

Havant Thicket Reservoir Project Pipeline Phase 1 (Shaft 1) Planning Conditions

Archaeological Management Plan (Condition 12)

March 2024

Document history

Revision	Purpose description	Originated	Checked	Reviewed	Authorised	Date
1.0	Draft Archaeological Management Plan for Review	AMS	KN	AR	JF	12/01/24
2.0	Final Archaeological Management Plan	AMS	KN	AR	JF	06/03/24

Client signoff

Client	Ward and Burke Construction Ltd (on behalf of Portsmouth Water Ltd)				
	Havant Thicket Reservoir Project				5218618
Project	Pipeline Phase 1 (Shaft 1) Planning Conditions				Project No.



1. Introduction

This technical note provides an update to the existing Havant Thicket Archaeological Management Plan (AMP)¹ to support an application to Havant Borough Council (HBC) on behalf of Portsmouth Water for Reserved Matters and the discharge of Planning Conditions 12, 13 and 14 relating to Shaft 1 (Phase 1) in connection with the outline planning permission for a Pipeline (Ref. APP/20/00991) to transfer water to and from Bedhampton Pumping Station to Havant Thicket Reservoir on land at Havant Thicket, adjacent to Sir George Staunton Country Park and Middle Park Way, Havant. The planning applications for the pipeline and Reservoir (Ref. APP/20/00990 and 51680/001) were approved in October 2021.

Planning Conditions

12. No phase of development approved under Condition 4 hereby approved shall commence until an Archaeological Management Plan (AMP) has been submitted to, and approved in writing by, the Local Planning Authority. The AMP will provide appropriately for all aspects of archaeological recording and will serve as an over-arching Written Scheme of Investigation for all archaeological works. Reason: To record important archaeological features.

13. No development within a Development Phase shall commence until the applicant has submitted, and the Local Planning Authority has approved, a written scheme for the programme of archaeological mitigation within that Development Phase area. The programme for archaeological mitigation shall then be implemented in accordance with the agreed written scheme. This condition may be discharged on an individual Development Phase basis or on a section by section basis. Reason - To mitigate the effect of the works associated with the development upon any heritage assets and to ensure that information regarding these heritage assets is preserved by record for future generations. This is a pre-commencement requirement because of the need to secure satisfactory archaeological protection in advance of each individual Development Phase commencing.

14. No development within a Development Phase shall commence until the applicant has submitted, and the Local Planning Authority has approved in writing, a Written Scheme for recording all historic assets within that Development Phase area. The recording of all historic assets shall then be implemented in accordance with the agreed scheme. This condition may be discharged on an individual Development Phase basis or on a section by section basis. Reason - To mitigate the effect of the works associated with the development upon any heritage assets and to ensure that information regarding these heritage assets is preserved by record for future generations. This is a pre-commencement requirement because of the need to secure satisfactory archaeological protection in advance of each individual Development Phase commencing.

This document has been prepared to discharge Condition 12. A WSI is submitted separately to discharge conditions 13 and 14.

The Approved Pipeline Scheme lies solely within the administrative boundary of HBC. The pipeline starts from Bedhampton Pumping Station and runs east across the top of open grassland area within Portsmouth Water's land to Shaft 1 which is just south of Bedhampton Train Station.

This document should be read in conjunction with the AMP and supplementary documents, namely the Desk-Based Assessment² prepared to support the Environmental Statement (2020) for the approved reservoir and pipeline scheme.

For the purposes of this update, a study area has been defined as incorporating the location of the shaft and its associated compound and access road, including the location of any cranes required, plus an additional 100m buffer around the redline boundary. Due to the heavily developed and industrial nature of the site, this is considered appropriate for the identification of any heritage assets that may be impacted by the construction of the shaft, as well as to characterise the potential for as-yet unknown buried archaeological remains.

¹ Future Water MJJV, 2022. Archaeological Mitigation – Archaeological Management Plan. Document reference: HTR-ECU-RZ-ZZ-PL-X-001

² Atkins, 2020. Heritage Desk-Based Study. Environmental Statement, Volume 4, Appendix A8.2, Document reference HTR-ATK-XX-XX-RP-Z-0033



2. Site location, geology, and topography

The Shaft 1 application site is a hard standing piece of land currently in use for storing a limited supply of construction materials. The hard standing site continues to the south and southeast of the site. The east and west of the site is filled with overground vegetation. A solar panel field is located in part of the vegetation to the east of the site.

The geology of the site, according to The British Geological Survey, has bedrock geology composed of Lewes Nodular Chalk, Seaford Chalk, Newhaven Chalk, Culver Chalk and Portsdown Chalk Formations - Chalk. Sedimentary bedrock formed between 93.9 and 72.1 million years ago during the Cretaceous period. The superficial deposits are composed of Riverine Terrace Deposits - Sand, silt and clay. Sedimentary superficial deposit formed between 2.588 million years ago and the present during the Quaternary period.

The topography of Havant averages 8-10m above sea level. The underlying geology is composed mainly of tertiary sands, sandy clays and gravels, as well as some narrow valleys underlain by periglacial clay (Head) deposits giving rise to poor quality acidic soils and a range of mainly poor, light or slowly permeable soils (HBC LCA 2007). The landforms are undulating with some steep valleys and low ridges and numerous surface streams and ditches. The soils are primarily non intensively farmed pastureland with interspersed heathland, poor grassland and woodland. Mainly a well wooded landscape composed of 30% deciduous woodland, 25% unimproved neutral grassland, 22.5% heathland, and 12.7% is recent plantation woodland³. The remaining area includes built development and gardens, scrub, semi-improved grassland and a pond. The historic landscape was largely unenclosed common land and woodland throughout the post medieval period, with little evidence of settlement⁴.

3. Archaeological and Historic baseline

In the wider area, prehistoric archaeology has been identified dating back to the Mesolithic. The Atlas of Hampshire's Archaeology shows that there is a higher frequency of Mesolithic sites on the margins of the chalk downland on the clays close to the coast and reveals a group of settlement sites and findspots that cluster around the water courses north of Hayling Island⁵. These remains include pits, and rare⁶ evidence of possible tent-like structures in the form of stakeholes (HER 22917 and 23407) containing flint and charcoal, hearths, and a floor level (HER 23407). At Wakesford's Copse, charcoal from the hearth was radiocarbon dated to the mid-6th to mid-5th millennium BC. The location of Shaft 1 corresponds with a similar geology to this evidence, suggesting that there is potential for prehistoric remains to be located within the study area.

Later prehistoric archaeology in the study area and wider environs is also known, exploiting the position of Portsdown Hill overlooking the Solent. The chalk escarpment over the Solent provided an excellent defensive position against threats from the sea, and the harbours offered easy access to trade routes. All of which were made good use of by past peoples, from the prehistoric through to the Romans and on to the present day. There are no known heritage assets or recorded archaeological materials within the study area, but the location is sensitive to buried archaeology.

Shaft 1 is close to the historic settlement of Bedhampton, parts of which are designated as Areas of Archaeological Potential and Area of High Archaeological Potential in recognition of their potential preserved evidence of the medieval core and mills of Bedhampton. These remains are likely to be low value agricultural and former military land although there are high value assets including Grade I, II, and II* listed buildings but beyond the buffer zone of this scheme, therefore, not of concern at present moment.

³ Havant Borough Council. Havant Borough Townscape, Landscape and Seascape Character Assessment, Section 3: Forces of Change-Borough Wide. February 2007.

⁴ ibid

⁵ Hampshire County Council, nd. The Atlas of Hampshire's Archaeology.

⁶ Hey et al, 2010, Solent Thames Research Framework Resource Assessment Late Upper Palaeolithic and Mesolithic period

4. Assessment of Significance

Chapter 8 of the Havant Thicket Reservoir Environmental Statement (ES) prepared by Atkins in 2020 establishes an assessment of significance and potential magnitude of impacts for those heritage assets identified within the study area of the larger reservoir area, including the specific area surrounding Shaft 1⁷. Assessment of the value of heritage assets highlights the contribution that past historic processes make to the character of the landscape and the understanding of the chronological narrative and its importance for today's societies.

The only known asset within the 100m buffer of the construction of Shaft 1 is St. Chad's Well (HER 65094). A holy well possibly dated to the Medieval period. In association with St Chad, whose cult focussed on healing, suggests that the water from the well was thought to possess healing properties. The site has been heavily disturbed by modern development and is of low sensitivity (value), contributing to local understanding of medieval ritual practices.

5. Potential impacts

The approved pipeline scheme is proposed to be placed within existing utilities corridors, previously disturbed ground, and along existing roads. The topography and baseline archaeological character of the study area suggests there is potential to impact as-yet unknown archaeological remains, albeit a low potential. Therefore, there is a slight chance of *in situ* archaeological remains existing below ground that may be impacted because of the construction of Shaft 1. A programme of archaeological works in line with the approved AMP for the wider Reservoir and Pipeline Scheme is recommended to mitigate any impacts that may occur.

The Shaft 1 scheme will not affect how the wider historic environment is understood or appreciated. No impact is predicted on the significance of St Chad's Well (HER 65094). The assessment of significance in Chapter 8 of the Havant Thicket Reservoir ES found that the surroundings of St Chad's well have changed to the extent that they no longer contribute to the significance of the archaeological site. Therefore, the Shaft 1 works would have a neutral impact on the significance of the asset.

6. Archaeological Management Plan (AMP)

The AMP in place for the management of archaeological remains associated with the development of the Reservoir and Pipeline provides the general arrangements for different levels of archaeological investigation. It is anticipated that an archaeological watching brief would be appropriate to off-set the potential impacts of the Shaft 1 development on any as-yet unknown archaeological remains.

This note sets out a proposed brief for archaeological investigations as defined under the Scheme-wide AMP⁸, including the aims and objectives for the work, the methodologies and the standards to be used in undertaking the fieldwork and reporting. The purpose of this document is to provide sufficient information for archaeological contractors to tender for the design and implementation of the required archaeological investigations. The archaeological investigation undertaken to fulfil this specification will record and qualify the archaeological resource within the area of the Scheme ahead of and during construction through:

- Archaeological monitoring (watching brief) of soil stripping across components, in recognition of the potential for significant but ephemeral early prehistoric remains.
- Reporting and publication of assessments, analysis, and findings commensurate with the nature of the findings; and
- Archiving of the digital and physical archives with the appropriate curator.

All work will be carried out by the Archaeological Contractor in accordance with national, regional and local policy and guidelines and in particular will be carried out in accordance with the Chartered Institute for Archaeologists (CIfA)

⁷ Atkins, 2020

⁸ Future Water MJJV, 2022

Standard and guidance for archaeological field evaluation⁹ and the ClfA Standard and guidance for an archaeological watching brief¹⁰.

6.1 Roles and Responsibilities

Specific roles and responsibilities are outlined below:

- The Client – Portsmouth Water;
- The Principal Contractor – Ward and Burke Construction Ltd;
- Archaeological Consultant – the nominated consultancy acting as managing body for the archaeological works (this may be done by the Archaeological Contractor if agreed);
- Archaeological Contractor – the nominated archaeological company employed by the Client to carry out the archaeological works; and
- Consulting Parties – Hampshire County Archaeological Advisor, Historic England, and the Havant District Conservation Officer.

6.2 Health and Safety

Health and Safety considerations will be of paramount importance in conducting all fieldwork. Much of the archaeological fieldwork is expected to be conducted immediately preceding construction activities through a strip, map, and sample approach. As such CDM regulations will apply. Safe working practices will always override archaeological considerations.

All work will be carried out in accordance with the Health and Safety at Work etc. Act 1974 and the Management of Health and Safety Regulations 1992, and all other relevant Health and Safety legislation, regulations and codes of practice in force at the time for the fieldwork.

A Risk Assessment and Method Statement (RAMS) for the work will be prepared prior to the commencement of fieldwork and submitted to the Archaeological Consultant for review and acceptance.

Full Personal Protective Equipment (PPE) will be worn by all archaeologists and monitoring visitors while on site and in line with Health & Safety requirements. Any specific PPE will be confirmed following appointment.

6.3 Archaeological Monitoring (Watching Brief)

6.3.1 Overview

A programme of observation, investigation and recording of archaeological remains will be undertaken during construction where appropriate. It is used where archaeological remains have not been identified by a detailed desk-based assessment or field evaluation, but where there is a realistic potential for archaeological discoveries. The Principal Contractor's method of working would not be directly controlled for archaeological purposes, unless important archaeological discoveries are found (in which case the site method may change to Construction Integrated Recording).

⁹ Chartered Institute for Archaeologists, 2020a. Standard and guidance for archaeological field evaluation

¹⁰ Chartered Institute for Archaeologists, 2020d. Standards and Guidance for and Archaeological Watching Brief

All work will be carried out by the Archaeological Contractor in accordance with national, regional and local policy and guidelines and in particular will be carried out in accordance with the ClfA Standard and guidance for archaeological field evaluation¹¹ and the ClfA Standard and guidance for an archaeological watching brief¹².

6.3.2 Methodology

A Written Scheme of Investigation (WSI) has been prepared in accordance with current policy and practice and all archaeological monitoring will adhere to the specific methodologies set out. However, the documents may be subject to change depending on future works and developments in industry policies and standards. Any changes to the WSI must be agreed in writing with the Archaeological Consultant prior to the commencement of the works.

Prior to the commencement of archaeological monitoring, the WSI will be communicated to the Consulting Parties, and they will be informed of the timings of the work.

The WSI is submitted separately to discharge Conditions 13 and 14.

6.3.3 Aims and Objectives

In line with ClfA standard and guidance¹³, the purpose of archaeological monitoring is to:

to allow, within the resources available, the preservation by record of archaeological deposits, the presence and nature of which could not be established (or established with sufficient accuracy) in advance of development or other potentially disruptive works to provide an opportunity, if needed, for the watching archaeologist to signal to all interested parties, before the destruction of the material in question, that an archaeological find has been made for which the resources allocated to the watching brief itself are not sufficient to support treatment to a satisfactory and proper standard.

6.4 Recording

All excavated contexts shall be fully recorded by detailed written context records giving details of location, composition, shape, dimensions, relationships, finds, samples, cross-references to other elements of the record and other relevant contexts.

Written and photographic records will be maintained at all sites, even where archaeological features have not been encountered, in order to document the scope of the works, their location and the presence/absence of archaeological remains.

The record of archaeological investigations will include, at minimum:

- The site/trench codes as defined by the Archaeological Contractor;
- the location of the works area;
- the date(s) of the works;
- personnel involved in the works;
- a description of the archaeological and/or construction works;
- scope of excavation works and depths, if applicable;

¹¹ ClfA, 2020a

¹² ClfA, 2020d

¹³ ibid

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- degree of visibility and capacity to observe archaeological features, noting any areas where obstructions occurred and reasons for this;
- location and description of any archaeological remains;
- location and description of any modern remains; and
- areas and depths where archaeological remains were left in situ.

In order to achieve this, on-site recording of archaeological features, where not precluded by Health & Safety considerations, will consist of:

- Hand cleaning of archaeological features, sections and surfaces sufficient to establish the stratigraphic sequence exposed;
- Examination of excavated material in order to retrieve artefacts to assist in the analysis of their spatial distribution;
- Sample excavation of exposed features (see relevant methodology sections for minimum sample requirements);
- Completion of pro-forma record sheets;
- Plans and sections of all exposed archaeological features and horizons (including boundaries of natural) at an appropriate scale. A scale of 1:100 and/or 1:200 will be utilised to initially map the entire exposure and will be linked to detail plans at 1:20 of excavated features and sections at 1:10, if necessary. All features will be accurately tied into the Ordnance Survey National Grid and Ordnance Datum;
- A scaled photographic record of representative exposed sections and surfaces, along with sufficient photographs to establish the setting and scale of the groundworks; and
- A record of the datum levels of archaeological deposits.

Records will be produced using either pro-forma context or trench record sheets.

Digital recording is preferred but recognised as not always practical. All non-digital written records should be completed with black or permanent ink and all drawings will be completed using a 'hard' pencil (recommended 2H or 4H). All documents will include the unique site code.

A record of the full sequence of all archaeological deposits as revealed in the investigation works will be made. Plans and sections of features will be drawn at an appropriate scale of 1:10 or 1:20, with sections drawn at 1:10.

A full photographic record will be maintained inclusive of working shots to represent the general context of the archaeological investigations. The principal features and finds will both be recorded in detail and in a general context. This will consist of SLR digital photography (using a minimum of a 16-megapixel camera) capturing RAW and JPEG data. An appropriate scale should be included in detailed images wherever possible.

Registers of all contexts, drawings, photographs, finds, and samples will be maintained in a standardised format.

Where archaeological features are encountered, linear features and occasional discreet features will be located using a GNSS GPS and tied into the National Grid. Where complex features or groups of features are encountered, these will be recorded at a scale of 1:20 on planning sheets, based on a 5m grid system. The grid will be used for planning features and all other horizontal control on site. Unless otherwise appropriate, all planning should be undertaken utilising GNSS GPS to provide ESRI compatible shapefiles.

For trial trenching, trench locations and the extent of the excavated area will be surveyed using a differential GPS. The actual areas of ground disturbance and any features of archaeological interest will be accurately located on a site plan and to a known, permanent location. This will also be required in cases where significant remains are uncovered during a watching brief. A site grid will be accurately tied into the National OS Grid and located on a map of the area.

