

Allt Tarruinchon Hydro Scheme, Loch Tummel, Perth and Kinross

Archaeological Walkover Survey Report

AOC 70124
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AOC
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Allt Tarruinchon Hydro Scheme, Foss, Loch Tummel, Perth and Kinross

Archaeological Walkover Survey Report

On Behalf of:	Manitoba Energy
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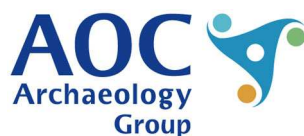
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Abstract

This report details the results of an archaeological walkover survey of the proposed site for a 29 kW run-of-river hydro scheme at Allt Tarruinchon, by Donmaheiche Farm, near Foss, Loch Tummel in Perth and Kinross. The survey was undertaken on 12th May 2016. Fourteen archaeological sites were recorded.

Mitigation measures have been recommended to ensure these sites are not compromised during development.

Introduction

1. An archaeological desk-based assessment and walkover survey was carried out on behalf of Manitoba Energy in advance of the construction of a small hydro scheme located along the Allt Tarruinchon, on the south side of Loch Tummel near Foss. The aim of the survey was to identify and assess the nature and extent of any archaeology likely to be directly affected by the proposed development in order to inform recommendations for the protection and management of any sites identified. Fourteen archaeological sites were recorded. Some of the sites are located in close proximity to the proposed pipeline route and are likely to be directly impacted by it. Recommendations have been made with regards to these sites.

Project Background

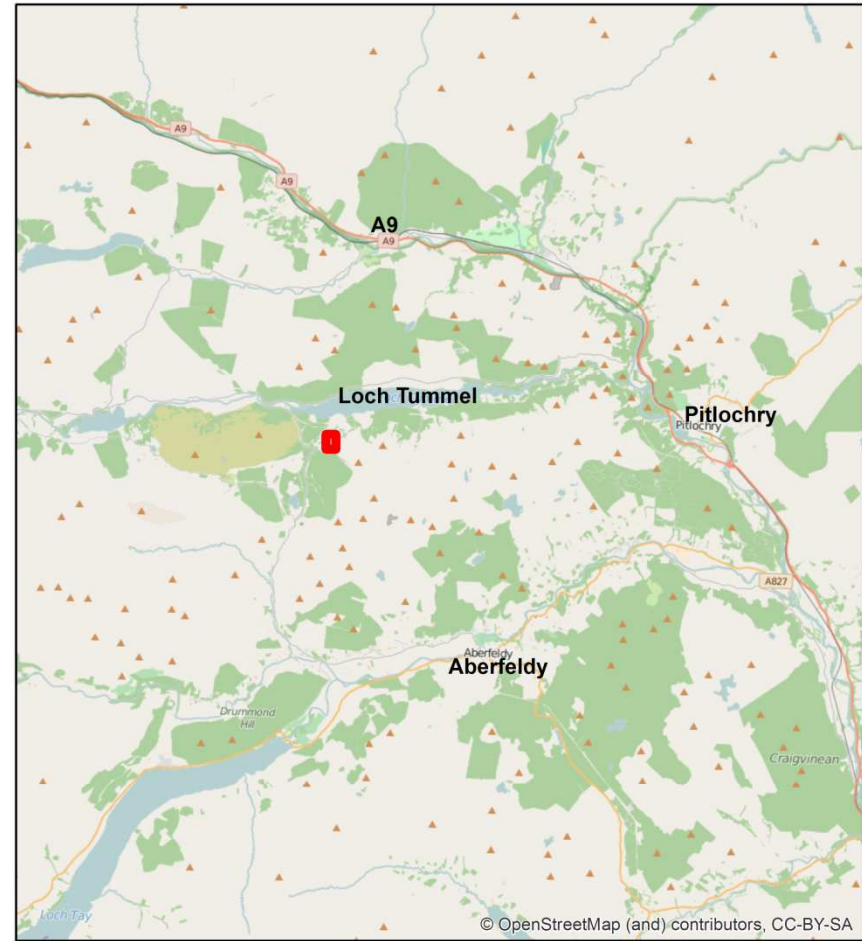
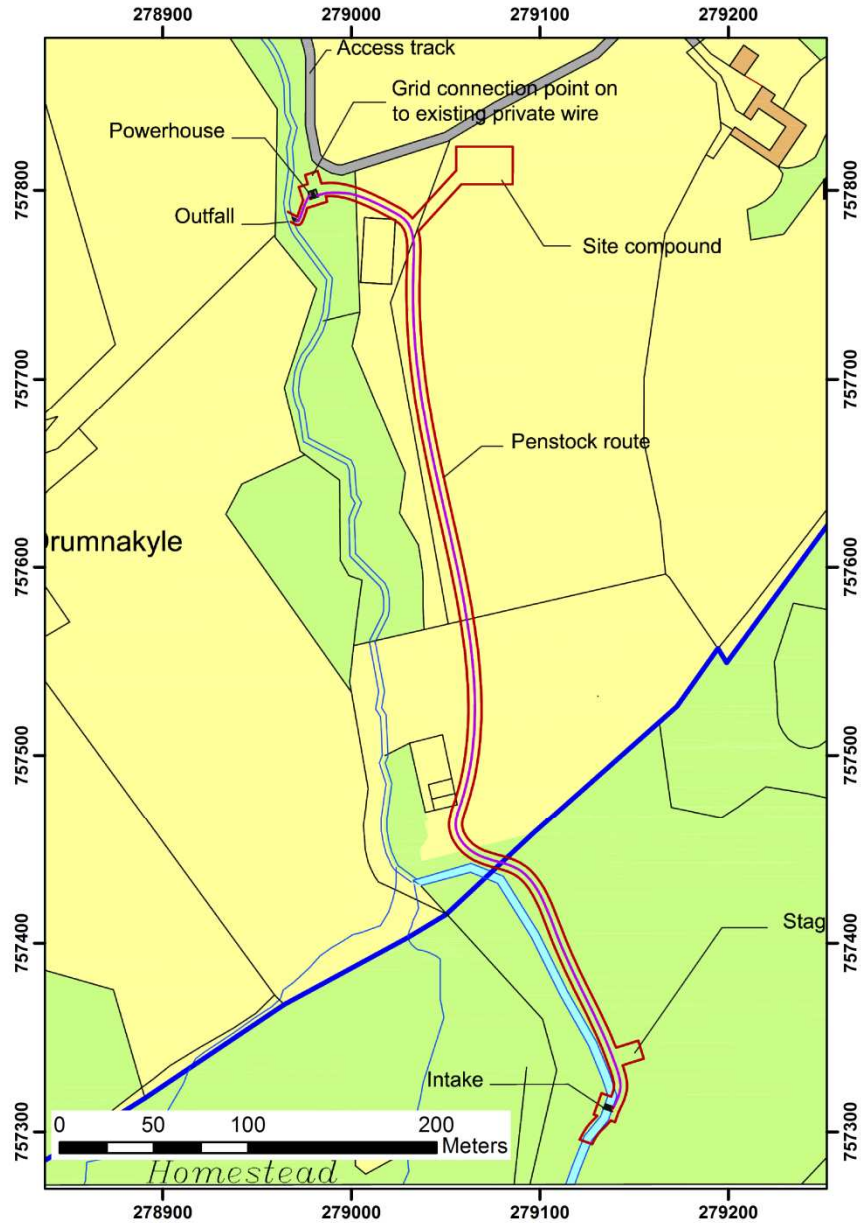
2. The proposed run-of-river scheme is located on the south side of an unclassified road running along the south side of Loch Tummel (**Figure 1**). A. The hydro scheme site is located on Domnaheiche Farm, near Foss in the parish of Dull. The pipeline route runs from NGR NN 78978 57811 to 79120 57294. The present survey was undertaken to identify any archaeological sites that would be directly affected by the proposed hydro scheme ground works.
3. A desk-based study of the surrounding landscape was undertaken to identify any known archaeological sites within the development area and to assess the archaeological potential of the site. Evidence for prehistoric and post-medieval settlement has been recorded in the wider area, which is considered to have the potential for further historic environment features to be present.

Character of the Study Area

4. The landscape situation of the survey area runs upslope from north to south at 180m to 230m OD, with the Allt Torruinchon running to the west side. It crosses improved fields across the north half of the area (**Plate 1**) after which it passes into open, grass-covered ground with extensive stone and boulder spreads, on the east of the sheep fank. The southern end of the route rises more steeply and terminates near the location of a disused sluice on the burn. The underlying geology of the area comprises glacial deposits of sand and gravel overlying a combination of Atholl dark limestone and schist, consisting of metalimestone and pelite, and Killiecrankie schist, consisting of semipelite and micaceous psammite (BGS 2016).

Desk-based Assessment

5. A desk-based assessment was conducted prior to commencement of the survey in order to assess the archaeological potential of the area based on previously recorded sites and any historical documentation. A full check of all available historical and archaeological records, aerial photographs and historical maps was conducted using the National Monuments Record of Scotland (NMRS), Ordnance Survey Name Books, Historic Scotland's databases, the National Library of Scotland (NLS), the Royal Commission on the Ancient and Historical Monuments of Scotland databases, statistical accounts and other available records, literary sources or online resources about the site..



Allt Tarruinchon Hydro Scheme

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Figure 1 Location of the proposed hydro scheme (background map provided by Manitoba Energy)

6. In the Old Statistical Account (1791-99), Rev Menzies describes the parish of Dull as very irregular in shape, with various kinds of soil, thick in some places, thin and gravelly in others. He mentions that the parish was more populous 50 years prior to the time of the report, given to the landowners expanding their farms and limiting the number of small farms, for the "benefit" of the farmers. Trout, eel and pike, in particular in Loch Tummel, are found in the rivers and lochs. The principal crops are 'oats, Chester-bear, pease and potatoes', with potatoes forming the majority of the diet for 9 months of the year. There are no antiquities mentioned.
7. There are substantial ruins of post-medieval settlement within the landscape, mostly comprising abandoned farmsteads and occupied residences of 19th century date.

Cartographic Sources

8. Historical maps were consulted at the National Library of Scotland (NLS 2016) online. The following maps provided information about the survey area:

- a) **First Edition 6-inch-to-the-mile Ordnance Survey map: Perthshire, Sheet XXXVIII (includes: Dull; Fortingall) Survey date: 1861 Publication date: 1867**

This map (**Figure 2**) shows the U-shaped roofed farmstead at *Domnaheich*, along with five smaller roofed outbuildings to the north side of it. A track runs from the farm to the small settlement at *Kirkton*, where there is a church and a school. To the southwest of the farmstead, a *sheepfold* is shown as comprising three compartments and a run, and while a lengthy dyke runs to the south, marking areas of improved ground to the northwest and rough moorland to the southeast. The ruins of a small settlement at *Socath-donn-nan-eun* are shown to the west side of the burn.

The only sites shown along the hydro scheme are the sheepfold and the boundary dyke at the south end.

- b) **Second Edition 6-inch-to-the-mile Ordnance Survey map: Perth and Clackmannan, Sheet XXXVIII.NE (includes: Dull) Publication date: 1900 Revision date: 1898**

On the second edition survey (**Figure 3**), the roofed buildings to the north of Donmaheich have been reduced to two, and there is a series of enclosures in the location. Substantial field boundary walls are shown to the southeast side of the farm, including the sheep fanks and several new walls running N-S to the east of it. The southern dyke is still shown as are the ruins of the *Socath-donn-nan-eun* settlement.

Further sites shown along the hydro scheme are the linear boundary walls to the north and east of the sheepfold.

- c) The current Ordnance Survey (OS) 1:5000 map depicts the sheep fank on the west side of the hydro route and the existing farm field boundary dyke.



Figure 2 Excerpt of the 1st edition 1867 Ordnance Survey map © NLS

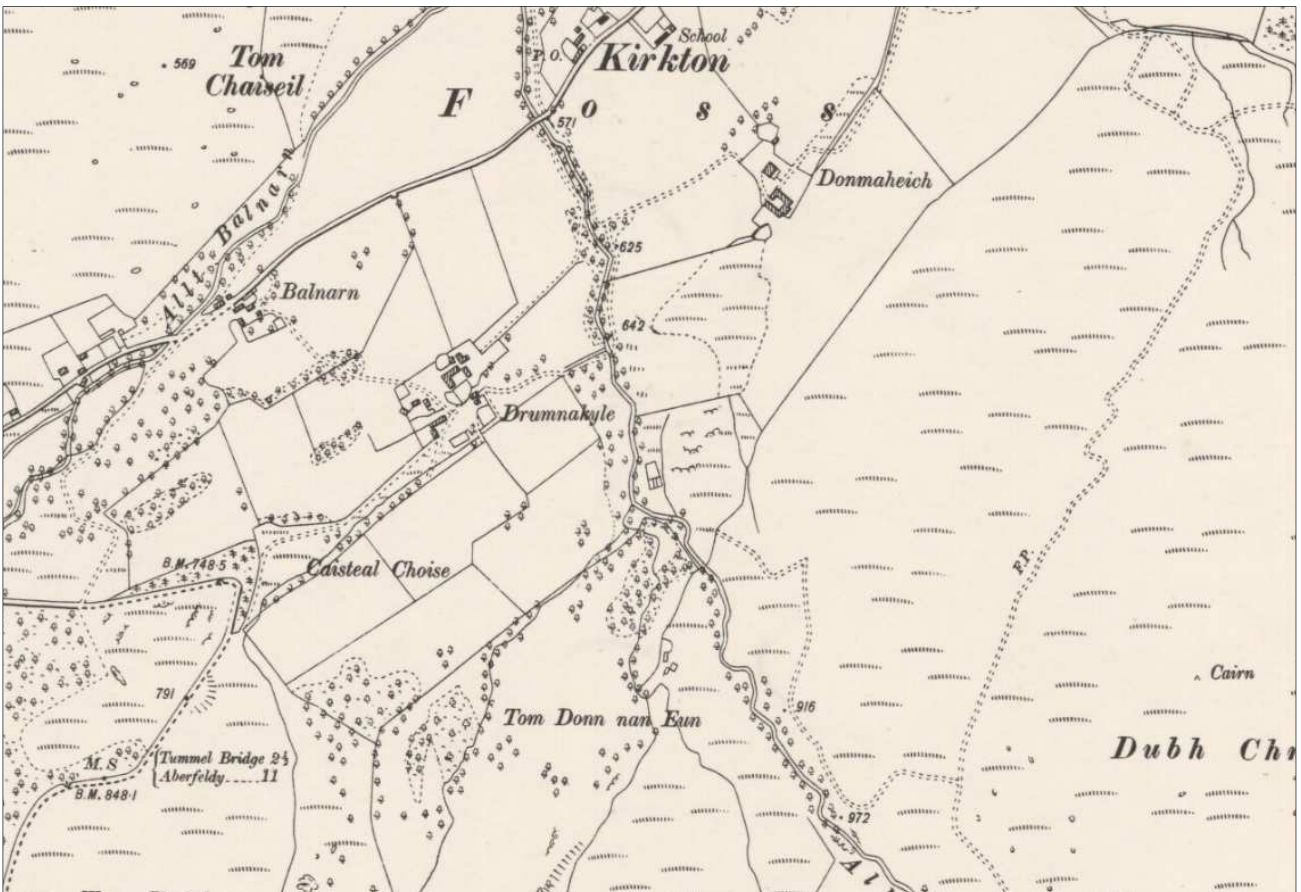


Figure 3 Excerpt of the 2nd edition 1900 Ordnance Survey map © NLS

Aerial Imagery

9. Google (2016) 50m satellite imagery was inspected. The main field boundary dyke at Donmaheiche Farm was visible, together with a substantial rectilinear sheep fank.

Historic Environment Sources

10. A full search of the Royal Commission on the Ancient and Historical Monuments of Scotland's National Sites and Monuments Record (Canmore) was conducted. The general landscape comprises substantial numbers of post-medieval settlement sites and several medieval and prehistoric sites. There were no previously recorded sites directly in-line with the proposed access and pipeline routes or its immediate environs. A number of sites in close proximity to route help to characterise the landscape:

Canmore ID 268489 NN 78988 58060 Church and burial ground
The burial ground and church at Kirkton are located across the road from the north end of the proposed scheme. Foss was traditionally founded by St Chad during the 7th century AD. During recent survey, a sculptured cross-slab was identified in the old burial ground at Kirkton of Foss. The stone is readily visible and consists of a rough schist slab lying in a recumbent position N of the present church and near the E boundary wall. The visible upper face displays the worn incised outlines of possibly three crosses and below this are the partial remains of a large knot motif. The crosses are of differing design and the knot, half of which has been destroyed through loss of the slab's NE corner, is more clearly incised. A cross-incised stone also exists at Tombreck, and the stone at Foss seems broadly comparable with tripartite crosses at nearby Fortingall.

Canmore ID 163916 NN 7923 5783 Farmstead, Donmaheich
A farmstead at Donmaheich is shown as roughly U-shaped and still in –use on the 1867 1st Edition Ordnance Survey map.

Canmore ID 164057 NN 7880 5763 Farmstead, Drumnakyle
An extensive complex of roofed steadings and outbuildings is shown on the 1867 1st Edition Ordnance Survey map 430m to the west of Donmaheich, on the west side of the Allt Torruinchon.

Canmore ID 25043 NN 7901 5727 Homestead, Tom Donn nan Eun
As recorded by OS in 1974, the site consists of “the turf grown remains of an unusual oval homestead similar to NN75NE 9. It occupies a semi-defensive position on a low knoll on the brink of a stream gully, and faces on to level cultivated land in the SW. Oval on plan, it measures about 25.0m E-W by 19.0m N-S overall. A slight gap in the W probably indicates the position of the entrance. The wall has been heavily quarried and only one outer facing stone survives 3.5m S of the entrance. The inner face is completely destroyed but the spread of debris suggests a wall thickness of about 3.5m.”
The site is located 150m to the southwest of the south end of the proposed hydro scheme.

Canmore ID 131643 NN 790 572 Farmstead, All Tarruinchon
A farmstead comprising three unroofed buildings, which are annotated as Ruins, and one enclosure attached to what may be a head-dyke is depicted on the 1st edition of the OS 6-inch map (Perthshire 1867, sheet xxxviii), but it is not shown on the current edition of the OS 1:10000 map (1992).
The site is located approximately 210m to the southwest of the south end of the proposed hydro scheme.

Canmore ID 108256 NN 7948 5810 Cairn, field boundary
A probably prehistoric burial cairn, situated approximately 0.5km north of Donmaheich Farm, lies on a prominent ridge overlooking the west end of Loch Tummel. It comprises a mound

measuring 12-14m in diameter and around 2.5m high. The site is located 560m to the northeast of the north end of the proposed hydro scheme.

Canmore ID 108255 NN 7965 5812 Cupmarked stone, post-med settlement
A small settlement occupies a ridge of rough ground within improved farmland near Donmaheich Farm. The SW of the site is occupied by a substantial rectangular building represented by boulder wall footings, measuring internally 12m E-W by 5m. The S wall of this building has been removed, probably by ploughing. The NE corner of this building abuts the SW corner of a second building measuring some 8m N-S by 5m, again with substantial wall footings. The OS 1st edition map records the presence of a small, occupied settlement at this location consisting of a cluster of buildings, none of which can be unambiguously equated with the surviving footings. The area has been subjected to small-scale quarrying in the past, particularly along its N side.

A cup-marked stone was found at NN 7965 5812. This is a boulder measuring c 1sqm by c 40cm thick. On its upper face are the remains of 14 weathered, shallow cup marks forming no obvious pattern. The disturbed ground around the stone contains numerous small potsherds, some glazed, deriving from the adjacent settlement.

The site is located 735m to the northeast of the north end of the proposed hydro scheme.

Aims of the Survey

11. The overall aim of the archaeological walkover survey was to identify and record any unknown archaeological sites or features that might be directly affected by the construction of the new access track, borrow pits, laydown areas and pipeline route and to assess the potential for buried archaeology to be affected during site construction. This would enable informed mitigation measures and recommendations to be proposed to ensure that the value of any cultural heritage sites would not be compromised.

Survey Methodology

12. The development site was walked over and surveyed on 12th May 2016. The weather for the survey was dry and sunny with good archaeological visibility. The ground conditions were dry across the whole of the route.
13. The route was systematically walked. Archaeological sites were recorded using high-resolution digital photography. Individual site locations were recorded, using ArcPad GIS software on a handheld Windows Mobile-based Archer Field PC capable of sub-metre accuracy.
14. Survey and recording methods recommended by the Royal Commission on the Ancient and Historical Monuments of Scotland (2004) were employed and all work was conducted in strict adherence to the *Chartered Institute for Archaeologists (CIfA) Code of Conduct* (2014).

Results

15. The walkover survey identified fourteen archaeological sites (**Figure 4**), all of which were previously unrecorded, and some of which correlate with sites shown on the historical mapping. The Gazetteer of Archaeological Sites (Appendix 1) provides the full details of the sites identified and recorded during the survey.
16. All of the sites, with the exception of Sites 4, 5, 10 and 13, appear to correlate with post-medieval settlement patterns. Five of the recorded sites appear to form remnants of field boundaries. Site 1 consists of a small section of drystone-built walling (**Plate 2**) on the west side of the track above the burn and probable relates to an estate field boundary shown on the 2nd Edition OS map. Site 2 appears as a low, stony bank above the river terrace that may have formed a field boundary and may relate to Site 6, which is similar to it in quality and condition. Site 6 appears to represent the field boundary shown on the 2nd Edition OS map. Site 3, a well-preserved drystone dyke (**Plate 1**), is also represented as a field boundary, having been constructed prior to the 1898 survey. Site 12, located near the south end of the route, is formed by a group of low stone/turf banks (**Plate 3**). They appear to be in the location of the substantial boundary dyke shown on the 1st Edition OS map. This indicates that it was constructed prior to the 1861 survey.
17. The well-preserved sheep fank, Site 7 (**Plate 4**), comprises four internal enclosures and a linear run along the south half. Shown on the 1st Edition OS map, it would have been built prior to this time. Interestingly, on the south side of it, Site 9 consists of a small, square stone-built structure containing a large iron cauldron (**Plate 5**) to the south side of the fank. Another unexpected site was a turf and boulder-built U-shaped structure, Site 8 (**Plate 6**), located in-line with the survey route. Definitely a built structure, its use is unknown, but may relate to livestock management. To the east of the sheep fank was a subrectangular, stone-filled hollow, Site 11, which may represent a disused sheep dip pit or milking area.
18. Other sites recorded during the survey include two tanks associated with water management, Site 4 (**Plate 7**) and Site 5 (**Plate 8**), and a disused sluice, Site 13 (**Plate 9**). A burial to *M.A.N.P.*, erected in 2009, Site 10, was also recorded. A small, possible stone cellular structure (Site 14) at the south end of the route, was of inconclusive interpretation due to the extensive stone spread around it. It is likely of limited, if any, archaeological significance.

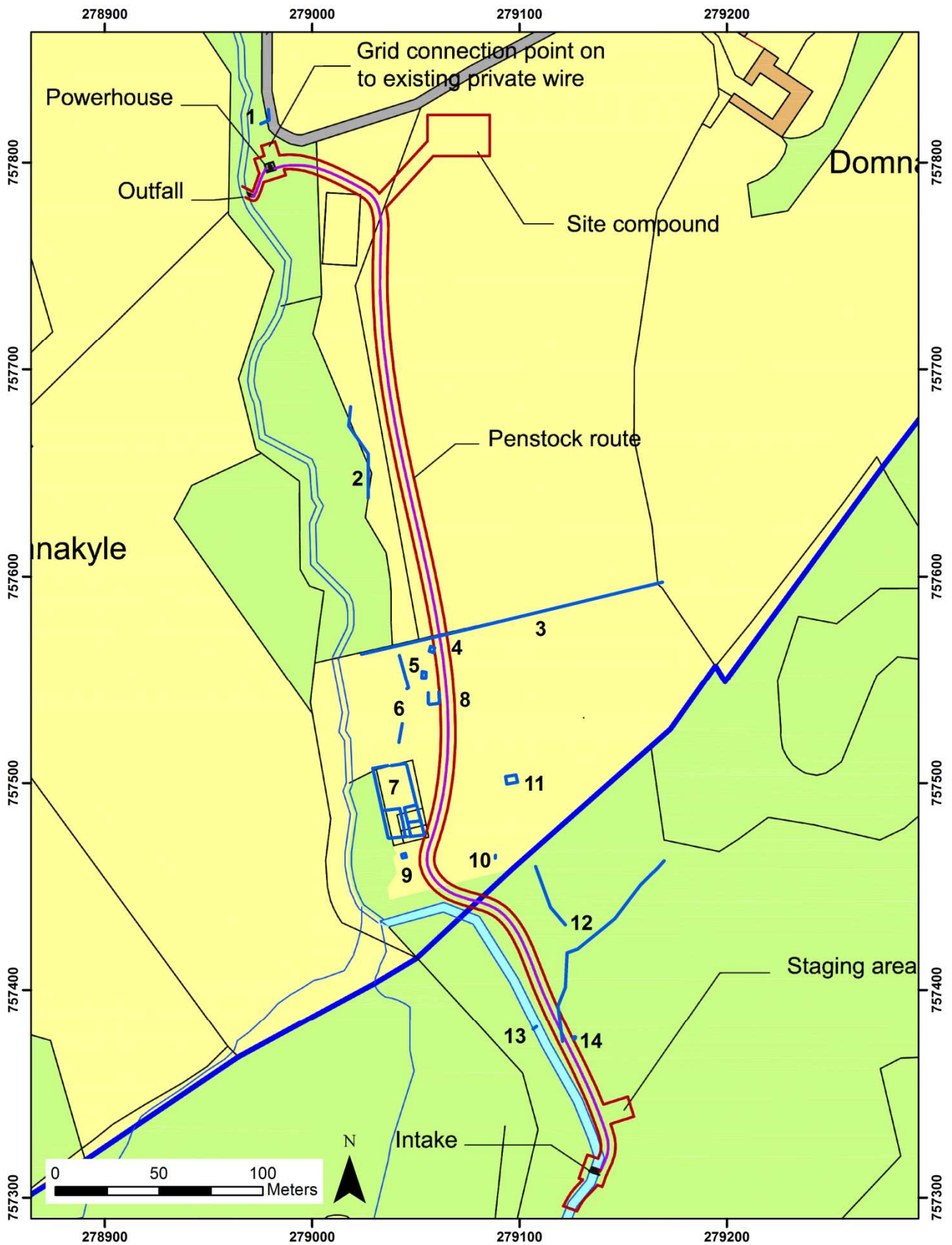
Recommendations

219. While there are several sites within close proximity to the development areas, most of them will be avoided during construction. The recommended 5m buffer zones for protection of the archaeological sites are shown in **Figure 5** and consist of the following mitigation recommendations:
 - ❖ Sites 1, 3, 12 – it is normal practice for all elements of the archaeological landscape, to include boundary dykes, to be avoided by a 5m buffer. As this will not be possible for Sites 3 and 12, it is recommended that disturbance to the structures be kept to a minimum. It is requested that vehicular movement be conducted to avoid crossing over these features where possible, and that reinstatement be considered upon completion of works. This is important for maintaining the character of the archaeological landscape. Sites 2 and 6 are considered to be in such a degraded state that machine movement over them would be unlikely to result in the loss of any material of archaeological significance.
 - ❖ Site 7 - It has been made clear that the sheep fank will not be affected by the works. The recommended buffer of 5m has been shown constricted to respect the planned route.

- ❖ Sites 4-5, 13 – It has been indicated that the tanks, Sites 4 and 5, and the sluice, Site 13, will be removed. This is not considered to be detrimental to the archaeological record as the present survey has made a record of these probable late 19th – early 20th structures.
 - ❖ Site 8 – This site consists of a U-shaped structure of unknown significance and date. It is recommended that the site is marked out with orange mesh fencing to prevent destruction or damage to it. If appropriate mitigation cannot be put in place to avoid destroying the site, it is recommended that archaeological evaluation is conducted in advance of the start of works. This will allow the site to be evaluated for its function and date and for a full record to be completed prior to its removal.
20. It is possible that archaeological remains may still be preserved below the areas covered by peat and below ground-level in general, and this should be taken into consideration during construction. Should any unexpected archaeological remains be uncovered during construction, an archaeologist should be notified immediately.



Plate 1 Location of the north half of the survey area, looking N over Site 3



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Figure 4 Location of archaeological sites

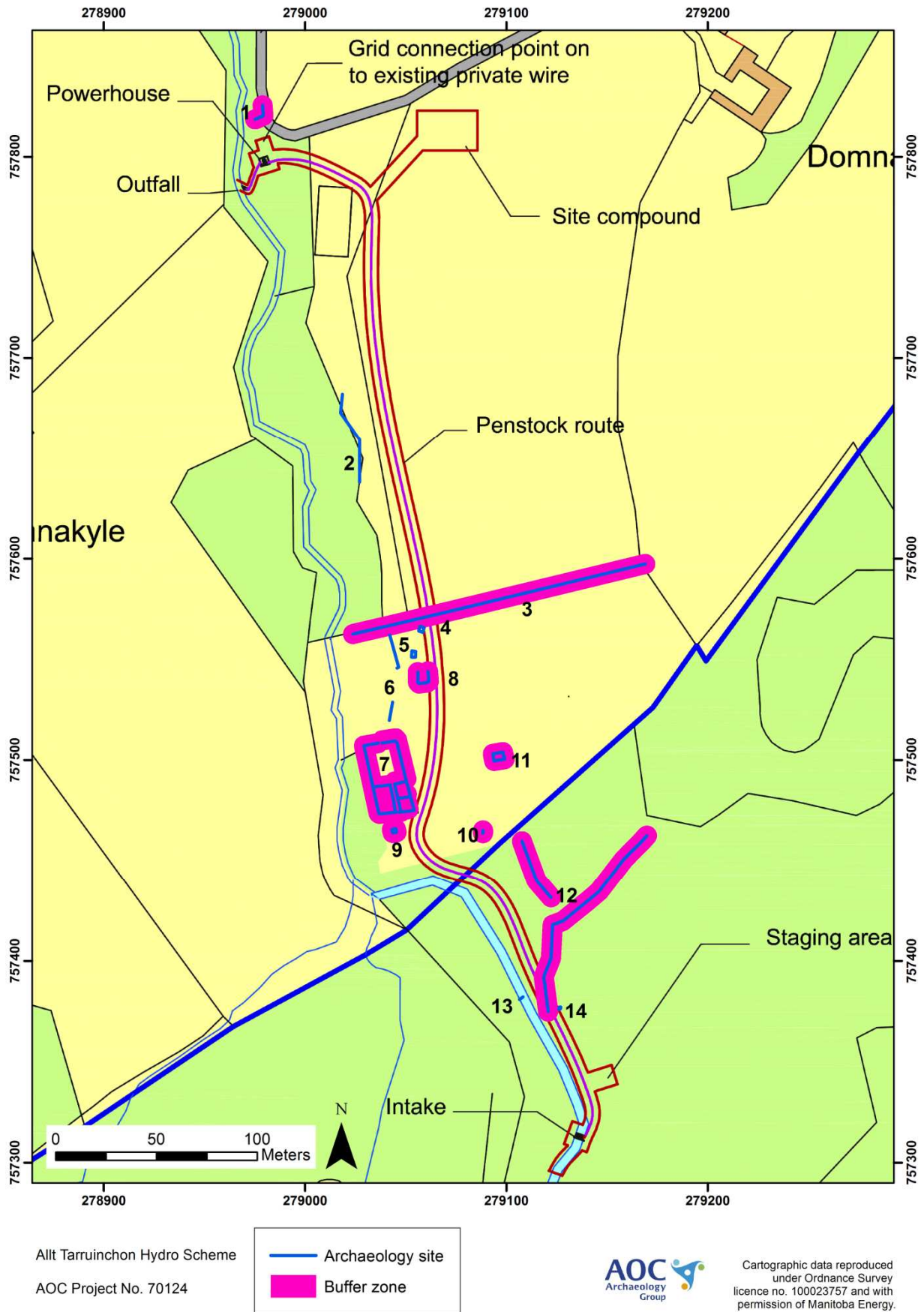


Figure 5 Recommended buffer zones



Plate 2 Looking N over Site 1, a section of stone-built dyke



Plate 3 Looking SW over Site 12, a turf/stone boundary dyke



Plate 4 View SW over the sheep fank, Site 7



Plate 5 Site 9, stone-built structure containing cauldron, facing SW



Plate 6 U-shaped turf/stone structure, Site 8, facing SW



Plate 7 Looking S over brick-built tank, Site 4



Plate 8 Looking S over concrete-built tank, Site 5



Plate 9 NW view over disused weir, Site 13

References

British Geological Survey (BGS), 2016. *Geology of Britain Viewer* accessed at: <http://mapapps.bgs.ac.uk/geologyofbritain/home.html> on --.

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Royal Commission on the Ancient and Historical Monuments of Scotland, 2004. *Corporate Plan 2004-9: Annex-Survey and Recording Policy*.

Appendix 1 Gazetteer of Archaeological Sites

Site No.	Site type	Description	Alignment	Condition	Period	Ht OD (m)	Easting	Northing
1	Wall	An L-shaped section of drystone wall abuts the W side of the burn, with 4-5 courses visible on the N side; the wall stands up to 0.6m high and measures up to 0.8m wide; the N tag of wall is partially revetted into the hillside next to the road	NE-SW	Degraded	Post-medieval	200	278980	757813
2	Bank	A grass-covered rubble bank of stone comprising mostly small-medium cobbles appears to have been constructed along the edge of the upper burn terrace; measures up to 1.2m spread and stands 0.3m high max; it appears to run out at the S end and may join up with Site 6. Very degraded.	NW-SE	Very degraded	Unknown	220	279027	757653
3	Dyke	A well-built drystone dyke stands 1m high and measures 1m wide at base and 0.5m wide at top; it consists of large rounded cobbles and clasts	WNW-ESE	Well preserved	Post-medieval	220	279087	757571
4	Tank	A brick built tank or well with a timber frame and iron lid measures 1.8m NE-SW by 1.1m and stands 0.8m high above ground level.	-	Well preserved	Post-medieval	230	279065	757559
5	Tank	A concrete and brick-built tank (water?) measures 3.3m NE-SW by 1.8m and stands 1m high above ground. There is a dug-out channel running NW from the W side of it.	-	Well preserved	Post-medieval	220	279064	757547
6	Bank	The low-remains of a grass-covered bank with some stone visible is spread up to 1.5m wide and stands up to 0.25m wide. It may be a continuation of Site 2. Very degraded.	NW-SE	Very degraded	Unknown	215	279054	757549
7	Fank	A drystone built complex of walls with internal rounded corners forms a sheep fank enclosure. The walls stand up to 1.2m high and are of single course construction 0.3-0.5m wide. There are horizontal slabs extending through the wall at scattered intervals.	N-S	Ruinous	Post-medieval	220	279040	757487
8	Structure	A grass- and moss-covered boulder/stone and turf U-shaped structure measures 4.5m N-S by 2.5m internally. The banks stand up to 0.7m high and spread up to 1.5m wide. It is located in an area of extensive stone spread that has not been cleared for cultivation.	N-S	Degraded	Unknown	220	279068	757534

Site No.	Site type	Description	Alignment	Condition	Period	Ht OD (m)	Easting	Northing
9	Tank	A stone-built square walled structure measuring 1.8m across and stands up to 1.1m high. Located to the S side of fank Site 8, it comprises large dressed sandstones probably robbed from another site. Contains a large iron tankard measuring 1m in diameter is found inside the structure.	-	Ruinous	Unknown	220	279050	757461
10	Grave	A grave slab reads <i>M.A.N.P., APO, 13.10.1923,4.8.2009</i>	-	Well preserved	2009	220	279094	757456
11	Pit	Subrectangular-shaped hollow has been infilled with stone. It measures 4m E-W by 3m and its use is unknown.	-	Degraded	Unknown	220	279099	757495
12	Dyke	Grass-covered stone/turf banks forms probable remnants of field dykes standing 0.3-0.5m high max and spread 1-1.2m wide.	NW-SE	Very degraded	Unknown	230	279121	757438
13	Weir	A concrete slab and block structural footing measuring about 2m long x 1.4m appears to be remnants of a bridge or sluice across the burn.	-	Ruinous	Post-medieval	230	279108	757372
14	Possible structure	A possible stone-built cellular structure under moss measures 1.5m in diameter and stands 0.5m high. It opens to the NNW.	-	Very degraded	Unknown	230	279132	757368

Appendix 2 Index of Photographs

Photo No.	Site No.	Direction facing	Description	Taken by	Date
1	1	N	Segment of drystone walling near access track	MKP	12/05/2016
2	2	NW	Grass-covered stone/turf bank along upper river terrace	MKP	12/05/2016
3	3	WNW	Well-built drystone dyke at Domnaheiche Farm	MKP	12/05/2016
4	4	NE	Brick-built well	MKP	12/05/2016
5	3	NNW	Looking over the dyke at Domnaheich Farm with Loch Tummel in background	MKP	12/05/2016
6	5	N	Concrete tank	MKP	12/05/2016
7	6	NNW	Low remains of grass-covered bank	MKP	12/05/2016
8	8	W	U-shaped stone/turf structure	MKP	12/05/2016
9	8	SW	U-shaped stone/turf structure	MKP	12/05/2016
10	7	SW	Ruinous sheep fank	MKP	12/05/2016
11	7	N	View along sheep fank wall, showing slabs sticking out	MKP	12/05/2016
12	9	SW	Stone-built tank with iron tankard	MKP	12/05/2016
13	10	S	Burial of MANP from 2009	MKP	12/05/2016
14	11	N	Stone-filled, subrectangular hollow	MKP	12/05/2016
15	12	SW	Turf/stone banks	MKP	12/05/2016
16	13	NW	Concrete slab-built disused sluice/weir	MKP	12/05/2016
17	14	SSE	Possible small, cellular boulder structure	MKP	12/05/2016
18	-	N	View over Domnaheiche Farm	MKP	12/05/2016
19	-	SSW	Looking over the southern survey area	MKP	12/05/2016



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