



Highland Archaeology Services Ltd

Bringing the past and future together

Field Monitoring



Kyle Water Main Renewal

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Field Monitoring

Kyle Water Main Renewal

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Summary

Field monitoring was conducted to identify and record as far as possible any archaeology affected by the construction of a new water main in the Balmacara area of Lochalsh. Archaeological monitoring visits were undertaken during the construction of the water main. Unfortunately initial excavations near the Water Treatment Works at Achnandarach had already taken place so it was not possible to observe these. Attention was directed especially towards those sections of the pipeline that diverted from the current public road verge. No new archaeological finds or features were identified.

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Acknowledgements

We wish to thank the client, Halcrow PLC, for commissioning this report, which follows on from a desk-based assessment carried out in February 2007 (Report HAS070203). Background mapping has been reproduced by permission of the Ordnance Survey under Licence 100043217.

Introduction

Field monitoring of construction work for a new water main was conducted during May – July 2007 to identify and record any archaeology affected by the construction of a new water main in the Balmacara area of Lochalsh. This report summarises the results.

Location

The new water main runs from approximately Ordnance Survey Grid Reference NG865296 to NG803309.

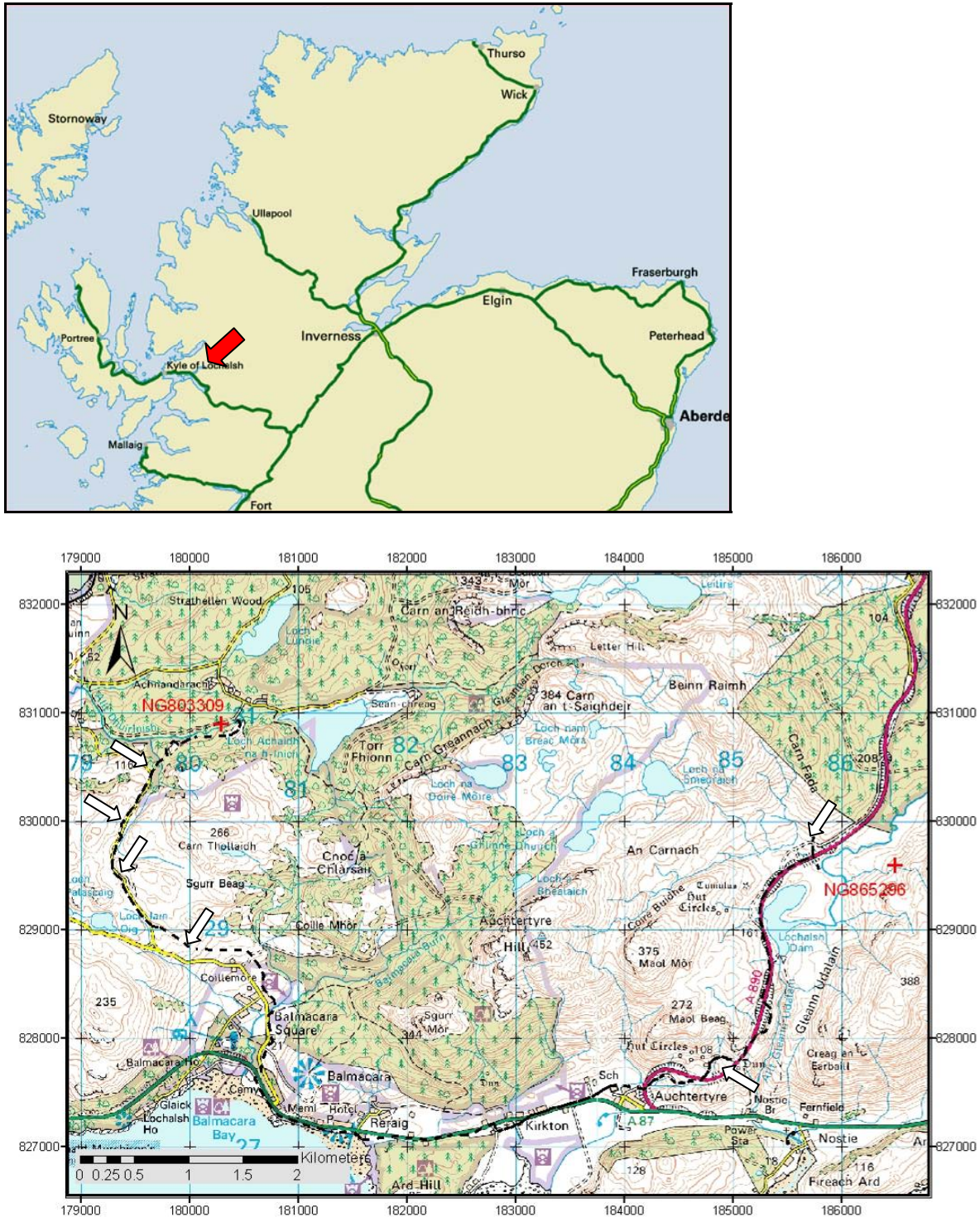


Figure 1 Project Location

Black dashed line indicates approximate route. Arrows show areas where particular attention was paid.

Objectives

The purpose of this work was to:

1. Identify any recorded archaeological sites or features affected by this work and record them to ensure that archaeological evidence is not unnecessarily damaged or destroyed.
2. Minimize any possible delay or costs to the development by anticipating any archaeological requirements as far as possible, timetabling and integrating archaeological recording work with the project, and dealing with any issues arising quickly and efficiently.

Archaeological background and cultural significance

The new water main runs for approximately 12 km, and required open cutting of trenches with a back-acting excavator. No recorded archaeological sites or Listed Buildings were directly affected. The archaeological background is set out in the previous report following the desk-based assessment (HAS070203); briefly summarised, there has been limited previous archaeological work in Lochalsh apart from fieldwork around Auchtertyre in 1990, and a survey carried out in 1995-6 for the National Trust for Scotland, both by the Museums Service of the former Skye and Lochalsh District Council. This work recorded 109 new sites, demonstrating the potential of the area.

The Kyle Water Treatment Works at the north-western end of this pipeline was subject to extensive archaeological investigation when it was built in 2000. An initial survey identified 17 features including a prehistoric roundhouse, a shieling, clearance cairns, lengths of bank, and modern trackways¹. Excavation then found a late prehistoric roundhouse as well as medieval occupation².

Method

Desk Based Assessment

A desk-based assessment took place in January and February 2007 which checked the proposed route against the archaeological records, maps and aerial photographs. The results are presented in report HAS070203.

Field Monitoring

A series of site visits were undertaken during the construction work, from May to July 2007. Where possible, particular attention was paid to the sections of the water main which departed from the public roads. Photographs were taken where possible and these are included on the accompanying CDROM. However weather conditions were such that satisfactory photographs could not always be obtained. This applied for example north of Colliemore. Continuous observation of all excavations was not undertaken and in some cases the pipe trench had already been backfilled at the time of visiting.

¹ Cameron K 1999 Kyle of Lochalsh Water Treatment Works: Archaeological Survey (CFA Report 481)

² Dunwell, A, 1999 Kyle of Lochalsh Water Treatment Works: Archaeological Field Evaluation (CFA Report 493)

Results

The following recorded sites, noted during the desk-based assessment, were checked further. The location maps have been included here from the Desk-based Assessment report (HAS 070203) but sites not affected by the line of the new water main have been omitted from the listing here. Sites and features are listed by Highland Sites and Monuments Record (SMR) No.

SMR NG72NE0124 Loch Iain Oig

In 1995-6, M Wildgoose recorded a 'revetted roadway' running from NG 7927 2958 to NG 7970 2953. The area was photographed but this could not be identified on the ground.



Figure 2 Dyke recorded N of pipeline route – possibly SMR NG73NE0054?

SMR NG73SE0054 Coire A' Mhuilt

A boulder dyke was noted north of the pipeline route (See Fig 2 above). This may be the dyke referred to in the records. A dyke was also found cut by the pipeline as it left the public road (see photographs 1055-1060). It is not clear whether or not these sections of wall join as the area between these points is covered by trees and very thick undergrowth.

SMR NG83SW0076; NG83SW0145 Achnandarach

Field survey and excavations were undertaken by CFA Archaeology in 1999 at the site of the water treatment works revealed a hut circle; over 15 clearance cairns; and other lengths of bank and modern trackway. The extension to the Water Works to accommodate the new water main was the subject of an excavation by Highland Archaeology Services in July 2007 but no further archaeological features were found.

SMR NG82NW0019 Auchtertyre

M Wildgoose reported in 1989 that 'Within the loop of the old line of the A890, just to the E of the fenced area, at a height of 110m OD are three enclosed terraces with associated clearance cairns.' The pipeline kept close to the old road line at this point and did not apparently affect this site.

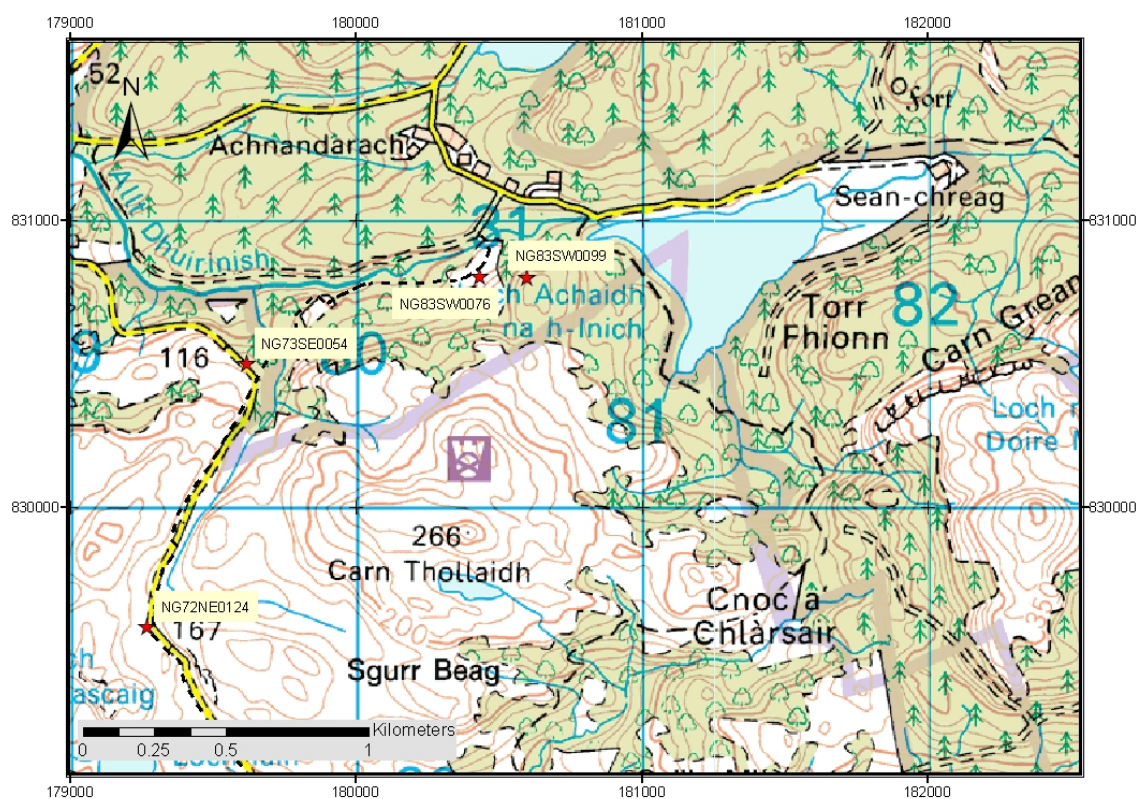


Figure 3 Achnandarach – recorded sites



Figure 4 Balmacara – recorded sites

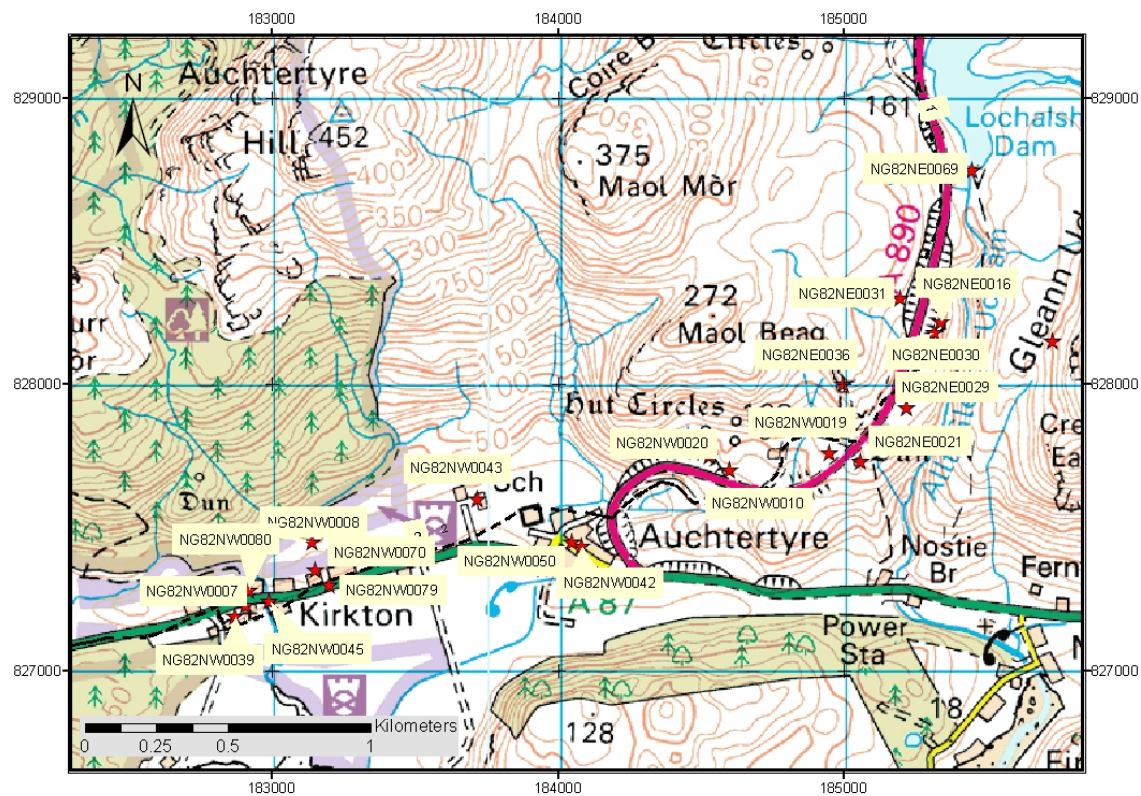


Figure 5 Kirkton / Auchtertyre sites

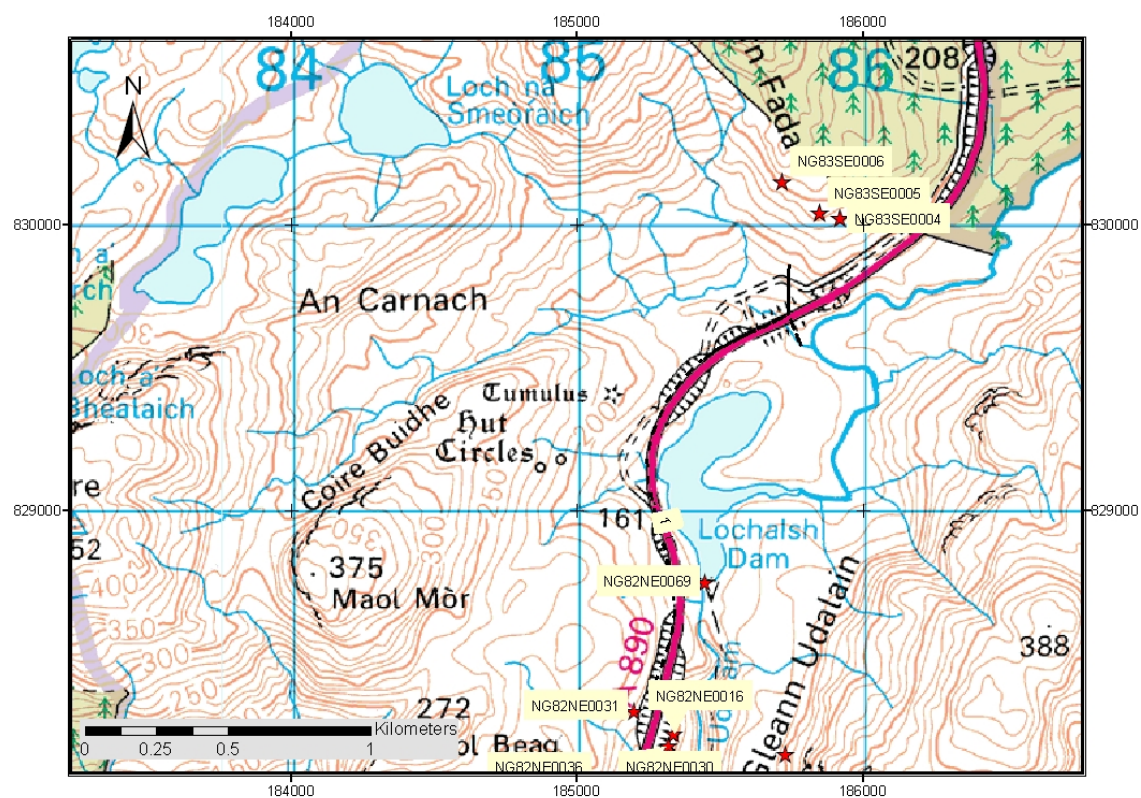


Figure 6 Carn Fada sites

Discussion and conclusions

Achnandarach

The north-western end of the water main is at the Kyle Water Treatment Works. Archaeological survey and excavation was carried out there in 1999 and 2000 by CFA, who noted the potential for further archaeology nearby (see above). Unfortunately it did not prove possible to observe the water main excavations in this area. We carried out a further excavation prior to construction of an extension to the Treatment Works in July 2007, but this did not locate any new features there (See Report HAS070802).



Figure 7 Backfilled pipeline leaving road towards Treatment Works



Figure 8 Excavation of pipe trench N of Balmacara - Duirinish road

North of Balmacara

Buried sites could occur almost anywhere within the peat moorland, so there was believed to be some potential in the section north of Balmacara. However the soils were found to be very thin and much of the water main had to be excavated through bedrock (see Fig 8 above).

Auchtertyre

The line of the new pipe runs along a section of old road just north of Auchtertyre, where it was thought recorded Bronze or Iron Age roundhouses and field systems could be affected. However excavations for the pipeline in this area were observed in July 2007 and the line taken did not affect any archaeological sites.



Figure 9 Old road N of Auchtertyre, before excavations



Figure 10 Old road bridge and view towards Carn Fada

Carn Fada

Surveys have noted some features near the north-eastern end of the pipeline south of Carn Fada. It was difficult to establish from the records whether these would be affected, but a site visit clarified that these were well away from the proposed works.

Roadline

Elsewhere, the line of the new water main followed the current or former road line, and the potential for disturbance to archaeological features or sites was low. Intermittent observations confirmed this.

Bibliographic references have been provided as footnotes through the text.

Appendix: List of Photographs

This is also included on the accompanying CD as a MS Excel spreadsheet. See location maps below for camera locations.

Photo Number	Taken By	Location (approx)	Direction Facing	Description
Fuji 070	JW	9	W	Cutting trench through rock
Fuji 071	JW	9	E	Cutting trench through rock
Fuji 072	JW	9	W	Cutting trench through rock
Fuji 073	JW	12	NW	Old road, N of Auchtertyre
Fuji 074	JW	12	SW	Old road, N of Auchtertyre
Fuji 075	JW	13	NE	Carn Fada
Fuji 076	JW	14	SW	Old road line pre-excavation
Fuji 077	JW	14	NE	Old road line pre-excavation
Fuji 078	JW	14	NW	Old road line pre-excavation
Fuji 079	JW	13	NE	By road bridge
PTX23-07 036	JW	12	N	Trench excavation; laying pipe
PTX23-07 037	JW	12	S	Trench excavation; laying pipe
PTX23-07 038	JW	11	SSE	Trench excavation; laying pipe
PTX23-07 039	JW	11	N	Trench excavation; laying pipe
PTX23-07 040	JW	10	S	Old road, N of Auchtertyre
PTX23-07 041	JW	10	S	Old road, N of Auchtertyre
PTX23-07 042	JW	10	S	Old road, N of Auchtertyre
PTX23-07 043	JW	10	S	General view
PTX23-07 044	JW	10	S	General view
PTX23-07 045	JW	10	S	General view
IMG 1037	GS	1	NNW	Looking towards ongoing work.
IMG 1038	GS	1	NNW	Looking towards ongoing work.
IMG 1039	GS	1	SE	Pipe trench and pipe.
IMG 1040	GS	1	SE	Pipe trench and pipe.
IMG 1041	GS	2	SE	Backfilled pipeline trench.
IMG 1042	GS	2	SE	Backfilled pipeline trench.
IMG 1043	GS	2	NNE	Backfilled pipeline trench where pipeline crosses road.

Photo Number	Taken By	Location (approx)	Direction Facing	Description
IMG 1044	GS	2	NNE	Backfilled pipeline trench where pipeline crosses road.
IMG 1045	GS	2	NNE	Backfilled pipeline trench where pipeline crosses road.
IMG 1046	GS	3	N	Looking along backfilled trench.
IMG 1047	GS	3	E	Land East of pipeline.
IMG 1048	GS	3	SSE	Looking towards backfilled pipeline where it crosses the road.
IMG 1049	GS	4	SSW	Looking towards CP2 and CP3, north of pipeline crossing back across road.
IMG 1050	GS	4	SSW	Looking towards CP2 and CP3, north of pipeline crossing back across road.
IMG 1051	GS	4	N	Looking over road to backfilled pipeline.
IMG 1052	GS	5	SSW	Backfilled trench where pipeline crosses road for final time to head NE.
IMG 1053	GS	5	SW	Looking along backfilled pipeline trench, where it crosses road for final time to head NE.
IMG 1054	GS	5	NE	Looking along backfilled pipeline trench.
IMG 1055	GS	6	SSE	Remaining section of stone wall, next to backfilled pipeline trench.
IMG 1056	GS	6	SSE	Remaining section of stone wall, next to backfilled pipeline trench.
IMG 1057	GS	6	SSW	Remaining section of stone wall, next to backfilled pipeline trench.
IMG 1058	GS	6	SW	Looking along backfilled pipeline.
IMG 1059	GS	6	WSW	Barely visible remaining section of stone wall, on other side of backfilled pipeline trench.
IMG 1060	GS	6	WSW	Barely visible remaining section of stone wall, on other side of backfilled pipeline trench.

Photo Number	Taken By	Location (approx)	Direction Facing	Description
IMG 1061	GS	7	N	From road, approx. 30m WNW of where pipeline crosses road, looking north towards remaining section of stone wall, SMR: NG73SE0054 .
IMG 1062	GS	8	SE	Towards a wall on the other side of the road.
IMG 1063	GS	8	SE	Towards a wall on the other side of the road.
IMG 1064	GS	8	SSE	Towards a wall on the other side of the road.

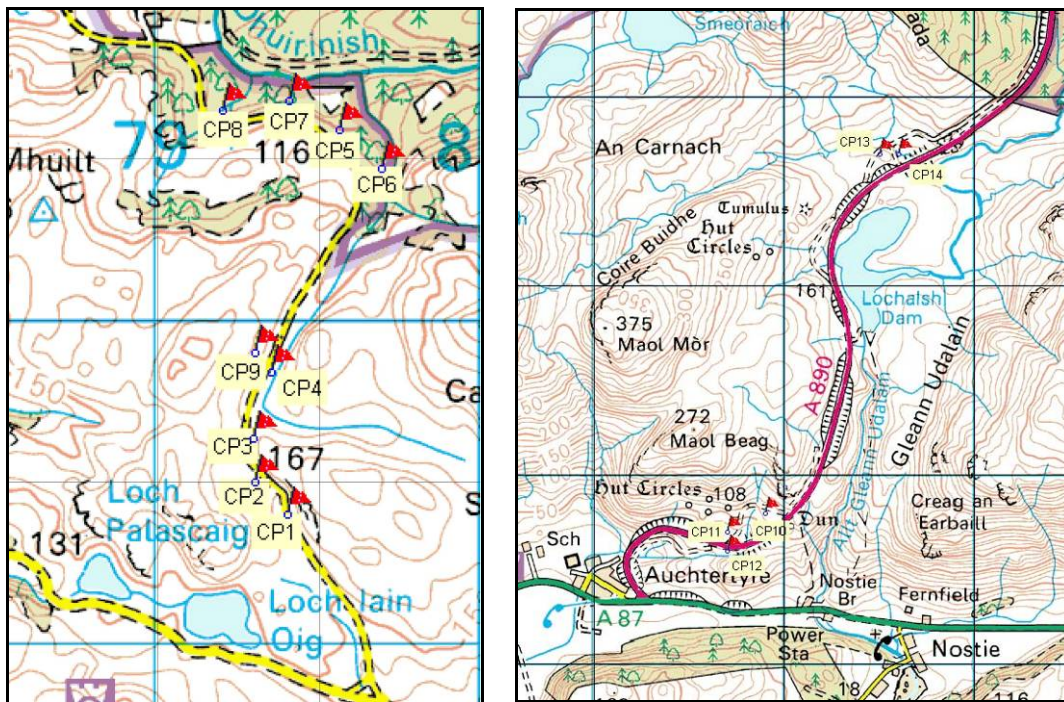


Figure 11 Camera locations (approx)