Vorlich and Stùc a' Chroin
046	SW	Loop in old road, Site 1
047	NW	Bridleway, Site 27
048-057	W	Wall, Site 28, generals and details of E/W part
058-059	N	Possible quarry, Site 29
060-061	N	Gate in fence, Site 15, at path, Site 13
062	NW	Path, Site 13, with fence, Site 15, in distance (direction arrow wrong)
063-064	W	Bridge abutments, Site 4
065-066	W	Cutting for approach to bridge abutment, Site 4
		<i>Wednesday 20 November 2013</i>
067	N	Track, Site 30, and fence post, Site 31
068	E	Fence posts, Site 31
069-071	SW, NE	Revetting wall, Site 32
072-076	SW-E	General of wall, Site 33, progressively SW to E
077-079	NE, SW	Detail of wall, Site 33
080-085	E-SW	General of proposed outfall and powerhouse location, progressively E to SW, with Sites 32 and 33 in distance
086	E	General of revetting wall, Site 32, and wall, Site 33
087	SW	Bridge abutment on W side of river, Site 4
088-090	NE, NW N	Kerb stones of causeway on bridge abutment, Site 4, on E side of river
091-092	N, S	Fence, Site 19
093-094	SE, NW	General of pipeline route in Gleann an Dubh Choirein from fence, site 19
095-099	W, N	Fences, Site 20
100	W	General towards Intake
101-103	NW, N	Footbridge, Site 34
104	NW	Water gauge near Intake

105-106	NW	Footbridge, Site 35
107	NW	Footbridge above Intake
108-109	NW	Intake
110-111	NW, W	Wooden causeway, Site 36, across boggy ground on path, Site 13
112	SW	General of route of proposed temporary access track to Intake
113-115	E	Footbridge, Site 37
116-117	NW, SE	Ghillie with garrons and deer on path, Site 13
118-119	NW	Path, Site 13 and fence, Site 20
120-125	W, NW, W, SW	Bridge abutments, Site 5
126-128	W-S	General of site of old road at ford, Site 2, progressively W to S

Appendix 5 Discovery & Excavation in Scotland Entry

LOCAL AUTHORITY:	Perth and Kinross
PROJECT TITLE/SITE NAME:	Dubh Choirein, Glen Artney Hydro Scheme
PROJECT CODE:	CM07
PARISH:	Comrie
NAME OF CONTRIBUTOR(S):	David Perry
NAME OF ORGANISATION:	Alder Archaeology
TYPE(S) OF PROJECT:	Desk-based assessment and walkover survey
RCAHMS NO(S):	NN61SE 2, NN61SE 7, NN61SE 12, NN61SE 13
SITE/MONUMENT TYPE(S):	Boundary dyke, revetment, bridge, drove road
SIGNIFICANT FINDS:	Boundary dyke, revetments
NGR (2 letters, 8 or 10 figures)	Intake: NN 62115 15615; Outfall: NN 69544 15222
START DATE (this season)	19 November 2013
END DATE (this season)	20 November 2013
PREVIOUS WORK (incl. <i>DES</i> ref.)	Roman Road Surveys (<i>DES</i> 1979, 43); Roman Road Survey, Bochartle Fort: Dalginross Fort (<i>DES</i> 1985, 51); Glenartney Pass, Ruined bridges (<i>DES</i> 2002, 91-2)
MAIN (NARRATIVE) DESCRIPTION: (May include information from other fields)	Alder Archaeology was commissioned by Campbell of Doune on behalf of their client, Drummond Estates, to undertake a desk-based assessment and walkover survey of a proposed mini-hydro scheme in Glen Artney, Perthshire. The Alder site code for the project is CM07. The proposed pipeline follows part of the presumed course of a Roman road between Bochartle and Dalginross and a former medieval/drove road between Comrie and Callander, on which a bridge was under construction in 1780 at 'Dalchlachath' (Dalclathick?). The walkover revealed two revetments along the bank of the Water of Ruchill and a pre-agricultural improvement stone boundary dyke. No definite trace of the possible Roman road was observed, although two former bridges across the Allt an Dubh Choirein were as previously described.
PROPOSED FUTURE WORK:	
SPONSOR OR FUNDING BODY:	Drummond Estates
CAPTIONS FOR ILLUSTRS	-
ADDRESS OF MAIN CONTRIBUTOR:	Alder Archaeology Ltd, 55 South Methven Street, Perth PH1 5NX
ARCHIVE LOCATION (intended)	RCAHMS (intended)
EMAIL ADDRESS:	director@alderarchaeology.co.uk

Appendix 6 Criteria for Assessment of Significance

6.1 Levels of significance

Four levels of significance have been used, derived from previous work carried out, notably by national and international conservation bodies. They deal with how worthy the particular asset is in terms of its importance, or alternatively, how dispensable it is. The terminology largely follows that outlined in the *Burra Charter*, and is as follows:

- *Exceptional* Widely regarded as an indispensable archaeological asset.
- *Considerable* A key feature, worth preserving if at all possible.
- *Some* Of interest – should normally be protected.
- *Little* Features which, at present, are thought to have relatively low archaeological value. Features of little significance are generally not dealt with here.

There is often no clear division between the above definitions; assessment of significance largely depends on underlying knowledge and understanding of the various attributes of the resource. Value judgements are an inevitable part of the process, and the evaluation may change as values develop.

6.2 Assessment Criteria

Criteria used by English Heritage and Historic Scotland to determine the significance of archaeological sites for scheduling purposes have been used by Alder to define the grounds on which the assessment of significance is made. These are not exhaustive, and other criteria may be applicable.

- *Survival*: the quality of the survival of a site can be of importance, and the survival potential of below- and above-ground remains is crucial to the importance of the site.
- *Period*: whether the site is a good example of its period, or whether it shows evidence of long-term or multi-period use. Contemporary sites of different types also complement each other in terms of the information and evidence they show.
- *Group Value*: the value of a single site is enhanced greatly by being part of an associated group of related sites. In such cases preservation of not just the group, but also the context of the group should be seriously considered.
- *Rarity*: some sites, due to the overall rarity of the type, merit raised importance despite not appearing to be particularly good examples.
- *Situation*: some sites are more abundant in different geographical areas than others, and accordingly may have higher potential value if geographically more rare.
- *Diversity of Form*: whether the style is different from others of its type in terms of style or function perhaps, or according to regional variations.
- *Multiperiod / single period*: sites showing evidence of successive reuse can have special value because they may contain particularly fine evidence of phasing and stratigraphy. Likewise, a single period site will generally have more evidence of the different functions carried out within it through having well-preserved archaeological relationships. Good examples of both site types are important in terms of their overall informational value.
- *Documentation*: a site may have particularly extensive supplementary information, such as charters or estate maps, which informs and enhances our overall understanding of it, yet cannot be seen through archaeological research. This information can serve to flesh out the evidence gathered by other means.
- *Potential*: the site may be viewed as having significant potential for providing further information on the past, or predictions may suggest that undiscovered deposits may have high informational value.
- *Amenity value*: the site may easily accessible by the general public, and its preservation may therefore be of benefit as an amenity.