DIRFT Expansion, Kilsby, Northamptonshire -

Great Crested Newt Receptor Site.

Assessment Report on Archaeological Watching Brief.

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On behalf of DIRFT Limited October 2005

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OASIS Project Summary Form

Project Details

 Name:
 Archaeological watching brief during the construction of a Great Crested Newt

 Receptor Site at DIRFT Expansion, Northants.

Description: An archaeological watching brief was undertaken during the excavation of four ponds for a great crested newt receptor site to mitigate possible adverse impacts by construction activities on archaeological remains. The site lies in an area of known archaeological significance represented by remains that have included extensive Iron Age settlement recorded during excavations at Covert Farm on DIRFT East c.0.5 km to the south-east and at Long Dole on DIRFT Central c.0.4 km to the south-east. The stretch of the A5 bounding the site respects the line the former Roman road (Watling Street). No archaeological features or residual material of prehistoric, Romano-British or medieval date were observed during the watching brief. A recorded alluvial sequence suggests that the site lay within the confines of a broad palaeochannel during the prehistoric and Roman periods, downstream from the known occupation previously recorded at Covert Farm and Long Dole, which appeared not to have extended onto the site. No roadside ditches or other features associated with the Roman road were identified in the four ponds. Finds of pottery, clay tobacco pipes, tile and glass recovered from a former cultivation soil and the existing topsoil were probably derived from late post-medieval and modern agricultural activity associated with field manuring.

Project Dates:	15th July – 14 th September 2005.
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Previous / Future work: Yes - Field evaluation comprising geophysical survey / No.

Reference code:	RPS 4897.	Туре:	Recording.	Site status:	None.
Current land use:	Cultivated Land.	Monument:	None.	Significant finds:	None.
Investigation type:	Watching Brief.	Prompt:	Direction from L	PA – PPG16	

Project Location

Country:	England.				
Site Location:	Northamptonshire, Expansion.	Daventry, Kil	sby, Great Crested	Newt Receptor Site	e, DIRFT
Study Area:	1.9 hectares.	NGR:	SP 5644 7390.	Height OD:	99.2m.

Project Creators

Organisation:	RPS Planning Transport & Environment.
Brief originator:	LPA - Historic Environment Team, NCC.
Design originator:	RPS Planning Transport & Environment.
Project staff:	RPS - M Connell.
Funding body:	DIRFT Limited.

Project Archive

Recipient:	RPS Planning Transport & Environment (for Digital and Paper Archive).
Physical:	None.
Digital:	Text (photographs x 21 and assessment report - text, figures and plates).
Paper:	Recording forms (registers x 3, context sheets x 5), photographs x 21, plan x 1, section x 1 and assessment report.
Project Bibliography	

Project Bibliography

Туре:	Unpublished grey	literature,				
Title:	Great Crested Ne Watching Brief.	ewt Receptor S	ite – Ass	essment	Report on <i>i</i>	Archaeological
Author:	M Connell.	Report Ref:	4897/01/	VF.	Date:	2005.
Issuer:	RPS Planning Tra	nsport & Enviror	nment.	Place of	Issue:	RPS Oxford.

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Non-Technical Summary

An archaeological watching brief was undertaken by RPS on behalf of DIRFT Limited during the construction of a Great Crested Newt Receptor Site at DIRFT, Kilsby, Northamptonshire (centred on NGR SP 5644 7390).

The site lies in an area of known archaeological significance represented by remains that have included extensive Iron Age settlement recorded during excavations at "Covert Farm" on DIRFT East some 0.5 km to the southeast and at "Long Dole" on DIRFT Central some 0.4 km to the southeast. The stretch of the A5 bounding the northeast side of the site respects the line the former Roman road (Watling Street) and both the DIRFT East and DIRFT Central sites have produced evidence for Romano-British activity.

The development entailed the construction of four ponds with surrounding flood prevention bunds and reprofiling works to an existing earth mound. The watching brief was implemented as a precautionary measure to mitigate potential adverse impacts to archaeological remains from ground disturbing construction works.

No archaeological features or significant deposits were observed during the watching brief. Finds of pottery, clay tobacco pipes, tile and glass recovered from a former cultivation soil and the existing topsoil were probably derived from late post-medieval and modern agricultural activity associated with field manuring. No residual material of prehistoric, Romano-British or medieval date was recovered.

A recorded alluvial sequence suggests that the newt receptor site lay within the confines of a broad palaeochannel during the prehistoric and Roman periods, downstream from the known occupation previously recorded at DIRFT East and DIRFT Central. No evidence was recovered to indicate that this occupation had extended onto the newt receptor site.

No roadside ditches or other features associated with the Roman road were identified in the four ponds. However, associated remains could still survive on the north-eastern part of the development site.

The development has had no adverse impacts on significant archaeological remains.

The data recovered from the watching brief has no potential for further study and this document represents the final report on the results of the project.

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1 Introduction

- 1.1 An archaeological watching brief was undertaken by RPS on behalf of DIRFT Limited in July and August 2005 during the construction of a Great Crested Newt Receptor Site at DIRFT, Kilsby, Northamptonshire. The construction of the newt receptor forms part of the predevelopment commencement obligations for the DIRFT Expansion scheme (Planning Application No: DA/2002/1365) entailing the provision of great crested newt sanctuary for the translocation of two newt colonies located on the DIRFT Expansion site.
- 1.2 The newt receptor site (centred on NGR SP 5644 7390) of some 1.9 hectares is located north of the main DIRFT Expansion Site at Kilsby and occupies a triangular block of land bounded by the A5 road in the northeast and Clifton Brook in the south (Figure 1). It is situated within the administrative boundaries of Northamptonshire County Council and Daventry District Council.
- 1.3 The newt receptor site lies in an area of known archaeological significance evident by remains identified from previous archaeological investigations. This includes extensive Iron Age settlement recorded during excavations at "Covert Farm" on DIRFT East (BUFAU, 1998) and at "Long Dole" on DIRFT Central (Chapman, 1994 & 1995). The stretch of the A5 bounding the northeast side of the site respects the line the former Roman road (Watling Street) and both the DIRFT East and DIRFT Central sites have produced evidence for tentative roadside activity of Romano-British date. Further to the south, DIRFT Expansion, DIRFT South and DIRFT Hotel sites have also produced similar archaeological remains.
- 1.4 The development entailed the construction of four ponds with surrounding flood prevention bunds and reprofiling works to the existing earth mound (Figures 2 and 3). Cut components associated with the excavation of the ponds and the anchor trenches extended below the base of the protecting overburden provided by the existing topsoil and had a potential to adversely impact archaeological remains.
- 1.5 The watching brief was implemented as a precautionary measure to mitigate adverse impacts of construction works on potential archaeological remains. It was carried out in accordance with specifications detailed in the Written Scheme of Investigations (RPS, July 2005) agreed with the Historic Environment Office, Northamptonshire County Council.

2 Background

Geological and Topographical Background

2.1 The bedrock geology comprises Jurassic Lower Lias clay, silt, mudstone and limestone overlain by superficial deposits of alluvium (British Geological Survey Sheet 185, Northampton). Prior to development, the newt receptor site was formerly pasture and

included an earth mound on the north side. In relation to the surrounding area, it is relatively low lying at a height of some 100m OD.

Archaeological and Historical Background

- 2.2 The newt receptor site lies in an area of known archaeological significance evident by remains identified from previous archaeological investigations.
- 2.3 Evidence for early prehistoric activity includes several worked flints of tentative Mesolithic date recovered from an archaeological excavation undertaken by the University of Leicester in 1977 on the line of Watling Street c.2 km to the southeast (NSMR 5533). Neolithic and Early Bronze Age activity suggestive of potential ritual and monument features was recorded during excavations at "Covert Farm" on DIRFT East c.0.5 km to the southeast (BUFAU, 1998) and from evaluation work on the southern part of DIRFT Expansion c.1.1 km to the southwest (RPS, 2001).
- 2.4 Extensive remains of Iron Age occupation have been excavated at "Covert Farm" on DIRFT East (BUFAU, 1998), at "Crick / DIRFT Hotel" site c.1.2 km to the southeast (Foundations Archaeology), at "The Lodge" on DIRFT South c.1.2 km to the south (Chapman, 1994 & 1995) and at "Long Dole" on DIRFT Central c.0.4 km to the southeast (Chapman, 1994 & 1995). These include groups of roundhouses, associated structures, pits and enclosure ditches representative of open settlement dating to the Middle and Late Iron Age at "Long Dole" and agglomerated settlement with both open and enclosed settlement elements of Early, Middle and Late Iron Age date at "Covert Farm", "Long Dole" and "Crick Hotel". The evaluation work on the southern part of DIRFT Expansion identified what appears to be a single-period site of Middle Iron date (RPS, 2001).
- 2.5 The line of the former Roman road (Watling Street) respects the A5 bounding the northeast side of the site. Immediately to the south, a 2.5 km stretch of the original Roman road runs towards the southeast and has surviving *agger*, road metalling and ditches (RPS, 1995a). Tentative evidence for roadside settlement and agricultural activity has been recorded at "Covert Farm", "Long Dole", "Crick Hotel" and on the site "Southwest of Junction 18" (John Samuels Archaeological Consultants, 1997).
- 2.6 Excavations at "The Lodge" on DIRFT South also produced evidence for a single sunkenfloored building, a nearby pit and an enclosure ditch of early medieval date (Chapman, 1994).
- 2.7 The newt receptor site and the adjacent area have both been the subject of previous archaeological investigations. Magnetic susceptibility geophysical survey carried out on the site indicated no anomalies that were reminiscent of archaeological features and consequently no detailed magnetometry survey was undertaken (Stratascan, July-August 2001). A watching brief undertaken during the construction of an earlier newt translocation

pond located on the block of land immediately south of the Clifton Brook produced no evidence for significant archaeological remains (RPS, 1995b).

Development Details.

- 2.8 The development entailed the construction of four ponds with surrounding flood prevention bunds and reprofiling works to the existing earth mound (Figures 2 and 3).
- 2.9 The ponds were excavated with sloping sides and planting shelves to a maximum depth of 2.8m below ground level (at 97.43m OD for Pond 1). They were then lined with "Rawmat" (a clay liner) anchored in trenches dug to a depth of 500mm below ground level on the edge of the ponds. The liner was then covered with excavated subsoil to a depth of 800mm and filled with water. The surrounding flood prevention bunds entailed using excavated topsoil raised to a height of at least 600mm (100.6m OD) above ground level. The reprofiling of the earth mound used excavated subsoil and topsoil to a maximum height of 1.5m (101.5m OD) above ground level.
- 2.10 The cut components associated with the excavation of the ponds and the anchor trenches extended below the base of the protecting overburden provided by the existing topsoil and into the potential archaeological level.

Planning Context

- 2.11 *PPG 16: Archaeology and Planning* (1990) provides advice concerning the safeguarding of archaeology within the planning process. It recognises that archaeological remains are an irreplaceable and finite resource that should be preserved in their settings. In situations where preservation *in situ* is not justified, the developer is to make provision for appropriate excavation and recording of archaeological remains.
- 2.12 The construction of the newt receptor site forms part of the pre-development commencement obligations for the DIRFT Expansion scheme (Planning Application No: DA/2002/1365) for which an archaeological condition has been attached to Daventry District Council's planning consent for the development. Condition 13 states:

Application for the approval of reserved matters shall take account of the desirability of preserving important archaeological remains and where this cannot be achieved, has secured the implementation of a programme of archaeological investigation in accordance with a written scheme which has been submitted by the applicant and approved in writing by the Local Planning Authority

2.13 In response to this condition, two written scheme of investigations for archaeological mitigation were produced that outlined the nature of the work employed for the archaeological investigation and recording works for DIRFT Expansion (RPS, 2005a) and the watching brief

for the Great Crested Newt Receptor Site (RPS, 2005b). Both were approved by the Historic Environment Office, Northamptonshire County Council.

3 Aims and Objectives

3.1 The overall aims of the watching brief were to identify and record archaeological features, deposits, or artefacts that may be exposed, disturbed or destroyed by ground disturbance works associated with the development, thereby mitigating adverse impacts on the archaeological resource. Those associated with remains of prehistoric or Romano-British date identified during the watching brief would focus on the broad research themes presented in *The East Midlands Archaeological Research Frameworks; Resource Assessment and Research Agenda* (Cooper, 2004 et al). The results of the work will be linked to those obtained from the previous investigations undertaken on the other DIRFT Sites. This work will preserve impacted archaeological remains by record and will enhance the understanding of the nature of prehistoric and historic activity in the area.

4 Methodology

- 4.1 The fieldwork strategy for the watching brief entailed archaeological monitoring during the initial topsoil strip and cut component associated with the construction of Pond 1, 2, 3 and 4. This entailed an archaeologist monitoring ground disturbance works and provision for the recording and sampling of exposed archaeological remains.
- 4.2 The groundworks were carried out using 360° mechanical excavators fitted with a combination of toothed and toothless buckets.
- 4.3 Exposed deposits were allocated a unique context number and recorded on pro-forma context sheets detailing their character, contextual relationships, associated finds and interpretation. A representative section illustrating the typical sequence of deposits present on the site with their heights above ordnance datum was recorded.
- 4.4 Finds were recorded, collected and labelled according to their individual stratigraphical context. No deposits or features were identified that warranted palaeo-environmental analysis or specific dating by scientific methods.
- 4.5 A photographic record consisting of working shots showing the general nature of the archaeological monitoring during the construction works was also maintained.
- 4.6 This work was carried out in accordance with the standards and guidelines presented in the Institute of Field Archaeologists Standard & Guidance for an archaeological watching brief (IFA 2004), and to English Heritage's The Management of Archaeological Projects (EH 1991).

5 Results

5.1 The deposits and finds identified during the watching brief are summarised in the Context Summary Table and Finds Catalogue presented in Appendix 1. An illustrative section showing the typical sequence of deposits recorded across the site and specifically in Pond 1 is shown in Figure 4.

Phase 1a and b: Natural Deposits - Lower Lias Clay and Alluvial Gravel.

5.2 The underlying natural deposit present in the four ponds consisted of "bedrock" grey Lias clay (5) at a highest recorded level of some 98.16m OD. This was overlain by a "superficial" alluvial deposit of orange brown sandy gravelly clay (4) up to 0.66m thick with a highest recorded level of 98.80m OD.

Phase 2: Natural Deposit - Alluvium.

5.3 The gravel was overlain in the four ponds by a brownish grey silty clay (3) of some 0.48m in thickness and a highest recorded level of 99.26m OD that was interpreted as alluvium. No evidence for a bank or sides of a palaeochannel associated with the alluvium (or the earlier alluvial gravel) was observed.

Phase 3: Cultivation / Plough Soil.

5.4 The alluvium in turn was overlain by deposit (2). This consisted of a brown silty clay up to 0.46m thick in all four ponds which produced finds of late post-medieval and modern date. It was interpreted as a former cultivation soil associated with 20th century ploughing activity and lay beneath the topsoil and turf (1).

Archaeological Evidence.

5.5 No archaeological features were identified cutting the cultivation soil and underlying natural deposits, or sealed by the cultivation soil and alluvial deposits. The cultivation soil and topsoil produced a low quantity of artefacts of late post-medieval and modern date (19th and 20th century). These consisted of sherds of pottery, stem fragments of clay tobacco pipes, tile and a fragment of a glass vessel. These finds had no apparent concentrations and most probably originated as material derived from agricultural manuring activity. No residual finds of medieval, Romano-British or prehistoric date were identified.

Confidence Rating.

5.6 The monitoring work was undertaken when conditions for observing potential archaeological remains present on the site were good. The machining work was carried out using a combination of both toothless and toothed buckets under generally dry weather conditions. This produced clean surfaces where archaeological remains, if present, would have been clearly visible. It is considered that the results are reliable.

Discussion.

- 5.7 The alluvium recorded on the newt receptor site correlates with similar deposits identified on the adjacent Covert Farm site at DIRFT East. Here an upper and lower alluvium present in the lower-lying western and southern parts of the site filled two palaeochannels associated with former stream courses (BUFAU, 1998). The main palaeochannel ran southeast to northwest towards the newt receptor site, broadening out to at least 100m wide in the northwest. A narrower tributary up to 20m in width ran east to west.
- 5.8 Both palaeochannels cut a narrow gravel terrace where a dense complex of intercutting archaeological features was recorded. These features included linear and curvilinear enclosure ditches, ring ditches, gullies, pits and post-hole settings indicative of prehistoric and Roman settlement. This probably represented seasonal occupation along the stream in the Late Bronze Age / Early Iron Age and Middle Iron Age followed by more permanent occupation which had extended uphill on to the Lias clay in the Late Iron Age and Roman periods. An earlier phase of prehistoric activity of Neolithic / Early Bronze Age in date evident by material that included Beaker period vessels recovered from a pit cutting the edge of the main palaeochannel was also recorded.
- 5.9 Stratigraphically, the later horizons of the lower alluvium sealed several of the earliest features on the banks of the palaeochannels and the upper alluvium sealed others. Beneath the lower alluvium, no archaeological features were identified cutting the underlying gravel within the base of the main palaeochannel.
- 5.10 For the newt receptor site, the recorded alluvial deposits, the lack of evidence for a stream's bank or side, and the absence of archaeological features suggests that it lay within the confines of the main palaeochannel during the prehistoric and Roman periods.

Statement of Potential for Further Analysis

5.11 The data recovered from the watching brief has no potential for further study.

6 The Site Archive.

- 6.1 The site archive consists of the archaeological records relating to the archaeological work and comprises pro forma recording forms (three registers and five context sheets), drawings (one A3 plan and one A4 section), digital photographs (21) and a copy of this report. The late post-medieval and modern finds recovered during the watching brief have limited research potential and are not included in the archive.
- 6.2 The archive is currently held at the offices of RPS Planning Transport & Environment, Mallams Court, 18 Milton Park, Abingdon, Oxfordshire, and will form part of the main DIRFT Expansion archive.

7 Conclusions

- 7.1 The development and associated ground disturbing construction activities have had no adverse impacts on archaeological remains.
- 7.2 No archaeological features or significant deposits were observed during the watching brief. The finds of pottery, clay tobacco pipes, tile and glass recovered from a former cultivation soil and the existing topsoil were thought to derive from late post-medieval and modern agricultural activity associated with field manuring. No residual finds of prehistoric, Romano-British or medieval date were observed.
- 7.3 The recorded alluvial sequence and absence of a bank or side of a palaeochannel suggest that the newt receptor site lay within the confines of a broad palaeochannel during the prehistoric and Roman periods, downstream from the known occupation previously recorded at DIRFT East and DIRFT Central.
- 7.4 There was no evidence that the prehistoric and Roman activity recorded at DIRFT East and DIRFT Central extended onto the newt receptor site.
- 7.5 No roadside ditches or other features associated with the Roman road were identified in the four ponds. However, associated remains could still survive on the north-eastern part of the development site.
- 7.6 The data recovered from the watching brief has no potential for further study and this document represents the final report on the results of the project.

8 Bibliography

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RPS, May 2005a, DIRFT Expansion, Kilsby, Northamptonshire, Written Scheme of Investigation for Archaeological Mitigation comprising Archaeological Investigation and Recording Works. RPS, July 2005b, DIRFT Expansion, Kilsby, Northamptonshire – Great Crested Newt Receptor Site, Written Scheme of Investigation for Archaeological Mitigation comprising an Archaeological Watching Brief.

Stratascan, July-August 2001, Geophysical Survey Report, DIRFT, Job Ref. 1586.

Stratascan, September 2001, Geophysical Survey Report, DIRFT, Job Ref. 1586.

Appendix 1

Context Summary Table & Finds Catalogue

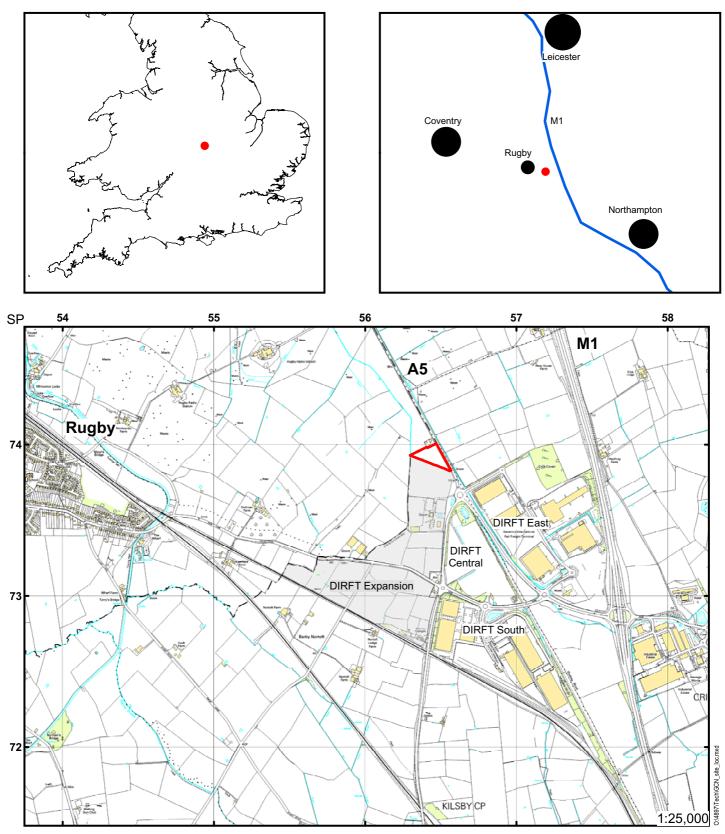
Context Summary Table

Context	Category	Thickness (m)	Description	Finds	Interpretation
1	Deposit	0.3	Humic silty clay, above (2)	Yes	Modern turf and topsoil
2	Deposit	0.46	Brown silty clay, sealed by (1) and above (3)	Yes	Modern cultivation ploughsoil
3	Deposit	0.48	Brownish grey silt clay, sealed by (2) and above (4)	None	Natural alluvial subsoil
4	Deposit	0.66	Orange brown sandy gravelly clay, sealed by (3) and above (5)	None	Natural alluvial gravel deposits
5	Deposit	>0.5	Grey clay, sealed by (4).	None	Natural "bedrock" Lower Lias Clay

Finds Catalogue

Context	Ceramics (Nu	mber of sh	erds and frag	ments)				Organic	S	Glass	Metal	Masonry	Industrial	Flint	
	Pottery				Tile	Brick	Clay Pipe	Bone	Shell						
	Prehistoric	Roman	Medieval	Post-Medieval										Worked	Burnt
1				1	1										
2				2	1		1 stem			1					
Total	0	0	0	3	2	0	1	0	0	1	0	0	0	0	0

Figures



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Key:

Site Boundary



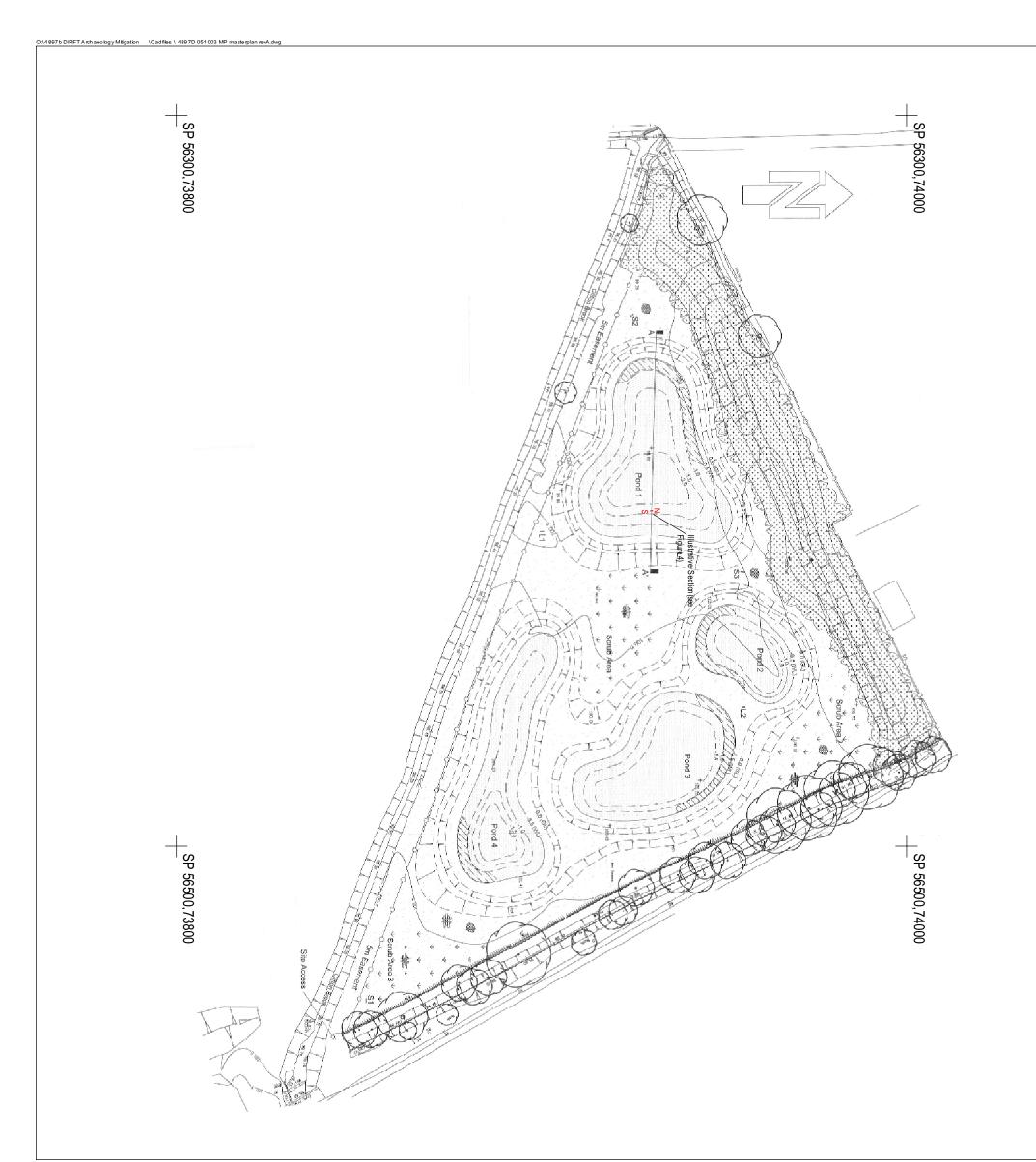
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Project

DIRFT Expansion - GCN Receptor Site

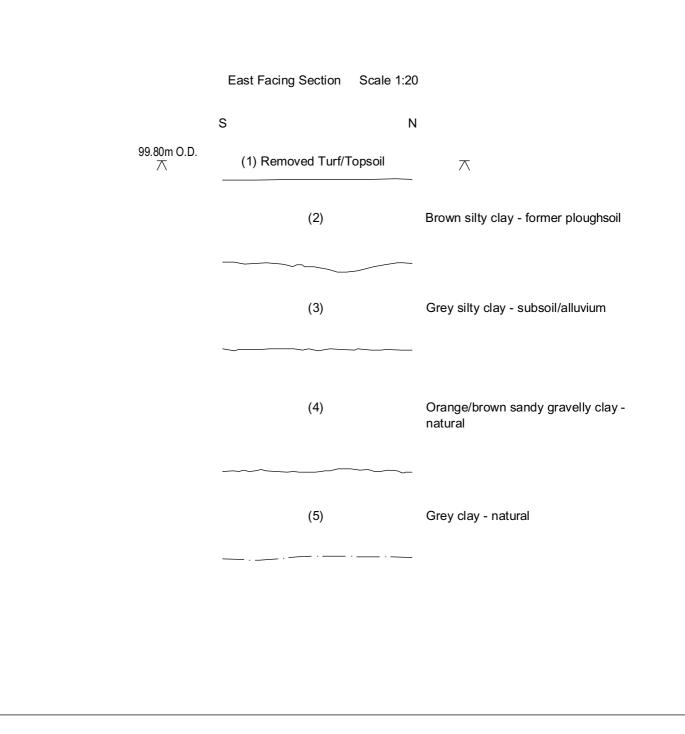
Title Site Location

Project Number 4897	Figure Number 1
Scale	Date
As Shown	Oct 2005



1:1000 Oct 2005	Number	Tile Plan of Ponds and Associated Works	DIRFT Expansion - GCN Receptor Site	RPS			Based on original Joe Samworth & Associates Drawing No. 6327/01	0.5 At 0.5m intervals. WL indicates expected water level. 0.5 GL indicates existing ground level. Ground shall be excavated to 800mm below required finished levels for installation of Rawmat.	100, 5 Contours at 0.5m centres. Spot levels are random.
				Þ				cavated to If Rawmat.	

	C: USB7D DIRFT Archaeology Migation Cadfiles \ 4897D 051003 MP masterplan revA.dvg	SECTION A - A BOOmm depth of excevated material to be placed over Favorent and convolution. Create planting steless with topscall in areas shown on plan. Allow minimum 20mm of water above settled stil level.
		water levo maximum water depth to be
Project Project INUTREFT Expansion - GCN Receptor Site Tite Section Through Pond 1 Project Number Bager State Data Data Data Data Data Data Data		Create burd to sur ourul punds as shown on plen. Bund is manded to prevent floodwalks areating the rew ponds. a 1 in 100 year floodwalks areating the rew ponds. See supplied information from Rawel for installation procedure. 100 <u>ym flood event</u> 15m
)z	







Project

DIRFT Expansion - GCN Receptor Site

Title

Illustrative Section of Exposed Deposits in Pond 1

Project Number 4897	Drawing Number 4	
Scale As Shown	Date Oct 2005	

Plates



Plate 1: Topsoil Strip of Pond 2, viewed from the North-West.



Plate 2: Excavation of Pond 2, viewed from the South-West.



Plate 3: Excavation of Pond 1, viewed from the South.



Plate 4: Excavation of Pond 1, viewed from the North-West.



Plate 5: Excavation of Pond 3, viewed from the North-West.



Plate 6: Excavation of Pond 4, viewed from the North-West.



Plate 7: Excavation of Pond 4, viewed from the East.



Plate 8: Excavated Pond 2, before laying the liner, viewed from the East.