



**University of
Leicester**

Archaeological Services

**An Archaeological Watching Brief
for M1 J18 Wind Turbines, Northamptonshire.**

SP 57500 72100

Mireya González Rodríguez



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**An Archaeological Watching Brief during works
associated with the Installation of Wind Turbines
at M1 J18, Northamptonshire (SP 57500 72100).**

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An Archaeological Watching Brief during works associated with the Installation of Wind Turbines at M1 J18, Northamptonshire (SP 57500 72100).

Mireya González Rodríguez

Summary

An archaeological watching brief was undertaken on behalf of Heritage Collective LLP during a programme of ground investigation associated with the installation of the M1 J18 Wind Turbines. The work took place in the land adjacent to Junction 18 of the M1 Motorway in Northamptonshire between June - August 2014. The work involved the stripping of topsoil, which was monitored by an archaeologist. A possible section of a Roman road was unearthed in the central area of the main access road. No further archaeological deposits or finds were disturbed by the groundworks. The archive will be held by the University of Leicester Archaeological Services under the Site Code NH.DIRFT.2014 until a suitable final storage facility has been agreed with Northamptonshire County Council.

1 Introduction

This report presents the results of an archaeological watching brief carried out by University of Leicester Archaeological Services (ULAS) between June and August 2014. The work took place as part of initial ground investigations for the installation of M1 J18 Wind Turbines by Airvolution Energy Limited (Figure 1). The watching brief was requested by the Planning Archaeologists at Northamptonshire County Council as advisor to the planning authority and required as Condition 29 of the consented form.

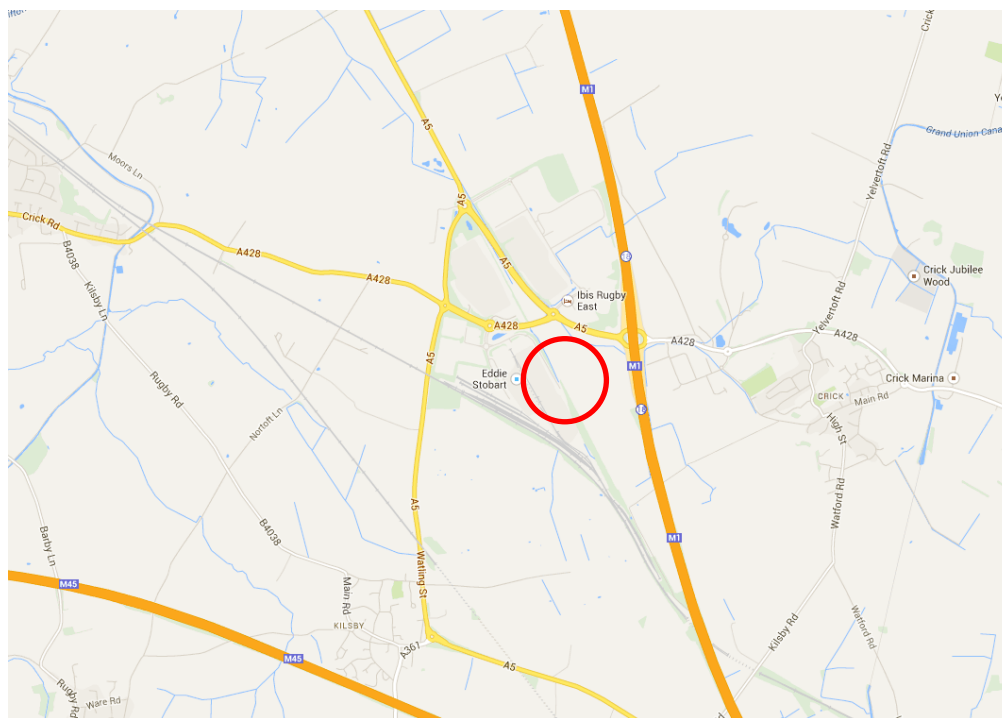


Figure 1. Site location

2 Site Description, Topography and Geology

The watching brief took place on the land adjacent to Junction 18 of the M1 Motorway in Northamptonshire (Figure 2). The site is located approximately 9km south-east of Rugby and just under a mile to the west of Crick.

The proposed turbines are situated within a triangular area of open farmland bounded by the M1 to the east, the A5 and Daventry International Rail Freight Terminal (DIRFT) to the north, the embankment along the former Roman Road of Watling Street to the west and open farmland to the south. The land falls in all directions from a high point in the southwest, at approximately 132m aOD. Turbine 1 is located at the centre of the widest and highest part of the site whilst Turbine 2 is further to the south on slightly lower ground (Figure 3).

The Ordnance Survey Geological Survey of Great Britain indicates that the underlying geology is likely to consist of Dyrham Formation combining interbedded siltstone and mudstone to the south and mudstones of the Charmouth Formation to the north. The superficial geology comprises glacial till (www.bgs.ac.uk).

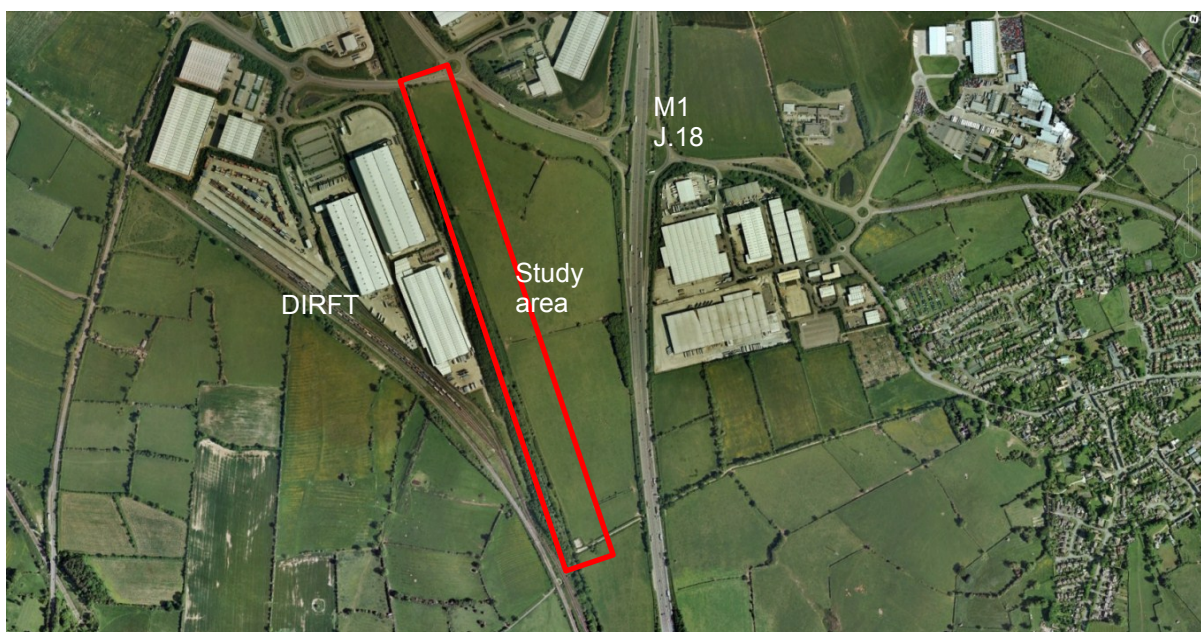


Figure 2. Satellite image of the study area showing location and current land use

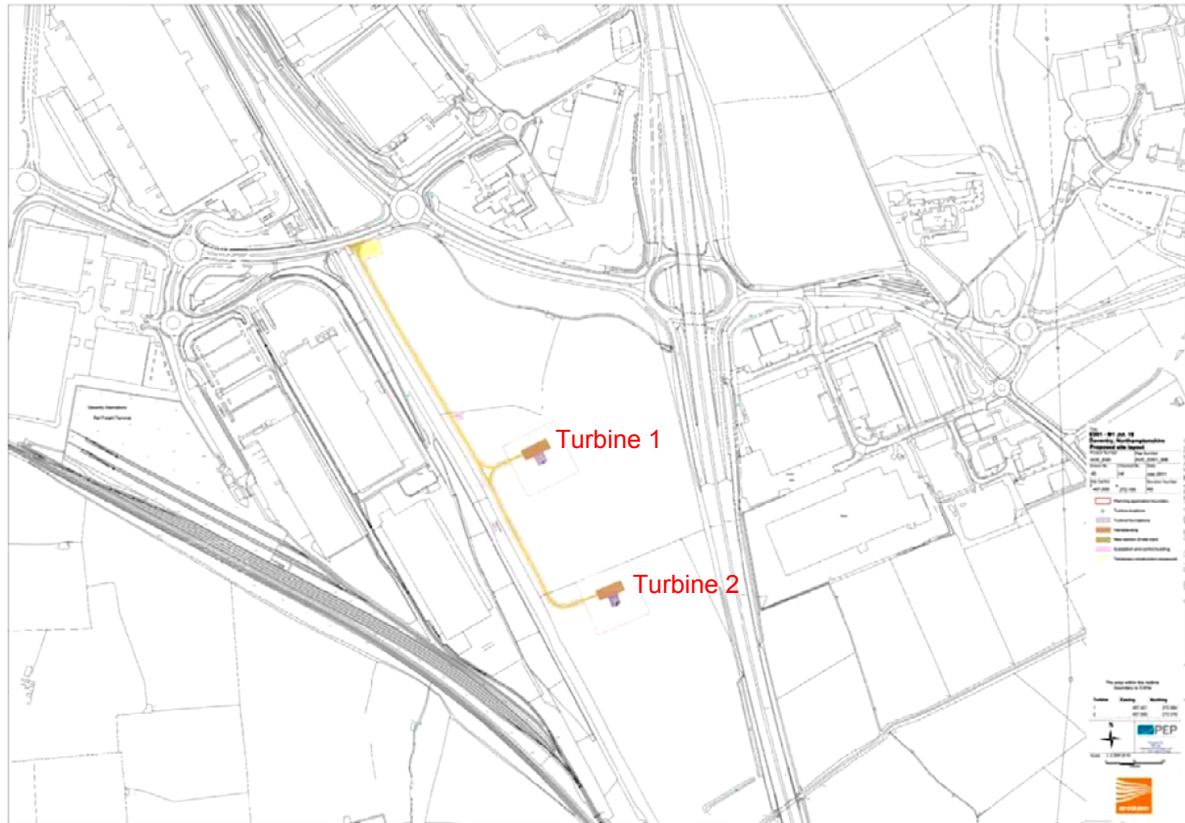


Figure 3. Plan of the turbines (plan provided by client).

3 Historical and Archaeological Background

The Cultural Heritage chapter of the Environmental Report by Airvolution Energy (2011) revealed that the site lies within a landscape of archaeological significance (Fig. 4). The HER reveals that the study area has been subjected to geophysical survey, excavation and targeted trial trenching in the mid-late 20th century in association with the development of DIRFT. The vast majority of non-designated monuments are located along or close to the edge of Watling Street. A considerable amount of development has already happened within the surrounding area.

Prehistoric

Four Mesolithic finds were recovered close to section SP 574723 of the Roman road, Watling Street. It was considered that given the limited number of finds relating to this period there is a low potential for Palaeolithic and Mesolithic remains within the study area. One flint (FNN 105030), Late Neolithic to Late Bronze Age has been recovered; therefore it was considered that there was a low potential for Neolithic remains.

The HER has revealed a number of late Bronze Age finds relating to a possible late Bronze Age to Early Roman settlement in the area north of the site. Iron Age pottery has been recorded along either side of Watling Street and within the site. Pits and ditches from the Iron Age to Late Roman period were identified by geophysics in the late 1990s and

subsequently evaluated by trial trenching. The proximity of the Iron Age settlement comprising several adjoining groups of roundhouses and ancillary structures was uncovered during the works associated with the construction of warehouses relating to DIRFT north of the site. It was therefore considered there was potential for Iron Age remains within the area.

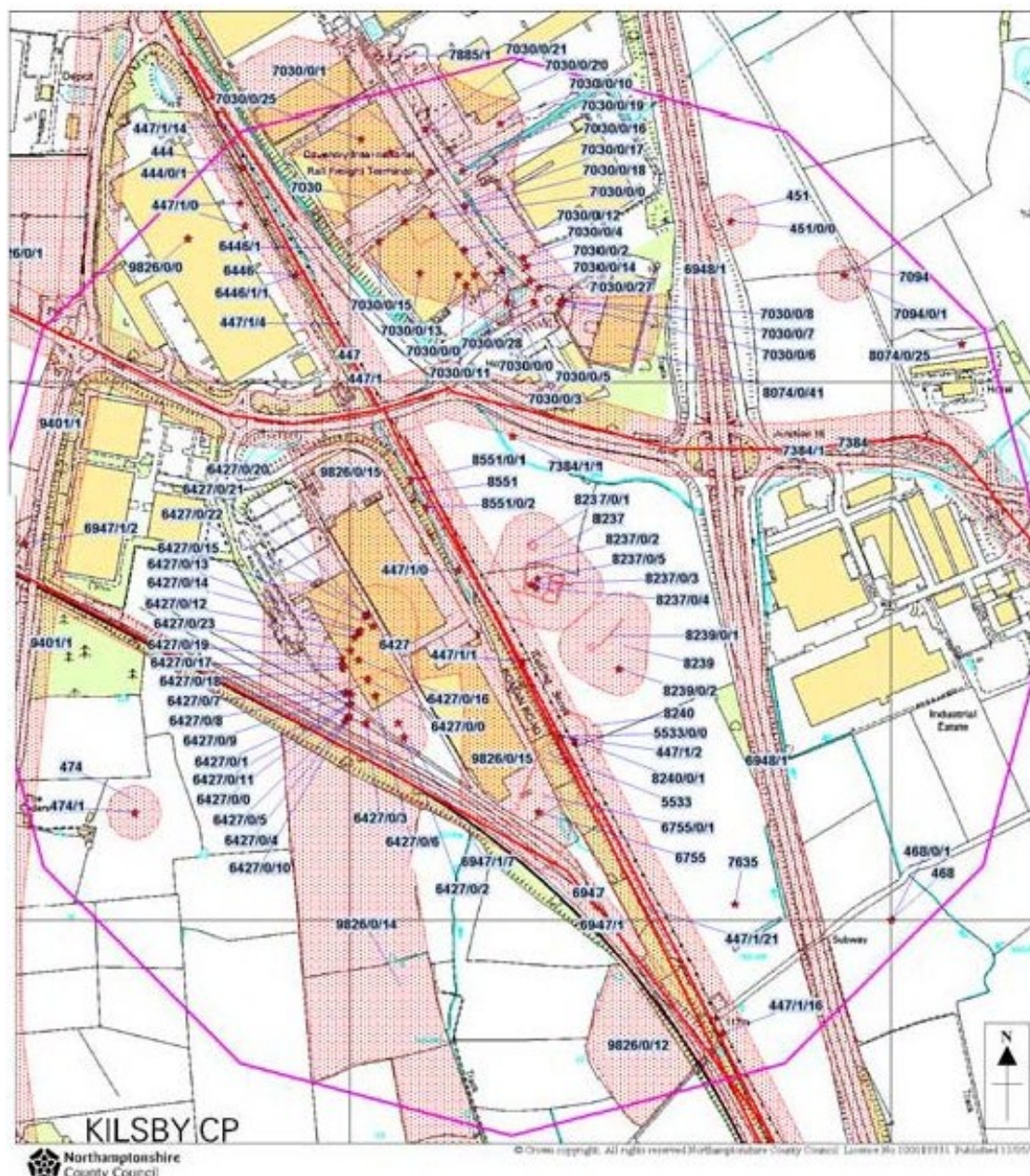


Figure 4. Plan showing HER data of the area (taken from the Cultural Heritage Assessment (Airvolution 2011)).

Roman

The HER contains a number of entries for the Roman period, notably the location of Watling Street (SMR 447/1/16) running north to south and bounding the western side of the site.

Medieval

Saxon and early medieval occupation of this area is well documented with a small settlement immediately to the west of Watling Street from the site where a small number of Early Middle Saxon pottery finds in and around ditches, a pit and grubenhaus of the same period. The Saxon activity appears to be to the west of the Roman road and consequently the potential for Medieval remains within the study area was considered to be low.

Post-medieval and Modern

Only a small number of items have been recorded from this period. The limited activity is probably reflecting the increasingly agrarian nature of the area throughout this period.

4 Aims and Objectives

The purpose of the current archaeological work was:

- To identify the presence/absence of any archaeological deposits.
- To establish the character, extent and date range for any archaeological deposits to be affected by the proposed ground works.
- To record any archaeological deposits to be affected by the ground works.
- To look for evidence for the survival of palaeo-environmental deposits.
- To advance understanding of the heritage assets
- To produce an archive and report of any results.

The principal aim of the recording was to establish the nature, extent, date, depth and significance of the heritage assets within their local and regional context.

5 Methodology

The programme of work comprised the observation of groundworks associated with the erection of the turbines. This included the excavation of access tracks, had standing for the contractor's compound, crane pads, turbine bases and grid connections (Fig. 3).

The excavations were carried out with a machine appropriate to the work with a flat-bladed bucket to expose the underlying strata.

The surfaces were visually inspected and the removed soil was described and checked at each change for signs of archaeological activity or potential.

Descriptions of excavated or exposed strata were entered onto prepared pro-forma recording sheets. A photographic record of the investigations was prepared. This includes working shots to illustrate more generally the area under study. The record was compiled and fully checked during the course of the watching brief.

The work adhered to the Institute for Archaeologists (IfA) *Code of Conduct* (2012) and their *Standard and Guidance for Archaeological Watching Briefs* (2008).

6 Results

For the purpose of clarity the study area has been divided in five different sections (Fig. 5):

- Area 1: Site compound located in the northern area of the site
- Area 2: Access road running north to south on the western part of the site
- Area 3: Substation located c.300m south of compound
- Area 4: Access and foundations for Turbine 1, c.500m south of compound
- Area 5: Access and foundations for Turbine 2, c.600m south of compound



Figure 5. Site plan with areas of study.

AREA 1

The compound area was located north of the study area. This area has been disturbed by the works associated with the construction of the road and roundabout (Fig. 6).

Summary

Fill/made ground: disturbed soils, 0.20m made up ground.
No archaeological deposits were observed.

Description

The topsoil and made up ground was stripped to approximately 0.20 – 0.3m. It consisted of disturbed orange-brown sandy clay soil with frequent brick and tile fragments and tarmac.

Interpretation

Modern tipped deposits mixed with subsoil.



Figure 6. Area 1, Disturbed made-ground.

AREA 2

The access road ran north-south along the western boundary of the site. It was c.720m long and c.5m wide. The majority of the road uncovered orange-brown sandy clay beneath the topsoil (Fig. 7). However, an area of metalling was uncovered near the top of the slope that could be related to the nearby roman road, Watling Street.

Summary

Fill/made ground: topsoil, 0.25m deep, onto orange-brown sandy-clay and gravel natural soil.

Metalling, possibly a road. Undated.

Description

The topsoil was between 0.25m and 0.30m deep and consisted of two layers. Beneath was a dark brown slightly gravelly sandy clay with occasional rootlets. The gravel was subangular to rounded (topsoil).

Approximately 45m north of the field boundary, there was a metalled surface of small to medium rounded pebbles (1) set in a matrix of very compact orange clay (2). The surface is very disturbed and is approximately 5m wide. The metalling ran east-west along the top of the hill. The best preserved section survives on the east side (Fig. 8). No associated ditches were observed and no dating evidence was recovered.

Interpretation

Topsoil over possible natural soils. The metalled surface although undated is possibly Roman and associated with the nearby Watling Street.



Figure 7. Area 2, Topsoil stripped onto natural subsoil.



Figure 8. Location of metallised surface (context 1) in area 2.

AREA 3

Area 3 relates to the ground excavation for the substation, approximately 300m south of Area 1 (Fig. 9).

Summary

Fill/made ground: 0.25m of topsoil onto orange brown sandy clay and gravel natural soil.

No archaeological deposits were observed.

Description

The topsoil was 0.25m deep. A firm brown slightly sandy gravelly clay (3) with angular to rounded cobbles and gravels.

Interpretation

Topsoil over natural soils.



Figure 9. Area 3, Stripped area of the substation.

AREA 4

This area is associated the excavation in preparation for the installation of Turbine 1. Area 4 is approximately c.100m long running west-east from the access road (Area 2) and a minimum width of c.5m and a maximum of c.20m (Fig. 10).

Summary

Fill/made ground: 0.25m to 0.30m of topsoil onto orange brown sandy clay and gravel natural soil.
No archaeological deposits were observed.

Description

The topsoil was 0.30m maximum depth and consisted of a layer of reddish brown and brown slightly sandy clay with occasional sub-rounded cobbles.

Interpretation

Topsoil over natural soils.



Figure 10. Area 4, Stripped area of Turbine 1.

AREA 5

This area is located at the highest point of the site. Area 5 related to the groundworks associated with the installation of Turbine 2. The stripped area was c.100m in length (on a west-east alignment), turning east off at the top of Area 2. The access to this area is 5m wide and is slightly curved. The maximum width of this area is c. 20m.

Summary

Fill/made ground: 0.10m to 0.30m of grey brown sandy clay topsoil onto orange brown sandy clay and gravels redeposited natural soils.

Description

This area lies on a slight slope towards the east and therefore the topsoil of the western side has not been completely removed. Consequently, although unlikely, the grey brown sandy clay could be masking archaeological features. The maximum depth of excavation was 0.30m towards the north side of this area. Here, the topsoil overlays slightly disturbed orange brown sandy clay and gravels. The deeper slot in the eastern side of the area has exposed previous work (Figure 10) and indicates that this area consists of made up ground with mixed soils, including grey clay.

Interpretation

Made ground - topsoil overlying redeposited natural soils.



Figure 10. Trench in Area 5 showing made up ground.

7 Conclusion

The archaeological watching brief was undertaken between June - August 2014 during groundworks for the construction of two wind turbines on land adjacent to Junction 18 of the M1 Motorway found only one area containing archaeological deposits. An area of metalled surface, probably a road or trackway, was revealed in Area 2 and possibly relates to the nearby Roman Road of Watling Street although no datable evidence was discovered to support this. Investigation of the area shows a slight earthwork and a line of nettles and weeds possibly marking the route of the road running east-west perpendicular to Watling Street (Fig. 10).



Figure 11. Traces of metalling with slight earthwork running eastwards beyond the access track marked by nettles.

No other deposits of archaeological origin were identified during the work.

Although the depth of made-ground varied according to previous land-use, the observed stratigraphic sequence remained broadly similar. This sequence generally comprised subsoils overlying natural alluvial clays, sands and gravels.

8 Archive

The site archive will be held by the University of Leicester Archaeological Services until a suitable storage is available with Northampton County Council. The archive will be under the site code: NH.DIRFT.2014.

The archive contains site notes (watching brief pro forma recording sheets), digital photographs and photograph index.

The report is listed on the Online Access to the Index of Archaeological Investigations (OASIS) held by the Archaeological Data Service at the University of York. Available at: <http://oasis.ac.uk/>

9 Publication

A summary of the work will be submitted for publication in the local archaeological journal Transactions of the Leicestershire Archaeological and Historical Society and Rutland Record in due course. The report will be added to the Archaeology Data Service's (ADS) Online Access to the Index of Archaeological Investigations (OASIS) database held by the University of York.

OASIS Information

<i>Project Name</i>	M1 J18 Wind Turbines, Northamptonshire
<i>Project Type</i>	Archaeological Watching Brief
<i>Project Manager</i>	V. Score
<i>Project Supervisor</i>	M. González Rodríguez
<i>Previous/Future work</i>	Previous/unknown
<i>Current Land Use</i>	Pasture
<i>Development Type</i>	Industrial
<i>Reason for Investigation</i>	Unknown extent of archaeology in the area
<i>Position in the Planning Process</i>	Condition
<i>Site Co ordinates</i>	NGR SP 57500 72100
<i>Start/end dates of field work</i>	23 rd June to 29 th July 2014
<i>Archive Recipient</i>	University of Leicester Archaeological Services until suitable storage is provided by Northampton County Council
<i>Study Area</i>	Land adjacent to M1 Junction 18.

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10 Acknowledgements

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