

**Archaeological Watching Brief Report  
Balsdean Reservoir, Balsdean, Seaford,  
East Sussex**

**NGR: 537494 104423  
(TQ 37494 04423)**

**South Downs National Park Authority  
Planning Reference SDNP/19/02327/FUL**

**ASE Project No: 190689  
Site Code: BDN 19**

**ASE Report No: 2020006  
OASIS ID: archaeol6-379945**

**By Simon Stevens**

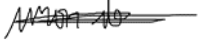
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**Abstract**

*Archaeology South-East (ASE) was commissioned by Southern Water to undertake an archaeological watching brief during groundworks for the expansion of Balsdean Reservoir, Balsdean, East Sussex (NGR 537491 104423).*

*No significant archaeological features, deposits or finds were encountered.*

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## 1.0 INTRODUCTION

### 1.1 Site Background

- 1.1.1 Archaeology South-East (ASE) was commissioned by Southern Water to undertake an archaeological watching brief during groundworks for the expansion of Balsdean Reservoir, Balsdean, East Sussex (NGR 537491 104423; Figures 1 and 2).

### 1.2 Geology and Topography

- 1.2.1 The site is located in an isolated, elevated position to the west of Bazehill Road (at this point a metalled track) to the north of the settlement of Rottingdean, to the north-east of Ovingdean and to the east of Woodingdean. It enjoys far-reaching views in all directions encompassing the English Channel as well as the surrounding undulating downland.
- 1.2.2 According to the latest data available from the British Geological Survey, the underlying geology at the site is Newhaven Chalk Formation. There are no recorded superficial deposits at the site itself, although the chalk is capped by Clay-with-flints to the south (BGS 2020).

### 1.3 Planning Background

- 1.3.1 Planning permission has been granted by South Downs National Park Authority for the expansion of the existing reservoir (planning reference SDNP/19/0327/FUL). Following consultation between South Downs National Park Authority and East Sussex County Council (South Downs National Park Authority advisers on archaeological issues), and based on results of an Archaeological Based Assessment (DBA) (ASE 2019a), two conditions (Nos. 3 and 4) were attached to the permission requiring that:

*'Prior to the commencement of the development hereby permitted, a Written Scheme of Investigation to secure the implementation of a programme of archaeological works shall be submitted to and approved in writing by the Local Planning Authority. Thereafter the provisions of the scheme shall be carried out in full accordance with the approved programme.'*

*Reason: To ensure that the archaeological and historical interest of the site is properly safeguarded and recorded.*

*Within 3 months of the completion of any archaeological investigation a written record of all archaeological works undertaken shall be submitted to and approved in writing by the Local Planning Authority, unless an alternative timescale for submission of the report is agreed in writing with the Local Planning Authority.*

*Reason: To ensure that the archaeological and historical interest of the site is properly safeguarded and recorded.'*

1.3.2 Subsequently, a Written Scheme of Investigation (WSI) for the archaeological work at the site was prepared. The document outlined the methods to be used in the watching brief and in the production of an report, and archive ASE 2019b).

#### **1.4 Scope of Report**

1.4.1 This current report provides the results of the archaeological watching brief undertaken at the site during January 2020.

## **2.0 ARCHAEOLOGICAL BACKGROUND**

### **2.1 Introduction**

2.1.1 The following summary is taken from WSI (ASE 2019b), and is based on information included in the DBA submitted with the planning application (ASE 2019a). That document utilised data held from known archaeological sites with a 1km radius of the site (hereafter 'the study area') held on the East Sussex County Council Historic Environment Record (ESHER). The numbers in bold in the following text refer to Figure 1.

### **2.2 Palaeolithic**

2.2.1 In the wider landscape a Palaeolithic flint hand-axe (MES2408; not illustrated) is mapped as being recovered from Telscombe Tye, c.3km south-east of the site. Palaeolithic artefacts have also been found in the Peacehaven area (a coastal town situated to the south of Telscombe), and like the example above have generally comprised stray finds of struck flint. These may possibly be associated with the Clay-with-Flint deposits.

### **2.3 Mesolithic**

2.3.1 The only evidence of Mesolithic occupation found within the study area is a stone macehead (**1**), of uncertain provenance. In the wider landscape it is likely that the river valleys would have been exploited, providing a source of water, food and communication corridors.

### **2.4 Neolithic**

2.4.1 A number of Neolithic sites are found on the downland and include causewayed enclosures at Whitehawk and Offham, long barrows and numerous finds of stone axes. No known assets of this date have been recorded within the study area.

### **2.5 Bronze Age**

2.5.1 The characteristic monuments of the Bronze Age are barrows (burial mounds), with over 1000 being present within Sussex, the majority of which are on the South Downs. Such monuments have been recorded within the site and study area and reference to the topography shows they are distributed on the higher ground. The sites of two bowl-barrows (**2** and **3**), with no visible ditches in 1842, are mapped within the footprint of the reservoir. Only one is shown on historic OS mapping which pre-dates the WSR and a 1930s site visit (below) suggested one was no longer extant as an upstanding earthwork. Two additional earthworks are shown on 1950s and 1960s mapping to the south and west of the reservoir but given that they are not mentioned in earlier surveys they are perhaps most likely to be 20<sup>th</sup> century or later in date. That to the south (**4**) is shown on modern maps.

2.5.2 The barrows (**3** and **4**) are described in 1930 as:

*'A. (TQ 37490442) Possible tumulus c17 yds diam, 1 ft high at most. B. (TQ 37520439) Tumulus 18-20 yds diam, and 3 1/2-4 ft in height. The top has been removed.'*

2.5.3 The reservoir was constructed in 1936 and subsequent visits to the barrows by the OS Field Investigators in 1952 and 1972 noted:

*'A large covered reservoir now occupies the indicated sites. No further information. The ground around the reservoir is disturbed, but shows no signs of possible barrows.'*

2.5.4 A number of barrows are recorded within the wider study area. The 'Bostle', a hill to the north of Balsdean Farm is the site of numerous barrows (**9-10**, and **11**). The latter lies just outside the study area and comprises a group of at least three Bronze Age barrows. Whilst much of this group is scheduled, investigations during the course of the excavations of a water pipeline established that the extents of this multi-period cemetery were greater than previously known (McKinley 2004). At the west end of the route, in the vicinity of Woodingdean Farm, the earthwork remains of what may be two barrows (**12**) have been recorded (MES472).

2.5.5 To the north of the reservoir, between it and The Bostle a row of three possible barrows (**5-7**) were noted during walkover survey (HER MES7259) along with a linear earthwork (**8**) which may be associated with them.

2.5.6 These monuments and findspots are situated within a 'Celtic' field system which has been mapped by aerial photography (ASE 2019a) and with some lynchets surviving in the landscape, although reduced in scale due to ploughing in the past. Whilst the field systems are largely undated they are generally considered to be prehistoric/Roman in date, perhaps with their origins in the Bronze Age, and continuing through the Iron Age and Romano-British periods (**13**).

## **2.6 Iron Age/Romano-British**

2.6.1 A probable focus of Late Iron Age/Roman activity on the south facing slope to the east of Woodingdean is indicated by a series of findspots including at least one cremation burial and microtopography and finds concentrations possibly indicative of settlement (**14**, **15**, **16**).

## **2.7 Anglo-Saxon**

2.7.1 Archaeological works at The Bostle (**11**), in addition to identifying prehistoric remains recovered the remains of Anglo-Saxon (early medieval) inhumation burials set within ring ditches (*ibid.*).

## **2.8 Medieval**

2.8.1 The site is situated in the historic parishes of Ovingdean and Rottingdean; the parish boundary crosses the parking area to the north of the reservoir, running along a ridgeline. Rottingdean Parish was historically divided into two portions which only meet at one point, a 'crossroads' in the vicinity of High Hill where



the boundaries of three parishes meet (Rottingdean, Ovingdean and Iford). All have their origins in the medieval period.

2.8.2 The northern part of Rottingdean lay within the *Balsdean Chapelry* and was served by a small chapel of 12<sup>th</sup> century date located within a small hamlet of Balsdean which lay to the north-east of 'The Bostle', and outside the study area. Services are known to have been given here through to the late 16<sup>th</sup> century. It has subsequently been used as a stable and perhaps a residence (ibid). The settlement itself comprised two farms, Norton and Sutton. The farms and other buildings in the vicinity were removed at some point between the 1930s and 1950s. They were replaced by the extant Balsdean Farm (17), situated by High Hill.

2.8.3 The area beyond the settlements is likely to have, like in the earlier periods, been agricultural in character. Whilst the extensive field-systems which have been identified criss-crossing the area are thought to have their origins in earlier periods it is possible that some are medieval in date, or that they were used through this period.

## **2.9 Post-Medieval**

2.9.1 Any field system is likely to have been served by trackways and droeways which may have continued in use to the later periods and thus survive as features on historic maps and on the ground today as the local footpaths and bridleways.

## **2.10 Modern**

2.10.1 The site lies within the Balsdean Second World War training area and there are a number of possible shell craters in the vicinity. Two earthworks, to the immediate south might relate to WW2 observation/defence posts (Justin Russell, pers.comm).

## **2.11 Research Aims and Objectives**

2.11.1 The following research aims and objectives were included in the WSI (ASE 2019b).

*'The general objective of the archaeological watching brief is to record archaeological deposits exposed by the groundworks associated with the development.*

*The site occupies prominent high ground on the South Downs. Such locations are privileged loci for Bronze Age barrows, two of which monuments are thought to have occupied the reservoir site prior to its construction. There is also evidence of field systems in the surrounding landscape. Specific objectives of the archaeological watching brief may include:*

- *To identify any preserved remains of the Bronze Age Barrow(s) or associated deposits thought destroyed by construction of the reservoir in the 1930s*

- *To identify other prehistoric deposits relating to monumental, territorial (field systems) and / or settlement and any associated indices of chronological development*
- *To maximize dating and palaeo-environmental opportunities in the event of identification of suitable prehistoric deposits*
- *To identify any deposits relating to WW2 use of the area, notably shell splinters/cases relating to this period.*

*The watching brief has the potential to address the following research objectives set out in the South-East Research Framework:*

**Late Neolithic and Early Bronze Age**

- *Funerary ritual – dismemberment and movement of body parts after death*
- *Oxygen isotope analysis on dentition (migration and population movement)*

**Middle Bronze Age/Iron Age**

- *Transition from monumental to territorial (field system) processes of land tenure*
- *Agricultural clearance for the establishment of field systems*
- *Dating of this transition*

**Modern**

- *Information relating to areas for training of military, naval and airforce personnel (and WW2 defensive structures in general)*

### **3.0 ARCHAEOLOGICAL METHODOLOGY (Figures 2 and 3)**

#### **3.1 Fieldwork Methodology**

- 3.1.1 Mechanical and manual groundworks were monitored by a suitably qualified archaeologist. Mechanical ground reduction was undertaken using a Doosan DX63 excavator fitted with a ditching bucket. All stripped surfaces and all sections were examined for archaeological deposits and all spoil was scanned for the presence of archaeological artefacts.
- 3.1.2 All encountered deposits were recorded according to accepted professional standards using standard Archaeology South-East context record forms. Deposit colours were recorded by visual inspection and not by reference to a Munsell Colour chart. A full photographic record of the monitoring was maintained.
- 3.1.3 The fieldwork was undertaken according to the WSI (ASE 2019b), the Chartered Institute for Archaeologists guidelines (CIfA 2019) and industry standards for archaeological work in East Sussex (ESCC 2019).

#### **3.2 Fieldwork Constraints**

- 3.2.1 There were no constraints to the completion of the archaeological watching brief. All groundworks could be safely monitored and all spoil was available for inspection.

#### **3.3 The Site Archive**

- 3.3.1 The site archive is currently held at the offices of ASE and will be offered and will be offered to Brighton Museum and Art Gallery in due course. However it should be noted that the museum is not currently in a position to accept archaeological archives and is subsequently not issuing accession numbers.

Context sheets	5
Section sheets	0
Plans sheets	0
Digital photos	17
Context register	1
Drawing register	0
Watching brief forms	3
Trench Record forms	0

Table 1: Quantification of site paper archive

Bulk finds (quantity e.g. 1 bag, 1 box, 0.5 box 0.5 of a box )	0
Registered finds (number of)	
Flots and environmental remains from bulk samples	0
Palaeoenvironmental specialists sample samples (e.g. columns, prepared slides)	0
Waterlogged wood	0
Wet sieved environmental remains from bulk samples	0

Table 2: Quantification of artefact and environmental samples

- 3.3.2 A countywide policy of selection and retention of archaeological finds is currently under review by the Sussex Archaeological Museum Group working party. Once the policy is agreed and in place, it will be implemented by Archaeology South-East. The finds archive will be revised in accordance with this policy in the event that it is implemented before deposition of the archive occurs.

## 4.0 RESULTS (Figures 2 and 3)

### 4.1 Introduction

4.1.1 Monitoring was undertaken during initial ground investigations to find existing pipework and during excavations for the foundation of a new kiosk and associated soakaway.

### 4.2 Monitoring

Context	Type	Description	Max. Deposit Thickness m
001	Layer	Topsoil	0.19
002	Layer	Subsoil	0.26
003	Cut	Pipe Trench	-
004	Fill	Pipe Trench	-
005	Layer	'Natural'	-

Table 3: List of recorded contexts

- 4.2.1 A trench measuring c.12m in length and a maximum of c.2m in width was mechanically and manually excavated to establish the position of an existing water main. Initial removal of a thin layer of mid brown humic silty clay topsoil, context [001] revealed the made ground chalk rubble fill, context [004] of the existing pipe-trench, recorded as cut [003].
- 4.2.2 Although the majority of the monitored mechanical excavation lay within the pipe trench, occasional exposures of undisturbed ground were also recorded on the periphery of the monitored trench, usually after localised collapses of the loose backfill.
- 4.2.3 The recorded stratigraphic sequence in these exposures was straightforward and consisted of topsoil [001], which overlay an orangey brown silty clay subsoil, context [002], which in turn directly overlay the 'natural' chalk, context [005].
- 4.2.4 Excavations for the establishment of the base of a new kiosk and associated soakaway adjacent to the trench were subsequently monitored. The base for the kiosk measured c.2m by c.2m by 0.30m deep, while the soakaway was c.1.5 by c.1.1m by 0.80m deep. The stratigraphic sequence was found to be the same as that encountered previously at the site, with topsoil [001] overlying subsoil [002], which in turn overlay chalk [003].
- 4.2.5 No finds were recovered and no significant archaeological deposits or features were encountered during the archaeological monitoring.

## **5.0 DISCUSSION AND CONCLUSIONS**

### **5.1 Overview of stratigraphic sequence**

- 5.1.1 A simple stratigraphic sequence of topsoil overlying subsoil, in turn overlying 'natural' chalk was encountered and recorded. No archaeological deposits or features were observed.

### **5.2 Deposit survival and existing impacts**

- 5.2.1 The survival of a subsoil layer sealing the 'natural' chalk suggests that although there may have been obvious truncation in the existing pipe-trench the potential for the survival of archaeological deposits was high in undisturbed areas. However, none were disturbed/encountered during the current groundworks.

### **5.3 Consideration of research aims**

- 5.3.1 Clearly the site specific research aims could not be addressed given the absence of significant archaeological deposits. However the overarching aim of the watching brief was addressed in that the groundworks were monitored by a suitably qualified archaeologist.

### **5.4 Conclusions**

- 5.4.1 No archaeological deposits or features were observed and no finds were recovered.

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## ACKNOWLEDGEMENTS

ASE would like to thank Southern Water for commissioning the work and for their assistance throughout the project. The co-operation of the on-site contractors is gratefully acknowledged.

The fieldwork work was undertaken by Simon Stevens (Senior Archaeologist) and Teresa Vieira (Archaeologist). The fieldwork was managed by Paul Mason. Andy Margetts and Jim Stevenson managed the post-excavation process.

**HER Summary**

<b>Site code</b>	BDN 19				
<b>Project code</b>	190689				
<b>Planning reference</b>	SDNP/19/02327/FUL				
<b>Site address</b>	Balsdean Reservoir, Seaford				
<b>District/Borough</b>	South Downs National Park				
<b>NGR (12 figures)</b>	537491 104423				
<b>Geology</b>	Newhaven Chalk Formation				
<b>Fieldwork type</b>	WB				
<b>Date of fieldwork</b>	7.01.2020 to 13.01.2020				
<b>Sponsor/client</b>	Southern Water				
<b>Project manager</b>	Paul Mason				
<b>Project supervisor</b>	Simon Stevens				
<b>Period summary</b>					
					None
<b>Project summary</b>	<p><i>Archaeology South-East (ASE) was commissioned by Southern Water to undertake an archaeological watching brief during groundworks for the expansion of Balsdean Reservoir, Balsdean, East Sussex (NGR 537491 104423).</i></p> <p><i>No significant archaeological features, deposits or finds were encountered.</i></p>				



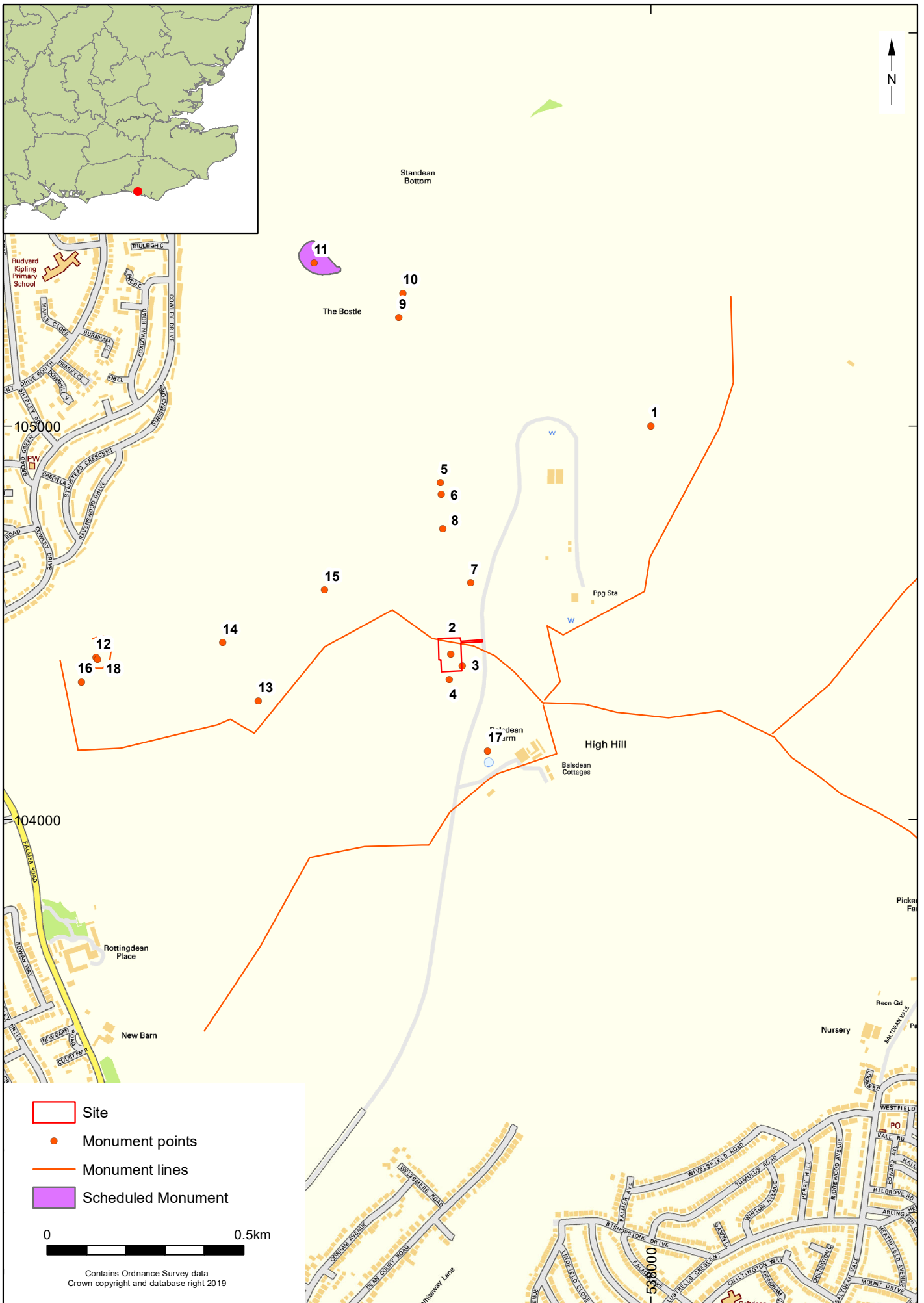
## Oasis Form

**OASIS ID: archaeol6-379945**

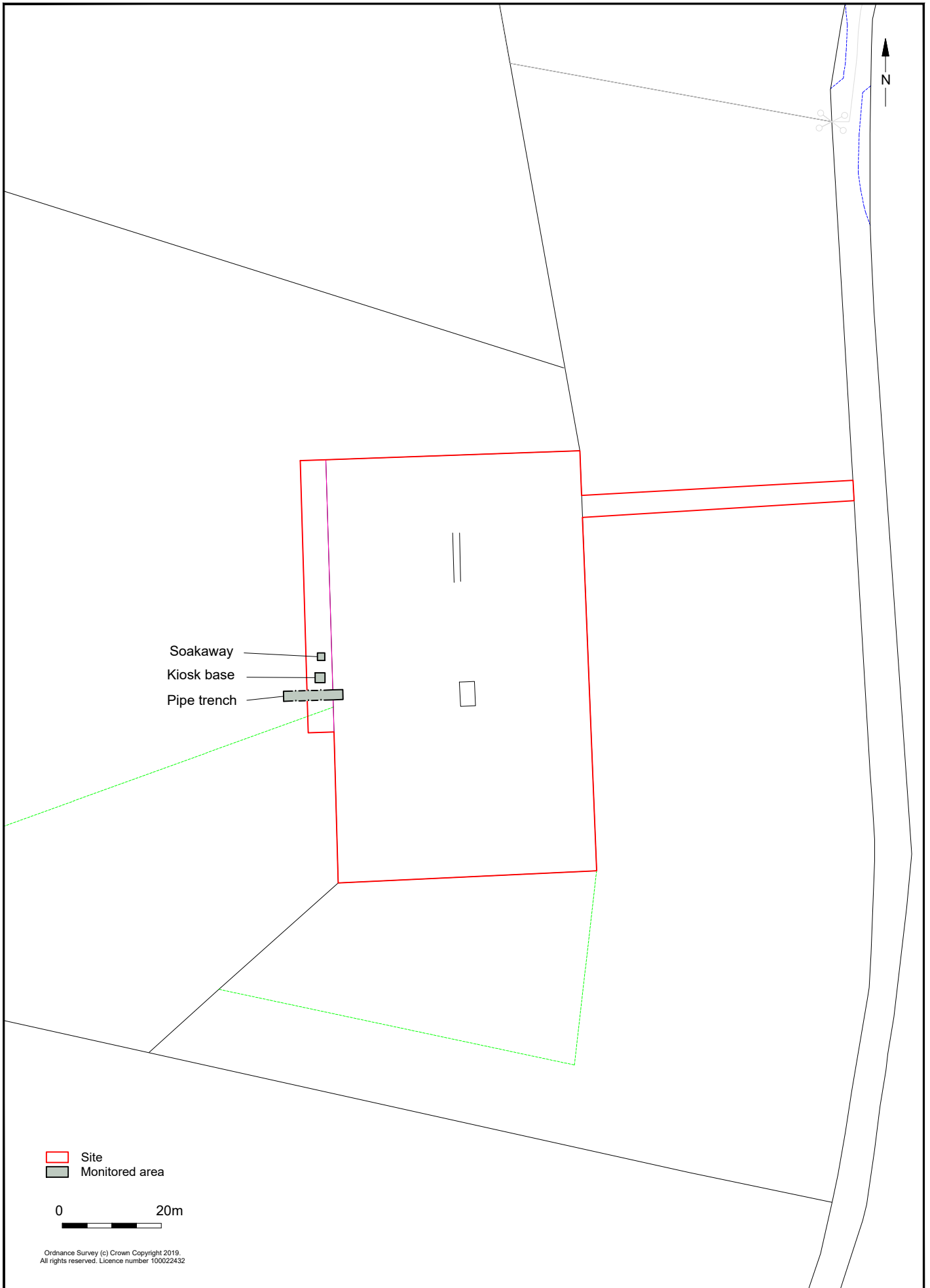
### Project details

Project name	Archaeological Watching Brief Report - Balsdean Reservoir, Rottingdean, East Sussex
Short description of the project	Archaeology South-East (ASE) was commissioned by Southern Water to undertake an archaeological watching brief during groundworks for the expansion of Balsdean Reservoir, Balsdean, East Sussex (NGR 537491 104423). No significant archaeological features, deposits or finds were encountered.
Project dates	Start: 07-01-2020 End: 13-01-2020
Previous/future work	Yes / Not known
Any associated project reference codes	BDN 19 - Sitecode
Any associated project reference codes	SDNP/19/02327/FUL - Planning Application No.
Any associated project reference codes	190689 - Contracting Unit No.
Type of project	Recording project
Site status	Local Authority Designated Archaeological Area
Monument type	NONE None
Significant Finds	NONE None
Investigation type	"Watching Brief"
Prompt	Direction from Local Planning Authority - PPS
Project location	
Country	England
Site location	EAST SUSSEX BRIGHTON AND HOVE ROTTINGDEAN Balsdean Reservoir
Study area	20 Square metres
Site coordinates	TQ 37494 04423 50.822423993901 -0.047724644019 50 49 20 N 000 02 51 W Point
Project creators	
Name of Organisation	Archaeology South-East
Project brief originator	Southern Water
Project design originator	Archaeology South-East
Project director/manager	Paul Mason
Project supervisor	Simon Stevens

Type of sponsor/funding body	Client
Name of sponsor/funding body	Southern Water
Project archives	
Physical Archive recipient	Brighton Museum and Art Gallery
Physical Contents	"other"
Digital Archive recipient	Brighton Museum and Art Gallery
Digital Contents	"other"
Paper Archive recipient	Brighton Museum and Art Gallery
Paper Contents	"other"
Paper Media available	"Context sheet","Notebook - Excavation"," Research"," General Notes","Unpublished Text"
Project bibliography	
1	
Publication type	Grey literature (unpublished document/manuscript)
Title	Archaeological Watching Brief Report - Balsdean Reservoir, Rottingdean, East Sussex
Author(s)/Editor(s)	Stevens, S.
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© Archaeology South-East		Balsdean Reservoir	Fig. 1
Project Ref: 190689	Feb 2020	Site location and HER data	
Report Ref: 2020006	Drawn by: JR		



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© Archaeology South-East		Balsdean Reservoir	Fig. 2
Project Ref: 190689	Feb 2020	Monitored areas	
Report Ref: 2020006	Drawn by: JR		



Soakaway



Kiosk base



Pipe trench

© Archaeology South-East		Balsdean Reservoir	Fig. 3
Project Ref: 190689	Feb 2020	Photographs	
Report Ref: 2020006	Drawn by: JR		



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