INTRODUCTION

This report describes a series of archaeological watching briefs undertaken during the refurbishment of the Forteviot-Dunning-Aberuthven 11kv electricity power line by Scottish Hydro Electric Power Distribution plc (SHEPD), a division of Scottish & Southern Energy. The upgrading consisted of replacing stretches of existing poles and stays while installing underground cables along other parts of the route.

The watching briefs were carried out between 17th June and 28th July 2009.

Three parts of the cable route ran across or close to known or suspected archaeological sites. These are:

Area 1: on the east side of Dunning are the remains of a Roman temporary camp and, to the north-east of the camp at Drum of Garvock, are two prehistoric burial mounds;

Area 2: on the north-west side of Dunning is a putative early medieval vallum; and

Area 3: Laigh of Rossie, a short distance to the east of Aberuthven, is a possible early medieval cemetery.

The Roman camp is a Scheduled Ancient Monument. As a consequence, Historic Scotland imposed a condition whereby a Written Scheme of Investigation (WSI), describing the strategy intended to mitigate any action that might damage the surviving archaeological record, was required before on-site work commenced within the scheduled area. At the behest of Perth and Kinross Heritage Trust (PKHT), archaeological advisors to Perth & Kinross Council, the document was enlarged to include the other areas of investigation.

The monuments located near the cable route are described briefly below. They are listed according to the numbers assigned by the Royal Commission on the Ancient and Historical Monuments of Scotland (RCAHMS) (eg NO01NW 7), by PKHT (eg MPK1981) and Historic Scotland (eg SAM 3675).

SITES AND MONUMENTS

AREA 1

A 1km-long section of the cable line ran approximately north-east to south-west across the site of the Roman temporary camp, all the poles within this area being replaced. The camp has been identified principally by aerial photography although limited excavation has added to our knowledge of the site.

NO01NW 7 (MPK1981; SAM 3675) Kincladie Wood: Roman temporary camp

Aerial photography and limited excavation established that the camp measures some 700m square and may have had six gates, two on each of its north and south sides and one each on its east and west sides. On the evidence retrieved from trenching across the north and west defences, the surrounding, V-shaped ditch was approximately 3-3.5m wide. Stretches of rampart have survived on the north side of the fort. Artefacts recovered from the site indicate that it dates from the first century.

Several, presumably unrelated, sites have been identified within close proximity of the Roman camp.

NO01SW 31 (MPK2019) Crofts: enclosure

A rectangular enclosure is located at NO 022 147, just beyond the south edge of the scheduled area.

NO01SW 18 (SAM 9434; MPK2004) Dun Knock

The remains of a fort located on a low knoll, whose flattish summit measures some 130m by 35m, have been recorded at NO 0231 1429. The fort is surrounded by at least four concentric ditches, identified as cropmarks by aerial photography.

SAM 8921 (MPK8763) Kincladie: possible pit circle

A possible pit circle has been identified to the north-west of the Roman camp at NO 021 153.

MPK7819 Kincladie Wood: field boundary

A field boundary has been identified at NO 022 155.

NO01SW 23 (MPK2010) Pitcairns House: gate lodge and gates

The lodge stands at NO 0266 1451.

NO01SW 181 Dunning Park: evaluation

In October 2005 an archaeological evaluation was undertaken in advance of a proposed housing development at NO 022 144, just south of the Roman camp and a short distance from Dun Knock fort. Nothing of archaeological significance was uncovered.

NO01SW 16 (MPK2002) Nether Garvock: axehead

In 1971 a stone axehead was unearthed at the east edge of the scheduled area, at NO 0282 1474.

NO01NW 139/140 (SAM 8773; MPK8756/8757) Drum of Garvock: burial mounds

Aerial photography has identified two burial mounds at NO 034 158 and NO 033 157, some 500m north-east of the Roman camp. Together they constitute a Scheduled Ancient Monument. These mounds are close to Pole 30 which was also replaced.

AREA 2

MPK15522 Station Road, Dunning: vallum ditch

During an archaeological evaluation, undertaken in advance of the extension of Dunning Primary School, a large ditch was uncovered in three trenches centred on NO 01867 14570. The ditch was U-shaped in profile and measured 2.5-3m wide and 1-1.25m deep. It has been

interpreted tentatively as a vallum, perhaps defining the boundary of an early ecclesiastical community at Dunning.

AREA 3

NN91SE 33 (MPK1423) Laigh of Rossie: burial, enclosure, ring ditch

Grave pits and other features have been located by aerial photography a short distance to the south-east of Laigh of Rossie, around NN 989 149, although their presence has yet to be confirmed on the ground.

RESULTS OF THE WATCHING BRIEF

AREA 1 (Photographs 1-61)

The watching brief in this area comprised monitoring the replacement of several wooden poles and some associated stays for an overhead line. The poles were all located in fields given over to cereal cultivation, the crops being almost fully mature during this fieldwork. Most of the watching brief in Area 1 (Poles 39-51) was undertaken within the limits of the Roman camp, the only exception being the replacement of Pole 30 which was close to the burial mounds at Drum of Garyock.

The procedure for replacing poles was the same in each case. A trench was dug by mechanical excavator along the axis of the power line, against one side of the existing pole, as far as its base. The old pole was then removed and a new one, with an attached kicking block for stability, placed in the same position. Pole trenches varied only slightly in dimensions, measuring 2.0-2.6m long by 0.4-0.7m wide and 1.6-1.8m deep. They cut through 0.3-0.4m of mid-brown humic ploughsoil which overlay the backfill from the original pole trench, only small areas of ground remaining undisturbed from that time. Below topsoil and backfill was glacial till which varied in composition from pink boulder clay to sand, gravel and pebbles.

Trenches for stays, which were needed for angle and terminal poles, were somewhat larger than pole trenches; indeed, where two stays were needed trenches measured up to 4m long and 2m deep. Some stays were replaced in the same positions as existing ones although occasionally new trenches had to be dug.

The section of the line carried by Poles 39-51 ran between the north-east and south-west corners of the scheduled area, the poles being spaced typically some 80m apart. Stays were inserted at angle Poles 42, 46 and 49 and at terminal Pole 51. This section of the line ran through gently undulating ground and spanned three fields, all of them in crop.

Pole 30 (Photographs 1-4)

Pole 30 was located in the corner of a level field, at NO 03464 15877, very close to burial mounds NO01NW 139 and NO01NW 140 at NO 034 158 and NO 033 157, respectively. These monuments were identified only from aerial photographs and no trace of them was visible on the ground at the time of the watching brief.

The trench was located to the immediate south-west of the existing pole and measured 1.6m by 0.7m and 1.5m deep. Topsoil comprised 0.3m of mid-brown, sandy loam which, with the exception of the area covered by backfill, lay directly on pinkish brown clay and fractured stone.

A stay trench, measuring 2.2m north-east/south-west by 0.7m wide and 1.7m deep, was excavated some 5m to the south-east of the pole. Topsoil was 0.4m deep at this location, where the trench extended below a hedge, and sat directly on boulder clay.

Pole 39 (Photographs 5-8)

The trench for Pole 39 was located to the immediate north-east of the pole, at NO 02906 15229, and measured 2m by 0.9m and 1.7m deep.

Pole 40 (Photographs 10-14)

The pole trench measured 2.4m by 0.6m and 1.6m and was located on the south-west side of the pole, at NO 02869 15144.

Pole 41 (Photographs 15-17)

The trench was on the south-west side of the pole, at NO 02832 15067, and measured 2.1m by 0.7m and 1.6m deep.

Pole 42 (Photographs 20-27)

The trench for this angle pole was located at NO 02784 14963, on the south-west side of the pole, and measured 2.5m by 0.7m and 1.6m deep. This pole was at the north-east boundary of a field, the hedge appearing to follow the course of a former stream.

Four stays were attached to Pole 42. Stay 1 was located 5m to the south of the pole, its trench measuring 2.5m north-east/south-west by 0.6m wide and 2m deep. The trench for Stay 2, some 7m south-east of the pole, had identical dimensions and alignment to Stay Trench 1. Stays 3 and 4 were set into a single trench located 13m south-west of the pole and measuring 4m north-west/south-east by 0.7m wide and 2m deep.

Pole 43 (Photographs 28-29)

Pole 43 trench was to the immediate north-east of the pole, at NO 02715 14921, and measured 2.3m by 0.7m and 1.6m deep.

Pole 44 (Photographs 30-31)

Located at NO 02644 14880, on the south-west side of the pole, the trench for Pole 44 measured 2.6m by 0.6m and 1.6m deep.

Pole 45 (Photographs 32-34)

The trench for Pole 45 was located to the south-west of the pole, at NO 02589 14847, and measured 2.5m by 0.6m and 1.7m deep.

Pole 46 (Photographs 35-39)

Pole 46 is an angle pole, located at NO 02527 14805. The trench was excavated on the northeast side of the pole and measured 2.5m by 0.7m and 1.8m deep.

A stay trench was excavated 5m to the north-west of the pole and measured 2.7m north-east/south-west by 0.7m wide and 1.8m deep.

Pole 47 (Photograph 40)

The pole is located at NO 02457 14743, the trench being on its north-east side and measuring 2.7m by 0.6m and 1.7m deep.

Pole 48 (Photograph 42)

The trench for Pole 47, located at NO 02403 14694, was to the north-east of the pole and measured 2.6m by 0.7m and 1.7m deep.

Pole 49 (Photographs 43-46)

This angle pole was located at NO 02331 14628, the trench being to its north-east and measuring 3m by 1m and 1.6m deep.

Four stays were attached to Pole 49, two to a trench. Stay Trench 1 was located 6m south of the pole and measured 3.6m east/west by 0.9m wide and 2m deep. Stay Trench 2 was located 11m west of the pole and measured 3.6m north/south by 0.9m wide and 2m deep, straddling a fence.

Pole 50 (Photographs 47-48)

Pole 50 is located at NO 02266 14624, its trench being to its immediate east and measuring 2.5m by 0.8m and 1.6m deep.

Pole 51 (Photographs 49-50; 57-61)

Pole 51 marks the west terminus of the overhead line and is located some 8m from a fence on the east periphery of Dunning, at NO 02212 14616. The ground around the pole had been extensively disturbed on a previous occasion when an underground power cable had been connected to the pole. In addition, this area has seen large quantities of domestic and garden refuse being dumped over several years. The power cable had to be re-excavated during this operation to ensure it was not damaged when the extent of the disturbance in this area became clear.

A stay trench, measuring 2.5m north/south by 0.8m wide and 2m deep, was excavated against the fence, 8m west of the pole. Again, this cut only through heavily disturbed materials.

Discussion of Area 1 results

Most of the ground excavated for the pole trenches cut through previously disturbed materials. The same was true for some stay trenches while others were in new locations. As a

consequence, the principal means of identifying archaeological features and deposits lay in examining trench sections although nothing of archaeological significance was seen in any of them. Furthermore, no artefacts predating the 20th century were retrieved during these excavations.

The topsoil along this stretch of power line varied little and comprised roughly 0.3m of humic ploughsoil whose depth increased slightly in low-lying areas. There was a little more variation in the subsoil of red-brown boulder clay whose clay content increased within lower ground. A more significant change was noted around Pole 42 where the clay was overlain by gravel and pebbles, perhaps evidence of the water course that may have run along the east side of the field. This putative stream would have cut across the Roman camp and may have been a source of water for the soldiers housed there.

AREA 2 (Photographs 62-80)

Area 2 was located on the west side of Dunning, in the angle between the B8062 and B9141 roads which run to the west and north, respectively, from the village. It was undertaken along the route for a new underground cable from the north side of a tennis court, across playing fields to the south of a golf course, continuing westwards to the rear of properties along the B8062 Auchterarder road. The field is mostly level but slopes gently upwards towards its west end. The watching brief was undertaken because of the proximity of a possible early medieval ditch uncovered near Dunning Primary School (see above).

Although there were no divisions within it, the trench has been divided nominally into three. Trench 1 ran roughly east/west outside the north side of the tennis court at NO 01774 14570; Trench 2, the longest stretch, ran from the north-west corner of the tennis court to the north-west corner of a play park; and Trench 3 continued westwards for a short distance to a point level with the rear entrance to the property known as 'Oakfield', at NO 01664 14457. The overall length of this stretch of the cable route measured approximately 160m.

The trench was dug using a 5-tonne mechanical excavator and measured 0.4m wide and 0.65-0.7m deep but was somewhat deeper at the start of Trench 2 (see below).

Trench 1

This stretch ran alongside the north edge of the tennis court where the cable was to connect with an existing one below the adjacent B9141. The east end of the trench had been disturbed on a previous occasion when floodlights were installed for the tennis court. The topsoil continued below the base of the trench in this area but rose further west where the underlying glacial till was exposed.

Trench 2

Trench 2 cut across a football field to the south of the golf course and was excavated to a depth of 1m along its first 12m where the cable was ducted below a newly constructed road leading to the golf club-house. Glacial materials were uncovered at a depth of approximately 0.6m along most of its length except for a stretch between NO 01711 14497 and NO 01698 14469 where it was not exposed. The uppermost 0.3m of very humic topsoil overlay less humic and slightly redder material although the interface between the two soils was

indistinct. The lower deposit was probably topsoil buried when the area was landscaped to accommodate the playing field.

Trench 3

Trench 3 was simply a continuation of Trench 2, running westwards and uphill through an area covered with coarser grass and a few trees. Topsoil, which was very dry because of the action of tree roots, was 0.6m deep and contained 19th-century ceramics throughout its depth.

Discussion of Area 2 results

Glacial deposits were uncovered at the base of most of the trench although there were two stretches where topsoil continued below this level: at the east end of the tennis court; and midway along Trench 2. Either of those anomalies could mark the position of the early medieval ditch although they are perhaps more likely to result from location variations in the topography. Furthermore, the area around the tennis court had been disturbed on an earlier occasion and Trench 2 was probably located beyond the area defined by the putative early medieval ditch.

AREA 3 (Photographs 81-87)

The watching brief in Area 3 consisted of monitoring the excavation of a trench for an underground cable some 360m south-east of Laigh of Rossie and 1km south-east of Aberuthven. On the evidence of aerial photographs, the remains of a possible early medieval cemetery (NN91SE 33) lie a short distance north of the trench, around NN 989 149, which provided the reason for the watching brief. The trench ran alongside the base of an embankment for the Perth to Stirling railway before dog-legging at its south-west end around a concrete platform (see accompanying site plan). Monitoring was undertaken between NN 98963 14844 and NN 98875 14756, the overall length of this section being approximately 150m.

For convenience, Area 3 is divided into Trenches 1, 2 and 3 (see accompanying plan).

The trench followed the edge of a field whose crop of barley had just been cut. It measured 0.6m wide and 0.9m deep to ensure that the cable would not be damaged during future ploughing or the insertion of field drains. Ploughsoil of dark brown, humic loam was less than 0.3m deep along most of the trench but was up to 0.5m deep in the south corner of the field. It overlay glacial till, mostly red-brown clay with stones (some of them very large) although it became sandier and less stony towards the west.

No features or deposits of archaeological significance were uncovered and the only artefacts recovered during the watching brief dated to the 19th and 20th centuries.

Discussion of Area 3 results

The absence of any trace of burials or other features suggests that the putative early Christian burial ground (NN91SE 33) does not extend as far west or south as the cable trench. However, being so narrow, the trench could easily miss such features, particularly if they were dispersed over a large area.

ILLUSTRATIONS IN THE REPORT

- 1 Area 1: location of Pole 30 and its trench
- Area 1: locations of Poles 39-51 and their trenches
- 3 Area 2: location of underground trench
- 4 Area 3: location of underground trench

PHOTOGRAPHIC ARCHIVE

The photographs listed below form part of the project archive and are not reproduced in this report.

AREA 1

- 1 Trench for Pole 30, viewed from the south-west
- 2 Trench for Pole 30, viewed from the west
- 3 Old Pole 30 being removed, viewed from the south-west
- 4 Trench for Pole 30 stay, viewed from the south-west
- 5 Pole 39 trench, viewed from the north-west
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- 8 Backfilling near completion around new Pole 39
- 9 View to the south-west along the power line from near Pole 38
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- Pole 40 trench, viewed from the north-west
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- 14 Installation of Pole 40 nearing completion, viewed from the south-east
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- 28-29 Trench for Pole 43, viewed from the north-east
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- Dun Knock to the south of the Roman camp, viewed from the north
- Trench for Pole 48, viewed from the north-east
- 43-44 Trench for Pole 49, viewed from the north-east
- 45-46 Stay Trench 2 for Pole 49, viewed from the south
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- 48 Stay Trench 1 for Pole 50, viewed from the east
- 49-50 Trench for Pole 51, viewed from the north-east
- 51-54 Views to the east from Pole 51
- View to the north from Pole 51
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- 57-58 Existing underground cable being re-excavated adjacent to Pole 51, viewed from the east
- Stay trench for Pole 51, viewed from the north
- 60-61 Stay trench for Pole 51, viewed from the east

AREA 2

- 62-63 Trench 1, viewed from the east
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- Trench 2 partially excavated, viewed from the south-west
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- Cable being inserted into Trench 2, viewed from the north-east
- 69 Cable being inserted into Trench 2 and ducted section backfilled, viewed from the north-east
- 70-71 Trench 2 fully excavated, viewed from the north-east
- 72-73 Trench 2 fully excavated, viewed from the south-west
- View to the east from Trench 2
- 75-76 View to the north-east from Trench 2
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- View to the west from Trench 2
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- Trench 3, viewed from the east

AREA 3

- 81-82 Trench 1, viewed from the south-west
- 83 Trench 1, viewed from the north-east
- Trench 2, viewed from the south-east
- Trench 2, viewed from the north-west
- Trench 3, viewed from the north-east
- 87 Trench 3, viewed from the south-west