

South East Strategic Reservoir Option Gate 1 submission – Technical Annex B1

Appendix A3 Historic Environment

Thames Water Utilities Ltd

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5201137-011



Notice

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Client signoff

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Appendix A3 Draft Written Scheme of Investigation



A3.1. Introduction

A3.1.1. Project background

Atkins, a member of the SNC Lavalin group, has been appointed by Thames Water to carry out the heritage assessment for the South East Strategic Reservoir Option (SESRO). SESRO has been identified as one of the Strategic Resource Options (SROs) in Ofwat's PR19 Final Determination. Located west of Abingdon, the SESRO design is based on the abstraction of water from the River Thames at Culham, to be stored in a non-impounding reservoir during wetter months (when the reservoir is not already full). This water would then be released back into the River Thames at Culham so that it would be available for abstraction downstream.

A3.2. Aims and Objectives

This Draft Written Scheme of Investigation (WSI) outlines the methodology for the preparation of a Desk-Based Assessment (DBA) to summarise the previous archaeological work undertaken within and adjacent to the Site. The aim of the DBA is to identify what, if any, additional archaeological work is necessary to facilitate the design and construction of the proposed reservoir. In addition, the DBA will serve as a record of the archaeological works undertaken and will support any future planning application to confirm compliance with local and national planning policy.

A3.3. Methodology

A3.3.1. Sources Consulted

In order to assess the significance and potential for historic assets, the site will be placed into its full archaeological and historic context. This will be achieved through collecting data within a suitable study area, using professional judgement around the site outline (e.g. 1km). The data will then be obtained from principal sources, in this instance the Oxford County Council Historic Environment (HER), which provides information on non-designated historic assets (monuments), and past archaeological investigations (events). Information on statutorily designated assets will be obtained from the HER dataset as well.

The following sources will also be examined:

- Groundsure: Digital historic Ordnance Survey maps from the 1st edition to present
- British Geological Survey: Online digital solid and superficial geological data and historic borehole records
- Environment Agency: LiDAR data coverage of the United Kingdom (1 m resolution)
- Oxfordshire County Council for aerial photography and historic mapping
- Internet Sources: Web-published material, including local planning authority planning policies, conservation area information, and information on designated assets.
- Historic England Archives: for aerial photography
- The Berkshire Record Office: for historic mapping and aerial photography

The HER data will be compiled into a gazetteer, which will be referenced in the assessment. The gazetteer will record the relevant Event, Monument, or HER number. The gazetteer will include information regarding the type, period, protective designation, and other descriptive information, as derived from the consulted sources.

Any LiDAR data used in the assessment will be processed in accordance to guidelines established by Oxford County Council.

This information will be accompanied by distribution maps illustrating the recorded locations of designated and non-designated historic assets.

Where required, any assumptions made, or limitations in the available data will be explicitly expressed in the DBA.

A review of the HER data/grey literature within the red line boundary suggests there have been at least c.300 archaeological investigations. A total of 86 reports could not be located, but a brief summary provided by HER has been provided instead.

Table A3-1 – Archaeological reports not located

Address-specific information has been removed as it could be wrongly assumed to identify properties that may fall within the footprint of one of the SESRO options.

HER Number	Name	Organisation	Description
██████████	Land at ██████████ ██████████	Foundations Archaeology	Strip, map and sample of three areas previously identified as having archaeological potential (see ██████████ ██████████ and ██████████). Phase 1: Oct–Dec 2013: area 1 – 60 m × 60 m; Phase 2: Feb–Mar 2015: area 2 – 42 m × 11 m, area 3 – 31 m × 25 m, total c.0.5 ha.
██████████	██████████	Foundations Archaeology	3-trench evaluation of c.0.79 ha site, prior to an extension ██████████ along with the construction of a new bungalow ██████████ and eight new dwellings ██████████
██████████	██████████	Thames Valley Archaeological Services	Excavation of 0.9 ha over 4 areas of c.4 ha site prior to residential development (██████████) and following identification of a range of archaeological deposits of several periods during previous evaluation (██████████).
██████████	██████████ ██████████ ██████████	Finial Associates	Phase 2 Report ██████████ consists of measured drawings, photographic survey, elevations and accompanying summary design.
██████████	Land adjacent to ██████████ ██████████ ██████████	John Moore Heritage Services	Watching brief for foundations and services of new residential building revealed a single undated posthole and pottery sherds of early/mid Saxon and Saxo-Norman date.
██████████	An Archaeological Watching Brief at ██████████ ██████████ ██████████ ██████████	John Moore Heritage Services	During excavation for foundations for an extension and during ground reduction for part of new games court, watching brief occurred. Nothing of archaeological significance found. This signifies absence of occupation in the area.
██████████	Archaeological excavation at ██████████ ██████████ ██████████	Thames Valley Archaeological Services	Two area excavation targeted on results of earlier evaluation revealed a series of rectangular stockyards delineated by ditches and gullies with droveways and gateways between them.
██████████	An Archaeological Watching Brief at The Wilts and Berks Canal Cut, Culham Reach, Drayton	John Moore Heritage Services	WB carried out at Culham Reach during the excavation of a canal cut for 150 m length. Recorded a series of alluvial layers but no evidence for any prehistoric occupation or any gravel islands. Two former courses of the Thames were exposed.
██████████	Archaeological Evaluation of Site 126 (south)	Thames Valley Archaeological Services	Machine excavation (N=4 trenches) of targeted areas, defined by geophysical work. Hand excavation followed, with generally good correlation between features identified by geophys/cropmark surveys and by trenching.

HER Number	Name	Organisation	Description
████████	Archaeological Evaluation of Site 196	Cotswold Archaeology	Trial trenching (7 trenches, 1.8 m in width and 420 m in total length) revealed two areas of archaeological potential: Middle Iron Age and Romano-British occupation characterised by settlement and/or agriculture. Identified first through aerial photo.
████████	Archaeological Evaluation of Site 407	Cotswold Archaeology	Trial trenching (11 trenches totalling 455 m in length and between 1.5 and 1.8 m wide) after fieldwalking and aerial photo interpretation revealed agricultural/settlement site of Middle Iron Age and Romano-British dates.
████████	Archaeological Evaluation of Site 102	Cotswold Archaeology	Geophysical work done; limited trenching (4 of 1.5 m width and 120 m total length).
████████	Archaeological Evaluation of Site 410	Cotswold Archaeology	Fieldwalking and trial trenching (6 trenches of 1.5 m width and totalling 260 m in length) revealed settlement/agricultural site of Middle Iron Age and Romano-British date.
████████	Archaeological Evaluation of site 126 (North)	Thames Valley Archaeological Services	Machine excavated trenches (N=5) of targeted areas chosen from aerial photographs and fieldwalking surveys. Good correlation between surveys and evaluation trenches. Features with artefacts of C.2–5 Roman date. Preservation was generally good.
████████	Evaluation of Site 197 in Abingdon Reservoir	Thames Valley Archaeological Services	Machine excavation of specifically targeted areas chosen from geophysical and cropmark surveys. Features of Bronze Age and Late Iron Age/early Roman periods were found. Preservation of features and artefacts was generally good.
████████	Evaluation of Abingdon Reservoir Site 109	Oxford Archaeological Unit	Use of machine trenching in 7 trenches focused on features interpreted from geophysical survey. Revealed were Roman features, with some indications of earlier Middle to Late Iron Age presence.
████████	Evaluation of Abingdon Reservoir Site 153	Oxford Archaeological Unit	Machine trenching of 2 trenches targeted on cropmarks identified during the DBA; recovered were Medieval features (ridge and furrow).
████████	Evaluation of Abingdon Reservoir Site 402	Oxford Archaeological Unit	Machine trenching in 10 trenches on features plotted from aerial surveys and geophysical work. Revealed was late C1 to early C2 RB settlement, with some evidence for Middle Iron Age presence.
████████	Evaluation of Abingdon Reservoir Site 408	Oxford Archaeological Unit	Machine trenching and hand excavation of 11 trenches within targeted sites. Revealed was presence of middle Bronze Age occupation and animal husbandry or agricultural activity.
████████	Evaluation of Abingdon Reservoir Site 409	Oxford Archaeological Unit	Machine trenching of targeted areas identified by cropmarks; two trenches dug. No geophysics done.
████████	Evaluation of Abingdon Reservoir Site 411	Oxford Archaeological Unit	Machine trenching of targeted areas; hand excavation revealed C1–2 RB settlement and field system; remnants of MIA activity were recovered.

HER Number	Name	Organisation	Description
████████	Evaluation of Abingdon Reservoir Site 416	Cotswold Archaeology	7 trenches positioned over features identified in geophysical survey; total length of excavated trenches: 195 m. Recovered were features of MIA and LIA date, as well as a Roman settlement.
████████	Evaluation of Abingdon Reservoir – Site 417	Oxford Archaeological Unit	7 trenches targeted to locate features interpreted from aerial photos; excavation revealed Middle Bronze Age features, as well as one dated to C.1 or later.
████████	Evaluation of Abingdon Reservoir – Site 400	Oxford Archaeological Unit	10 trenches targeted to features identified from geophysical survey; found was evidence of settlement from the Middle Iron Age to C.4 Roman period.
████████	Abingdon Reservoir Proposal: Archaeological Evaluation C-24 (site 406)	Cotswold Archaeology	Two trenches, totalling 130 m in length, were machine dug, targeting features identified from AP; revealed were Late Iron Age and early Roman features. Trenching also revealed features not seen as cropmarks.
████████	Abingdon Reservoir Proposal: Archaeological Evaluation C-24 (site 412)	Cotswold Archaeology	Machine trenching (5 trenches totalling 190 m) targeted on cropmarked features. Revealed were Middle to Late Iron Age settlement/agricultural features; main complex was dated to Late Iron Age to Roman.
████████	Culham Reach Auger Survey (Thames Floodplain) C-22	Wessex Archaeology	Auger survey in area of proposed Intake/Outfall for reservoir; overall aim of survey was to record the alluvial profile and any associated deposits and determine archaeological and palaeo-environmental potential.
████████	Excavations at ██████████ ██████████ ██████████	E T Leeds	Excavations revealed multi period site of Neolithic, Bronze Age, Roman and Saxon date. Gravel extraction that preceded the excavation occurred on line of cursus, thereby destroyed the cursus and any internal features. Part of E ditch excavated by Leeds University.
████████	Geophysical Survey ██████████ ████████████████	OULDCE	Results of magnetometry survey carried out within the SAM as part of the Vale and Ridgeway Project's excavation in 2007. Results correlate with and add to the information known about the site from aerial photographs.
████████	Field Survey of ██████████ ██████████	OULDCE	Field survey shortly after field was ploughed; transects set up parallel to line of electricity cable posts. Each transect was 150 m long, with material bagged every 50 m. This resulted in 20% sample of the overall villa area. Geophysical work (██████████)
████████	Geophysical Survey ██████████ ████████████████ ████████████████	OULDCE	Seven 30 m grids were surveyed in area of greatest concentration of fieldwalking, also done by OUDCE (██████████ ██████████). Results show ditch or trackway running N–S, with ██████████ showing up to E. To W of trackway are number of rectangular enclosures.

HER Number	Name	Organisation	Description
████████	An Archaeological Watching Brief on Electricity Cabling Refurbishment at Frilford	Wessex Archaeology	Watching Brief was carried out during power cable trenching works at Frilford. No archaeological deposits were recorded, despite being close to site of BA lithics scatter.
████████	Analysis of Oak Timbers ████████ ████████	Tree-Ring Services	11 core samples of timbers taken; when possible, timbers with 50+ annual growth rings were selected. Sampling was as discreet as possible in the original timbers and orientated in the most suitable direction to maximize the number of rings for analysis.
████████	████████ ████████ ████████ ████████	Alison Maguire	Building survey with photographs and plans.
████████	Evaluation in Site 418	Oxford Archaeology	Two 50 m trenches were dug to target potential geophysical anomalies in area to E of PRN 12146, a cropmarked complexes of rectilinear enclosures and trackways. No archaeological remains were found; the anomalies detected by geophysical survey were likely
████████	Trenching in Plot 216	Oxford Archaeology	Trenching (consisting of 12 50 m trenches) in Plot 216 (which lies to the W of PRN 15307) revealed that a majority of the features appear to be associated with medieval/post medieval land use. Trenching (consisting of 12 50 m trenches) in Plot 216 (which lies to the W of PRN 15307) revealed that a majority of the features appear to be associated with medieval/post medieval land use. Two undated pits, an undated posthole and an undated trackway
████████	Trenching in Plot 204	Oxford Archaeology	Trenching (consisting of 12 50 m trenches) in Plot 204 revealed that the majority of features appeared to be associated with medieval/post medieval agricultural land use. Single ditch in Trench 204.09 contained an abraded sherd of Roman pottery, and may
████████	Evaluation in Plot 1402	Oxford Archaeology	Evaluation consisted of 2 x 50 m trenches, with two features identified to Bronze Age.
████████	Evaluation in Plot 412	Oxford Archaeology	Investigation consisted of 5 x 50 m trenches placed to target linear crop mark features.
████████	Evaluation in Plot 413	Oxford Archaeology	Investigation consisted of 5 x 50 m trenches dug to target linear cropmarked features.
████████	Evaluation in Plot 414	Oxford Archaeology	Investigation consisted of 5 x 50 m trenches, all located to target linear cropmarked features.
████████	Evaluation of Abingdon reservoir plot 1201	Oxford Archaeological Unit	There were 36 trenches, dug along a north-south transect, which cut across a plough headland. The trenches were machine excavated to the top of the subsoil

HER Number	Name	Organisation	Description
██████	██████ ██████ ██████ Arch Evaluation	Thames Valley Archaeologic al Services	Nine trenches dug; three contained features (pits, postholes, gullies and ditches) dating to 12th–13th century. Possible Saxon grubenhaus, but not pottery. Single Beaker sherd retrieved.
██████	Fieldwalking and Geophysical Survey of the Field North of Cow Lane	William Wintle	Geophysical and fieldwalking survey in a 300x300 m square in the SE part of the SM provided useful additional information on the monument. The outline of the enclosure as shown on Ap's has been confirmed and considerable further detail added.
██████	Geophysical Survey in Garford	William Wintle	Geophysical survey confirmed aerial photo evidence that Garford contains important archaeological material extending from its earliest use as a Bronze Age barrow cemetery through to later occupation from the Iron Age to the Roman periods.
██████	Romano- British Temple at ██████ █████	William Wintle	The geophysical survey achieved two main objectives in detecting the location and extent of the temple area and its inner cell as well as adding more detail to the information previously obtained from magnetometer survey.
██████	Proposed Vale of White Horse Crematorium	Phoenix Consulting	Whilst the HER does not detail any specific sites within the confines of the development area, the large field within which the site lies, contains a range of archaeological sites including three suspected Bronze Age burial barrows and a Roman Villa
██████	Land at ██████ ██████ █████	Foundations Archaeology	Evaluation undertaken in advance of proposed development for housing, and consisted of 11 trenches, representing a 4% sample. 10 trenches were 30 m x 1.8 m, but one was 9 m x 1.8 m. 53 features were found across the site.
██████	██████ ██████ █████	AOC Archaeology Group	NEGATIVE – Three trenches were excavated within the proposal area. Much of the area proved to have been truncated by levelling and make-up for the tanning works, with only traces of a potential archaeological soil horizon surviving.
██████	██████ █████	Cotswold Archaeology	Proposed development area for 145 ha solar installation. Desk based assessment revealed that proposed development will not affect any designated assets or their settings but has the potential to affect two non-designated assets.
██████	Site adjacent to ██████ ██████ █████	Thames Valley Archaeologic al Services	Watching brief maintained during construction of new house. A single archaeological feature comprising a ditch of 12th–13th century date was recorded. This was aligned from northeast to southwest.
██████	██████	Oxford Archaeologic al Unit	Seven trenches were excavated within the proposal area (SAM No. 211). These revealed the remains of the square temple with associated features, the circular shrine, no evidence of the large ditch which was visible from aerial photographs in trench.
██████	Excavation at Sutton Wick, Area C	AOC Archaeology Group	In advance of gravel extraction, machine stripping occurred with collection of artefacts by Abingdon Society. Machine stripping and excavation of Post Med disturbances apparently removed all trace of many of shallow features seen on site; further damage.

HER Number	Name	Organisation	Description
████████	Proposed Solar Park ██████████	Bartlett-Clark Consultancy	Survey carried out on the 31 ha site of a proposed solar array construction. Well defined archaeological features were identified, lying close to SE edge of the study area, linked to known surface pottery finds.
████████	Drayton St Leonard	Abingdon Archaeological Geophysics	A small earth resistance survey in the grounds of ██████████ indicated an 'anomaly' some 4 m wide running in an approximately NNW-SSE direction. Ground conditions were too wet for good results.
████████	Land at Causeway ██████████	Foundations Archaeology	Fourteen 30×1.8 m trenches and one 20×1.8 m trench were excavated across the 1.7 ha site, focussing on areas likely to show a continuation of the late Prehistoric field system identified during a phase of excavation work in 2012 (see ██████████).
████████	Archaeological Geophysical Survey at ██████████	Museum of London Archaeology	A detailed magnetometer survey was undertaken ahead of a proposed new housing development. The survey area consisted of 2.7 ha of a single meadow field. The only archaeological features to be detected are traces of furrows or medieval ridge and furrow cultivation.
████████	Trenching around Drayton Barrow	Abingdon Area Archaeological and Historical Society	Three trenches dug by AAAHS after geophysics done by Bartlett Consultancy (no report, only plot shown in the limited record for this site). Trenches dug to investigate the nature of the mound and the effect of ploughing on the area.
████████	██████████	John Moore Heritage Services	Prior to erection of a two-storey rear extension, John Moore Heritage Services carried out an archaeological watching brief ██████████. Groundwork consisted of the excavation of a foundation trench for an extension to the existing dwelling.
████████	Land South of Steventon Road	Headland Archaeology (UK) Ltd	Headland Archaeology (UK) Ltd. was commissioned to undertake an evaluation of land SE of the junction between Steventon Road and the A338 in East Hanney in advance of a planning application for consent for residential development on the site.
████████	Land S of Summertown	Thames Valley Archaeological Services	Field evaluation of an area approx 8.1 ha needed to inform the planning process in advance of construction of new housing on site. 82 trenches, each 25 m long by 1.6–2 m wide, were dug. Revealed was a Roman occupation site, extensive in size, of moderately archaeological potential.
████████	Land off Drayton Road	John Moore Heritage Services	Planning permission was granted for a residential development east of Drayton Road. An initial geophysical survey revealed anomalies that was tested by two phases of field evaluation, which revealed evidence of Iron Age activity.
████████	Land at ██████████	Wessex Archaeology	A detailed gradiometer survey was undertaken over land south of Cow Lane on the northwest edge of Marcham. The project was commissioned by Taylor Wimpey (UK) Ltd with the aim of establishing the presence, or otherwise, and nature of detectable archaeology.

HER Number	Name	Organisation	Description
████████	Land at ██████ ██████	Wessex Archaeology	Wessex Archaeology was commissioned by Taylor Wimpey to undertake an archaeological evaluation on land at ██████ ██████ which is the subject of a planning application for residential development. The site lies within an area of known archaeological potential.
████████	Land at ██████ ██████	Thames Valley Archaeological Services	Planning permission has been sought to erect new housing on the site with associated works. Due to the possibility of archaeological deposits on site that could be damaged or destroyed during construction an archaeological field evaluation was requested
████████	Land adjacent to ██████ ██████	Thames Valley Archaeological Services	Planning permission has been sought from Vale of the White Horse District Council to erect new houses with associated garages and open space. It was proposed to excavate 18 trenches, each 20 m long and 2 m wide to be dug on the locations of the proposed development.
████████	████████ ████████	John Moore Heritage Services	The faculty proposed by the Oxfordshire Diocese to replace the floor and install drainage ██████████ was approved by the Diocesan Advisory Committee in 2016. Due to the archaeological and historical importance of the structure.
████████	Land at ██████ ████████	Pre-Construct Geophysics	Work done for Cotswold Archaeology. A fluxgate gradiometer survey was undertaken on land ██████████ because the site is proposed as a solar farm. The survey detected a group of ditches and potential pits in the north western part of the site.
████████	Land at ██████ ████████ ██████	Foundations Archaeology	7-trench evaluation over c.1.3 ha site prior to submittal of a planning application for further residential development on land ██████████. Due to the presence of archaeological features in the adjacent fields in previous phases (████████ and ██████)
████████	Former Marcham Services	John Moore Heritage Services	The site of the proposed development is located on the north-west side of the junction between A415 Packhorse Lane and North Street and was in use as a garage service station.
████████	LAND NORTH OF SUMMERTOWN	CgMs Consulting	Desk-based assessment prior to development for housing identified ridge and furrow over the study site from aerial photographs. Map regression indicates agricultural activity which experienced changes in boundary divisions until 1878.
████████	Abingdon Road, Drayton	ArchaeoPhysica Ltd	Geophysical survey to support a desk-based assessment as part of an application for residential development. The survey identified a potential barrow (PRN28545) and a complex series of ditches surrounding it (PRN28546).
████████	Land North of Summertown	Oxford Archaeology	11-trench evaluation on c.2.56 ha site, prior to residential development. A single ditch with a worked Bronze Age flint from the main fill was identified in one trench. All other trenches encountered only modern intrusion.
████████	Drayton Highway Depot	Oxford Archaeological Unit	Field evaluation for the purpose of construction of a storm balancing meadow to counteract localised flooding.
████████	Drayton Highway Depot	Oxford Archaeological Unit	Occurred outside the area of prehistoric ring ditches, pits, burials and Saxon settlement excavated by ET Leeds; excavation revealed two earlier prehistoric pits, a linear feature and 2 postholes.

HER Number	Name	Organisation	Description
████████	████████ and ██████████	Tempus Reparatum	5 trenches excavated. Possible double ditched enclosure defining limits of 11th/12thC village uncovered. Residual R-B pottery & Prehistoric struck flints also recovered. Majority of pottery dated to 11th & 12thC.
████████	████████	Trust for Wessex Archaeology	Archaeological evaluation and watching brief during the construction ██████████. No archaeological features were found.
████████	████████	Oxford Archaeological Unit	2 trenches excavated. No archaeological features were recovered. Small amount of finds came from the topsoil, including R-B & Medieval pottery.
████████	Land at Sutton Wick	John Moore Heritage Services	NEGATIVE – twenty three trenches (2% sample) were excavated within the proposal area. No archaeological features/deposits were observed, although a few residual post-medieval pottery sherds and a single sherd of Roman greyware were recovered.
████████	████████	AOC Archaeology Group	Prior to the construction of ██████████. Site lay in close proximity to two prehistoric barrows.
████████	████████	Finial Associates	Report comprising measured drawings, photographic survey, elevations and accompanying summary design.
████████	████████	Foundations Archaeology	Archaeological watching brief of intrusive groundworks during the construction ██████████. A total of three features of archaeological potential were present.
████████	Land at ██████████	Foundations Archaeology	Detailed overview of the results from the archaeological works reported at ██████████, ██████████, ██████████ and ██████████ and sets out the requirements to bring the site to publication.
████████	████████	Queenpost Building Histories	Report on the historic structure of the building.
████████	████████	Abingdon Area Archaeological and Historical Society	In August 1968, excavation was carried out on Plots 324 and 325 ██████████ after Roman pottery was found in building work.
████████	████████	KDK Archaeology Ltd	Desk Based Assessment in lieu of planning Conditions associated with ██████████. The new build was already in progress when this was carried out. Once a common sight, these ephemeral structures were often overlooked and seldom recorded.
████████	Land to the west of ██████████	John Moore Heritage Services	A single evaluation trench 39.5 m in length by 2.2 m in width was excavated within the footprint of ██████████. The remains encountered appear to represent activity dating from the Mesolithic or Neolithic.

A3.3.2. Assessment of Criteria

A3.3.2.1. Assessing Significance

The significance of a heritage asset lies in its value to current and future generations due to its heritage interest, be it archaeological, architectural, artistic, or historic. The determination of the significance of an asset, whether it is designated or non-designated, is based on one or more of its values as outlined in Historic England's Conservation Principles, policies and guidance¹. The four principal values are:

- **Evidential value:** the potential of the physical remains to yield evidence of past human activity. This might take into account date; rarity; state of preservation; diversity/complexity; contribution to published priorities; supporting documentation; collective value and comparative potential;
- **Aesthetic value:** this derives from the ways in which people draw sensory and intellectual stimulation from the heritage asset, taking into account what other people have said or written;
- **Historical value:** the ways in which past people, events and aspects of life can be connected through a heritage asset to the present, such a connection often being illustrative or associative; and
- **Communal value:** this derives from the meanings of a heritage asset for the people who know about it, or for whom it figures in their collective experience or memory; communal values are closely bound up with historical, particularly associative, and aesthetic values, along with and educational, social or economic values.

Where known heritage assets are identified, the heritage significance of such assets is determined by reference to existing designations where available. For previously unidentified sites where no designation has been assigned, an estimate has been made of the likely historic, artistic or archaeological importance of that resource based on professional knowledge and judgement. Examples of the significance of designated and non-designated assets are outlined in Table A3-2 below.

Table A3-2 – Assessing the Significance of Heritage Assets

Significance	Description	Example
Very High	Internationally important or significant heritage assets	World Heritage Sites, or buildings recognised as being of international importance.
High	Nationally important heritage assets generally recognised through designation as being of exceptional interest and value.	Grade I and II* Listed Buildings, Grade I and II* Registered Parks and Gardens, Scheduled Monuments, Protected Wreck Sites, Registered Historic Battlefields, Conservation Areas with notable concentrations of heritage assets and non-designated assets of national or international importance.
Medium	Nationally or regionally important heritage assets recognised as being of special interest, generally designated.	Grade II Listed Buildings, Grade II Registered Parks and Gardens, Conservation Areas and non-designated assets of regional or national importance, including archaeological remains, which relate to regional research objectives or can provide important information relating to particular historic events or trends that are of importance to the region.
Low	Assets that are of interest at a local level primarily for the contribution to the local historic environment.	Non-designated heritage assets such as locally listed buildings, non-designated archaeological sites, non-designated historic parks and gardens etc. Can also include degraded designated assets that no longer warrant designation.

¹ English Heritage, 2008 Conservation principles, policies and guidance (Swindon: Historic England)

Negligible	Elements of the historic environment which are of insufficient significance to merit consideration in planning decisions and hence be classed as heritage assets.	Non-designated features with very limited or no historic interest. Can also include highly degraded designated assets that no longer warrant designation.
Unknown	The importance of an asset has not been ascertained.	

Adjustments to the classification are occasionally made, where appropriate; for some types of finds or sites where there is no consistent value and the importance may vary from local to national. Levels of importance for any such areas are generally assigned on an individual basis, based on professional judgement and advice.

A3.3.2.2. Buried Archaeological Potential

Buried archaeological evidence is often an unknown quantity which can be difficult to fully identify during a desk-based assessment. The likelihood of the presence of unknown assets, the archaeological potential, is assessed based on available evidence, but the physical nature and extent of any archaeological resource surviving within the Site cannot be confirmed without detailed information on the below ground deposits or results of on-site fieldwork, typically through non-intrusive (e.g. geophysical, LiDAR), and intrusive (archaeological, geoarchaeological evaluation) survey.

A site's archaeological potential is identified using professional judgement and knowledge. A site's baseline potential is compared to the level of existing impact upon it, from modern and historic developments. The potential for surviving archaeological evidence of past activity within the Site boundary, the criteria set out in Table A3-3.

Table A3-3 – Archaeological Potential

Potential	Criteria
High	The available evidence suggests a high likelihood for past activity within the Site boundary and a strong potential for archaeological evidence to survive intact or reasonably intact
Medium	The available evidence suggests a reasonable likelihood for past activity within the Site and consequently there is a potential that archaeological evidence could survive
Low	The available evidence suggests archaeological evidence of activity is unlikely to survive within the Site, although some minor land-use may have occurred
Uncertain	Insufficient information to assess

A3.3.3. Setting

All historic assets, both designated and non-designated have a setting. The setting of a historic asset is more than its curtilage, it encompasses the wider environment in which the asset is experienced. Historic England's guidelines on the setting of historic assets² states that a thorough assessment of setting needs to be considered and be proportionate to the significance of the historic asset under consideration. The setting of a historic asset does not just include views to the asset, but also views from it, and can be affected by environmental issues such as noise, dust, and vibration etc. from nearby land use. The setting of assets that will be affected by the Scheme will be assessed.

A3.3.4. Study Area

Historic environment information was gathered within 1 km radius of the Scheme for designated assets and non-designated assets. Information on key designated heritage assets outside the study area have also been included where there was the potential for impacts to their setting.

The size of the study area is considered sufficient to compile a comprehensive baseline, identifying designated and non-designated heritage assets. This will allow a full understanding of the setting of any heritage assets within the study area and allow an assessment of the archaeological potential of the Scheme. In addition, the

² Cadw 2017, The setting of heritage assets in Wales.

potential impacts on designated assets beyond the boundaries of the study area were assessed, where there was a clear relationship between these assets and the assets within the study area which may be affected by the Scheme.

A3.3.5. Baseline data

The review of the HER data shows that there are 388 designated heritage assets with a 1 km study area comprising of

- 8 Scheduled Monuments
- 380 Listed Buildings:
 - 7 Grade I Listed Buildings
 - 31 Grade II* Listed Buildings
 - 342 Grade II Listed Buildings

There are 354 non-designated heritage assets in the 1 km study area with many of the assets focus on settlement activity during the prehistoric periods with evidence suggesting the Study Area has been occupied since at least the Neolithic period.

A3.3.5.1. Previous Investigations

The DBA will include an assessment of the information available from previous investigations, including the archaeological DBA and evaluation reports completed for the reservoir. A review of the HER data/grey literature within the Study Area suggests there have been at least 208 archaeological investigations in the 1 km study area. There have been 22 archaeological evaluations related to Abingdon Reservoir, and six of them are available on the Archaeological Data Service (see bibliography).

A3.3.5.2. Historic Environment Record

An updated search of the Oxfordshire Historic Environment Record (HER) will be undertaken to identify any newly recorded assets within the Site boundary or wider study area, to ensure that the baseline assessed incorporates the most up-to-date set of records. Informal consultation with the Oxfordshire County Archaeologist is also anticipated to identify assets not yet available on the HER.

A3.3.5.3. Historic mapping and archival sources

An assessment of all historic mapping will be carried out including all Ordnance Survey maps (19th and 20th century) at 1:10000, 1:10560, 1:2500 and 1:1250 scales; tithe maps (and apportionments), estate maps and any other relevant historical maps within the relevant County Record Office (parts of Oxfordshire were formerly part of Berkshire and may still be covered by the Berkshire Record Office), or readily available elsewhere.

A3.3.5.4. LiDAR Interpretation

The assessment will identify whether Lidar data exists for the study area. Where this data is available the assessment will need to contain hillshade visualisations taken from a number of separate azimuths (or a composite image taken from multiple azimuths) along with any other relevant visualisations for the study area.

A3.3.5.5. Geophysical Survey

This aspect of the project will be informed by the results of the desk-based assessment. However it is likely that geophysical survey will be required for the majority of the site in question. This DBA will include a discussion and interpretation of the results of the geophysical survey. CRM survey (conductivity and magnetic susceptibility) will be used in order can be used to identify features of gross geomorphology under alluvium such as palaeochannels. The contractors must provide plots of raw data, as well as processed data, in line with English Heritage (2008) Geophysical Survey in Archaeological Field Evaluation. A separate WSI will be produced before surveys take place.

A3.3.5.6. Geoarchaeological Deposit Model

For this DBA, a geoarchaeological deposit model will be produced to map the distribution of geoarchaeological buried deposits this will be based on initial geoarchaeological data review and any results from CRM surveys. A geoarchaeological contractor will complete the work, and a separate WSI will be produced before the model is produced.

A3.3.6. Interpretation and reporting

Following a review of the baseline data, the assessment will be reported in a DBA report, following the methodology above and in accordance with the standards and guidance set out in Section 4.1 below. The report will include:

1. An Executive Summary
2. Introduction
 - a. Proposed Development
 - b. Scope of Work
 - c. Methodology
 - d. Legislative and Policy Framework
3. Baseline Conditions
 - a. Site conditions
 - b. Geology, topography and LiDAR
 - c. Historic and Archaeological Background
 - d. Aerial photography analysis
 - e. Historic Hedgerows mapping
 - f. The Oxfordshire Historic Landscape Characterisation
 - g. Lidar interpretation
 - h. Initial basic deposit model
 - i. Geophysical Surveys
 - j. Designated Heritage Assets
 - k. Non-Designated Heritage Assets
4. Assessment of Previous Investigations
5. Establishment of significance(s)
6. Potential Impacts
7. Consultation
8. Recommendations
9. A gazetteer of heritage assets
10. Site map

A3.4. Quality Assurance

A3.4.1. Standards and Guidance

The following standards and guidance will be used to inform the DBA:

- National Planning Policy Guidance (NPPG) 18a: Conserving and Enhancing the Historic Environment;
- Standards and guidance for archaeological desk-based assessment: Chartered Institute for Archaeologists (CIfA) (2014, revised 2017);
- The Setting of Heritage Assets Historic Environment Good Practice Advice in Planning: 3 (2nd Edition), Historic England (2017);
- Managing Significance in Decision-Taking in the Historic Environment - Historic Environment Good Practice Advice in Planning: 2, Historic England (2015);
- Conservation Principles, Policies and Guidance for the Sustainable Management of the Historic Environment, English Heritage (2008), and Conservation Principles for the Sustainable Management of the Historic Environment Consultation Draft, Historic England (2017);
- Design Manual for Roads and Bridge (DMRB) LA 106: Cultural Heritage Assessment, Highways England (2020); and,
- Oxford County Council Archaeological Desk-Based Assessment: Advisory Document.

A3.4.2. Peer review

Peer review of the DBA report will be undertaken by internal Atkins staff, with an initial check being conducted by a Heritage Consultant and senior review undertaken by either a Senior or Principal Heritage Consultant. The

final DBA will also be reviewed by the Planning team to ensure the accuracy of the Scheme design and descriptions. Document control will be conducted through the use of ProjectWise or similar software to ensure appropriate audit trails.

A3.5. Health and Safety

All site works will be undertaken with due regard for Health and Safety regulations. In this case, where archaeological work is carried out at the same time as the work of other contractors, regard will also be taken of any reasonable additional constraints that these contractors may impose. Risk assessments will be prepared in accordance with the Health and Safety at Works Regulations. These will be submitted to Atkins for comment in advance of site works.

A3.6. Programme

The current programme is as follows:

- Complete draft assessments by TBC
- Client review TBC
- Complete amendments by TBC
- Submit application by TBC

A3.7. References

1. Barber, A. J. and Thomas, A. (1997). Abingdon Reservoir Proposal, Oxfordshire 1997. Archaeological Evaluation C-13B. (Report No. 97511). Cirencester: Cotswold Archaeology.
2. Coleman, L. (1998). Abingdon Reservoir Proposal, Oxfordshire 1998. Archaeological Evaluation C-17. Cirencester: Cotswold Archaeology.
3. Hardy, A. (1998). Abingdon Reservoir Proposal, Oxfordshire 1997. Archaeological Evaluation C-13a. Oxford: Oxford Archaeology.
4. Hearne, C. M. (2001). Archaeological evaluation in the Vale of White Horse, near Abingdon, 1992--99. *Oxoniensia* 65. Vol 65, pp. 7-12.
5. Weaver, S. D G. (1998). Abingdon Reservoir Proposal 1997 93/91. An Archaeological Evaluation of Site 197 Ref C - 13c (Vol 2 of 2). Reading: Thames Valley Archaeological Services Ltd.
6. Weaver, S. (1998). Abingdon Reservoir Proposal 1997 93/91. An Archaeological Evaluation of Site 126 (North) Ref. C - 13c. Reading: Thames Valley Archaeological Services