

Report on Archaeological Watching Brief
at Winney's Down Area 1,
Dartmoor National Park



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Non-technical Summary

*This report outlines the results of an Archaeological Watching Brief undertaken during blanket bog restoration works at Winney's Down as part of the Dartmoor Mires Project. The restoration works were carried out from 19 September to 3 October and again from the 24 October until 3 November 2011. The Dartmoor Mires Project involves carrying out restoration work to areas of blanket peat within Dartmoor National Park. The restoration works comprised the mechanical removal of peat blocks and islands, which were used to block erosion gullies on the site. The author, Nicola Rohan, was on site for the duration of the restoration works observing the peat removal, block construction and machine access to and from the site. A series of low-lying patches of *Molinia* that were sub-circular in plan were identified at various locations on the site during restoration works. A sondage was opened in one of the *Molinia* features, under the supervision of the author, to establish if they were the result of archaeological activity. Nothing of archaeological significance was uncovered within the sondage, indicating that these features are naturally occurring. Nothing of archaeological significance was uncovered during the course of restoration works.*

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1 Introduction

- 1.1 An Archaeological Watching Brief of the Dartmoor Mires Project blanket bog restoration works at Winney's Down, Dartmoor was undertaken by the author, Nicola Rohan, from the 19th of September to the 3rd of October 2011 and again from the 24th of October to the 3rd of November 2011 (Figure 1).
- 1.2 The restoration works for the Dartmoor Mires Project involves blocking existing erosion gullies with peat blocks that are sourced on site. The blocks hold water on the uphill side of the gullies allowing the bog to rewet. At Winney's Down the blocks were excavated using low ground pressure track machines fitted with toothless buckets.
- 1.3 The peat used in block construction was, in the majority of cases, taken from areas of virgin peat and from the uppermost 0.40m of the bog.

2 Site location and topography

- 2.1 The site at Winney's Down (SS625820) is located on an area of relatively flat upland, which is located 990m southwest of Sittaford Tor and 3.8km northwest of Postbridge, in the parish of Dartmoor Forest. It lies down slope and south-southwest of Statt's House. The restoration boundary encompasses an area of virgin blanket bog and covers approximately 19 ha (Figure 2). A previous archaeological and palaeoecological survey carried out in advance of restoration works indicated that the peat is up to 6.7m deep in the northwest end of the site (Fyfe, Woodbridge & Rowe, 2010).

3 Archaeological and Historical Background

- 3.1 The first (1886-1893) and second (1906-1907) edition Ordnance Survey maps and Tithe Map for the Parish of Lydford (1841) were examined for evidence of any structures or features that may have been previously extant on the site. Examination of the maps revealed

that no features or structures are recorded on the restoration site at Winney's Down since the mid-nineteenth century (Figures 3 & 4).

- 3.2 There are no recorded archaeological remains within the site boundary at Winney's Down. However, there are a number of sites recorded on the Historic Environment Record (HER) for Dartmoor, which date broadly from the prehistoric to the modern period located within 500m of the site (Figure 5). The HER sites are denoted by the prefix MDV. The single example of a prehistoric monument is a cairn (MDV 6776), which is located on the summit of the hill, 360m northwest of the restoration site. The most recent survey of the site, carried out by English Heritage, records that a now ruined shelter was constructed on the remains of a cairn.
- 3.3 The majority of archaeological sites recorded in proximity to the site are thought to be medieval in date. Four medieval hut ruins are recorded along the banks of the East Dart River to the southwest of the site (MDV 7766, 7770, 60529 and 7767). Medieval streamworking is also recorded on the East Dart River (MDV 16522) 540m west of the site. The Birch Tor and Vitiford Mine Leat, which was associated with tin working but is now disused runs approximately 600m east of the restoration site.
- 3.4 Three ruined huts, which are post medieval or modern in date are recorded to the southwest (MDV 55,730) and southeast (MDV 7771) of the site. The third, Statt's house (MDV 7756), is located in proximity to the cairn at the summit of Winney's Down and overlooks the site from the northwest. It is thought to be a peat cutter's hut, built using stone robbed out from the cairn located in proximity to it (Butler, 1991, 154). There is evidence for peat cutting just beyond the western limit of the site, downhill from Statt's House and also to the north, east and south of the site boundary.
- 3.5 Pre-restoration archaeological assessment of the peat bogs on Winney's Down, Hangingstone Hill and Broad Down were carried out

in 2010 (Fyfe, Woodbridge & Rowe, 2010). The assessment of all three sites included archaeological and palaeoecological survey of the restoration areas. A Ground Penetrating Radar (GPR) survey was used to survey the depth of peat in a series of transect lines across the site at Winney's Down. No archaeological anomalies were recorded within the peat matrix during the GPR survey.

- 3.6 A radiocarbon date obtained from a core of peat taken from the northern end of the site revealed that peat growth began at Winney's Down as early as 8100 BC. There is little evidence for anthropogenic signals from the palaeoecological record until wider landscape change in the Late Iron Age with a substantial increase in grassland (*Ibid.*, 35). A change to scrubby vegetation is recorded from the 4th to 6th centuries AD, which according to the palaeoecological record was subject to clearance on Winney's Down during the 10th century AD. The assessment provides an important insight into the environmental history of Winney's Down and the surrounding area since the Mesolithic and how human activity has influenced the landscape in this area of Dartmoor.

4 Fieldwork Methodology

- 4.1 The first phase of restoration works, from the 19th of September to the 3rd of October 2011, were carried out using a 7 tonne Hitachi excavator with low ground pressure 900mm tracks and a 4ft wide toothless bucket. The second phase of work, from the 24th of October to the 3rd of November 2011, was carried out using a 7.5 tonne Takeuchi excavator with low ground pressure 900mm plastic tracks and a 3ft toothless bucket.
- 4.2 The restoration works involved blocking erosion gullies with peat dams that were sourced from their immediate vicinity (Plates 1 to 6). Peat islands, formed naturally when erosion left more resistant areas of peat free standing within the gullies, were used to block adjacent bottlenecks and hold water on the uphill side of the gullies. The size

and shape of the blocks were not uniform but were dictated by the size of the gullies. Where islands were not available or sufficiently deep enough, the edges of the gullies were re-profiled and the extracted peat was used to create the blocks. The peat was extracted from the surface layer of the bog and in the majority of cases the 'slices' of peat used in block construction measured 0.10m to 0.20m in depth and included the vegetation growing on the bog surface. In a smaller number of instances, the blocks were constructed by removing the vegetation from the sides of the gullies and putting it to one side, the peat below the surface was then removed in 0.10 to 0.15m deep slices to a maximum depth of 0.50m. The peat was used to create the blocks and the vegetation, which had been carefully set aside, was placed on the completed block. The author was present during all ground works associated with the restoration project.

- 4.3 For the most part, the peat used to construct the blocks had little impact on the bog surface. The 'slices' of peat used in block construction measured the width of the toothless bucket in use, between 0.20 and 1.50m in length, and were excavated to an average depth of 0.20m. They were composed of small areas of the upper surface of virgin bog which was formed in the recent past. In a smaller number of cases, areas of older peat were removed from the larger erosion gullies that measured up to 0.50m in depth.
- 4.4 The access route to the site was subject to a route selection process prior to the onset of restoration works. A stable access route was established and subjected to a fieldwalking survey prior to commencement of site works in order to reduce exposure or disturbance of archaeological material. No previously recorded or newly identified archaeological sites were identified along the preferred access route. The contractors were provided with GIS data illustrating the selected route to site and the driver instructed to minimise surface damage to peat. The author observed the machinery movement to and from the site (Figure 6).

5 Results

- 5.1 The areas from which the peat was extracted, the peat for use in block construction and the islands, were carefully examined by the author for any features or artefacts of archaeological significance.
- 5.2 The uppermost part of the peat stratigraphy was composed of 0.08 to 0.15m of vegetation and roots. This was mostly underlain throughout the site by 0.20 to 0.50m of poorly humified *Sphagnum* rich peat. The peat was not extracted to a depth measuring more than 0.50m.
- 5.3 At the southern end of the site, black charcoal staining was recorded within the peat, 0.01 to 0.12m below the bog surface. It is located within the most recently developed peat and is most likely to be the result of swailing. A recent burning event, which occurred in April 2011, has left the surface of the bog at the southern end of the site bare and black in places.
- 5.4 A number of distinct areas of *Molinia* were visible across the site (Figure 7). They were visually distinct from the surrounding *Eriophorum* and were sub-circular in plan, of varying size but with average diameters measuring 6m. A sondage was opened within one of these features, with the approval of Jane Marchand Senior Archaeologist at Dartmoor National Park, to investigate if they were of archaeological significance (Plates 7 and 8). It measured 1m in width, 1m in depth and 1.50m in length and was located in the centre of the *Molinia* 'feature'. The sondage was excavated to a depth of 1m to minimise damaging the bog in this area. The uppermost 0.15m of the peat stratigraphy was composed of dense *Molinia* roots. This was underlain by poorly humified *Sphagnum* rich peat to a depth of 1m below the field surface. The peat at the base of the sondage was probed with a bamboo to a further depth of 0.50m but nothing was encountered. Nothing of archaeological significance was uncovered within the sondage, indicating that they are natural features.

6 Discussion

- 6.1 Nothing of archaeological significance was uncovered during the peat extraction associated with block construction or within the sondage excavated at the northern end of the restoration area. The restoration work was carried out within the uppermost 0.40m of virgin bog and therefore impacted upon relatively recently formed peat. It is, however, possible that archaeological remains survive within the peat on the site at a greater depth than impacted upon during this project. It is therefore recommended that any future groundworks carried out at the site be subject to an archaeological watching brief.
- 6.2 Overall, the terrain did not prove difficult for the tracked excavators to negotiate and it did not cause any ground disturbance on the access route to site. The author was satisfied that neither machine impacted upon any features of archaeological interest while moving to and from the site.

7 References

- 7.1 Butler, J. 1991 *Atlas of Dartmoor Antiquities*. Volume Two – The North. Exeter, Devon Books.
- 7.2 Fyfe, R. Woodbridge, J & Rowe, J. , I. 2010 '*Archaeological and palaeoecological survey at Hangingstone Hill, Winney's Down and Broad Down, Dartmoor*'. Available at <http://www.dartmoor.gov.uk/lookingafter/laf-naturalenv/dartmoormiresproject/mires-historic-env>

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8 Figures

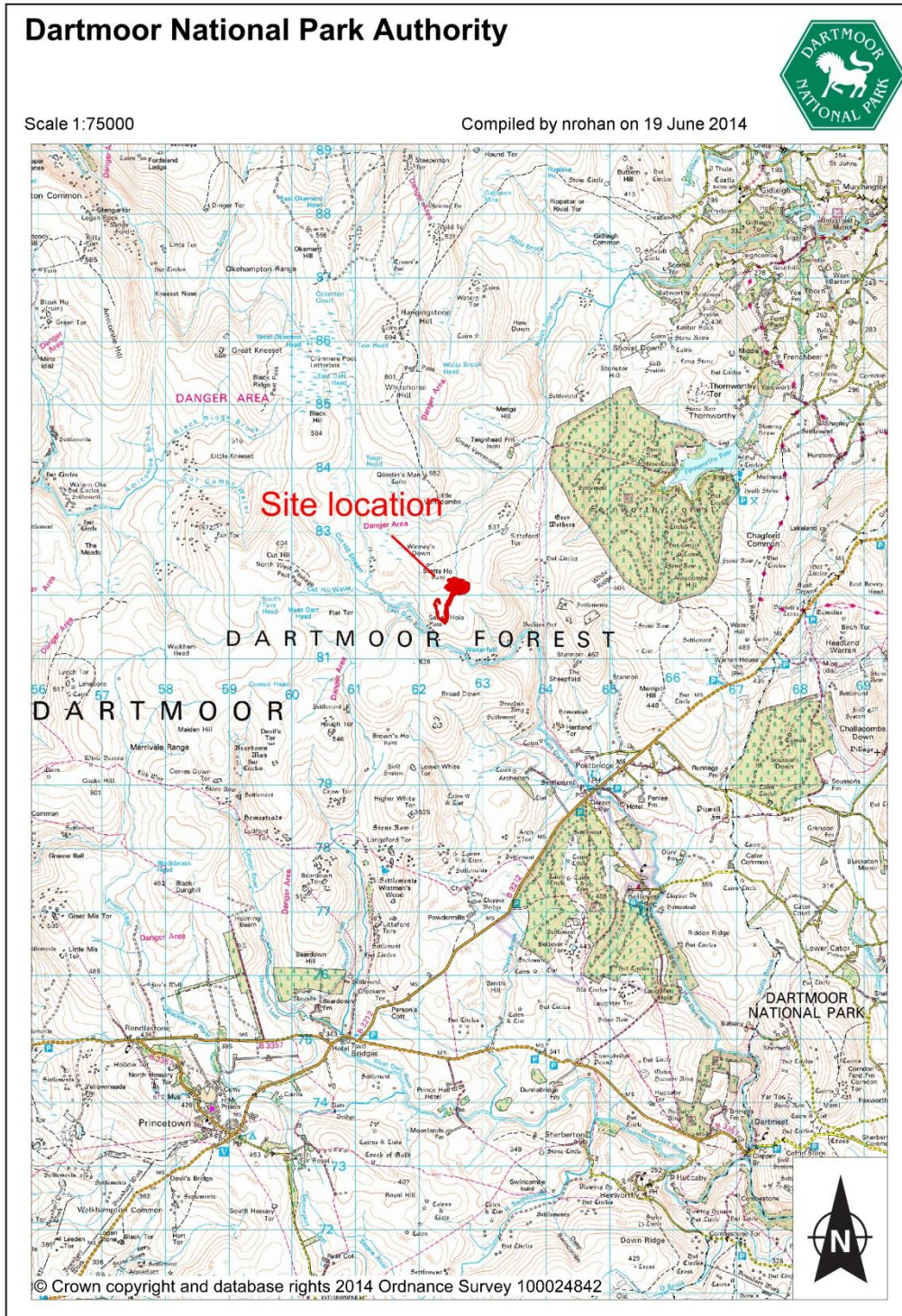


Figure 1 Site location Map.

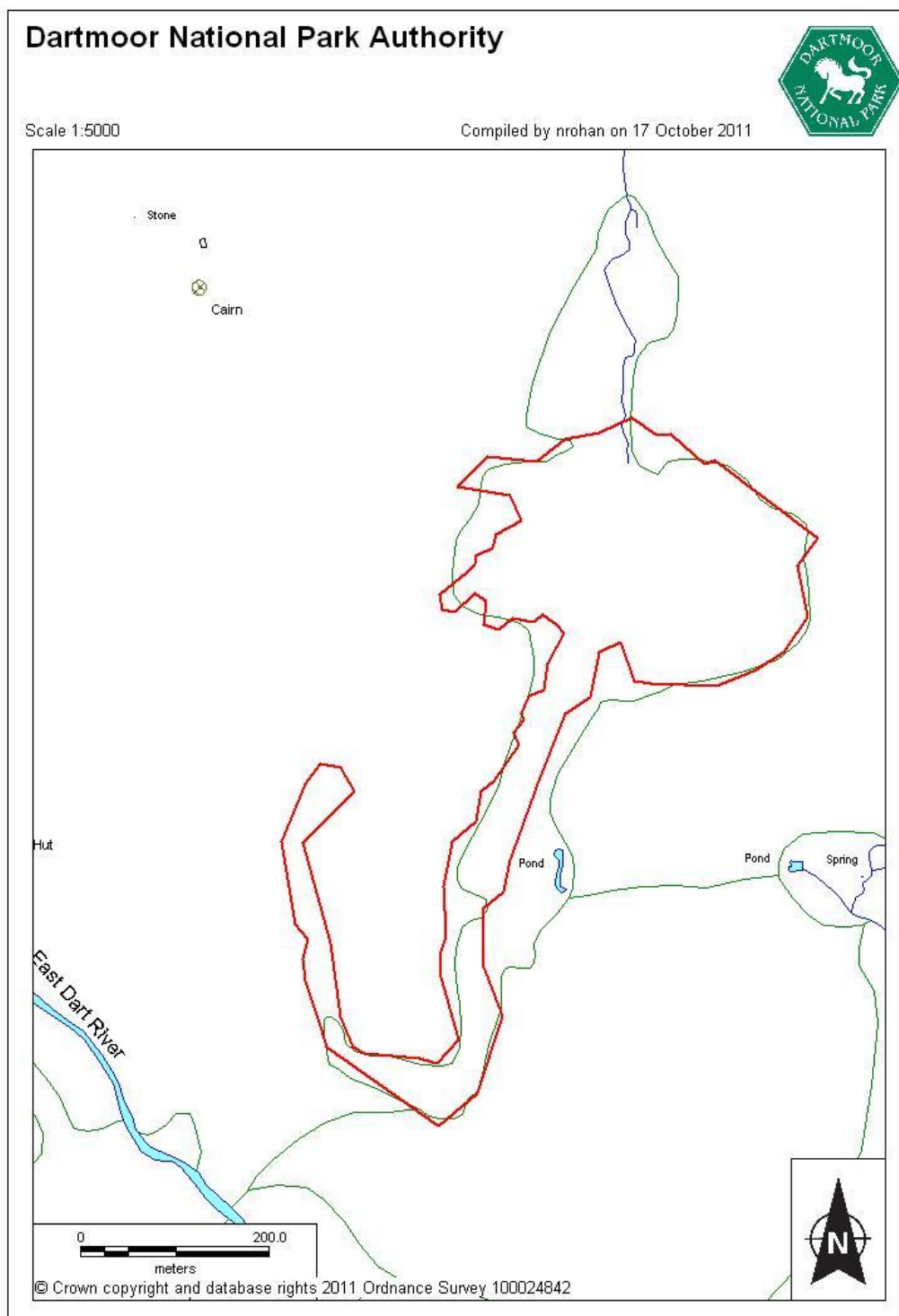


Figure 2 Winney's Down Site Layout Plan showing the restoration area outlined in red.

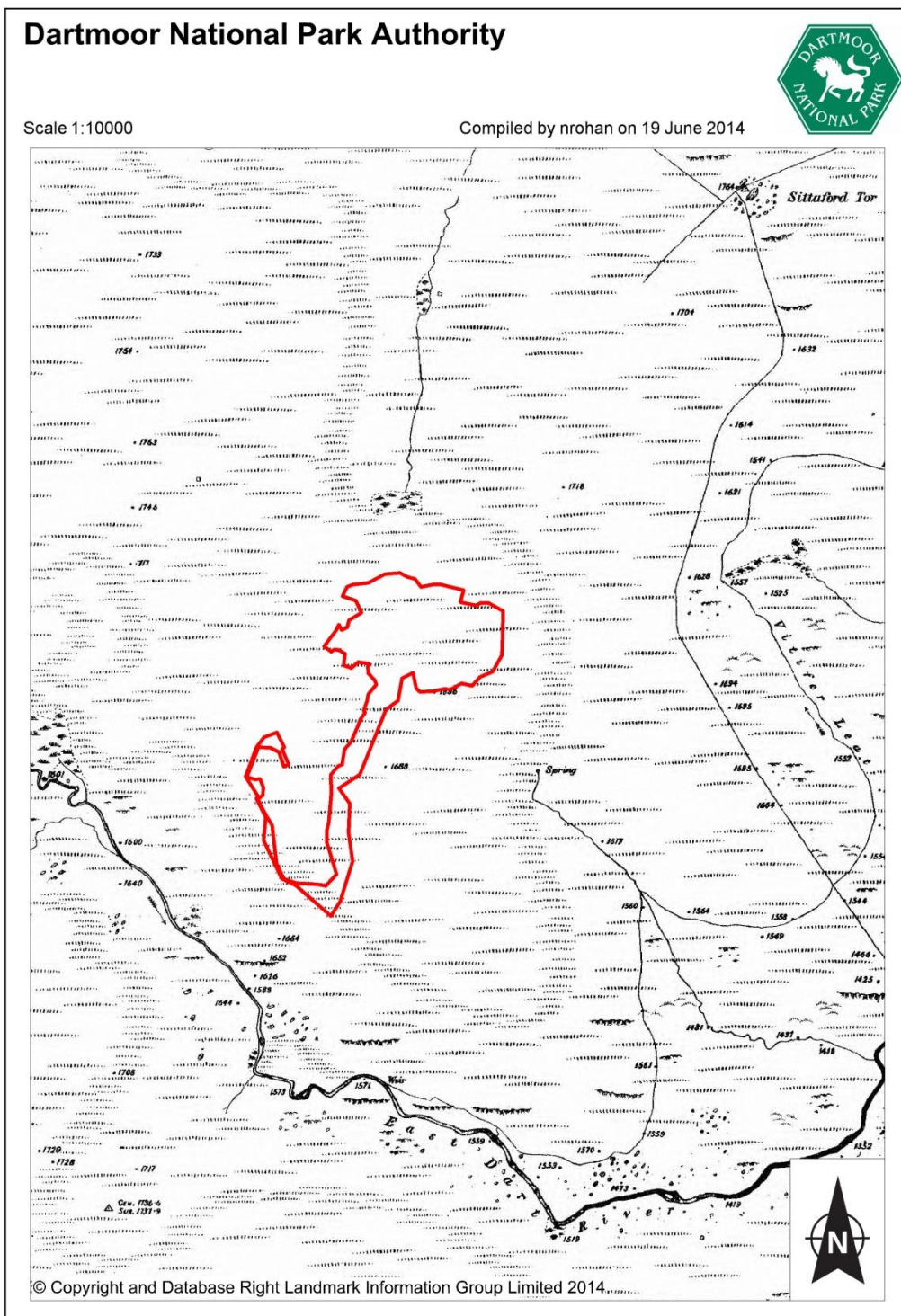


Figure 3 Winney's Down Site on first edition Ordnance Survey Map (1886-1893).

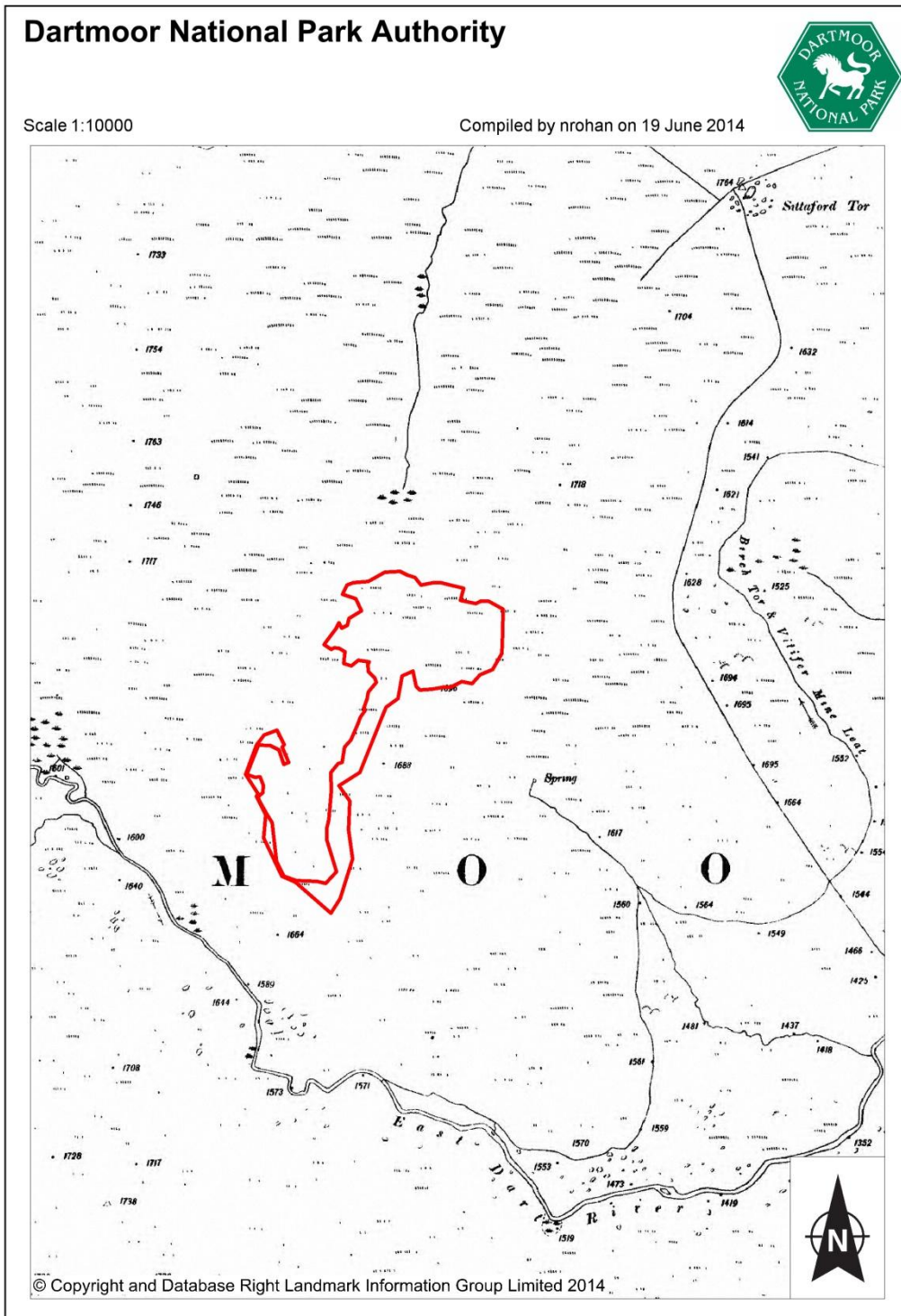


Figure 4 Winney's Down on second edition Ordnance Survey Map (1906-1907).

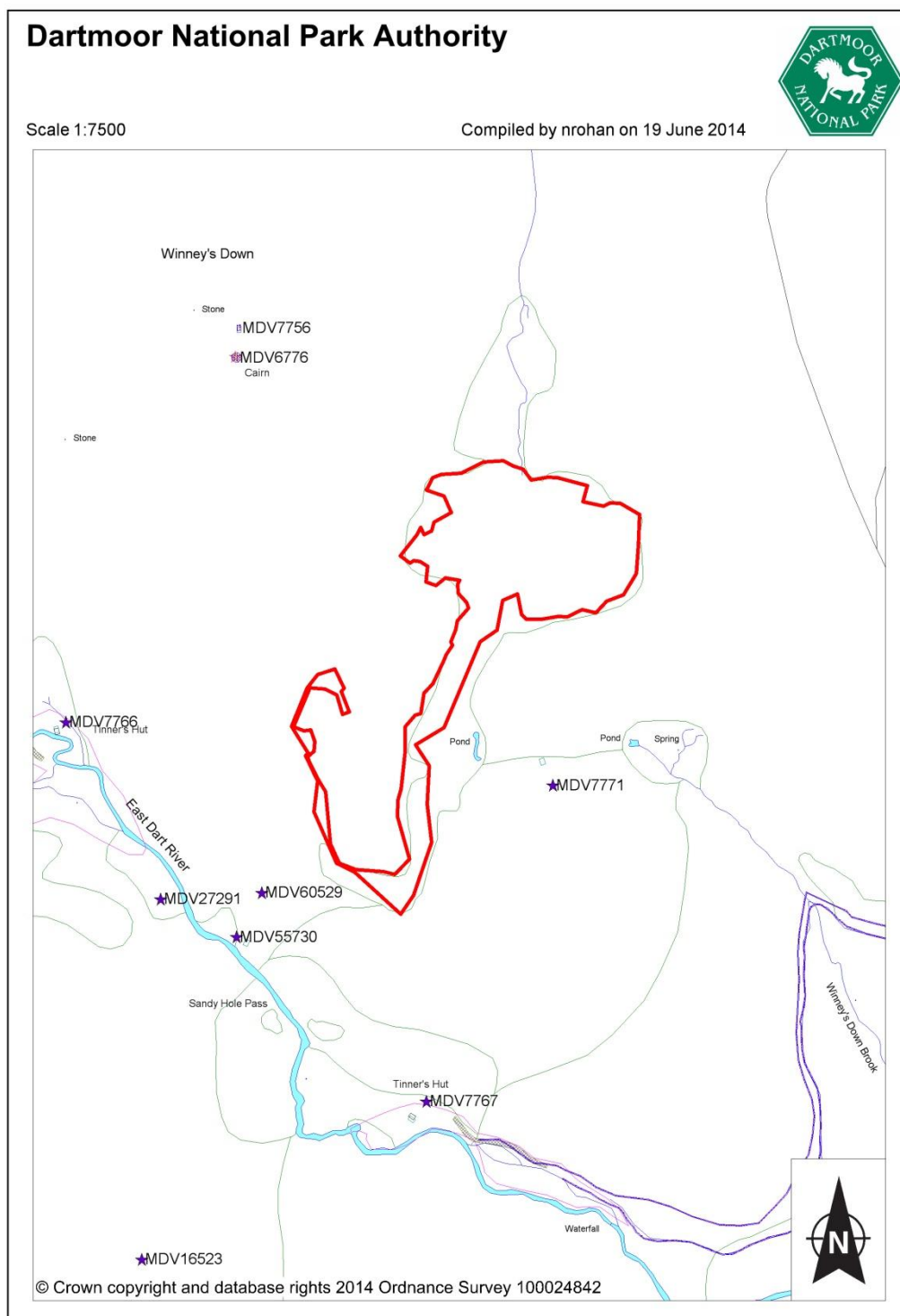


Figure 5 HER sites (with MDV prefix) within 500m of restoration area at Winney's Down (outlined in green).

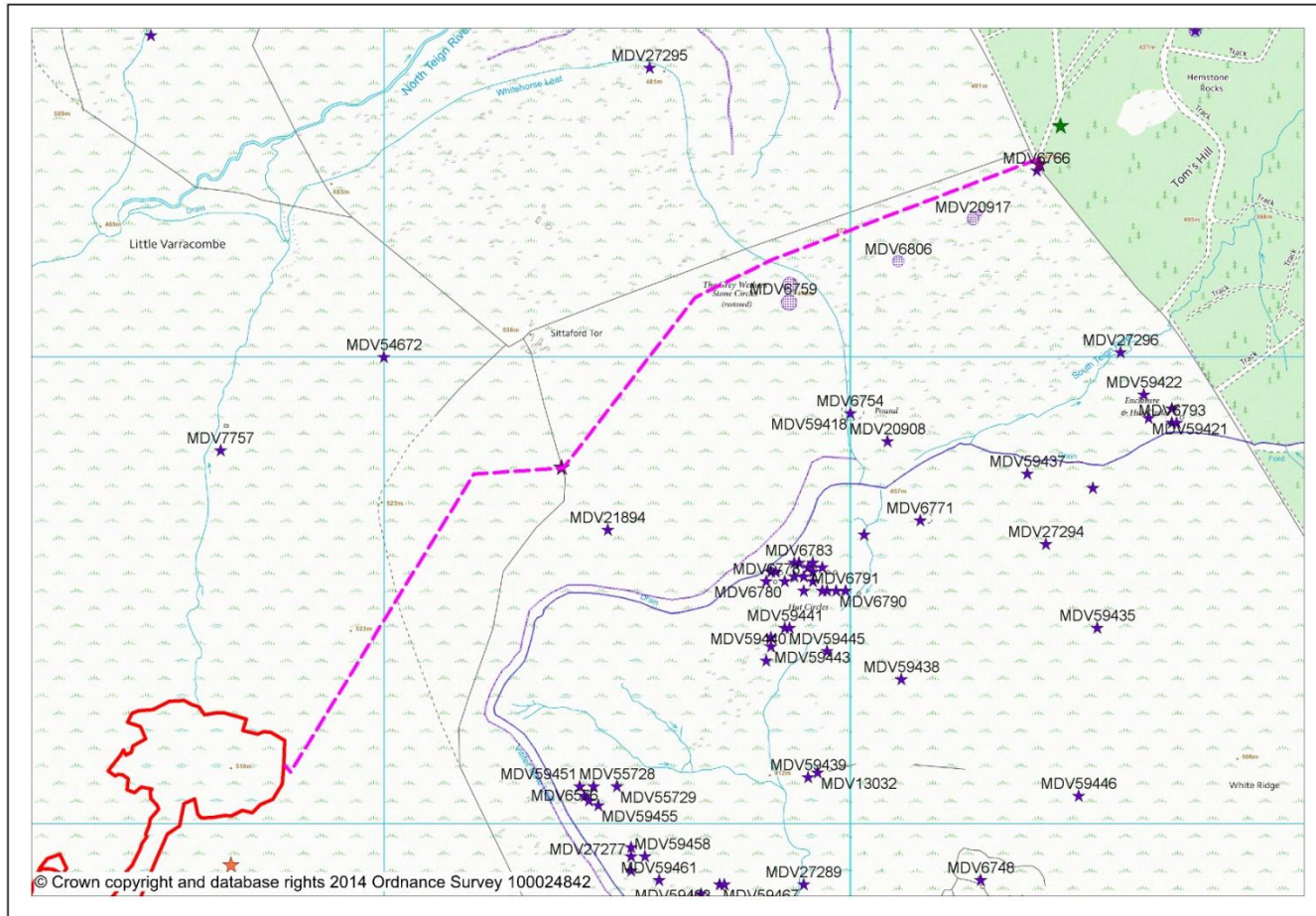


Figure 6 Winney's Down Access Route from Fernworthy Forest, showing HER sites.

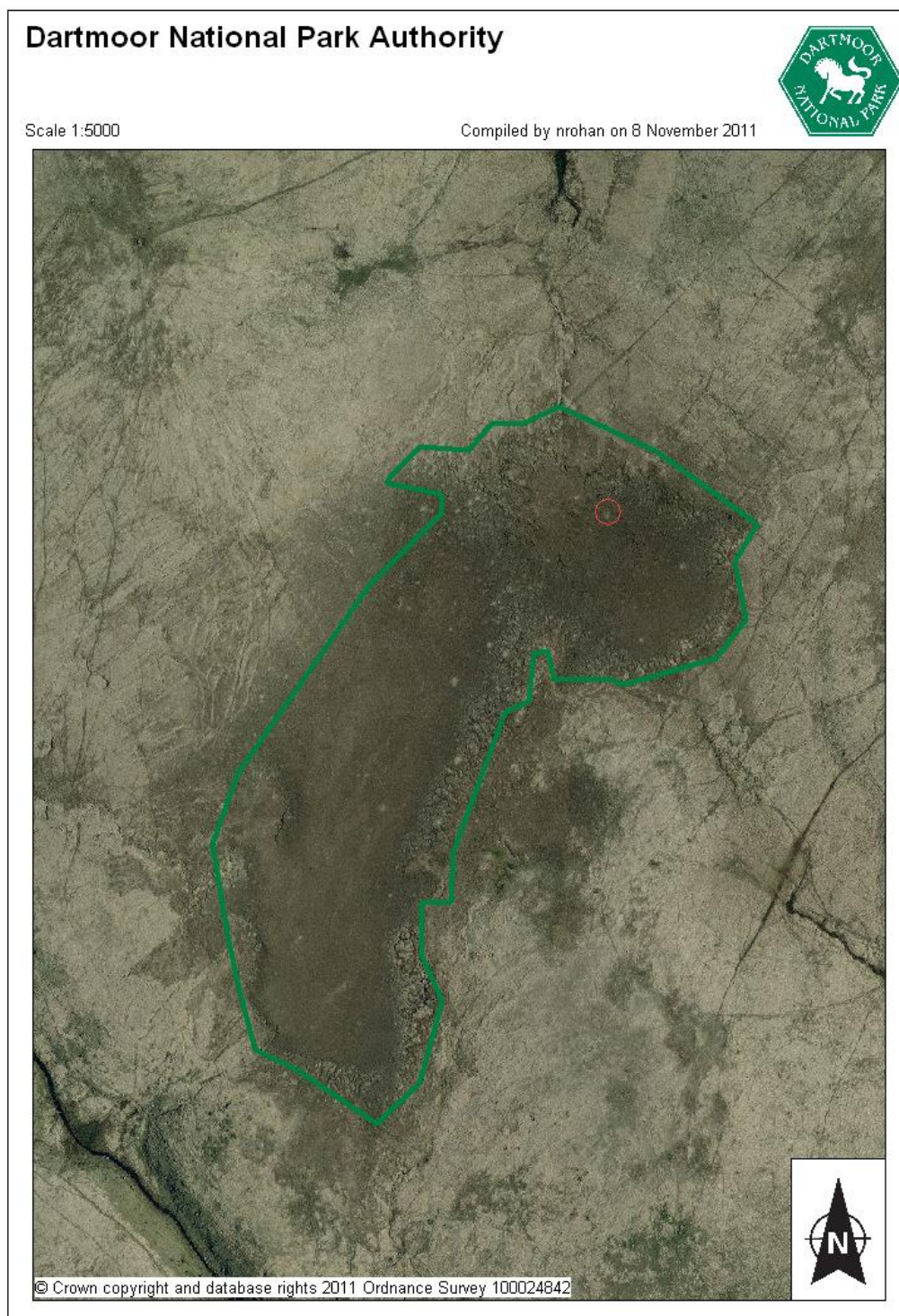


Figure 7 Location of sondage opened within *Molinia* feature circled in red. (Note *Molinia* features are visible as lighter spots within the site boundary in green (2010).

9 Plates



Plate 1 Peat being extracted for use in block construction.



Plate 2 Example of block.



Plate 3 Erosion gully with multiple blocks.

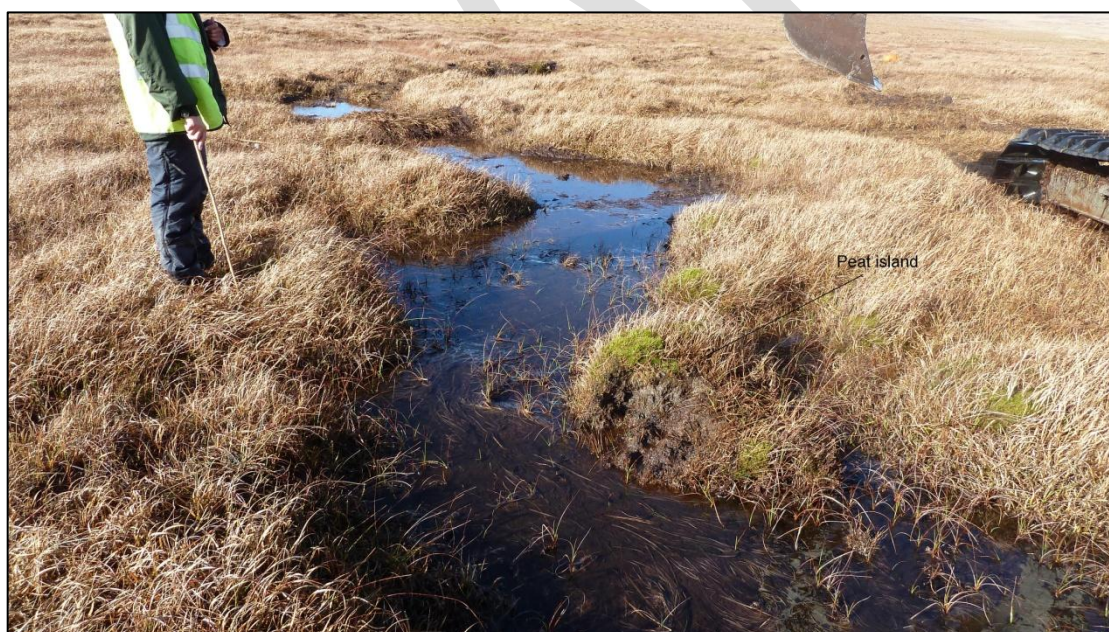


Plate 4 Erosion gully prior to peat removal (note peat island in centre foreground).



Plate 5 Erosion gully during block construction (note removal of peat island in Plate 4 and reprofiling of gully sides).



Plate 6 Erosion gully after block construction.



Plate 7 Molinia feature prior to opening of sondage, looking west.



Plate 8 Sondage, looking west.



Plate 9 Sondage, looking east.

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