

Havant Thicket Reservoir Project

Environmental Statement Volume 2 – Main Report Chapter 8 Historic Environment

Portsmouth Water Ltd.

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8. Historic Environment

Competent expert evidence

- 8.1. This Historic Environment Chapter 8 of the ES Volume 2 has been prepared by the following individuals who have used their knowledge and professional judgement to undertake this assessment:
- an Associate Director (MSc, Cert. Architectural History) with 34 years of experience in archaeology, built heritage, planning and heritage consultancy;
 - a Principal Heritage Consultant (MA, MCIFA) with 14 years of experience in heritage consultancy; and
 - a Heritage Consultant (BA, MA, MPhil, MCIFA) with 23 years of experience in archaeology and heritage consultancy.

Legislative and policy framework

- 8.2. The following legislation and policies govern the treatment of the historic environment and have been consulted in preparing this chapter, with the relevant portions summarised Table 8-1:
- National Planning Policy Framework (NPPF, 2019);
 - National Planning Policy Guidance (NPPG, 2014);
 - Ancient Monuments and Archaeological Areas Act (1979);
 - Planning (Listed Buildings and Conservation Areas) Act (1990);
 - Havant Borough Council Local Plan Core Strategy (2011);
 - East Hampshire District Draft Local Plan (2019); and
 - Sir George Staunton Conservation Area Management Plan (2008).

Table 8-1 - Legislation, regulatory, and policy framework for the historic environment

Legislation/ Regulation/ Policy	Summary of requirements
National	
National Planning Policy Framework (NPPF, 2019)	The NPPF specifies that heritage assets ‘<i>should be conserved in a manner appropriate to their significance, so that they can be enjoyed for their contribution to the quality of life of this and future generations</i>’ (Paragraph 184). The following paragraphs are of particular relevance to this chapter: • Paragraph 189: Applicants for planning permission should ‘<i>describe the significance of any heritage assets affected, including and contribution made by their setting. The level of detail should be proportionate to the assets’ importance and no more than is sufficient to understand the potential impact of the proposal on their significance. As a minimum the relevant Historic Environment Record should have been consulted and the heritage assets assessed using appropriate expertise where necessary. Where a site on which development is proposed includes or has the potential to include heritage assets with archaeological interest, local planning authorities should require developers to submit an appropriate desk-based assessment and, where necessary, a field evaluation.</i>’ • Paragraph 192: ‘<i>In determining planning applications, local planning authorities should take account of:</i> a. <i>The desirability of sustaining and enhancing the significance of heritage assets and putting them to viable uses consistent with their conservation;</i>

Legislation/ Regulation/
Policy

Summary of requirements

- b. The positive contribution that conservation of heritage assets can make to sustainable communities including their economic vitality; and*
- c. The desirability of new development making a positive contribution to local character and distinctiveness.'*
- **Paragraph 193:** 'When considering the impact of a proposed development on the significance of a designated heritage asset, great weight should be given to the asset's conservation (and the more important the asset, the greater the weight should be). This is irrespective of whether any potential harm amounts to substantial harm, total loss or less than substantial harm to its significance'
 - **Paragraph 194:** 'Any harm to, or loss of, the significance of a designated heritage asset (from its alteration or destruction, or from development within its setting) should require clear and convincing justification. Substantial harm to or loss of:
 - a) grade II listed buildings or grade II registered park or garden should be exceptional;*
 - b) assets of the highest significance, notably scheduled monuments, protected wreck sites, battlefields, grade I and II* listed buildings, grade I and II* registered parks and gardens, and World Heritage Sites, should be wholly exceptional.'*
 - **Footnote 63:** 'non-designated heritage assets of archaeological interest, which are demonstrably of equivalent significance to scheduled monuments, should be considered subject to the policies for designated heritage assets'
 - **Paragraph 195:** 'Where a proposed development will lead to substantial harm to (or total loss of significance of) a designated heritage asset, local planning authorities should refuse consent, unless it can be demonstrated that the substantial harm or loss is necessary to achieve substantial harm or total loss is necessary to achieve substantial public benefits that outweigh that harm or loss, or all of the following apply:
 - a. The nature of the heritage asset prevents all reasonable uses of the site; and*
 - b. No viable use of the heritage asset itself can be found in the medium term through appropriate marketing that will enable its conservation; and*
 - c. Conservation by grant-funding or some form of not for profit, charitable or public ownership is demonstrably not possible; and*
 - d. The harm or loss is outweighed by the benefit of bringing the site back into use'*
 - **Paragraph 196:** 'Where a development proposal will lead to less than substantial harm to the significance of a designated heritage asset, this harm should be weighed against the public benefits of the proposal, including, where appropriate, securing its optimum viable use.'
 - **Paragraph 197:** 'The effect of an application on the significance of a non-designated heritage asset should be taken into account in determining the application. In weighing applications that affect directly or indirectly affect non-designated heritage assets, a balanced judgement will be required having regard to the scale of any harm or loss and the significance of the heritage asset.'
 - **Paragraph 198:** 'Local planning authorities should not permit the loss of the whole or part of a heritage asset without taking all reasonable steps to ensure the new development will proceed after the loss has occurred.'

Legislation/ Regulation/ Policy	Summary of requirements
	Paragraph 199: <i>'Local planning authorities should require developers to record and advance understanding of the significance of any heritages to be lost (wholly or in part) in a manner proportionate to their importance and the impact, and to make this evidence (and any archive generated) publicly accessible.'</i> Paragraph 201: Not all elements of a Conservation Area or World Heritage Site will necessarily contribute to its significance. Loss of a building (or other element) which makes a positive contribution to the significance of the Conservation Area or World Heritage Site should be treated either as substantial harm under paragraph 195 or less than substantial harm under paragraph 196, as appropriate, taking into account the relative significance of the element affected and its contribution to the significance of the Conservation Area or World Heritage Site as a whole.
Ancient Monuments and Archaeological Areas Act (1979)	The Act provides protection to scheduled monuments or ancient monuments which, can comprise <i>'any other monument which in the opinion of the Secretary of State is of public interest by reason of the historic, architectural, traditional, artistic or archaeological interest attaching to it'</i>. Monuments are defined in Section 61 as: <i>'(a) any building, structure or work, whether above or below the surface of the land, and any cave or excavation;</i> <i>(b) any site comprising the remains of any such building, structure or work or of any cave or excavation; and</i> <i>(c) any site comprising, or comprising the remains of, any vehicle, vessel, aircraft or other movable structure or part thereof which neither constitutes nor forms part of any work which is a monument within paragraph (a) above; and any machinery attached to a monument shall be regarded as part of the monument if it could not be detached without being dismantled.</i> <i>The Act requires any works within a scheduled monument to receive Scheduled Monument Consent. The Act also gives powers to the Secretary of State to designate 'Areas of Archaeological Importance'.</i>
Planning (Listed Buildings and Conservation Areas) Act (1990)	Provides protection to listed buildings and Conservation Areas of 'special architectural or historic interest'. Section 66 of the Act states that <i>'when considering whether to grant permission for development which affects a Listed Building or its setting, [decision makers] shall have special regard to the desirability of preserving the building or its setting'</i>. Section 72 of the Act also addresses conservation areas, for which decision makers must <i>'pay special attention to the desirability of preserving or enhancing the character or appearance'</i>.
Local	
Havant Borough Council Local Plan Core Strategy (2011)	Policy CS11 of the Havant Borough Council Local Plan Core Strategy (2011) sets out the local council's policy for the protection and enhancement of the heritage through appropriate management of development within or adjacent to heritage assets.
Havant Borough Local Plan 2036 (Pre-submission Draft, 2019)	E13: Historic Environment and Heritage Assets Development proposals will be permitted which: - Protect, conserve and, where possible, enhance the significance of designated and non-designated heritage assets and their settings; - Respect heritage assets and their contribution to local distinctiveness and sense of place; and - Make sensitive use of heritage assets, especially those at risk, through regeneration and re-use.

Legislation/ Regulation/ Policy	Summary of requirements
	Where harm cannot be avoided, mitigation must be proportionate to the impact and the significance of the heritage asset and fully incorporated into the development proposals. The removal of all or part of a heritage asset will only be permitted where there is an agreed contract for the replacement development.
East Hampshire District Draft Local Plan (2019)	The East Hampshire District Draft Local Plan (2019) includes the following policies relevant to the Scheme: • Policy S28: Heritage assets and the historic environment • Policy DM33: Conservation Areas • Policy DM34: Heritage assets within conservation areas • Policy DM38: Archaeology and ancient monuments • Policy DM40: Historic landscapes, parks and gardens
Sir George Staunton Conservation Area Management Plan (2008)	The Management Plan for the conservation area sets out the Council's long-term strategy for protecting and enhancing the area. Part of the Management Plan will be to monitor the effects of change and establish responsibilities for taking any necessary action.

Study area

- 8.3. For the purposes of assessing potential impacts on the historic environment, study areas were defined for the reservoir site and access roads, and the pipeline corridor. The first study area comprised the reservoir site and access roads, plus a 1 km buffer. For this area, information on all heritage assets, designated and non-designated was gathered, for the purposes of characterising the historic environment, informing the understanding of potential impacts, and identifying the potential for as-yet unknown archaeological remains. A second study area, consisting of a 2 km buffer around the red line boundary was defined to include designated heritage assets in order to help identify potential distant impacts on the more significant assets. Data was also gathered for an area extending 200 m in all directions from the pipeline corridor. Within this document, “the Site” refers to the redline boundary for the reservoir site and access roads, whilst “the study area” includes those buffer zones identified above.

Assessment methodology

- 8.4. This chapter has been undertaken with reference to the following standards and guidance:
- National Planning Policy Guidance (NPPG) 18a: Conserving and Enhancing the Historic Environment.
 - Standards and guidance for archaeological evaluations and watching briefs: Chartered Institute for Archaeologists (CIfA) (2014);
 - 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); and
 - 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).

- 8.5. In addition to the standards and guidance identified above, conservation area appraisals and management plans for the conservation areas included within the study area have been referenced during the production of this chapter.
- 8.6. The methodology used to assess the significance of effects, as identified in the Scoping Report Addendum 2019, is provided below. It is based on a methodology developed in the Design Manual for Roads and Bridges (DMRB) for highways schemes, which is the industry standard methodology generally accepted to evaluate value, impact, and effect for major schemes. The method has been slightly adapted for use in this assessment.

Assessment of value

- 8.7. Annex 2 of the NPPF defines significance (for heritage policy), (hereafter referred to as heritage value) as “the value of a heritage asset to this and future generations because of its heritage interest”. The NPPF identifies that heritage interest may be archaeological, architectural, artistic or historic. The NPPF also identifies that significance can be derived from the asset itself, and that the setting of an asset may contribute to its significance.
- 8.8. The first stage of identifying the potential significant effects of the Scheme on the historic environment includes the assessment of the value (also called ‘sensitivity’) of heritage assets. Table 8-2 sets out the general criteria for assessing the value of heritage assets. Professional judgement is also applied in each case, so that individual examples of heritage assets may be of greater or lesser value than the examples shown in the table.

Table 8-2 - Factors in determining the value of heritage assets

Value	Description	Example
Very high	Internationally important or significant heritage assets.	World Heritage Sites, or buildings or archaeological sites/remains 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 undesignated assets or archaeological sites/remains or landscapes 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 undesignated assets of regional or national importance, including archaeological remains or landscapes, 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, undesignated archaeological sites, undesignated historic parks and gardens, landscapes of local interest etc. This can also include degraded designated assets that no longer warrant designation.
Negligible	Elements of the historic environment which are of insufficient value to merit consideration in planning decisions and hence be classed as heritage assets.	Undesignated features with very limited or negligible historic interest. Can also include highly degraded designated assets that no longer warrant designation.
Unknown	The importance of an asset has not been ascertained.	

Setting assessment methodology

8.9. The contribution of the setting of each asset to its value has been assessed in accordance with Historic England's The Setting of Heritage Assets: Historic Environment Good Practice Advice in Planning Note 3 (GPA3). The guidance sets out a staged approach to this assessment:

1. Identifying the heritage asset and understanding its heritage value;
2. Identifying the existing setting and historic setting of the heritage asset, to understand how its setting has changed over time; and
3. Assessing whether, how and to what degree the existing setting makes a contribution to the value of the heritage asset.
4. Assessing the impact of the Scheme on the heritage asset's setting, and the resulting implications for the value of the heritage asset; and
5. Maximising enhancements to the value of heritage assets and minimising harm through mitigation.

Assessment of magnitude of impact

- 8.10. The magnitude of impact is determined by identifying the scale of change that the proposed development will have on the aspects that contribute to the value (or 'heritage significance') of a heritage asset.
- 8.11. Table 8-3 identifies the criteria for establishing the magnitude of impacts on heritage assets. It also identifies which magnitudes of impact could potentially constitute substantial harm to an asset's value. An assessment of substantial harm is only applicable when there is considerable to total loss of an asset's value. This has been reflected in the assessment methodology below.

Table 8-3 - Assessing the magnitude of impact

Magnitude of impact	Description of nature of impact
Major adverse	Changes to most or all key elements such that the resource is totally altered, extreme visual effects, gross change of noise or change to sound quality; fundamental changes to use or access; or comprehensive changes to setting resulting in total change to historic character and value of the asset resulting in the extensive removal of value, often resulting in substantial harm.
Moderate adverse	Changes to many key elements, such that the resource is clearly modified. Considerable changes to setting that affect the value of the asset.
Minor adverse	Changes to key materials or elements, such that the asset is slightly altered, slight visual changes to few key aspects of historic landscape, limited changes to noise levels or sound quality, slight changes to use or access: resulting in limited changes to the value of the asset. Slight changes to setting affecting the value of the asset.
Negligible	Very minor changes to setting or form of the asset.
No change/Neutral	No appreciable change to an asset's heritage value.
Minor beneficial	Limited improvement of an asset's heritage value as a result of changes to its physical form or setting.
Moderate beneficial	Notable enhancement of an asset's heritage value as a result of changes to its physical form or setting.
Major beneficial	Substantial enhancement of an asset's heritage value as a result of changes to its physical form or setting.

Assessment of significance of effect

- 8.12. Table 8-4 shows how the significance of effect is determined. The approach assesses the value of the heritage asset against the magnitude of impact (change) to provide a measure of the 'significance of effect'. Where there is the potential for differing levels of impact (moderate OR large), professional judgement is used to determine the suitable significance of effect based on the evidentiary baseline and knowledge of the likely activities or types of changes that would cause the impact.
- 8.13. The determination of what constitutes 'harm' in terms of the Infrastructure Planning (Environmental Impact Assessment) Regulations (2017) is assessed on an individual basis; moderate to very large adverse or beneficial effects are generally considered to be 'significant' in terms of these regulations.

Table 8-4 - Significance of effect matrix

Environmental Value (Sensitivity)	Magnitude of impact				
	Major	Moderate	Minor	Negligible	No Change
Very high	Very large	Large or very large	Moderate or large	Slight	Neutral
High	Large or very large	Moderate or large	Slight or moderate	Slight	Neutral
Medium	Moderate or large	Moderate	Slight	Neutral or slight	Neutral
Low	Slight or moderate	Slight	Neutral or slight	Neutral or slight	Neutral
Negligible	Slight	Neutral or slight	Neutral or slight	Neutral	Neutral

Assessment assumptions and limitations

- 8.14. This assessment was made with the assumption that the baseline information has not appreciably changed since it was obtained from the Hampshire HER in November 2019. In addition, pre-application archaeological survey and intrusive investigations which may have identified as-yet unknown archaeological remains within the Site has not been undertaken. Consultations with the Hampshire County Archaeologist during the assessment stage determined that the archaeological potential of the Site did not warrant pre-application survey and testing.
- 8.15. Assessment of the impacts of the Scheme on the historic environment have included the following limitations:
- The current location of existing utilities in relation to the pipeline corridor has not yet been mapped. It is assumed that the pipeline would be installed within existing utility corridors or within previously disturbed ground, limiting the potential to impact archaeological remains.

Baseline conditions including value/sensitivity of resources and receptors

- 8.16. The baseline presented below is a summary of the evidentiary baseline prepared for the Environmental Assessment. Full details on the sources for this baseline can be found within the ES, specifically:
- Figure 8.1 Designated Cultural Heritage Assets in ES Volume 3;
 - Figure 8.2 Non-Designated Heritage Assets in ES Volume 3;
 - Appendix A8.1 Statement of Heritage Significance for the Leigh Park Registered Park and Garden and Sir George Staunton Conservation Area in ES Volume 4;
 - Appendix A8.2 Heritage Desk-based Study in ES Volume 4;
 - Appendix A8.3 Gazetteer of Heritage Assets (designated and non-designated) in ES Volume 4;
 - Appendix A8.4 Havant Thicket Winter Storage Reservoir: Interpretation of Aerial Photographs for Archaeology in ES Volume 4;
 - Appendix A8.5 Impact Assessment for Heritage Assets.
- 8.17. While the desk-based study provides an overview of the entire study area, the Statement of Heritage Significance provides an in-depth assessment of the value and contributing elements of the two designated heritage assets being directly impacted by the Scheme, including a detailed impact assessment and determination of level of harm.
- 8.18. In addition to the built heritage assets, archaeological remains are considered below, for which a summary of geology and topography is included, along with the brief archaeological background for the study area.

Designated heritage assets

- 8.19. Designated heritage assets were identified through the National Heritage List for England (NHLE) maintained by Historic England and the local council registers for Conservation Areas. Designated heritage assets include world heritage sites, scheduled monuments, listed buildings, registered parks and gardens (RPGs), registered battlefields, protected wrecks and conservation areas. The reservoir site includes portions of two designated heritage assets:
- Grade II* Registered Leigh Park (Staunton Country Park, NHLE 1000112); and
 - The Sir George Staunton Conservation Area.
- 8.20. These two assets cover most of the same area, with the Conservation Area also including a small area of undeveloped land adjacent to the northern boundary of the RPG. The Scheme includes approximately 850 m of a 2 km footpath called The Avenue and associated with the late 19th century modifications to the landscape completed by William Stone. The Grade II* RPG is considered to be of high value, and the Conservation Area of medium value.
- 8.21. There are no World Heritage Sites, Registered Battlefields, or Protected Wrecks in the study area. There are 42 designated heritage assets within the study area, but outside of the Scheme red line boundary. These include six assets of high value, contributing to regional and national research objectives and representing nationally significant heritage.
- 8.22. There are three Scheduled Monuments within the study area:
- 1019111: Motte Castle at Motley's Copse;
 - 1019110: Ringwork and Bailey at Motley's Copse; and
 - 1001923: The Castle (Rowlands Castle).
- 8.23. A total of two Grade II* RPGs are present within the study area, of which one, Leigh Park RPG, extends into the Scheme:
- 1000327: Stansted Park; and
 - 1000112: Leigh Park (Staunton Country Park).
- 8.24. A single Grade II* listed building, the Staunton Memorial (NHLE 1303476) is located within the study area.
- 8.25. An additional 36 designated heritage assets are considered to be important in understanding local heritage objectives and contributing to the character of local heritage. Although they are protected at a national level through their designations as Grade II Listed Buildings or Conservation Areas, their value primarily ranges from local to regional, and they are identified as medium value. These include three Conservation Areas:
- Sir George Staunton Conservation Area (located within both East Hampshire and Havant Districts);
 - Old Bedhampton Conservation Area; and
 - Rowlands Castle Conservation Area.
- 8.26. Of the 33 Grade II Listed Buildings located within the study area, 13 are associated with the Grade II* RPG at Leigh Park and the Sir George Staunton Conservation Area.

Non-designated heritage assets

- 8.27. A total of 68 non-designated heritage assets were identified within the study area through a search of the Hampshire County Historic Environment Record (HER, obtained 15 November 2019). These include:
- Six assets representing prehistoric activities in the area, including two with identified Mesolithic remains (HER 22917 and HER 23407);
 - Eight Romano-British sites, five of which are indicative of kilns or other ceramic-manufacturing activities;
 - Five sites of medieval date, including a possible medieval settlement of the hamlet of Leigh, now mostly removed by the later work at Leigh Park Farm (HER 32423);

- 39 post-medieval assets, including features relating to the development and history of the Leigh Park RPG, as well as six assets relating to post-medieval brickmaking in the area;
- Five assets relating to WWII defences; and
- Five assets of unknown age, mostly in the form of ditches, post-holes, or earthworks seen on LiDAR images which have not been investigated sufficiently to provide detailed information on age or activity.

8.28. Full descriptions of the non-designated heritage assets within the study area can be found in Appendix A8.3 Gazetteer of Heritage Assets (designated and non-designated) in ES Volume 4. The contributions of these assets to the archaeological and historic background of the study area is discussed in brief below.

8.29. Two non-designated heritage assets are located within the Site:

- HER 23391: An area of iron slag, clinker and pieces of iron found on Gipsies' Plain in the early 1960s. No trace of the remains were identified following ploughing in the late 1960s, but subsurface remains may still be present; and
- HER 34198: Havant Chase (Havant Thicket) lay at the northern extremity of the Bishops Manor of Havant. The Chase was not enclosed as a Deer Park but does cover a defined area.

Potential for as-yet unknown archaeological remains

8.30. There is the potential for as-yet unknown archaeological remains within the reservoir site. The Mesolithic remains identified within the study area, combined with the lack of development on the proposed reservoir site and the presence of numerous small streams within it suggest a moderate potential for the presence of Mesolithic remains, though the remains themselves are likely to be of low value. The potential for prehistoric remains, particularly dating to the Mesolithic is related to the small streams that cross the area and may be more likely in the western part of the proposed reservoir site, where such remains have been previously identified.

8.31. Based on the known Roman remains within the study area, there also exists a moderate potential for evidence of Roman activity within the proposed reservoir site, most likely to be in the form of low-level industrial activity such as clay extraction and pottery production. Such remains would likely be of low value. The potential for Roman remains is not evenly distributed across the proposed reservoir site, but is more likely along the southern and eastern boundaries.

8.32. A moderate to high potential for as-yet unknown post-medieval archaeology exists within the proposed reservoir site as well. Such remains are likely to be related to landscaping activities in the 19th century as well as timber production and extraction activities of the 19th-20th centuries. This potential is thought to be highest around the area of The Avenue.

Geology and topography

8.33. The British Geological Survey (BGS) 1:10,000 map Sheet SU 70 NW and Sheet SU 71 SW confirms the regional sequence of Chalk overlain by Reading and London Clay Formations and more recent Quaternary deposits. The maps show that approximately half of the reservoir site is covered by Quaternary Head (Undifferentiated) deposits, comprising variable flinty clay and clayey silt with some very flinty loam. These clayey soils of the Wickam 4 association (SSEW 1983) are often seasonally water-logged.

8.34. The topography of the Hampshire region is characterised by rolling downland and open countryside. The landscape of the Chalk has the characteristic form of convex slopes and steep valley sides, often with relatively wide valley floors. The Chalk outcrop forms the scarp of the South Downs to the north and north-east of the Site, the extensive dip slopes to west and the anticlinal feature of the Portsdown hill south of the Site. The elevation of the Site varies between approximately 25 and 40 m AOD with the highest ground to the north and west. The majority of the Site has relatively shallow relief except to the south west of the Site where it becomes much steeper.

Archaeological and historic context

8.35. A comprehensive site background report was previously prepared by Portsmouth Water (2012) and has been used, along with the HER data, to inform the background presented below as well as the assessments of value. A Gazetteer of Heritage Assets is provided in Tables 3-1 and 3-2 in

Appendix A8.3 in ES Volume 4, with Figure 8.1 Designated Cultural Heritage Assets and Figure 8.2 Non-Designated Heritage Assets in ES Volume 3, providing maps showing the location of the assets discussed below. Designated heritage assets are referenced by their listing number prefixed with NHLE; non-designated assets are referenced by their HER 'Monument ID' number, prefixed with HER.

Prehistoric

- 8.36. The study area would have offered prehistoric peoples a rich range of resources, with the higher areas providing more free draining land for agricultural and a reliable water supply from shallow wells sunk into the gravels overlying the impermeable London Clay and from the springs that are produced between these two geological formations. Woodland provides food, fuel, and materials for nomadic groups passing through as well as for seasonal and permanent settlements.
- 8.37. The study area includes ample evidence for prehistoric use of the landscape from the Mesolithic onwards. However, most of the evidence is in the form of isolated finds. These include a Neolithic Axe hoard found in 1976 on the southwestern edge of the Site, and various flints and flint tools recovered from gardens or during watching brief activities near Dunsbury Park. While useful for confirming the presence of prehistoric groups in the general vicinity, these find spots are not considered heritage assets, and cannot be used to accurately identify impacts to the historic environment. Known prehistoric remains in the study area include Dunsbury Hill (HER 64687), a possible barrow or fortified site mentioned in a Saxon charter of 935 AD. Cropmarks identified by aerial photography (HER 64922) may be the physical remains associated with the Dunsbury Hill documentary evidence. A hearth with associated flint tools and debris (HER 23384) was found in a builder's trench in Leigh Park in 1968. A Mesolithic occupation site (HER 22917) was uncovered at Rowland's Castle during a watching brief in 1970.
- 8.38. The known prehistoric sites within the study area suggest that the relative lack of prehistoric remains may be more of a result of a lack of investigation than a paucity of remains. There exists a low to moderate potential for as-yet unknown prehistoric remains, with the likelihood that any such remains would be of low value.

Romano-British

- 8.39. There is more solid evidence for Romano-British use of the study area, showing a specific focus on the exploitation of the area's clay resources for pottery production. Four surface scatters of pottery found within the study area (HER 70209, 70210, 70211, and 26718) are thought to represent possible kiln sites. Excavations in 2004 for the Horndean to Newells Lane gas pipeline recovered materials consistent with a small kiln site (HER 55706). A Roman Road (HER 23355) was identified during trenching in at Oak Park School in 1974, which may represent a segment of the road purported to extend between Rowlands Castle and Havant. A Roman villa near Rowlands Castle (HER 23477) was excavated in the early 19th century, with reports noting mosaic floors, a rudimentary bathhouse, and three separate buildings.
- 8.40. In addition to the kilns and villa, additional evidence in the study area comes from a Roman inhumation burial and associated pottery (HER 23394) found and excavated during roadworks on Petersfield Road. Five separate findspots of Roman pottery scatters have been identified within the study area, along with other Roman-era finds such as coins, a brooch, and an iron knife. The combination of evidence suggests that there is a moderate potential for as-yet unknown Romano-British archaeological remains within the Site boundaries which could be impacted by the Scheme. These remains would likely be of low value.

Medieval

- 8.41. During the medieval period, the study area was associated with the Forest of Bere, though it is unclear as to whether or not it was incorporated into the Forest boundaries or lay just outside of it. Havant Chase (HER 34198), the Bishop of Winchester's hunting grounds within the Forest of Bere, is recorded as having included an area known as 'Havant Thicket', suggesting that at least this part of the study area was within the royal Forest.
- 8.42. Three Scheduled Monuments dating to the medieval period are located within the study area: Motte Castle at Motley's Copse (NHLE 1019111), Ringwork and Bailey at Motley's Copse (NHLE 1019110), and The Castle at Rowlands Castle (NHLE 1001923). All three medieval fortification structures and earthworks dating from the 11th to 14th centuries. They may be related to the

fortifications and castle-building activities of Robert Belême, earl of Shrewsbury and Arundel, which eventually led to his banishment from England in 1101 by Henry I.

- 8.43. Evidence for 19th century clearing of a medieval hamlet in what is now Leigh Park (HER 32423) was identified during excavations in 1992. Other medieval evidence within the study area includes a circular ditch observed near Leigh Park Gardens (HER 23418) during roadworks in 1971, a hunting lodge associated with Warren Deer Park (HER 38753) and the site of St Chad's well (HER 65094), which may have its origins in the medieval period.
- 8.44. The baseline evidence for the medieval period suggests a low to moderate potential for as-yet unknown archaeological remains relating to the period. These remains are likely to be of low value, though any remains associated with the 11th century uprisings against Henry I could be of medium value.

Post-medieval

- 8.45. The post-medieval historic environment within the study area builds on its medieval uses. The Forest of Bere continued to be used as a hunting ground, as well as producing timber for revenue. The most noticeable change to the landscape, however, was the creation of Leigh Park (NHLE 1000112) by Sir George Staunton. The area was initially enclosed and improved in 1802 by William Garrett, but it was Staunton's purchase in 1820 and subsequent landscaping that created the current Grade II* RPG. Many of the features of the current RPG were created between 1820 and 1836, including Leigh Water (HER 31647), several lodges, and follies such as bridges, obelisks, a Temple, a grotto, and summerhouses "in the English, Turkish, Swiss, and Chinese styles"¹. Remains of the purported "Swiss House folly" were uncovered during archaeological excavations in the park in 1996 (HER 60740). Other features of the original park identified by archaeological investigations include a possible ornamental garden (HER 60737), various pathways (HER 60744) and the remains of an icehouse (HER 26561) that may be those of the one built by Staunton in 1826².
- 8.46. Following Staunton's death in 1859, William Stone took over the estate, demolishing Staunton's home to construct a new house overlooking the lake. Archaeological investigations in 1992 identified the remains of Staunton's demolished house (HER 60742). Stone also constructed the Upper Lake and created The Avenue as a ride leading out from the Terrace of his mansion (NHLE 1155204, Grade II).
- 8.47. Industry in the post-medieval period continued to make use of the quality clay soils in the area, with six heritage assets in the study area relating to brick-making activities (HER 37008, 54718, 54723, 54724, 54722, and 22929)
- 8.48. Increases in use during the post-medieval period and the improvements made to the house and grounds at Leigh Park indicate that there is a moderate potential for as-yet unknown archaeological remains dating to the post-medieval period within the Scheme red line boundary. These are expected to be of low value but may be able to contribute to the wider archaeological interest of the RPG and Conservation Area.

Potential impacts

- 8.49. As noted in the assessment methodology, potential impacts on the historic environment are defined as potential changes to the historic environment resource caused by the Scheme. The type of impacts that can occur include:
 - Direct impacts, which arise as straightforward consequences of the Scheme; this can include physical damage to, or physical improvement of, the fabric of an asset, and can include impacts on the settings of heritage assets, such as an increase in noise and pollution as a result of the Scheme; and
 - Indirect or secondary impacts, which arise from impacts that are complicated, unpredictable or remote; for instance, severing an agricultural holding could lead to changes in farming viability and thence changes to historic land-use patterns in areas away from the Scheme.

¹ Gladwyn, Derek, 1992. *Leigh Park: A 19th Century Pleasure Ground*. Middleton Press, Midhurst, p.130

² Ibid, p. 55

- 8.50. Impacts can also be beneficial or adverse; short, medium or long term; temporary or permanent, and cumulative.
- 8.51. In accordance with the methodology outlined above, the assessment of impacts upon known assets has involved establishing the value of the affected heritage asset and the sensitivity of the asset to change. The magnitude of impact is then derived from the Scheme, and using the matrix set out in the methodology, the significance of effect on each heritage asset is determined. Where the methodology identifies a range of effect (Slight OR Moderate), professional judgement is used to determine the level of effect based on an understanding of the asset's value and the level of impact.
- 8.52. For the purpose of this report, effects have been split into construction and operation phase impacts. Further distinction is made between impacts caused by construction and operation of the reservoir site and access roads, and the pipeline corridor.
- 8.53. During construction, direct physical impacts are likely to occur as a result of earthmoving operations, creation of site compounds, road formation/construction; and construction of proposed structures such as the control house for the reservoir. Temporary setting impacts are likely to occur due to of the introduction of construction machinery, compounds and vegetation removal, with the potential to create new sightlines as well as increasing noise levels and possible atmospheric changes such as high dust levels.
- 8.54. During operation there are unlikely to be physical impacts. However, there are likely to be direct setting impacts and possibly indirect impacts from the built reservoir, its lighting, new access and movement routes and ancillary features.

Reservoir site and access routes

- 8.55. Preliminary assessment included reference to Chapter 11 Landscape and Visual and Chapter 12 Noise and Vibration of the ES Volume 2. The Zone of Theoretical Visibility (ZTV) for the reservoir was consulted to determine where visual impacts may affect any heritage assets. A review of the ZTV and noise and vibration assessments have been used to scope out further assessment of some heritage assets, described below.
- 8.56. The scheduled monuments within the study area have been determined by the landscape and visual assessment to have limited to no views of the Scheme and are located 1-2 km distance from the reservoir site and access roads, with intervening buffering landscapes, roads, and modern development. The assessment of the historic landscape indicates that the settings of the monuments do not extend into the areas that would be affected by the Scheme as the historic connections between the monuments and the wider landscape has been disrupted by changes and developments that have taken place since the medieval period, when these monuments were constructed.
- 8.57. Stansted Park RPG is located over 1 km from the reservoir site and access routes and is separated from the reservoir by the settlement at Rowland's Castle. The Rowlands Castle Conservation Area would not be visible from the Scheme during construction or operation. Neither construction nor operation of the Scheme would alter the character of the conservation area or introduce any new construction or design elements which would be visible from the conservation area. These assets have therefore been scoped out of the impact assessment.
- 8.58. The Grade II listed buildings listed below are located between 1 – 2 km from the reservoir site and access routes. Landscape and Visual assessment has determined there would be limited to no views over the scheme from these locations and the intervening landscapes and developments would prevent any noticeable changes in noise levels, In addition, review of the assets indicate that the settings associated with the assets do not extend into the areas of the Scheme that may be impacted by visual or noise intrusion.
- 1094538 - The Castle Inn;
 - 1094539 - 3 Finchdean Road;
 - 1094542 - Old School House;
 - 1094564 - Cadlington House (Cadlington Hall, Murray House, Seymour House);
 - 1094565 - Hook Cottage;
 - 1094566 - Pyle Farmhouse;
 - 1111760 - Barn at Nobles Farm;

- 1179060 - Gateway, Forecourt Paving, and Roadside Boundary Wall to Hook Cottage;
- 1179064 - Granary 20 Metres East of Pyle Farmhouse;
- 1179080 - Red Lion Inn;
- 1179151 – Station;
- 1254448 - Milestone Opposite No 178;
- 1268395 - The Lodge;
- 1302027 - Wellsworth Farm;
- 1351108 - Barn 50 Metres South of Pyle Farmhouse;
- 1430665 - Horndean War Memorial;
- 1091643 - East Leigh House; and
- 1340184 - Barn (10 Yards West of East Leigh Farmhouse).

Construction

- 8.59. The construction of the reservoir would result in the removal of the final 850 m of The Avenue, a landscape feature that is part of the Grade II* RPG at Leigh Park (high value) as well as part of the Sir George Staunton Conservation Area (medium value). Due to the potential for this to have a significant adverse effect on the RPG and conservation area, a separate Statement of Heritage Significance has been prepared to evaluate the value of these assets and evaluate the impacts of the Scheme. This report is included as Appendix A8.1 Statement of Heritage Significance in ES Volume 4.
- 8.60. The Statement of Heritage Significance found that while The Avenue contributes to an understanding of the late 19th century landscape and changes associated with the ownership of William Stone, the section being impacted represents the late 19th century modifications to the landscape and lacks strong associations with the older Regency landscape. The Avenue is a late addition to the landscape with no discernible purpose and, in part, detracts from the designed landscape focused on Leigh Water, though it does represent the changes in landscape design preferred by Stone over Staunton's earlier design and contributes to the overall historic development of the RPG. The part of The Avenue that retains its connection with Stone's Mansion (of which only the Terrace [NHLE 1155204] remains) would not be impacted by the construction of the reservoir and would continue to convey its value within the historic landscape of the RPG. As such, the construction of the reservoir and access routes has been assessed as having a moderate adverse impact on the RPG, as it would clearly modify the asset. This has been determined to represent a moderate adverse effect, as the value of the RPG would still be retained in the majority, including the value of The Avenue as a feature.
- 8.61. The construction of the reservoir and access routes would also remove a portion of the Sir George Staunton Conservation Area outside of the RPG, an area of open space north of Thicket Lawn which would be incorporated into the reservoir embankment. This area does not include any buildings and makes a limited contribution to the aesthetic and historic character of the conservation area, especially in relation to the conservation area as a whole. Construction activities would prevent the use of the area as part of the wider public open space for the duration of those activities. This is considered to be a temporary moderate adverse impact which would result in a temporary moderate adverse effect. While the effect is significant, it is not anticipated that there would be a sufficient impact to cause substantial harm to the conservation area.
- 8.62. Construction of the reservoir and access routes would remove archaeological remains associated with two non-designated heritage assets: HER 23391 and HER 34198. The iron slag heap recorded at HER 23391 in the 1960s may relate to post-medieval industrial activities in the area. However, the HER notes that no evidence of the slag heap was identified in the late 1960s when the site was revisited and it may have been removed or destroyed by ploughing. This asset is identified as being of low value, and the construction of the reservoir would result in the removal of any subsurface remains that still exist. This would be a major adverse impact and would result in a slight adverse effect, which is not significant.
- 8.63. Part of Havant Chase (Havant Thicket) and the Forest of Bere is represented in HER 34198. The HER description notes that the Chase is not enclosed as a deer park, but that it covers a defined area. HER 34198 is primarily understood as a geographical area, though there may be remains

such as earthworks or features relating to the medieval Chase within the area being removed for construction of the reservoir. This asset is considered to be of low value. The area covered by Havant Chase (Havant Thicket) is larger than the area being removed for the construction of the reservoir, so construction of the reservoir would result in only partial removal, resulting in a minor adverse effect, which is not significant.

8.64. Thirteen designated heritage assets were identified as being close enough to the construction of the reservoir and access routes to potentially be impacted by those activities as a result of changes to their settings. However, an assessment of their settings and the contributions of such to their significance found that there would be either no or negligible impacts, resulting in neutral effects, which are not considered significant. These assets are:

- NHLE 1092133 – Pathway (to the south of the Staunton Memorial), Grade II listed building;
- NHLE 1092131 – Barn and Cowshed (20 yards east of Leigh Park Farmhouse) Grade II listed building;
- NHLE 1092132 – Stable Cottage Grade II listed building;
- NHLE 1448130 – Rowlands Castle War Memorial Grade II listed building;
- NHLE 1155182 – Stable Block Grade II listed building;
- NHLE 1254422 – Granary to the east of Redhill House Grade II listed building;
- NHLE 1339960 – the Beacon Grade II listed building;
- NHLE 1339961 – Footbridge Grade II listed building;
- NHLE 1339958 – Garden Wall, Gatepiers and Grotto Grade II listed building;
- NHLE 1339959 – Cartshed (adjoining Barn on the east side) Grade II listed building;
- NHLE 1351135 – Commemorative Stone Grade II listed building;
- NHLE 1092129 – The Gothick Library Grade II listed building; and
- NHLE 1092130 – Leigh Park Farmhouse Grade II listed building

8.65. Construction of the access routes specifically would not have any direct impacts on known heritage assets. The access roads are located within land owned and managed by the Forestry Commission and used for timber production. There are no heritage assets within 250 m of the access roads, and the surrounding woodland acts as a visual and noise barrier beyond a narrow corridor. As such, no impacts to the settings of heritage assets are anticipated. There is the potential for as-yet unknown archaeological remains to be disturbed during construction activities.

8.66. In addition to the impacts to known heritage assets, there is the potential for impacts to as-yet unknown archaeological remains. Appendix A8.2 Heritage Desk-based Study in ES Volume 4, details the potential for such remains and their likely value. Archaeological remains within the reservoir would be removed by construction, constituting a major adverse impact. Such remains are thought to be of low value, contributing to local research agendas. As such, the expected impact on as-yet unknown archaeological remains is assessed at slight adverse, which is not significant. A programme of identification and recording of archaeological remains will be required as part of the Record of Environmental Actions and Commitments REAC), as part of the Outline Environmental Management Plan (OEMP) in Appendix A2.1 in ES Volume 4 and a condition of planning.

Operation

8.67. Subsurface archaeological remains impacted by the construction of the reservoir are anticipated to be fully removed during construction; no additional effects are anticipated to result from the operation of the reservoir. The operation of the reservoir once constructed is not anticipated to result in changes to the historic environment other than the introduction of a new landscape element. The reservoir itself will be low-profile and the embankment is being designed to be incorporated into the wider environment in a naturalistic way, appropriate to its location within the Country Park.

8.68. Chapter 11 Landscape and Visual in the ES Volume 2 provides an assessment of the landscape and visual impacts of the reservoir. That assessment indicates that only small portions of the reservoir would be visible outside its immediate vicinity. Appendix A8.1 Statement of Heritage Significance in ES Volume 4 determined that views from within the RPG and conservation area would be marginal and seasonal and would not be so dominant within the landscape as to reduce

the value of the Grade II* RPG at Leigh Park (NHLE 1000112) or the Sir George Staunton Conservation Area. Nor would the limited views of the reservoir detract from the setting of the Grade II listed Mansion Terrace (1155204), where views of Leigh Water contribute to its value.

- 8.69. Use of the access roads during the operation of the reservoir is not expected to impact on any heritage assets. Any as-yet unknown archaeological remains would be removed during construction. On operation, the roads would not extend into the setting of any known heritage assets so would not impact them.
- 8.70. The portion of The Avenue removed for the construction of the reservoir will not be reinstated and therefore the operation of the reservoir will continue to impact the RPG and conservation area through changes to the form of the landscape within the boundaries of the assets during operation. These changes are considered to be a moderate adverse impact, with a moderate adverse effect, which is significant. Based on the assessments completed within Appendix A8.1 Statement of Heritage Significance in ES Volume 4, this has been determined to be a moderate adverse effect, as the value of the RPG and Conservation Area would continue to be largely preserved and readily discernible. The harm caused by the operation of the reservoir is therefore considered to be less than substantial.

Pipeline corridor

Construction

- 8.71. The pipeline between the reservoir and Bedhampton Pumping Station would be constructed in an open trench corridor along existing roads as well as along the Hermitage Stream, which has been channelled and realigned multiple times since the creation of the Leigh Park estate in the 1960s. There are no known heritage assets that would be directly impacted by the construction of the pipeline, though there is the potential for as-yet unknown archaeological remains. Such remains may be related to the early design and development of the Grade II* Leigh Park Registered Park and Garden, particularly where the stream crosses through the existing George Staunton Conservation Area.
- 8.72. A compound for the pipeline work will be located within the George Staunton Conservation Area, in a small field located at the north-east corner of the junction of Middle Park Way and Bitterne Close. This is adjacent to the later housing development and includes an area of existing hardstanding that can be utilised for the compound. The REAC, as part of the OEMP in Appendix A2.1 in ES Volume 4, states that consultation with the EHDC will be required on the layout and design of the compound to ensure it is in keeping with the character of the conservation area.
- 8.73. The site of St Chad's Well (HER 65094) is located within the redline boundary of the pipeline and may be impacted by its construction. Construction of the pipeline at this location is planned to be "trenchless" (bored) and would avoid St Chad's Well. The setting of the well does not contribute to the significance of the well, as it is now capped with modern materials and located between a housing estate and the railway line. As such, no impact is anticipated. Temporary fencing to demarcate the asset and ensure avoidance by the pipeline's construction will be undertaken.
- 8.74. Construction of the pipeline may intrude into the settings of two listed buildings at the southern end of the route. The Grade II listed Golden Lion (NHLE 1091646) is located c. 50 m from the pipeline route. Once a public house, the building is now an Indian restaurant set within an urban space along a main road and across the street from a large new car dealership. As such, the setting does not contribute much to the value of the 19th century public house. The Grade II listed Bedhampton Arts Centre (the Old School, NHLE 1393209) is c. 110 m from the pipeline corridor on the same main road, with a similar setting. Construction of the pipeline is not expected to alter the value of these assets through changes in setting. As such, no impact is expected on these assets.
- 8.75. The southern end of the pipeline corridor is adjacent to the boundary of the Old Bedhampton Conservation Area. Construction of the pipeline at its southernmost section may create noise levels that distract from the setting of the conservation area. These impacts would be temporary and transient and create only limited changes to the ability to understand the significance of the conservation area. The impacts would therefore be minor, with a temporary slight adverse effect on the conservation area during the pipeline construction in a limited location.

Operation

- 8.76. Once constructed, the pipeline would be covered and re-landscaped to its previous state. As such, the operation of the pipeline would not impact any heritage assets.

Design, mitigation and enhancement measures

- 8.77. A number of design mitigation, and enhancement measures have been identified for the Scheme. Some of these are inherent in the design proposed in the outline planning application, and others are included in a Record of Environmental Actions and Commitments (REAC) as part of the Outline Environmental Management Plan (OEMP) in Appendix A2.1 in ES Volume 4, which is a proposed condition of planning consent.

Reservoir and access routes

- 8.78. Site selection and reservoir design have considered the historic environment in their options selection. The 2019 *Havant Thicket Winter Storage Reservoir Site Alternatives Assessments* explored different locations, as well as the design of the reservoir at Havant Thicket, looking for options that minimised the harm to the historic environment while meeting the needs of Portsmouth Water.
- 8.79. The following additional mitigation and enhancement measures are recommended to offset the harm caused by the Scheme:
- An Archaeological Management Plan will be developed and implemented as a condition of planning approval to address impacts to known and as-yet unknown archaeological remains impacted by the Scheme. This plan should specifically address:
 - The potential for prehistoric archaeological remains within the boundaries of the reservoir, including access routes;
 - Recording of features associated with known archaeological remains within the reservoir boundaries (and confirmation of past removal if necessary);
 - The potential for remains associated with William Stone's development of Upper Lake and The Avenue; and
 - The identification and interpretation of remains associated with the Leigh Park RPG and the Sir George Staunton Conservation Area where they may add to the value of these assets.
 - Continued consultation with the EHDC Conservation Officer on the design of the reservoir Control House and pipeline construction compound proposed within the boundaries of the George Staunton Conservation Area; and
 - Measures taken during detailed design to explore options for enhancement and interpretation of the historic environment as part of public realm amenities. Such designs will be developed in consultation with Historic England and the EHDC Conservation Officer, as well as the Hampshire County Archaeologist, where appropriate. These measures should consider a mechanism to interpret the role of The Avenue in the understanding of value of the Leigh Park RPG and Sir George Staunton Conservation Area in order to offset the harm caused by its partial removal.
 - Use of materials designed to limit the level of soil disturbance for the access routes, such as Cellweb or GeoTrax,

Pipeline corridor

- 8.80. The pipeline has been designed to be installed in areas of previous disturbance, either along existing roadways or within the modified and realigned Hermitage Stream corridor. The Archaeological Management Plan referenced above will include measures to address the potential for impacts to as-yet unknown archaeological remains. It is anticipated that an archaeological watching brief will be undertaken for the pipeline construction work, subject to a Written Scheme of Investigation prepared under the Archaeological Management Plan for the Scheme. In addition, as the pipeline is designed to come within 10 m of St Chad's Well (HER 65094), the heritage asset will be fenced off during construction activities to ensure pipeline construction activities avoid impacting it.

Assessment of effects

- 8.81. The significant effects on identified heritage assets as a result of the construction and operation phases of the Scheme are set out below. Appendix A8.5 Impact Assessment for Heritage Assets in ES Volume 4, provides details of the assessment of effects.

Reservoir site and access roads

Construction

- 8.82. There are 11 heritage assets identified within the study area that would be affected in some way by the construction phase of the reservoir and access roads. Of these effects, six are considered to be slight adverse and four neutral, which is not considered to be significant.
- 8.83. Two heritage assets would experience moderate adverse effects during the construction of the Scheme relating to the removal of part of The Avenue, a landscape element that contributes to the value of the Grade II* Leigh Park RPG (NHLE 1000112) and the Sir George Staunton Conservation Area. This would result in a significant, moderate adverse effect. Appendix A8.1 Statement of Heritage Significance in ES Volume 4, provides the details of the impacts that would cause these effects and has assessed them in terms of the level of harm under the NPPF. While the effect is significant, it does not reach the level of substantial harm as the significance of the assets would remain substantially intact and readily discernible. Measures to offset the harm that is incurred include opportunities for enhancement and interpretation in the design of public realm and amenities installed once the reservoir is in operation.

Operation

- 8.84. The operation of the Scheme would have moderate adverse effects on the Grade II* Leigh Park RPG (NHLE 1000112) and the Sir George Staunton Conservation Area due to the permanent removal of a section of The Avenue. These effects are considered to be significant, but may be offset to some degree through interpretation and enhancement of the remaining features within the RPG and conservation area to reflect the features lost during construction.

Pipeline corridor

Construction

- 8.85. Construction of the pipeline would impact four heritage assets: Leigh Park RPG (NHLE1000112), the Sir George Staunton Conservation Area, the Old Bedhampton Conservation Area, and St Chad's Well (HER 65094). Impacts to the Leigh Park RPG and Sir George Staunton Conservation Area would be setting impacts from the temporary construction of a compound on Middle Park Way, causing a minor adverse impact and slight adverse effect. Likewise, the impacts to Old Bedhampton Conservation Area and St Chad's Well (HER 65094) would be temporary changes to the settings of these assets and would result in only slight adverse effects. The slight adverse effect to St Chad's Well (HER 65094) will be mitigated through measures to fence off the site for avoidance by construction activities, which are detail in the REAC as part of the OEMP in Appendix A2.1 in ES Volume 4. None of these impacts are considered significant.

Operation

- 8.86. The operation of the pipeline would not impact any heritage assets and would therefore have a neutral effect.

Scheme effects

Construction

- 8.87. A total of 12 heritage assets have been identified as having impacts from the construction of the Scheme. Of these impacts, 10 result in slight or neutral effects, which are not significant. The Scheme would result in moderate adverse effects on two heritage assets: the Grade II* RPG at Leigh Park (NHLE 1000112) and the Sir George Staunton Conservation Area. These effects are considered significant.

Operation

- 8.88. Due to the permanent removal of a portion of The Avenue from the Leigh Park RPG (NHLE 1000112) and Sir George Staunton Conservation Area, the operation of the Scheme would have a continued moderate adverse effect on these two heritage assets, which is considered significant. The incorporation of designs to interpret and enhance the historic environment within the detailed design of the reservoir and its public realm would off-set the impacts and is required by the REAC as part of the OEMP in Appendix A2.1 in ES Volume 4.

Cumulative effects

- 8.89. Cumulative effects are fully addressed in Chapter 19 of the ES Volume 2. A review of committed developments and approved site allocations within the study area did not identify any significant cumulative effects on the historic environment.

Monitoring

- 8.90. Monitoring activities may include the implementation of planning conditions to mitigate or offset the impacts of the Scheme on the Grade II* Leigh Park RPG and Sir George Staunton Conservation Area. Such conditions would include the development and implementation of an Archaeological Management Plan that would include a Watching Brief (monitoring of construction activities), and the requirement for measures to interpret and enhance the historic environment to offset the removal of a portion of The Avenue.

Summary

- 8.91. This chapter has shown that there is potential for adverse effects on designated and non-designated heritage assets within the red line boundary. This includes two heritage assets that are likely to be subject to significant effects during construction: the Grade II* Leigh Park RPG (NHLE 1000112) and the Sir George Staunton Conservation Area. Significant effects on the same two assets will also occur during operation of the Scheme. While the Scheme work precludes the restoration of the landscape features removed from the RPG and conservation area, measures to interpret and enhance the understanding of value of the assets are proposed in the REAC as part of the OEMP in Appendix A2.1 in ES Volume 4 to offset the permanent removal.

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