



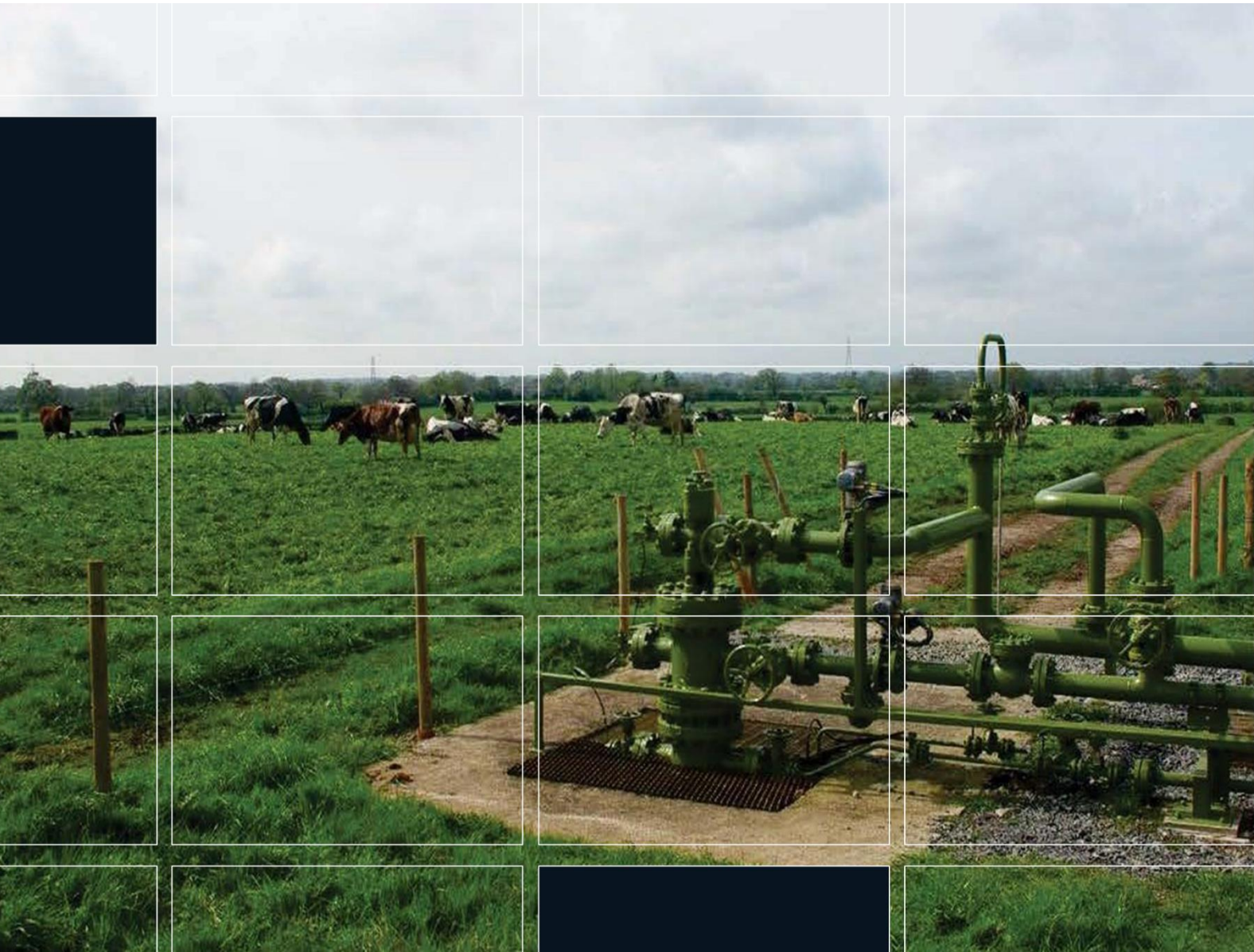
Keuper Gas Storage Project

Appendix 12A: Historic Environment
Desk-Based Assessment

PREPARED FOR
Keuper Gas Storage
Limited

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REFERENCE
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ACRONYMS AND ABBREVIATIONS

Acronym	Description
aOD	above Ordinance Datum
CA	Conservation Areas
CIfA	Chartered Institute for Archaeology
DBA	Desk Based Assessment
ES	Environmental Statement
GPP	Gas Processing Plant
HER	Historic Environment Record
HLC	Historic Landscape Characterisation
LB	Listed Building
LiDAR	Light Detection and Ranging
NCA	National Character Area
NHLE	National Heritage List for England
NPPF	National Policy Planning Framework
NTS	
PPG	Planning Practice Guidance
SM	Scheduled Monument
UNESCO	United Nations Educational, Scientific and Cultural Organization
WHS	World Heritage Site

EXECUTIVE SUMMARY

- 0.1.1.1 Environmental Resources Management Ltd (ERM) was commissioned by Keuper Gas Storage Limited (hereafter referred to as 'the Applicant') to prepare an updated Historic Environment Desk-Based Assessment (DBA) in relation to the proposed underground hydrogen storage facility near Byley, Cheshire (hereafter referred to as 'the Site'). This new application proposes the change of use of the Site from natural gas to hydrogen.
- 0.1.1.2 This report presents the results of the Historic Environment DBA. It identifies known and anticipated heritage assets within the Site, and discusses their significance, in accordance with NPPF (2024). The report also discusses the possible effect of the Proposed Development (as defined in Chapter 2 Proposed Development Description) upon the significance of heritage assets, both as a result of physical truncation and as a result of change to setting.
- 0.1.1.3 The information set out in this report is based on a wide range of documentary sources as well as a Site visit. The Cheshire Historic Environmental Record (HER) was consulted, as was the National Heritage List of designated assets maintained by English Heritage.
- 0.1.1.4 The historical and archaeological review presented in this report summarises evidence of settlement in the area from the Bronze Age onwards, including Roman activity adjacent to the Site. Historical sources note that the Site itself was heathland waste up until the thirteenth-fourteenth century. As such, any buried archaeological remains on Site are likely to predominantly date to the medieval and post-medieval periods. Four areas of increased archaeological sensitivity are identified within the Development Site: to the west of Drakelow Hall Moated Site, to the east of King Street, to the south of 'Street Field' and within and near 'Brick Kiln Field'. The report concludes that there is a higher likelihood of encountering unknown buried archaeological remains in these areas.
- 0.1.1.5 An updated settings assessment is also presented, which considers potential effects upon one Scheduled Monument and one World Heritage Site, concluding that the Proposed Development would result in no harm to these monuments.

1. INTRODUCTION

1.1 OVERVIEW

- 1.1.1.1 In 2015, ERM Consulting was commissioned by Keuper Gas Storage Limited to prepare a Historic Environment Desk-Based Assessment (DBA) in relation to Keuper Gas Storage Project. The original proposal was for the underground storage of natural gas.
- 1.1.1.2 In 2025, ERM was commissioned to prepare an updated DBA in relation to a change of use application for the Keuper Gas Storage Project (hereafter referred to as 'the Site'; Figure 1.1). This new application proposes the change of use from natural gas storage to hydrogen storage. An updated DBA was required due to the intervening time between the original DBA and the current phase of application.

1.2 THE SITE

- 1.2.1.1 The Site is located approximately 1 km north-west from the village of Byley, 2 km south of the village of Lach Dennis, 3 km to the north-east of the town of Middlewich and approximately 4 km from the village of Allostock.
- 1.2.1.2 The Site lies within an area primarily in use as farmland, with occasional manmade industrial features present, including the Stublach Gas Storage site, which the Site is adjacent to. The topography of the Site varies from 32 m above Ordnance Datum (aOD) in the south to 38 m aOD in the north with the surrounding landscape being relatively flat.

1.3 THE PROPOSED DEVELOPMENT

- 1.3.1.1 The Proposed Development is for the change from gas storage to hydrogen storage and whilst the majority of the proposed infrastructure are the same as the Consented Development, a number of design changes are required to support this amendment.
- 1.3.1.2 All these changes fall within the boundary of the Consented Development with no additional land required for the proposed changes. Due to these changes, there is potential for new effects to be introduced in addition to those assessed in the 2015 DBA¹ and ES chapter.²
- 1.3.1.3 The changes to the Consented Development that have the potential to affect the historic environment comprise:
- amendments to the Gas Processing Plant (GPP), including movement of the plant west;

1 Keuper Gas Storage, Annex A, Desk Based Assessment (ERM 2015a) [Online] <https://www.kgsp.co.uk/wp-content/uploads/2014/04/Cultural-Heritage-Annex-A-DBA.pdf>

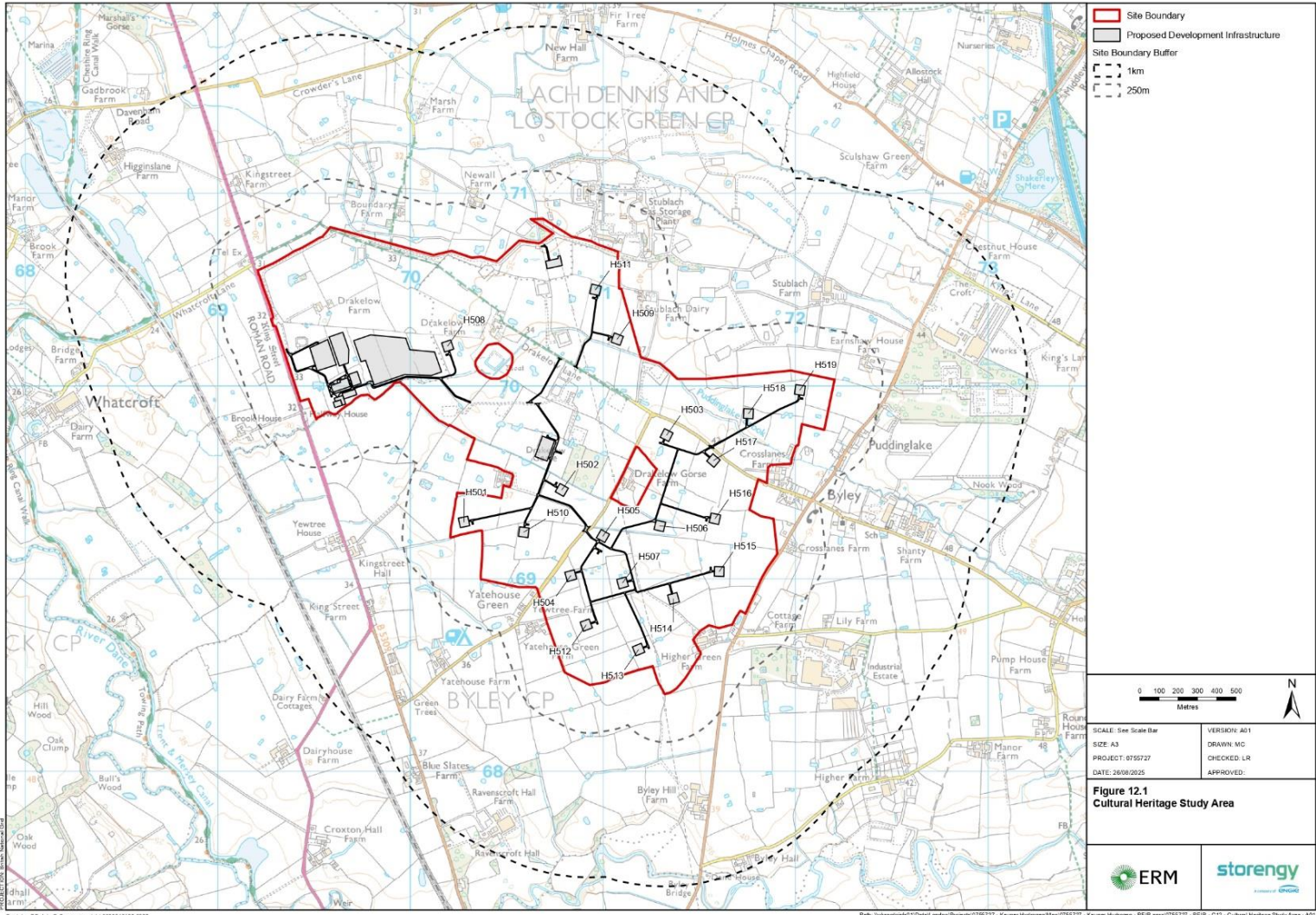
2 Keuper Gas Storage ES (ERM 2015b) [Online] <https://kgsp.co.uk/wp-content/uploads/2015/12/6.2-KGSP-ES-Technical-Appendices.pdf>

- addition of an elevated ground flare (approximately ~50 m high, ~2 diameter);
- changes to site infrastructure location; and
- changes to building size (10-15 m).

1.4 PURPOSE OF THIS REPORT

- 1.4.1.1 This report presents the results of the updated Historic Environment DBA. It identifies known and anticipated heritage assets within the Site, and discusses their significance, in accordance with the NPPF (2024)³ Chapter 16.
- 1.4.1.2 This report also discusses the possible effect of the proposals upon the significance of heritage assets, both as a result of physical truncation and as a result of change to setting.
- 1.4.1.3 The key changes to be assessed in this report include changes in the layout and scale of infrastructure, which have the potential to generate physical effects on buried archaeology. The scale and massing of buildings and other above ground elements will also be assessed for potential effects upon the setting of cultural heritage assets.

FIGURE 1.1 – CULTURAL HERITAGE STUDY AREA



1.5 STANDARDS

- 1.5.1.1 The assessment has been undertaken in accordance with all relevant statute, policy and guidance, including the NPPF (2024),³ the Chartered Institute for Archaeology (CIfA) Standard and Guidance for Historic Environment Desk-based Assessment (2017),⁴ and Historic England's Good Practice Advice in Planning Note 3: The Setting of Heritage Assets (GPA3) (2017).⁵
- 1.5.1.2 The assessment has been undertaken, and the report prepared, by Lauren Reid.

3 UK Government National Planning Policy Framework (2024) [Online]
<https://www.gov.uk/government/publications/national-planning-policy-framework--2>

<https://www.gov.uk/government/publications/national-planning-policy-framework-2024>
UK Government National Planning Policy Framework (2024) [Online]
<https://www.gov.uk/government/publications/national-planning-policy-framework-2024>
<https://archaeologists.net/sites/default/files/2023-11/CIfA-SandG-DBA-2020.pdf>

5 Historic England (2017) Good Practice Advice in Planning Note 3: The Setting of Heritage Assets [Online] <https://historicengland.org.uk/images-books/publications/gpa3-setting-of-heritage-assets/>

2. METHODOLOGY

2.1 SCOPE OF DATA PROCUREMENT

2.1.1.1 For purposes of baseline data collection, a 250m search area was utilised for archaeological remains, while a 1km search area was used for purposes of heritage settings assessment (Figure 1.1). Any other assets relevant to establishing the Site's historic landscape context or that were identified as potentially susceptible to impact, have also been considered.

2.2 SOURCES CONSULTED

2.2.1.1 The following sources have been consulted:

- the National Heritage List for England (NHLE), for designated heritage asset data;
- the Local Authority's Historic Environment Record (HER), for sites, events and Historic Landscape Characterisation (HLC) data;
- historic mapping, including large-scale county surveys, enclosure mapping, tithe mapping and early Ordnance Survey editions;
- the Environment Agency's library of open access LiDAR data (DTM and DSM);
- Historic England's Aerial Archaeology Mapping Explorer;
- Historic England's Aerial Photograph Explorer, for historic vertical and oblique aerial imagery;
- GoogleEarth timelapse satellite imagery;
- archival material from the county Records Office;⁶
- the Local Planning Authority's online planning application portal, for relevant documentation submitted in relation to proximate applications;
- grey literature relating to excavations within, and within proximity to, the Site;
- Historic Landscape Characterisation data; and
- other relevant sources, including the British Geological Survey's online geological mapping, and Cranfield University's soil mapping.

2.3 SITE VISIT

2.3.1.1 Several field visits were undertaken to support the ES for the Consented Development in 2015. A further Site inspection was undertaken by ERM in July 2025 to support the Material Change Amendment. Additional geophysical survey is ongoing as of July 2025 to support the upcoming ES.

⁶ Archive material was consulted as part of the 2015 DBA research

- 2.3.1.2 A series of representative photographs taken in support of an updated settings assessment is provided in Section 6 of this report and these are referred to, as relevant, throughout the text.

2.4 DATA ANALYSIS AND PROCESSING

2.4.1 HER DATA

- 2.4.1.1 A proportionate level of HER data, sufficient to inform the assessment of archaeological potential, significance and potential impact presented in this report, was obtained. The HER data was reconciled and analysed within the context of the objectives of the present assessment.
- 2.4.1.2 While all of the HER data received has been reviewed and considered, not all HER records (sites and events) are discussed further within this report, only those that are of relevance, to the determination of potential, significance and potential impact.
- 2.4.1.3 All data supplied by the HER is presented in Annex 12B: Cultural Heritage Gazetteer.

2.4.2 LIDAR DATA

- 2.4.2.1 Digital terrain model (DTM) LiDAR data, at 1 m resolution, was processed using ArcGIS software. Multiple hill-shade and shaded relief models were created, principally via adjustment of the following variables: azimuth, height, and 'z-factor' or exaggeration. The models created were then colourised using pre-defined ramps and classified attribute data, to reveal the micro-topography and allow for analysis.

2.5 ASSESSMENT OF HERITAGE SIGNIFICANCE

- 2.5.1.1 Heritage assets are assessed in terms of their significance, following the requirement in NPPF Chapter 16, and taking account of Historic England's guidance on 'Managing Significance in Decision-Taking in the Historic Environment' (GPA2).⁷
- 2.5.1.2 Significance, in relation to heritage policy, is defined by the NPPF as 'the value of a heritage asset to this and future generations because of its heritage interest. That interest may be archaeological, architectural, artistic or historic. Significance derives not only from a heritage asset's physical presence, but also from its setting.'
- 2.5.1.3 The NPPF glossary⁸ and the Planning Practice Guidance (PPG)⁹ provide that an asset's significance derives from its heritage 'interests', which the latter defines as follows:

⁷ Historic England (2015) Managing Significance in Decision-Taking in the Historic Environment [Online] <https://historicengland.org.uk/images-books/publications/gpa2-managing-significance-in-decision-taking/>

⁸ UK Government (2012) NPPF Annex 2: Glossary [Online] <https://www.gov.uk/guidance/national-planning-policy-framework/annex-2-glossary>

⁹ UK Government (2024) Planning Practice Guidance (PPG) [Online] <https://www.gov.uk/government/collections/planning-practice-guidance>

- Archaeological interest: *"As defined in the Glossary to the National Planning Policy Framework, there will be archaeological interest in a heritage asset if it holds, or potentially holds, evidence of past human activity worthy of expert investigation at some point."*
- Architectural and artistic interest: *"These are interests in the design and general aesthetics of a place. They can arise from conscious design or fortuitously from the way the heritage asset has evolved. More specifically, architectural interest is an interest in the art or science of the design, construction, craftsmanship and decoration of buildings and structures of all types. Artistic interest is an interest in other human creative skills, like sculpture."*
- Historic interest: *"An interest in past lives and events (including pre-historic). Heritage assets can illustrate or be associated with them. Heritage assets with historic interest not only provide a material record of our nation's history but can also provide meaning for communities derived from their collective experience of a place and can symbolise wider values such as faith and cultural identity."*

2.5.1.4 Historic England's 'Statements of Heritage Significance: Analysing Significance in Heritage Assets', Historic England Advice Note 12 (2019),¹⁰ also promotes the use of this terminology and methodology, both of which are therefore adopted for the purposes of this report. This approach allows for a detailed and justifiable determination of heritage significance and the interests from which that significance derives.

2.5.1.5 In accordance with the NPPF and the PPG, the level of significance attributed to heritage assets is articulated as follows:

- **Designated heritage assets of the highest significance**, as identified in paragraph 213 of the NPPF, comprising Grade I and II* Listed buildings (LB), Grade I and II* Registered Parks and Gardens (RPG), Scheduled Monuments (SM), Protected Wreck Sites, World Heritage Sites (WHS) and Registered Battlefields (and also including some Conservation Areas (CA)) and non-designated heritage assets of archaeological interest which are demonstrably of equivalent significance to Scheduled Monuments, as identified in footnote 72 of the NPPF (2023);
- **Designated heritage assets of less than the highest significance**, as identified in paragraph 213 of the NPPF, comprising Grade II Listed buildings and Grade II Registered Parks and Gardens (and also some Conservation Areas); and

¹⁰ Historic England (2019) Statements of Heritage Significance, Advice Note 12 [Online] <https://historicengland.org.uk/images-books/publications/statements-heritage-significance-advice-note-12/heag279-statements-heritage-significance/>

- **Non-designated heritage assets**, as defined within the PPG as “buildings, monuments, sites, places, areas or landscapes identified by plan-making bodies as having a degree of significance meriting consideration in planning decisions, but which do not meet the criteria for designated heritage assets”.

2.5.1.6 The significance of known and potential heritage assets identified within the Site is described in section 5 of this report.

2.6 SETTINGS ASSESSMENT METHODOLOGY

2.6.1.1 Settings assessment was undertaken in accordance with the industry-standard methodology provided by Historic England in their ‘Good Practice Advice in Planning Note 3: The Setting of Heritage Assets’ (GPA3) (revised 2017).⁵ This guidance promotes a ‘stepped’ (iterative) approach, as follows:

- **Step 1** assess which assets would be affected and identify their setting;
- **Step 2** assess the degree to which these settings and views make a contribution to the significance of the heritage asset(s) or allow significance to be appreciated;
- **Step 3** assess the effects of the proposed development, whether beneficial or harmful, on that significance or on the ability to appreciate it;
- **Step 4** explore ways to maximise enhancement and avoid or minimise harm; and
- **Step 5** monitor outcomes.

2.7 ASSESSING HARM TO HERITAGE SIGNIFICANCE

2.7.1.1 Potential development effects (impacts) are discussed in terms of harm to heritage significance with reference to the NPPF (2024), as follows:

- **Substantial harm or total loss** - Being a level of harm that would “have such a serious impact on the significance of the asset that its significance was either vitiated altogether or very much reduced”; and
- **Less than substantial harm** - Being any lesser level of harm than that defined above; recent case law has confirmed that this includes any level of harm (not considered substantial) regardless of its quantification, e.g. the finding of a ‘negligible’ level of harm must still be treated as less than substantial harm and be weighed in the balance under paragraph 215.

2.7.1.2 The PPG provides that the category of harm identified for any given asset be ‘explicitly identified’, and that the extent of that harm be ‘clearly articulated’. For purposes of this assessment, this is done with

reference to a 'scale', e.g. at the lower/upper end of the scale of less than substantial.

- 2.7.1.3 The NPPF does not provide that harm to non-designated heritage assets be categorised as 'substantial' or 'less than substantial', only that the scale of any harm or loss is articulated.
- 2.7.1.4 The High Court has clarified that 'preservation' does not mean no change; it specifically means no harm. This is echoed in Historic England's GPA2, which states that "Change to heritage assets is inevitable but it is only harmful when significance is damaged".
- 2.7.1.5 The assessment of anticipated development effects can thus be seen to have been undertaken in accordance with a robust methodology, formulated within the context of current best practice, the relevant policy provisions, and key professional guidance.

3. STATUTE, POLICY & GUIDANCE

3.1 STATUTE

3.1.1 ANCIENT MONUMENTS AND ARCHAEOLOGICAL AREAS ACT 1979

3.1.1.1 Schedule Monuments are protected from physical impact under the 1979 Act. A grant of Scheduled Monument Consent is required from the Secretary of State for any works that would physically affect a Scheduled Monument.

3.1.1.2 The 1979 Act does not provide statutory protection for the settings of Scheduled Monuments. The settings of Scheduled Monuments are protected under national and local policy (described below), and applications for works that would affect the settings of Scheduled Monuments are considered within that policy context.

3.1.2 PLANNING (LISTED BUILDINGS AND CONSERVATION AREAS) ACT (1990)

3.1.2.1 Applicable Statute would comprise Section 66(i) of the Planning (Listed Buildings and Conservation Areas) Act (1990), which provides that:

3.1.2.2 'In considering whether to grant planning permission for development which affects a listed building or its setting, the local planning authority or, as the case may be, the Secretary of State shall have special regard to the desirability of preserving the building or its setting or any features of special architectural or historic interest which it possesses'.

3.1.2.3 With regards to development within a Conservation Area, Section 72(1) of the Planning (Listed Buildings and Conservation Areas) Act (1990) provides that:

3.1.2.4 'In the exercise, with respect to any buildings or other land in a conservation area, of any powers under any of the provisions mentioned in subsection (2), special attention shall be paid to the desirability of preserving or enhancing the character or appearance of that area.'

3.1.2.5 Unlike Section 66(1), Section 72(1) of the Act does not refer to the setting of a Conservation Area. It is the character and appearance of the Conservation Area that is subject of the statutory provision. Harm resulting from changes to the setting of Conservation Areas is provided for under national policy (NPPF 2024).

3.2 POLICY

3.2.1 NATIONAL PLANNING POLICY FRAMEWORK (2024)

3.2.1.1 Applicable national policy comprises the National Planning Policy Framework (revised December 2024), and specifically the following paragraphs:

3.2.1.2 Paragraph 207, which states that:

'In determining applications, local planning authorities should require an applicant to describe the significance of any heritage assets affected, including any 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.'

3.2.1.3 Paragraphs 212 and 213, which provide for designated heritage assets, and state respectively that:

'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,' and

'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 parks or gardens, should be exceptional;

b) assets of the highest significance, notably scheduled monuments, protected wreck sites, registered battlefields, grade I and II listed buildings, grade I and II* registered parks and gardens, and World Heritage Sites, should be wholly exceptional.'*

3.2.1.4 Paragraph 214, which relates to instances of 'substantial harm' to designated heritage assets, and states that:

'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 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.'*

- 3.2.1.5 Paragraph 215, which relates to instances of 'less than substantial harm' to designated assets, and states that:

'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.'

- 3.2.1.6 Paragraph 216, which relates to non-designated heritage assets, and states that:

'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 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.'

3.3 LOCAL PLANNING POLICY

3.3.1 THE CHESHIRE WEST AND CHESTER LOCAL PLAN (2015)

The Cheshire West and Chester Local Plan sets out the plans and objectives for the local area, as adopted in 2015.¹¹ Policy SO12 of the Local Plan is relevant to the development and aims to "Ensure new development is of sustainable and high-quality design that respects heritage assets, local distinctiveness and the character and appearance of the landscape and townscape."

Policy DM12 of the Local Plan notes the importance of the Jodrell Bank Observatory and the importance of

¹¹ Cheshire West and Chester Council (2015) Cheshire West and Chester Local Plan (Part One) Strategic Policies [Online] <https://consult.cheshirewestandchester.gov.uk/kse/event/24907>

consideration within developments to avoid impairing the efficiency of the telescopes.

- 3.3.1.1 With regard to the World Heritage Site (WHS), additional guidance is contained within the Cheshire East Local Plan Strategy (2017). This plan builds on the policies of the previous Congleton and Macclesfield Local Plans to provide clear protection for Jodrell Bank and its setting (Policy SE14), stating *"Within the Jodrell Bank Radio Telescope Consultation Zone, as defined on the Proposals Map, development will not be permitted if it: ... Has an adverse impact on the historic environment and visual landscape setting of the Jodrell Bank Radio Telescope"*.¹²

3.4 GUIDANCE

- 3.4.1.1 Regard has been had to the following key guidance documents:

- Standard and Guidance for Archaeological Desk-Based Assessment (CIfA 2017);¹³
- Good Practice Advice in Planning Note 2: Managing Significance in Decision Taking (GPA2) (Historic England 2016);¹⁴
- Good Practice Advice in Planning Note 3: The Setting of Heritage Assets (GPA3);¹⁵
- Statements of Heritage Significance (Historic England 2019);¹⁶ and
- Jodrell Bank Observatory Management Plan.¹⁷

¹² Cheshire East Local Plan Strategy (2017) [Online] https://www.cheshireeast.gov.uk/planning/spatial-planning/cheshire_east_local_plan/local-plan-strategy/local_plan_strategy.aspx#:~:text=Local%20Plan%20Strategy%202010%2D2030,adopted%20on%2027%20July%202017

¹³ Standard and Guidance for Archaeological Desk-Based Assessment (CIfA 2017) [Online] <https://www.archaeologists.net/sites/default/files/2023-11/CIfA-SandG-DBA-2020.pdf>

¹⁴ Historic England (2015) Managing Significance in Decision-Taking in the Historic Environment [Online] <https://historicengland.org.uk/images-books/publications/gpa2-managing-significance-in-decision-taking/>

¹⁵ Historic England (2017)

¹⁶ Historic England (2019)

¹⁷ Jodrell Bank Observatory Management Plan [Online] https://www.jodrellbank.net/wp-content/uploads/2022/04/lo_res_3278_Jodrell_Bank_World_Heritage_Management_Plan_v2.pdf

4. BASELINE

- 4.1.1.1 This baseline section is an updated version of that included in the 2015 DBA (ERM 2015a), which has been reviewed and revised in light of new HER data and information from additional sources. It includes a review of designated assets, an overview of the historic landscape and geological context and a period-by-period summary of the archaeological evidence and historic context of the study area.

4.2 DESIGNATED HERITAGE ASSETS SUMMARY

4.2.1 WITHIN THE SITE

- 4.2.1.1 As shown on Figure 4.1 and Figure 4.2, the outer buffer zone of Jodrell Bank Observatory World Heritage Site (site 44, 1466112) overlaps with the Proposed Development Site Buffer Zone (1 km), whilst its main component, the observatory itself, is located 7.4 km to the northeast.
- 4.2.1.2 Although the legally protected area associated with the Scheduled Monument Drakelow Hall Moated Site (site 17, SM 1020100) is excluded from the Site itself, it is contained geographically within the boundary of the Site.

4.2.2 WITHIN 1 KM OF THE SITE

- 4.2.2.1 Within 1 km of the Site, there are a further eight designated assets comprising one scheduled monument, six listed buildings and one conservation area. Additionally, one notable non-designated asset - King Street Roman Road (site 1) passes along the southwestern border of the Site. Full details of assets within 1 km can be found in Annex 12B Cultural Heritage Gazetteer.

FIGURE 4.1 – DESIGNATED AND NON-DESIGNATED ASSETS WITHIN 250 M

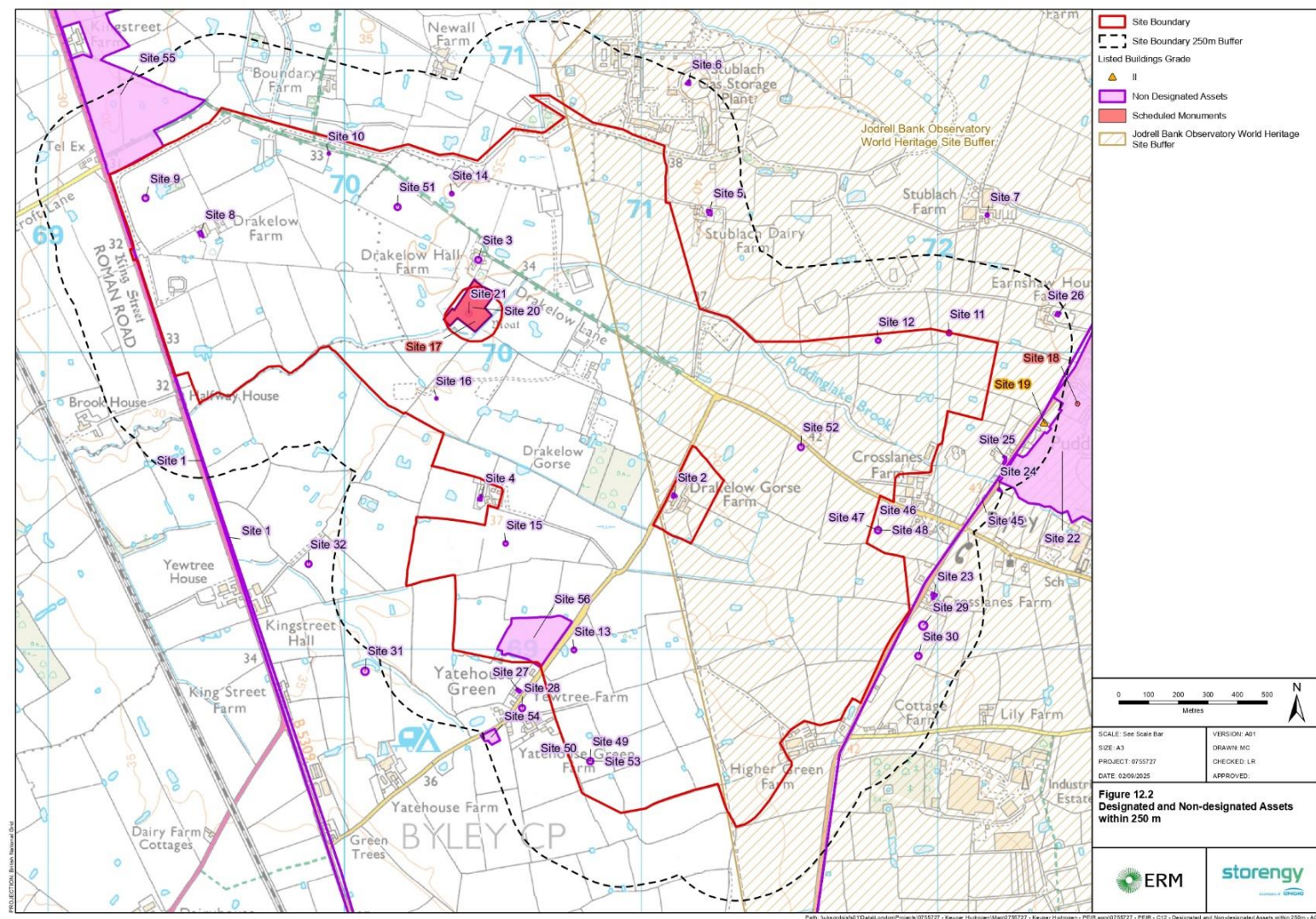
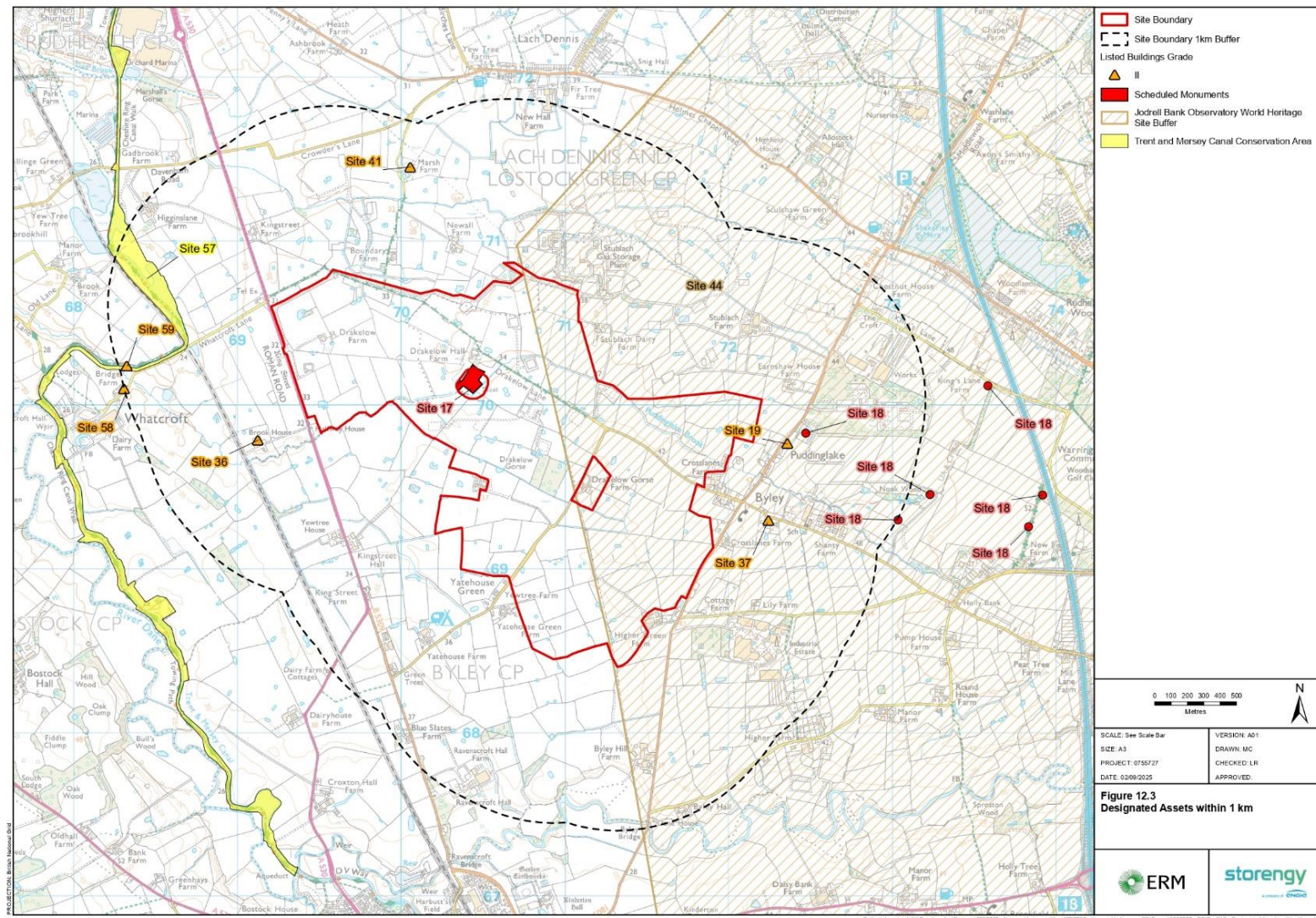


FIGURE 4.2 – DESIGNATED ASSETS WITHIN 1 KM



4.3 HISTORIC LANDSCAPE CONTEXT

- 4.3.1.1 The Site is located within the Shropshire, Cheshire and Staffordshire Plain National Character Area (NCA 61)¹⁸ which is a large, predominantly pastoral plain. The study area itself comprises a relatively flat area with some areas of gentle undulation, lying between 30 m and 50 m AOD. The main watercourse in the area is the River Dane which is located to the west and south of the study area. Puddinglake Brook meanders across the study area roughly from east to west and ultimately feeds the River Dane.
- 4.3.1.2 The landform gently rises across the study area from approximately 30 m aOD in the north-west to approximately 50 m aOD in the south-east. There is a perception of being in a flat landscape, despite the rising nature of and gentle fluctuations in the landform. In addition to the natural watercourses, numerous small ponds and lakes are scattered across the landscape, many of which are flooded marl pits. The landscape is predominantly agricultural with a mixture of arable and pastoral land use. Fields are small to medium in scale and generally lined with well-maintained hedgerows containing numerous mature trees. These mature trees, along with vegetation lining numerous ditches and Puddinglake Brook, give the landscape a wooded characteristic and provide short to medium range horizons within views. The field patterns remain largely as shown on the tithe maps of 1836-51.
- 4.3.1.3 The Site boundary sits largely within the contemporary Civil Parish (CP) of Byley-cum- Yatehouse, with a small area to the north within Lach Dennis CP, which both achieved parochial status in the 19th century. During the Medieval and Post-Medieval periods, the study area was located within the historical parishes of Davenham and Middlewich and contained the historic townships of Stublach, Byley cum Yatehouse, Rudheath and Newall. This is reflected in the Tithe maps of 1836-51 and several historic hedgerows corresponding to these boundaries are located across the study area and are shown in Figure 4.3. Since no detailed early maps pre-dating the tithe maps exist for the area, it is difficult to analyse earlier development within the study area. However, from a number of historical sources it appears that the study area was a heathland waste up until around thirteenth or fourteenth centuries when the land was gradually improved and enclosed culminating in the field patterns shown on the tithe maps. This field pattern remains largely intact today.
- 4.3.1.4 Several parcels of ancient field systems are located within the study area that are likely to pre-date formalised enclosure that began around 1600. Some of these are semi-regular which suggests some form of organization whilst others are irregular, having curved boundaries and an apparently random layout. These also preserve

¹⁸ Natural England (2014) <https://publications.naturalengland.org.uk/publication/6076647514046464>

characteristics of open field arable agriculture in the form of surviving ridge and furrow.

4.4 GEOLOGY AND GEOARCHAEOLOGY

- 4.4.1.1 The study area comprises undifferentiated Triassic Mudstones and Halite Formations, overlain by glacial deposits largely consisting of boulder clays with localized deposits of sand and gravels. The geology in the area has resulted in the exploitation of brine deposits since the Bronze Age and Iron Age.¹⁹ Firm evidence for early (Bronze Age) salt exploitation elsewhere in the UK has been found at number of sites including Walton-on-the-Naze, Essex where a saltworking site has been dated to 1070 +/- 90 BC.²⁰ Middlewich to the south of the study area was a key salt producing area during Roman times due to the naturally occurring brine deposits or 'wet rockhead'. However, the absence of a 'wet rockhead' within the Site,²¹ along with the depth of the salt bearing rocks (more than 500 m depth), mean that the potential for archaeological remains associated with the extraction of brine is limited.
- 4.4.1.2 Marl deposits found within the study area have also been exploited since at least the Medieval Period to aid the fertility of the soil. This has resulted in the numerous marl pits, usually waterfilled, which are scattered throughout the study area. The extraction of marl and other raw materials, such as clay for brick making, is also suggested in the study area by the names on the 19th century tithe maps, with examples such as 'Marl Croft' and 'Brick Kiln Field' (site 15).

4.5 PREVIOUS WORK

- 4.5.1.1 There have been a number of DBAs, EIAs and watching briefs carried out within the study area. These have been reviewed and are summarized in Annex A.

4.6 ARCHAEOLOGICAL BACKGROUND

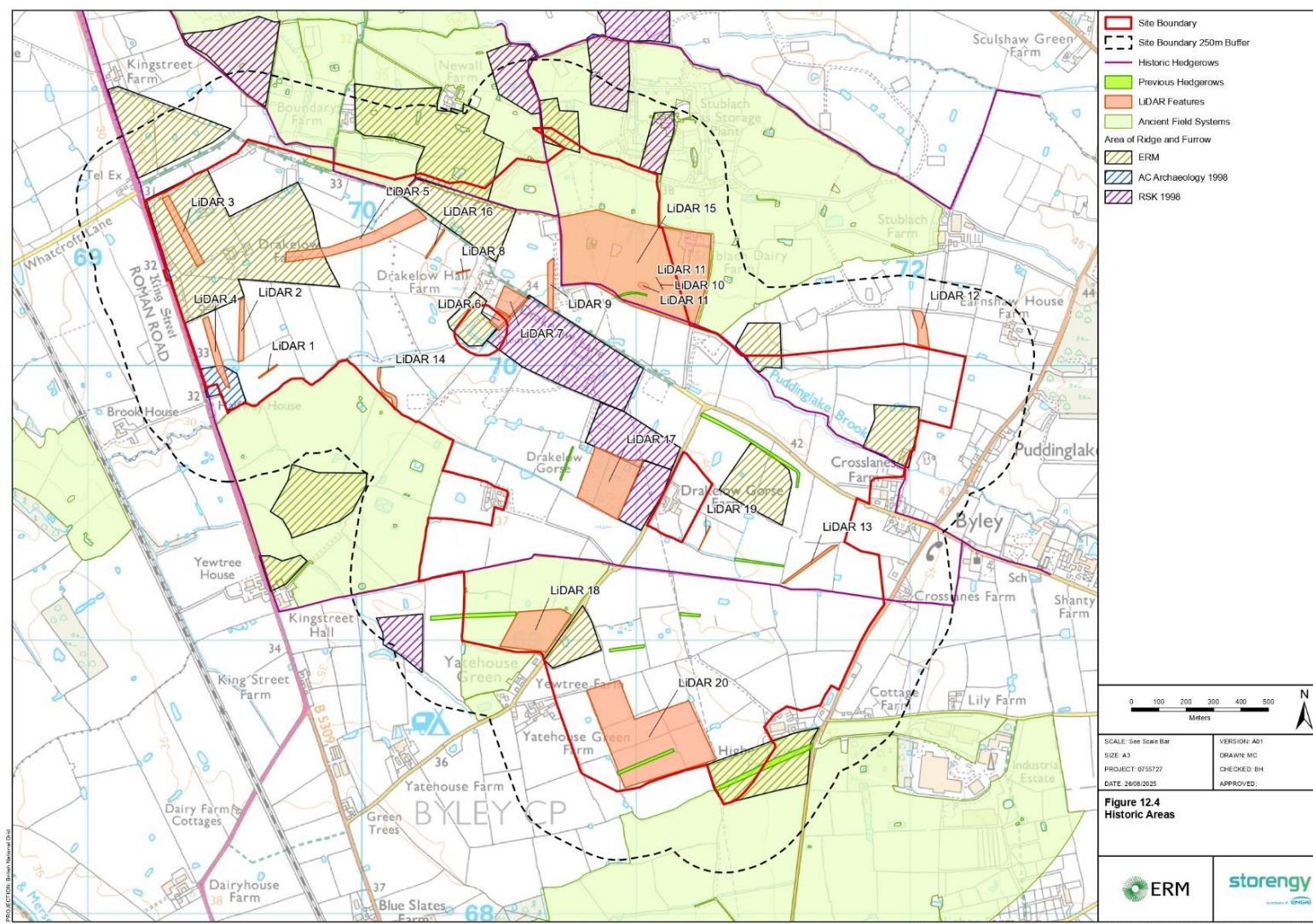
- 4.6.1.1 This section provides a chronological review of the history and archaeology of the study area, with a focus on known assets and the potential for further unknown buried archaeology to survive within the Site. Further details on known heritage assets can be found in the gazetteer can be found in Annex B. The location of numbered heritage assets mentioned in the text are shown on **Figure 4.1**, **Figure 4.2** & **Figure 4.3**.

¹⁹ Morgan.V & Morgan.P (2004) Prehistoric Cheshire. Landmark Publishing Ltd. London

²⁰ Darvil.T. (1998) Prehistoric Britain. Routledge. London

²¹ Earp JR and Taylor BJ 1986. Geology of the country around Chester and Winsford. Memoir BGS Sheet 109

FIGURE 4.3 – HISTORIC AREAS



4.6.2 PALAEO-LITHIC AND MESOLITHIC

- 4.6.2.1 There is currently no evidence for Palaeolithic or Mesolithic human activity within the study area. Features of this period are usually confined to caves and rock shelters such the site in Carden Park in West Cheshire which yielded evidence of Late Palaeolithic and Mesolithic occupation.²² Analysis of LiDAR data has identified a possible paleo-channel located within the site, approximately 83 m to the south of the GPP (LiDAR 14). However, this feature although present within the Site is not in itself evidence of human occupation. It simply refers to an area through which water used to flow, that may still enclose prehistoric deposits. Due to lack of evidence, remains of this period are not anticipated within the study area.

4.6.3 NEOLITHIC-BRONZE AGE

- 4.6.3.1 There are no confirmed sites or finds dating to the Neolithic period within the study area. The poorly drained heavy boulder clays and dense woodland would not have been conducive to early agriculture and so settlement of this date is not expected. However, Bronze Age activity is indicated by a number of stray finds including the discovery of an unlooped palstave axe within the Study Area at Rudheath (site 9) dating to the early Middle Bronze Age (c. 1450-1250 BC), as well as sites and finds within the wider area such as a looped and socketed Bronze Age hand found at Croxton (c. 1.7km to the south west of the Site), and the possible remains of three round barrows near Kinderton Hall (c. 1.3km to the south of the Site). This suggests a potential for further sites and finds of this period within the study area.

4.6.4 IRON AGE

- 4.6.4.1 No Iron Age sites or finds have been confirmed within the study area. However, Iron Age activity is known in the wider region from the internationally significant discovery of Lindow Man on Lindow Moss located c.15 km to the north-east of the Site as well as several Iron Age hillforts located on the higher Pennine Fringe and Sandstone ridges, such as Beeston Castle Hillfort c.19 km to the southwest.²³ By the middle to late Iron Age settlement begins to occur on the boulder clays, with double or single ditched enclosures being the most common form of site.²⁴ A cropmark identified by AC Archaeology in 1996 to the west of Lach Dennis (c.1 km north of the study area) may indicate the presence of a prehistoric or Romano-British enclosure. This suggests the potential for the discovery of other

²² Heritage Gateway, Monument Number 1219145 [Online] https://www.heritagegateway.org.uk/Gateway/Results_Single.aspx?uid=1219145&resourceID=19191

²³ Historic England [Online] <https://www.english-heritage.org.uk/visit/places/beeston-castle-and-woodland-park/history/#:~:text=the%20same%20scale>
An%20Iron%20Age%20hillfort,was%20on%20the%20same%20site.

²⁴ Morgan.V & Morgan.P (2004) Prehistoric Cheshire. Landmark Publishing Ltd. London

related finds of this period within the area. Iron Age activity has also been identified south of the study area around Middlewich in the form of coarse pottery, known as briquetage, believed to have been used as salt containers.²⁵ This indicates that salt exploitation began here before the arrival of the Romans.²⁶

4.6.5 ROMAN

4.6.5.1 The study area lies between two known Roman sites at Middlewich and Northwich and the wider region is rich in remains of this period. The salt deposits around Middlewich, known as 'Salinae' (meaning salt works), were clearly exploited from the first century AD. A Roman fort was established to the north of the town at Harbutt's field (site 33) sometime between AD 70-80 and is believed to have been located to control the salt industry.²⁷ Lead salt Pans discovered at Bostock, c.1.7 km southwest of the study area, may also date from this period. In addition to the fort and salt workings, several excavations in Middlewich over the years have identified industrial features and civilian settlement along King Street, ranging in date from the first to the fourth century AD. King Street Roman Road passes along the southwestern border of the Site (site 1) and another possible Roman Road (site 45) may pass within a few hundred meters to the west of the Site. Several findspots of Roman artefacts have been identified within the Site including a coin and a copper alloy mount (site 50 and 51). These last two sites are new additions to the baseline, having been identified after 2015. Analysis of LiDAR data shows no evidence of characteristically Roman remains within the Site however, there is still the potential for features and associated finds to remain buried within the development area.

4.6.6 EARLY MEDIEVAL

4.6.6.1 Field names containing 'Swannick' were identified on the Newall tithe map by Gifford and Parners (Holford Brinefields report 2000).²⁸ These are Little Swannick' (site 42) and Great Swannick' (site 43) located approximately 500 m to the north of the study area. The suffix 'wic' denotes an Anglo-Saxon farmstead or village/town and so these fields could indicate settlement from this period in the area. Other areas may have been boggy marsh land at this time, suggested by names such as Lach Dennis- Lech meaning 'boggy stream' (RSK, 1998).²⁹ This perhaps indicates that much of the Site was largely uncultivated during this period.

²⁵ Cheshire East Council and English Heritage (2013) Cheshire Historic Towns Survey, Middlewich. Archaeology Planning Advisory Service. Chester

²⁶ Darvil.T. (1998) Prehistoric Britain. Routledge. London

²⁷ Salt Association [Online] <https://saltassociation.co.uk/education/salt-history/early-history/>

²⁸ Proposed Salt Cavity Gas Storage Project, Holford Brinefields (R2319) (2000), Giffords Consulting Engineers.

²⁹ Holford Brinefield, Environmental Impact assessment (1998), ICI Chemicals & Polymers Ltd, (R2222), RSK.

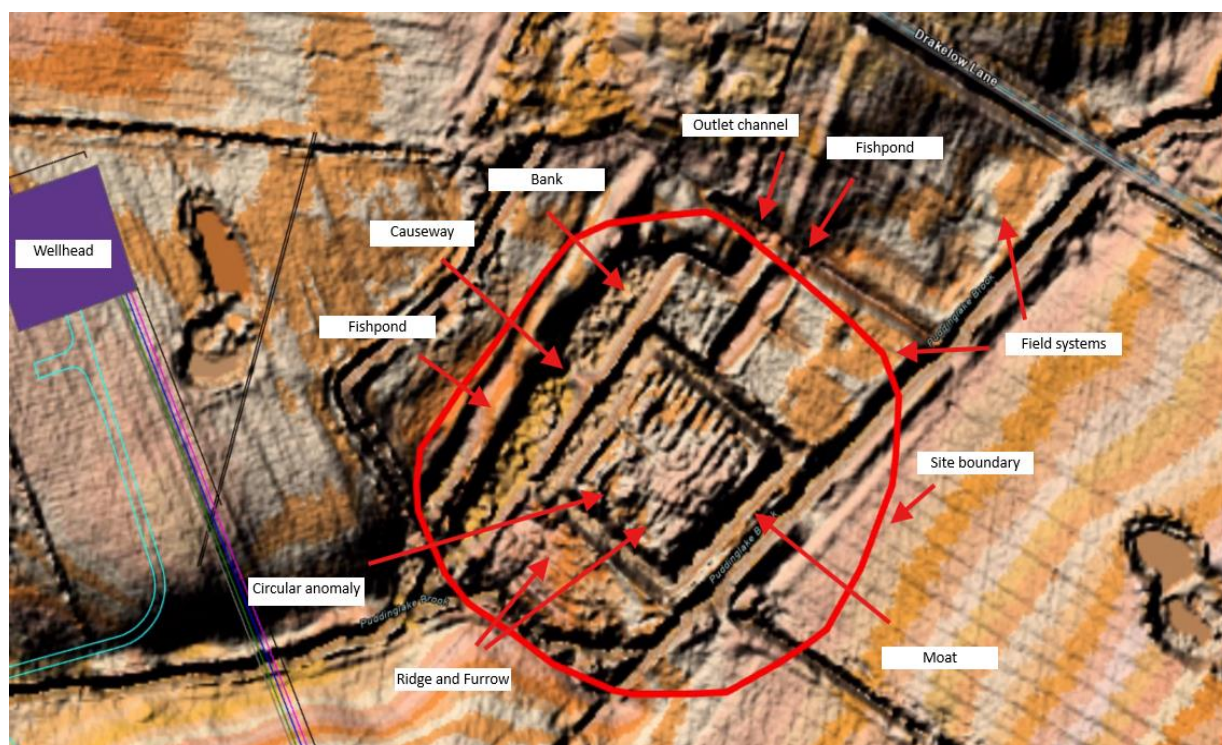
4.6.7 MEDIEVAL

- 4.6.7.1 The principal site from this period within the study area is Drakelow Hall Moated Site (site 17) which was the administrative centre for the Earl of Chester's (1333-76) estate around Rudheath, Middlewich and Northwich. This comprises a well-preserved moated enclosure and associated fishponds which formed a royal Demesne manor. Aerial images show the presence of well-preserved broad ridge and furrow within the moated enclosure although none is apparent in the immediate surrounding landscape (except for a poorly preserved, narrow and therefore assumed post-medieval ridge and furrow to the east). There is no physical evidence for the presence of a manor house or religious building within the moated site, though it is likely that evidence for one may remain below ground. Previous work by AC Archaeology (1996)³⁰ highlighted a historic reference to 'houses outside the moat' at Drakelow indicating there is potential for buried medieval archaeology associated with Drakelow Hall to survive outside of the scheduled area, including within the boundaries of the Site.
- 4.6.7.2 It is also possible that the island was used for other purposes such as horticulture, but given the historical information outlined above, it seems unlikely this was its original purpose. The presence of broad - likely medieval - ridge and furrow within the moat does however suggest later reuse of the site for crop growing, an activity which would have obscured earlier settlement traces.
- 4.6.7.3 Analysis of LiDAR undertaken as part of the current assessment confirms the presence of ridge and furrow within the moat as well as to the immediate south, within the scheduled area. Although no building foundations are visible, there is a circular anomaly within the moated enclosure that interrupts the ridge and furrow. As this truncates the ridge and furrow it is unlikely to be contemporaneous and may have been caused by later activity within the moated area. LiDAR also identifies the associated fishponds and causeway, a wide, linear bank to the west of the moated enclosure as well as what may be an associated field system to the immediate north (LiDAR 7, Plate 1). This is typical of medieval moated enclosures, many of which have associated features in the surrounding landscape.³¹

³⁰ Byley Gas Storage Project (R2207), AC Archaeology (1996)

³¹ Aberg.F.A. (ed) (1978) CBA Research Report No. 17 Medieval Moated Sites. Council for British Archaeology. York

PLATE 1 – LIDAR ANALYSIS OF DRAKELOW HALL MOATED SITE



- 4.6.7.4 As discussed in Bagshaw's Directory (1850) the manor later passed to the Abbey of Pulton before their removal to Dieulacres in Staffordshire, and the Abbot had a grange here.³² The naming of 'Abbotts Field' (site 12) on the Stublach Tithe Map and 'Far Abbotts Croft' (site 29) and 'Near Abbotts Croft' (site 30) on the Byley-cum-Yatehouse Tithe Map possibly indicates the location of some of this estate.
- 4.6.7.5 Prior to the beginning of enclosure in the thirteenth and fourteenth centuries the study area would have been largely heathland waste with little to no enclosure.³³ The subsequent process of enclosure, after the establishment of the manor at Drakelow, created a series of tenement farms. Due to the lack of detailed early maps for the region however, it is difficult to map these properties in detail.
- 4.6.7.6 The process of improving newly claimed land involved 'marling' has resulted in the numerous marl pits, usually water-filled, scattered throughout the study area. RSK (1998)³⁴ pointed out that there is documentary evidence that marling had begun by the fourteenth century meaning many of the marl pits in the study area could date from this period. LiDAR analysis has confirmed the presence of numerous marl pits on Site, many of which align with ponds or

³² Cheshire and Chester Archives and Local Studies (n.d.) Township Pack No. 59: Byley Cum Yatehouse. Chester County Council. Chester

³³ Higham N 1993, The Origins of Cheshire. Manchester University Press.

³⁴ Holford Brinefield, Environmental Impact assessment, ICI Chemicals & Polymers Ltd (1998), (R2222), RSK.

depressions visible in modern aerial imagery. Extraction of clay for brick making was probably carried out also, suggested by names on later tithe maps such as 'Brick Field' (site 31), 'Brick Kiln Field' (site 15) and Brickiln Field (site 32). Analysis of LiDAR data shows no evidence of structures in these fields, however; there is still the potential for features and associated finds to remain buried in these areas.

- 4.6.7.7 Several finds dating to the medieval period have been identified within the Development Site, including a spindle whorl and two silver coins (site 49, 52, 53), these three sites are new additions to the baseline having been identified after 2015. Other evidence of Medieval activity also exists within the study area and the wider region, such as broad ridge and furrow likely to date to this period. Broad ridge and furrow have been identified through previous work as detailed in Annex A, aerial imagery and confirmed through analysis of LiDAR (Figure 4.3). Good preservation of medieval broad ridge and furrow can be seen to the east of H518 and to the southeast of H513. Remnants of other ridge and furrow dating to this period have been identified within the Site but are poorly preserved and have been damaged by post-medieval and modern agricultural activity (Figure 4.3).

4.6.8 POST-MEDIEVAL

- 4.6.8.1 Some areas of open heath persisted into the post medieval period as suggested by Burdett's map of 1777.³⁵ However, most of the study area was enclosed by this time, as shown on the later tithe maps. Agricultural land use is suggested by field names on the tithe maps such as 'Wheat Field' (site 13) and 'Cote Meadow' (site 14), and the presence of narrow-spaced ridge and furrow which is characteristic of post-medieval ploughing techniques. Narrow ridge and furrow dating to the post-medieval period is evident across the Site, including two well- preserved areas, sites 55 and 56.
- 4.6.8.2 The tithe maps and OS maps indicate little change since c.1836. A number of historic structures of this date have been identified within the study area, comprising mainly rural buildings. Buildings within the Development Site are all non-designated or locally listed assets. Within the study area, Rosebank House (site 19) near Byley, is a Grade II listed building dating to the early 18th century. The wider area is largely rural, and evidence of post-medieval industry is generally lacking. However, to the south, in the Middlewich area, there are a number of salt works and the Trent and Mersey Canal.

³⁵ Cheshire Local History Association (n.d.) 16th-19th Century Maps of Cheshire [Online] <http://www.cheshirehistory.org.uk/archive//index.php?id=11>

4.6.9 MODERN

- 4.6.9.1 The former airfield at RAF Cranage (site 18) was developed in the Second World War removing three pre-existing farms³⁶ and disturbing the field patterns shown on the tithe and early OS mapping. The airfield was used to train air crew including night fighter Squadron 96. Wellington bombers were assembled in the hangers adjacent to the airfield, which survive and are now used for warehousing/light industry. Modern salt cavity mining and gas storage activities are also apparent with a number of well heads and associated infrastructure located in the north of the study area around Drakelow Hall Farm and Stublach, which exists alongside predominantly cattle grazing pasture.

4.6.10 UNDATED

- 4.6.10.1 Through LiDAR analysis of the Site, several undated features have been identified, consisting of old field systems, field boundaries and ridge and furrow (**Figure 4.3**). The lack of online-historic mapping for the area makes it difficult to attribute undated assets to a specific period but it is likely that many relate to post-medieval-modern agricultural activities.

³⁶ Cheshire Federation of Woman's Institutes (1990) The Cheshire Village Book. Countryside Books, Newbury and the CFWI, Chester.

5. SIGNIFICANCE AND POTENTIAL FOR PHYSICAL IMPACTS

5.1 DESIGNATED ASSETS

5.1.1.1 There are two designated assets located within the Site, Jodrell Bank Observatory and Drakelow Hall Moated Site.

5.1.2 JODRELL BANK OBSERVATORY

5.1.2.1 Jodrell Bank Observatory (site 44) is located partially within the Proposed Development Site Buffer Zone (1 km). This asset is a World Heritage Site, designated in 2019 as an internationally significant observatory and as such is a Designated heritage asset of the highest significance. Jodrell Bank derives its significance from historic and architectural value as well as from its setting which is discussed further in Section 6.

5.1.2.2 As shown in **Figure 4.1**, the Site is located within the outer buffer zone of the WHS polygon and as such it will not directly interact with the observatory itself, which is located approximately 7.4 km to the northeast. There will, therefore, be no impact upon this WHS.

5.1.3 DRAKELOW HALL MOATED SITE

5.1.3.1 Drakelow Hall Moated Site (site 17) is located inside the outer boundary of the Proposed Development but not within the Project footprint.

5.1.3.2 As a Scheduled Monument, Drakelow Hall comprises a designated heritage asset of the highest significance. Its significance derives from a combination of its historic and archaeological interest.

5.1.3.3 Historically, the asset would have been of importance as a Royal demesne manor and sanctuary. Moated sites during the Medieval period served as prestigious aristocratic and seigniorial residences with the provision of a moat intended as a status symbol rather than a practical military defence with most sites dating to between 1250-1350 AD. As such, the moat at Drakelow suggests its construction by a high-status owner. The remains at Drakelow are a rare example of a moated site in Cheshire and an important example of a royal demesne manor.

5.1.3.4 Archaeologically, the asset is of value due to the presence of medieval remains on the site. The monument survives as a well-preserved earthwork unencumbered by modern building, with the complexity of remains of particular note. As such, associated remains are likely to survive within the Scheduled Monument area which could prove a valuable resource for future archaeological investigations.

5.1.3.5 Additionally, previous work by AC Archaeology (1996) highlighted a historic reference to 'houses outside the moat' at Drakelow, which raises the potential for associated, contemporary structures in the vicinity of the asset.

- 5.1.3.6 There will be no physical impact on this scheduled monument as it lies well away from any Project construction works.

5.2 NON-DESIGNATED ASSETS

- 5.2.1.1 Numerous non-designated assets have been identified within the Site however, the majority of these do not overlap with the development footprint. Assets within the Site comprise:

- King Street Roman Road (site 1), which passes along the southwestern Site border;
- three extant and in-use post-medieval farm buildings (site 2, 3, 8);
- two ridge and furrow (site 56, 55);
- a length of double hedgerows (site 10);
- one modern cinder track (site 16); and six findspots (site 9, 49, 50, 51, 52, 53);

- 5.2.1.2 There are also sections of historic hedgerow, extant and trace ridge and furrow within the Site.

- 5.2.1.3 The majority of non-designated assets identified within the Site are the same as that presented within the previous ES for the consented development (ERM 2015b), with seven being identified as new assets since 2015.

- 5.2.1.4 Of the above identified assets, only sections of historic hedgerow and extant and trace ridge and furrow are present within the project footprint (**Figure 4.3**). Both are deemed to be of limited archaeological interest. As such, direct impact to small portions of these assets are unlikely to result in significant effects overall.

5.2.2 AREAS OF ARCHAEOLOGICAL POTENTIAL

- 5.2.2.1 The original 2015 ES identified four areas of the Site as areas of archaeological potential comprising:

West of Drakelow Hall Moated Site, fishponds and moated enclosure

- 5.2.2.2 Whilst there will be no direct physical impact on the designated area, there is potential for physical impacts on unknown contemporary features which may be present in the landscape around the monument. Wellhead H508 and associated pipelines and access track are located c. 75 m to the west of the Scheduled area and if construction activities are unmitigated in the area surrounding the monument, it could potentially result in physical impacts to associated contemporary features in close proximity. Many moated enclosures have associated features, and the potential presence of such features at Drakelow Hall is further suggested by historical references to 'houses outside the moat'. LiDAR analysis of the area

has verified the presence of possibly contemporaneous field systems to the immediate north of the monument. Geophysical survey is currently being undertaken to further characterise the environment surrounding the monument.

East of King Street

- 5.2.2.3 There will be no direct physical impact on King Street (site 1), however, there is potential for previously undiscovered associated contemporary features, such as burials or quarry pits, in proximity to the road. Site infrastructure including buildings, access roads and construction laydown areas are located approximately 30 m to the east of King Street and could therefore potentially result in physical impacts to any buried archaeological remains that may be present, if left unmitigated.

South of 'Street Field' (site 11)

- 5.2.2.4 No construction activities will take place within the field itself; however, the name may suggest that a Roman road ran across this part of the Site. This is further suggested by remains of a Roman road believed to be the route between Middlewich and Manchester discovered north of Holmes Chapel Road in Middlewich. Therefore, construction activities around wellhead H519 and H518 and associated pipelines and access road could potentially cause physical impacts to any surviving remains that may be present, if left unmitigated.

'Brick Kiln Field' (site 15)

- 5.2.2.5 The access track and pipelines associated with wellhead H501 run through this field. The name suggests the possible presence of archaeological remains relating to the brick making industry dating from the post medieval period or earlier. Construction activities within the field could therefore result in physical impacts to any surviving remains, if left unmitigated.
- 5.2.2.6 Without definitive information on the nature or extent of any buried remains it is not possible at this stage to make a clear assessment of likely effects.
- 5.2.2.7 Further information on designated and non-designated assets located within the Development Site can be found in Annex 12B: Cultural Heritage Gazetteer.

5.2.3 POTENTIAL DEVELOPMENT EFFECTS

- 5.2.3.1 The Proposed Development will comprise two stages: solution mining to create below ground cavities for gas storage (construction phase), and the subsequent storage of gas within the cavities (operation phase). As a result of the construction phase, the following infrastructure will be implemented:

- Gas storage cavities and associated wellheads;
- Pipelines;
- Gas Processing Plant (GPP) and associated infrastructure;
- Gas Marshalling Compounds (GMC);
- Solution Mining Compound (SMC);
- NTS Connection Compound;
- Site access and internal access roads; and
- Venting/Flaring Technology.

5.2.3.2 Infrastructure is widespread throughout the footprint of the Development Site and therefore may have a direct impact to cultural heritage resource within the Site as well as an adverse impact to the setting of assets within the study area.

5.2.4 PREVIOUS ON-SITE ACTIVITY

5.2.4.1 The following activities are likely to have affected the on-site soil profile/stratigraphy:

- modern farming/agricultural processes such as deep-ploughing and subsoil-ripping;
- installation of modern drainage systems;
- the installation of high voltage electricity pylons; and
- works associated with the nearby existing gas storage facilities.

5.2.4.2 In combination, these activities are likely to have affected any underlying archaeological deposits within their footprint.

6. SETTINGS ASSESSMENT

6.1.1 STEP 1: IDENTIFY ASSETS THAT REQUIRE ASSESSMENT

- 6.1.1.1 As outlined in 2.6, the first objective of GPA3 Step 1 is essentially a scoping exercise, ensuring that the scope of the heritage settings assessment is proportionate and relevant. The following resources were used to identify those assets within the Site environs the significance of which might be harmed by change to setting:
- the relevant NHLE Listing descriptions;
 - modern and historic mapping;
 - satellite imagery and aerial photography; and
 - aerial photographs.
- 6.1.1.2 To facilitate an updated settings assessment, the above listed sources were reviewed, in reference to the previous settings assessment as detailed in the ES (ERM 2015b).
- 6.1.1.3 The results were then tested during field investigations, undertaken to support the 2015 EA for Consented Development. An additional Site visit was undertaken in July 2025. This confirmed that that one asset required reassessment (Drakelow Hall Moated Site, site 17) and one newly designated asset required an original settings assessment to be undertaken (Jodrell Bank Observatory, site 44).
- 6.1.1.4 These assets were therefore progressed to step 2 of the assessment, with the results discussed in detail below. Steps for setting assessment are detailed in full in **Section 2.6**. A comprehensive list of assets sieved out of the settings assessment can be found in Annex 12B: Cultural Heritage Gazetteer.

6.2 STEP 2: ASSESS THE CONTRIBUTION OF SETTING

6.2.1 JODRELL BANK OBSERVATORY

Description

- 6.2.1.2 Jodrell Bank is one of the world's leading radio astronomy observatories, located in a rural area of northwest England, free from radio interference. The observatory was constructed in 1945 and during the early period of its use, the property housed research on cosmic rays detected by radar echoes. The observatory is still in operation and now includes several radio telescopes and working buildings, including engineering sheds and the Control Building. The use of the site has varied with original activity located in the southern portion, moving to the northern portion in more recent years. Today, the site is home to the Lovell and Mark II Telescopes. Evidence of equipment from different periods in radio history are present on the site with remnants of early scientific instruments surviving.

- 6.2.1.3 Jodrell Bank was listed as a World Heritage Site (WHS) in 2019 with UNESCO stating that it “has had substantial scientific impact in fields such as the study of meteors and the moon, the discovery of quasars, quantum optics, and the tracking of spacecraft.”³⁷ The scheduled area of the WHS represents both the observatory itself and its outer buffer zone.

Significance

- 6.2.1.4 As a World Heritage Site, Jodrell Bank comprises a designated heritage asset of the highest significance. Its significance derives from a combination of its historical association, material value and international research significance.
- 6.2.1.5 Historically, Jodrell Bank was important in the pioneering phase and later evolution of radio astronomy and reflects the scientific and technical achievements of the field. Since its construction in 1945, it has conducted important research and remained at a scientific centre for excellence which is still in use today. The location of the site was originally chosen in 1945 by Bernard Lovell to conduct observations of meteors using ex-army radar equipment. The site was selected because it was under ownership of the University of Manchester and was free from radio interference caused by trams passing the main university campus. UNESCO lists the site under criterion I as “a masterpiece of human creative genius related to its scientific and technical achievements.” As such, the asset derives a portion of its significance from this historic value.
- 6.2.1.6 Architecturally, Jodrell Bank is an example the continuous change and development of the radio astronomy field. This is evidenced through the changes in the observatory site over the years. Early research was undertaken in the southern portion of the site, with research moving to the northern portion as development progressed. As such, the site itself hosts a wide array of buildings and equipment which allows an understanding of how the field of research developed, including surviving remnants of early scientific instruments. At the south end of the site is the location of the Mark II Telescope, bounded by an ensemble of modest early research buildings and to the north, the site is dominated by the 76-metre diameter Lovell Telescope which sits in a working compound containing a number of engineering sheds. As such, the asset derives a portion of its significance from this architectural and material value. The site may also hold some archaeological value due to the potential for below ground archaeological remains.
- 6.2.1.7 Some modest level of significance also derives from the asset’s setting, which is described in detail below.

³⁷ UNESCO, Jodrell Bank Observatory [Online] <https://whc.unesco.org/en/list/1594/>

Setting

- 6.2.1.8 Jodrell Bank Observatory is located within the countryside in Cheshire, North West England. The area is 12.38 hectares with an additional 18569.22 hectares outer Buffer Zone. The observatory itself is located within Cheshire East however; the Buffer Zone covers both Cheshire East and the neighbouring authority of Cheshire West and Chester. The observatory is located in open countryside, surrounded by agricultural land, free from radio interference. This placement is strategic to facilitate its function.
- 6.2.1.9 There are a small number of residences bordering the observatory and the nearest large settlement is Macclesfield, located approximately 13 km away. To the south, is land formerly used by University of Manchester Botany research grounds. The observatory is centred around 'the Green' which is the location of the Grade I listed Mark II Telescope. To the north of the Green, the location is dominated by the Grade I listed Lovell Telescope.
- 6.2.1.10 With regard to setting, the observatory itself is mostly contained within the context of the Green however, due to the scale and height of the Lovell Telescope and the Mark II Telescope, the associated setting is extensive.

Contribution of Setting to Significance

- 6.2.1.11 The following aspects of the asset's setting are considered to contribute to its significance:
- The location of the observatory in the countryside, away from radio interference;
 - The location of the observatory on a historical site as part of the University of Manchester; and
 - Views within the landscape to the Lovell Telescope and, from some angles, the Mark II Telescope.
- 6.2.1.12 Due to their size, the wider setting of both the Lovell Telescope and the Mark II Telescope is vast, however, a key aspect are the views towards the telescopes from within the landscape. Outward views from the telescopes to the wider landscape are not as important as they do not contribute to the ability to understand the assets' function. Instead, when it comes to understanding the strategic placement and function of the observatory, their rural setting is a key factor. The setting of the observatory itself is mostly contained within the property which is well-screened by woodland and boundaries.
- 6.2.1.13 Given that there is no inter-visibility or co-visibility between the asset and the Development Site, the Site is not considered to form a part of the asset's setting, at least not the portion that contributes to its significance.

Development Effects

- 6.2.1.14 The Proposed Development comprises a consented gas storage development, located approximately 7 km to the southwest of the observatory. This would be an addition to an already industrialised landscape, located adjacent to existing gas storage facilities.
- 6.2.1.15 Due to its location at distance to the southwest, there is no intervisibility between the asset and the Development Site. As such, there are no important views from the Development Site to the asset. Additionally, there are no material non-visual historical associations between the asset and the Development Site.
- 6.2.1.16 With regard to development within the outer buffer zone of the WHS, the Development Site is adjacent to existing gas storage facilities. As such, this is a minor addition to an already industrialised landscape. Site infrastructure is not expected to be overly tall (with buildings limited to 10-15 m) and the majority of infrastructure is below ground. This is not anticipated to significantly change the rural context of the landscape.
- 6.2.1.17 It is therefore considered that the proposals would result in no harm to the significance of the asset. The asset's significance would be preserved and would remain unchanged. The key contributing heritage interests and aspects of setting to the significance of the asset, as described previously within this section, would all be preserved. This is a not-significant effect in terms of EIA regulation.

6.2.2 DRAKELOW HALL

Description

- 6.2.2.2 Drakelow Hall Moated Site is a Scheduled Monument which exists as a well-preserved moated site with four adjacent fishponds and a rectangular moated enclosure. The monument comprises an island, 55 m square and a moat 5 m wide by 1.7 m deep. To the northwest and southwest of the moat, an outer bank exists, and a linear set of fishponds are located to the northwest, connected by a dry channel.
- 6.2.2.3 A low causeway runs between the linear fishponds and leads to the outer edge of the moat where it becomes a raised bank from where a bridge or drawbridge would have given access onto the island. No direct public access is available to the asset. Drakelow Hall was an important Royal demesne manor and sanctuary dating to the Medieval period. The hall was mentioned in a letter of 1355 to the Justiciar of Chester. As a moated monument, it can be dated to between 1250-1350 and the presence of a moat indicates its construction by a high-status owner.

Significance

- 6.2.2.4 As a Scheduled Monument, Drakelow Hall comprises a designated heritage asset of the highest significance.
- 6.2.2.5 As discussed in Section 6, Drakelow Hall is an important medieval asset which derives significance predominantly from its historic and archaeological interest. Some modest level of significance also derives from the asset's setting, which is described in detail below.

Setting

- 6.2.2.6 The asset is bordered on all sides by agricultural farmland and the boundary of the asset is defined by Puddinglake brook in the east, south and west and by Drakelow Hall in the north. The wider landscape is defined by agricultural land and well-maintained hedgerows featuring numerous mature trees. Recent developments in the form of solution mining and gas storage infrastructure to the south, east, northeast and east are conspicuous elements in the landscape that detract from the rural character. Approximately 230-300 m to the southwest and northeast of the monument are areas of 'ancient fieldscapes' which predate AD1600 and could therefore represent contemporary enclosures. These areas also contain patches of broad ridge and furrow in places, including to the north and southwest of the monument. Although located within the wider landscape, they are situated at least 250 m away and are therefore not part of the assets immediate setting.
- 6.2.2.7 The landscape immediately surrounding the monument comprises Post-Medieval and modern fieldscapes, punctuated by 19th century buildings such those at Drakelow Hall located c. 50 m to the north of the monument. Although the original landscape setting has been largely replaced/altered, the later post-medieval fieldscapes have been in place since at least 1836-51 (Tithe mapping) and have essentially retained the rural setting of what was a rural demesne manor. Although setting does contribute to the significance of the monument, most of its significance deriving from archaeological and historical value.

Contribution of Setting to Significance

- 6.2.2.8 The location of the asset in a rural setting is the key aspect of its setting that contributes to its significance as a rural demesne manor.
- 6.2.2.9 As the asset is located within the outer confines of the Development Site, visibility between the Site and the asset is likely and the area in which the Site is located contributes in part to the rural setting of the asset.

Development Effects

- 6.2.2.10 The Proposed Development comprises a consented gas storage development, with nearest upstanding infrastructure located approximately 75 m to the west of the moated site. This would be an addition to an already industrialised landscape, located adjacent to existing gas storage facilities.

PLATE 2 – VIEW EAST TOWARDS THE SCHEDULED MONUMENT ACROSS PUDDLINGLAKE BROOK SHOWING TREE COVER



- 6.2.2.11 Due to its location at a close distance, there is likely to be intervisibility between the asset and the Development Site however, this is already partially mitigated by intervening vegetation surrounding the monument (Plates 2 and 3), including intervening field boundaries and vegetation surrounding ponds. Taller elements within the GPP, such as the emergency cold vent and flare would, however, likely be visible above vegetation.
- 6.2.2.12 As the surrounding landscape character does contribute to the significance of the asset, there may be some small change to the overall setting of the asset however, the introduction of further infrastructure beyond the boundary of the monument is not likely to significantly change the rural context of the landscape nor will it be overly intrusive to the setting of the asset.

PLATE 3 – VIEW NORTH-EAST TOWARDS THE SCHEDULED MONUMENT FROM THE ADJACENT FIELD SHOWING TREE COVER



6.2.2.13 It is therefore considered that the proposals would result in no harm to the significance of the asset. The asset's significance would be preserved and would remain unchanged. The key contributing heritage interests and aspects of setting to the significance of the asset, as described previously within this section, would all be preserved. This is a not-significant effect in terms of EIA regulation.

6.2.3 OTHER HERITAGE ASSETS

6.2.3.1 The previous settings assessment as detailed in the ES (ERM 2015b) assessed RAF Cranage (site 18) and Rosebank House (site 19) for effects to setting. The prior assessment has been reviewed in light of the design changes that make up the material amendment and it has been found to still be applicable, resulting in no harm to the setting of these assets.

6.2.3.2 The potential susceptibility of all other heritage assets to harm was disproven at Step 1, and no other heritage assets would be affected by the proposals as a result of change to setting. This includes 12 locally listed buildings located within the Development Site or within the 250 m Study Area, to the significance of which the Development Site contributes nothing, and/or from which the Development Site is imperceptible, due to the intervening distance, topography,

vegetation and built form. Further information on locally listed sites can be found in Annex 12B: Cultural Heritage Gazetteer.

- 6.2.3.3 With reference to **Figure 4.2**, the intervening distance between all other surrounding heritage assets within 1 km and the Site, the lack of any material inter-visibility between them and the Site, the lack of any relevant non-visual associations between them and the Development Site, and the lack of any 'third points' from which any would be visible to a material extent within the same view-shed as the Development Site, negates the potential for development within the Development Site to adversely affect their heritage significance.
- 6.2.3.4 The ability to appreciate the significance of all other surrounding heritage assets would be similarly unaffected by development within the Development Site of the nature and on the scale proposed. The key contributing heritage interests and aspects of setting to the significance of those heritage assets, the ability to appreciate their significance, and all key views towards, from and including them, would be preserved.

7. CONCLUSIONS

- 7.1.1.1 This updated DBA has identified one newly designated asset since the submission of the 2015 DBA and ES, the outer buffer zone of which is located within the Site. The remaining designated assets within the Site and 1 km study area remain the same as those identified in the 2015 DBA and ES.
- 7.1.1.2 The updated proposals have been assessed for potential physical impacts to heritage assets and concludes that no designated heritage assets would be physically affected by the updated proposals. Non-designated assets within the Site remain largely the same as those presented within the 2015 DBA and ES, with the addition of seven new assets. Although there will be some limited direct impacts to non-designated assets within the footprint of the development, as discussed in Section 5, it is considered that these would not result in significant effects.
- 7.1.1.3 There remains some potential for currently unknown buried archaeology to be present within the Site. As presented in the 2015 ES, four parts of the Site are identified as areas of increased archaeological sensitivity (the area west of Drakelow Hall Moated Site, the area east of King Street Roman Road, the area south of 'Street Field' and within and near 'Brick Kiln Field'). Archaeological potential is however, not limited to these four areas. To allow for a robust impact assessment to be reported in the forthcoming ES, a phased archaeological investigation is currently being undertaken, beginning with a geophysical survey across all areas of the Project footprint within which groundworks are proposed.
- 7.1.1.4 The updated proposals have also been assessed for potential impacts to the settings of heritage assets. Following an initial scoping exercise, Jodrell Bank WHS (site 44) and Drakelow Hall Moated Site (site 17) were assessed for potential impacts. It has been concluded that the proposals would result in no harm to the setting of either of these assets. The significance of both assets would be preserved and the key contributing heritage interests and aspects of setting to the significance of the assets would remain unchanged.
- 7.1.1.5 Overall, the proposals are considered to be consistent with the provisions of the Planning (Listed Buildings and Conservation Areas) Act (1990), Section 66(i), the NPPF (2024) chapter 16, and Policy SO12 of the Cheshire West and Chester Local Plan.
- 7.1.1.6 Any harm to the significance of those potential non-designated archaeological remains within the Site should be weighed against the public benefits of the proposals as per NPPF paragraph 216.



APPENDIX A PREVIOUS WORK IN THE VICINITY OF THE SITE

Date	Title	Summary
February 2023	Keuper Gas Storage Project Northwich, Cheshire Archaeological Watching Brief and Metal Detecting Survey, Wessex Archaeology.	Wessex Archaeology was commissioned by Environmental Resources Management (ERM) to undertake an archaeological watching brief and accompanying metal detecting survey during the construction of road infrastructure related to the development of a new gas storage facility (Keuper Gas Storage Project). The watching brief and metal detecting survey confirmed the presence of archaeological remains at the Yatehouse Lane and Drakelow Lane comprising field boundaries, pits, postholes and miscellaneous finds. Survey concluded deposits in the Brownhayes Lane area were of modern date.
01/03/2013- 31/03/2013	Warmingham to Lostock Brine Pipeline: Archaeological Desk-Based Assessment (extract from EIA) (R3441), LP Archaeology.	EIA assessing the potential impacts of a proposed pipeline from Warmingham to Lostock. A section of the pipeline north of Middlewich runs through the study area and the EIA identified three sites consistent with site 1, 9 and 26 in the gazetteer as well as an area of ancient field systems between King Street and Darkelow Lane.



Date	Title	Summary
01/01/2011- 31/05/2011	Stublach Grange Gas Storage Project, Lach Dennis, Cheshire; Report on an Archaeological Watching Brief (R3165), Archaeological Research Services Ltd.	Watching brief in the west of the study area which uncovered evidence of ridge and furrow, including broad ridge and furrow potentially related to Drakelow Hall SM (c650m to the south east).
01/07/2010- 31/07/2010	An Archaeological Building Recording at Stublach Grange Farm, Stublach, Cheshire (R3005), Archaeological Research Services Ltd.	Recording of an 19th c. farm building prior to demolition at Stublach Grange Farm in the north of the study area. The report concluded that the structures contained no features of historical or architectural merit and that there are a number of other similar structures within 2km, including Stublach Farm and Drakelow Hall Farm.
04/04/2008- 02/06/2008	An Archaeological Watching Brief on the Holford Pipeline Project at byley, near Middlewich (R2882), Archaeological Research Services Ltd.	Watching brief to the north of the study area around Byley. No archaeological remains were found other than one piece of worked flint that was not sufficiently diagnostic to be attributed to a particular period (plot 8b c400m southeast of Drakelow Hall Farm).
11/08/2007- 09/10/2007	Stublach Grange Gas Storage Project, Lach Dennis, Cheshire. Watching Brief (R2886), Archaeological Research Services Ltd.	A watching brief around Stublach Grange in the north of the study area. No archaeological features were encountered.



Date	Title	Summary
31/08/2007	Warburton to Audley 1200mm Diameter Pipeline Project (R2774.1&2), Lang O'Rouke.	EIA assessing the potential impacts of a proposed pipeline from Warburton to Audley. A section of the pipeline north of Middlewich runs through the study area but the EIA identified no sites of relevance.
December 2005	Stublach Gas Storage Environmental Statement, RPS.	The area overlaps with the north of the study area. The assessment identified no known archaeological remains within the application area, with the exception of a Bronze Age Palstave. The report concluded a limited potential for significant unknown archaeological remains.
01/04/2005-30/04/2005	Historical Building Recording at the Cheshire Salt Cavity Gas Storage Project; Archaeological Standing Building Survey (2570), Giffords Consulting Engineers.	Standing building survey at the former Byley Airfield site to the east of the study area. All structures dating to WWII and post-war period.
01/02/2004-29/02/2004	An Archaeological Watching Brief at A530/B5309, King Street, Middlewich, Cheshire (R2505), Chester Archaeology.	Seven test pits were dug but no remains of the Roman Road were found. It is concluded that the continued widening and resurfacing of the modern road has resulted in severe truncation of ancient deposits although some remains may still be present.



Date	Title	Summary
30/01/2002	Revised Cheshire Salt Cavity Gas Storage Project, Gifford and Partners Ltd.	Assessment for a revised planning application boundary concluded that this and other archaeological studies undertaken in the area indicate a low probability of hitherto undetected archaeological remains.
1/04/2000-01/07/2000	Proposed Salt Cavity Gas Storage Project, Holford Brinefields (R2319), Giffords Consulting Engineers.	An assessment in relation to a proposed salt cavity gas storage project covering much of the study area. The report concluded that the possibility of previously undetected archaeological remains being uncovered during the development is regarded as low.
01/01/1998	Holford Brinefield, Environmental Impact assessment, ICI Chemicals & Polymers Ltd, (R2222), RSK.	Baseline review covering the northern half of the study area. Concluded that overall, the archaeological potential for archaeological remains in the area was low. However, the report also states that there are a number of areas which would need to be considered before work could be permitted, including around Drakelow Hall, along King Street and areas of ridge and furrow throughout the area.
01/01/1996-29/06/1996	Byley Gas Storage Project (R2207), AC Archaeology.	Assessment of the impacts of a proposed development of gas installations at Drakelow Hall and the construction of two pipelines. Predicted a minor impact on ridge and furrow to the north of Drakelow Hall and a moderate impact on the setting of Drakelow Hall SM. Highlighted several areas of archaeological potential for



ERM

Date	Title	Summary
		which further survey would be required to fully assess potential impacts.

APPENDIX B CULTURAL HERITAGE GAZETTEER

ERM_ID	ID	Name	Designation	Type	Grade	Description	Period	X	Y	Distance
44	1466112	Jodrell Bank Observatory	Designated	World Heritage Site	N/A	Located in a rural area of northwest England, free from radio interference, Jodrell Bank is one of the world's leading radio astronomy observatories. At the beginning of its use, in 1945, the property housed research on cosmic rays detected by radar echoes. This observatory, which is still in operation, includes several radio telescopes and working buildings, including engineering sheds and the Control Building.	Modern	379833	368358	0
17	1020100	Drakelow Hall moated site, fishponds and moated enclosure	Designated	Scheduled Monument	N/A	A well-preserved moated site with four adjacent fishponds and a rectangular moated enclosure. The site consists of a grass covered island approximately 55 m square, the surface of which exhibits slight ridge and furrow, surrounded by a moat 5 m wide by 1.7 m deep that is waterlogged for much of its circumference.	Medieval	370433	370152	0
18	1020762	World War II defences of the former airfield of RAF Cranage	Designated	Scheduled Monument	N/A	The remains of part of the airfield defences of RAF Cranage survive well with a battle headquarters building, gunpost, three pillboxes, the buried remains of a fourth pillbox, and a sleeping shelter all surviving in a near complete state.	Modern	373231	369451	296.8
34	1012358	Kinderton Hall moated site, two annexes, five fishponds, garden and prospect mound	Designated	Scheduled Monument	N/A	The monument is a rare and unusual example of a well preserved medieval moated site accompanied by an extensive and complex series of earthworks.	Medieval	370809	367024	1254.2



ERM_ID	ID	Name	Designation	Type	Grade	Description	Period	X	Y	Distance
33	1008460	King Street Roman fort, Harbutt's Field	Designated	Scheduled Monument	N/A	The monument includes a Roman fort located on the northern fringe of Middlewich, a town generally identified as the Roman settlement known as Salinae.	Roman	370222	366954	1558.5
35	1160372	Kinderton Hall	Designated	Listed Building	II*	Farmhouse, early C18.	Post-Medieval	370861	366953	1493.9
19	1310621	Rosebank House	Designated	Listed Building	II	Grade II Farmhouse, dating to early C18. Comprising 2-storeys with coloured brickwork and slate roof.	Post-medieval	372360	369762	206.4
36	1160385	Brook House Farm House	Designated	Listed Building	II	Farmhouse of late C17 origins.	Post-Medieval	369126	369782	333.9
37	1138459	Church of St John the Evangelist	Designated	Listed Building	II	A parish church dated 1846.	Post-Medieval	372244	369292	348.6
41	1330183	Marsh Farmhouse	Designated	Listed Building	II	A C17 farmhouse later encased in brick.	Post-Medieval	370054	371454	715.6
38	1160339	Ravenscroft Hall	Designated	Listed Building	II	Grade II listed mansion, 1837.	Post-Medieval	370327	367619	1008.7
58	1160389	Bridge Cottage	Designated	Listed Building	II	Farmhouse, early C19, now divided into two dwellings.	Post-Medieval	368309	370095	1017.0
40	1330029	Trent and Mersey Canal, Canal Milepost	Designated	Listed Building	II	Canal milepost, 1819, cast iron.	Post-Medieval	369821	367041	1765.4
39	1229624	Trent and Mersey Canal, Big Lock and Footbridge	Designated	Listed Building	II	Canal lock, mid C19, of blue brick with red sandstone plinths and copings.	Post-Medieval	370146	366828	1796.1
57	DCH8686	Trent and Mersey Canal Conservation Area	Designated	Conservation Area	N/A	Conservation Area.	Post-Medieval	363284	374804	540.9
59	1244515	Trent and Mersey Canal Milepost at SJ6832 7024	Designated	Listed Building	II	Milepost on the Trent and Mersey Canal.	Post-Medieval	368326	370235	



ERM_ID	ID	Name	Designation	Type	Grade	Description	Period	X	Y	Distance
2	MCH17160	DrakelowGorse Farm, Yatehouse Lane, Byley	Non-designated	Locally Listed Building	N/A	A brick farmhouse.	Post-Medieval	371112	369516	0
3	MCH17159	Drakelow Hall off Yatehouse Lane, Byley	Non-designated	Locally Listed Building	N/A	A small 19th century house	Post-Medieval	370452	370312	0
8	MCH17631	Drakelow Farm, off Kings Street	Non-designated	Locally Listed Building	N/A	Brick farmhouse.	Post-Medieval	369517	370399	0
20	MCH8336	Drakelow Hall moated site, fishponds & moated enclosure Rudheath	Non-designated	Locally Listed Building	N/A	A well-preserved homestead moat. Also, a SM.	Medieval	370433	370152	0
21	MCH8337	Drakelow Hall Fishponds	Non-designated	Locally Listed Building	N/A	Fishponds associated with SM.	Medieval	370420	370130	0
1 (1.1)	MCH8163	King Street Roman Road - Broken Cross to Middlewich section	Non-designated	Roman Road	N/A	King Street Roman Road and King Street Roman Road- Broken Cross to Middlewich section: A 7 km straight section of King Street Roman Road between Middlewich and Northwich. Still in use as theA530 and B5309. A fine and typical example of a Roman road raised 2-3 feet above the ground level. Sub surface deposits. However, a watching brief in 2003 (Chester Archaeology), including two test pits (TP 5 and 6) to the west of the study area, found no trace of the road.	Roman	369317	370263	0
1 (1.2)	MCH8684	King Street Roman Road - Margary Route 70a	Non-designated	Roman Road	N/A	Same as 1.1.	Roman	380996	355517	0
9	MCH8164	Bronze Age Palstave from Rudheath	Non-designated	Findspot	N/A	Findspot for a bronze age axe.	Bronze Age	369330	370520	0
10	N/A	Hedgerows	Non-designated	Hedgerow	N/A	Line of double hedgerow c500m long in a WNW-ESE axis to the north-west of	Post-Medieval	369948	370670	0

ERM_ID	ID	Name	Designation	Type	Grade	Description	Period	X	Y	Distance
						Drakelow Hall Farm. Shown as the location of a lane on OS 1st Series map (1856) running between Drakelow Farm and King Street and referred to as 'lane by Lane Field' on tithe map. Currently the route of PRow.				
16	N/A	Cinder track	Non-designated	Track	N/A	Modern cinder track discovered during an archaeological watching brief.	Modern	370311	369844	0
49	MCH23037	Lead Spindle Whorl from Byley	Non-designated	Findspot	N/A	Lead spindle whorl.	Medieval	370830	368621	0
50	MCH23038	Roman Coin from Byley	Non-designated	Findspot	N/A	Findspot for copper alloy as of Domitian.	Roman	370830	368621	0
51	MCH23203	Roman Mount from Davenham	Non-designated	Findspot	N/A	Findspot for Roman Mount from Davenham.	Roman	370180	370490	0
52	MCH23378	16th century Coin hoard from Middlewich area	Non-designated	Findspot	N/A	Findspot for 8 silver sixpence of Elizabeth I.	Medieval	371540	369680	0
53	MCH23960	15th century silver coin from Byley	Non-designated	Findspot	N/A	Findspot of silver halfpenny of Henry VI.	Medieval	370830	368621	0
55	MCH25184	Ridge and Furrow Earthworks East of King Street	Non-designated	Ridge and Furrow	N/A	Narrow ridge and furrow.	Post-medieval	369228	370964	0
56	MCH25588	Ridge and Furrow Earthworks North of Yewtree Farm	Non-designated	Ridge and Furrow	N/A	Narrow ridge and furrow.	Post-Medieval	370639	369038	0
11	N/A	Street Field	Non-designated	Map Assets	N/A	A historic map name suggestive of a roman road or street in the area.	Unknown	372040	370065	0
12	N/A	Abbots Field	Non-designated	Map Assets	N/A	A historic map name suggestive of potential archaeology in field.	Unknown	371800	370040	0
13	N/A	Wheat Field	Non-designated	Map Assets	N/A	A historic map name suggestive of agricultural land use.	Unknown	370775	368996	0
14	N/A	Cote Meadow	Non-designated	Map Assets	N/A	A historic map name suggestive of agricultural land use.	Unknown	370363	370535	0



ERM_ID	ID	Name	Designation	Type	Grade	Description	Period	X	Y	Distance
15	N/A	Brick Kiln Field	Non-designated	Map Assets	N/A	A historic map name suggestive of clay extraction for brick making.	Unknown	370544	369355	0
45	MCH5475	Roman Road - Middlewich to Whitchurch (Margary no. 700)	Non-designated	Roman Road	N/A	Section of Roman Road	Roman	364924	354782	3.6
46	MCH15315	Medieval Buckle from Byley	Non-designated	Findspot	N/A	Findspot for a medieval buckle	Medieval	371800	369400	14.9
47	MCH15526	Henry VI silver coin from Byley	Non-designated	Findspot	N/A	Findspot of half groat of Henry VI	Medieval	371800	369400	14.9
48	MCH15527	Medieval Spindle Whorl from Byley	Non-designated	Findspot	N/A	Findspot for lead spindle whorl.	Medieval	371800	369400	14.9
4	MCH16992	Brownhayes Farm, Yatehouse Lane	Non-designated	Locally Listed Building	N/A	Brownhayes Farm, Yatehouse Lane: An C18 brown brick farmhouse with remnant fragments of C17 date. Formerly listed as Grade III but no longer on the statutory list.	Post-Medieval	370459	369508	27.6
29	N/A	Far Abbots Croft	Non-designated	Map Asset	N/A	Historic map name suggestive of an abbots grange.	Unknown	371952	369078	52.2
23	MCH16993	Crosslanes Farmhouse, Byley Road	Non-designated	Locally Listed Building	N/A	Crosslanes Farmhouse, Byley Road: An C18 brick farmhouse with 1st floor stone recessed tablet inscribed 'W m Daniel 1780'. Formerly listed at grade III but no longer on statutory list.	Post-Medieval	371988	369180	77.3
27	MCH17145	Yewtree Farm, Yatehouse Lane, Byley	Non-designated	Locally Listed Building	N/A	Yewtree Farm, Yatehouse Lane, Byley: A C19 brick farmhouse with modern windows, door and green tiled roof.	Post-Medieval	370588	368859	85.9
28	MCH15166	Medieval Spindle Whorl from Yewtree Farm	Non-designated	Findspot	N/A	Find spot. Medieval Spindle Whorl from Yewtree Farm: a Medieval spindle whorl found by metal detector dating to between 1200AD and 1399AD.	Medieval	370600	368800	88.4
30	N/A	Near Abbots Croft	Non-designated	Map Asset	N/A	Historic map name suggestive of an abbot's grange.	Unknown	30	N/A	Near Abbots Croft

ERM_ID	ID	Name	Designation	Type	Grade	Description	Period	X	Y	Distance
5	MCH17158	Stublach Dairy, Byley	Non-designated	Locally Listed Building	N/A	Stublach Dairy, Byley: A C19 brick-built detached house.	Post-Medieval	371232	370471	112.2
25	MCH17155	Smithy, Puddinglake, Byley	Non-designated	Locally Listed Building	N/A	Smithy, Puddinglake, Byley: A Post Medieval smithy building and outbuilding. The main smithy building is built in modern bond/English bond with a slate roof.	Post-Medieval	372227	369629	142.2
22	MCH9485	RAF Cranage Airfield	Non-designated	Locally Listed Building	N/A	RAF Cranage Airfield Defences-Western Pillbox. Demolished pillbox part of Scheduled Monument 34989. Buried remains in the form of a grass-covered rubble mound about 12m in diameter.	Post-Medieval-Modern	373232	369761	164.4
54	MCH23785	Site of Smallholding at Yatehouse Green	Non-designated	Building	N/A	Post medieval smallholding.	Post-medieval	370496	368702	200.8
26	MCH17153	Earnshaw House Farm, Byley Lane, Byley	Non-designated	Locally Listed Building	N/A	Earnshaw House Farm, Byley Lane, Byley: A C19 detached house featuring string course, a casement window, and a finial.	Post-Medieval	372407	370129	215.3
6	MCH17157	Stublach Grange Farm, Byley	Non-designated	Locally Listed Building	N/A	Stublach Grange Farm, Byley: A Victorian brick farmhouse with a semi-circular fanlight with two glazing bars. Now demolished. Archaeological building recording undertaken prior to demolition (Archaeological Research Services Ltd, 2010).	Post-Medieval	371161	370908	219.4
24	MCH17156	Brookside Cottage, Puddinglake	Non-designated	Locally Listed Building	N/A	Brookside Cottage, Puddinglake: A C17 cottage comprising a timber frame, thatch roof, grey grit render and a lean-to to the north. The cottage has been over modernised and the effect is not impressive.	Post-Medieval	372210	369535	232.5
31	N/A	Brick Field	Non-designated	Map Asset	N/A	A historic map name suggestive of clay extraction for brick making.	Unknown	Unknown	370070	368924



ERM_ID	ID	Name	Designation	Type	Grade	Description	Period	X	Y	Distance
32	N/A	Brickiln Field	Non-designated	Map Asset	N/A	A historic map name suggestive of clay extraction for brick making.	Unknown	Unknown	369880	369286
7	N/A	Stublach Farm	Non-designated	Locally Listed Building	N/A	Stublach Farm, Byley Lane, Byley: A C19 farmhouse. Part of the building is early C18 with an extension to the rear dated 1887.	Post-Medieval	372168	370462	408.9
42	N/A	Little Swannick	Non-Designated	Map Asset	N/A	Historic map name 'wic' suggestive of anglo-saxon settlement.	Unknown	369384	371285	490.2
43	N/A	Great Swannick	Non-Designated	Map Asset	N/A	Historic map name 'wic' suggestive of anglo-saxon settlement.	Unknown	369549	371395	553.1
LiDAR 1	N/A	Linear feature identified parallel to ridge and furrow in field.	Non-Designated	LiDAR	N/A	N/A	Unknown	N/A	N/A	0
LiDAR 2	N/A	Linear feature, possible trackway.	Non-Designated	LiDAR	N/A	N/A	Unknown	N/A	N/A	0
LiDAR 3	N/A	Linear feature, possible trackway.	Non-Designated	LiDAR	N/A	N/A	Unknown	N/A	N/A	0
LiDAR 4	N/A	Linear feature, possible trackway.	Non-Designated	LiDAR	N/A	N/A	Unknown	N/A	N/A	0
LiDAR 5	N/A	Linear feature, possible trackway.	Non-Designated	LiDAR	N/A	N/A	Unknown	N/A	N/A	0
LiDAR 6	N/A	Potential area of agriculture/building remains associated with SM.	Non-Designated	LiDAR	N/A	N/A	Unknown	N/A	N/A	0
LiDAR 7	N/A	Potential field system to north of SM.	Non-Designated	LiDAR	N/A	N/A	Unknown	N/A	N/A	0
LiDAR 8	N/A	Linear feature possible old field boundary.	Non-Designated	LiDAR	N/A	N/A	Unknown	N/A	N/A	0



ERM_ID	ID	Name	Designation	Type	Grade	Description	Period	X	Y	Distance
LiDAR 9	N/A	Linear feature, possible trackway.	Non-Designated	LiDAR	N/A	N/A	Unknown	N/A	N/A	0
LiDAR 10	N/A	Oval feature.	Non-Designated	LiDAR	N/A	N/A	Unknown	N/A	N/A	0
LiDAR 11	N/A	Oval feature.	Non-Designated	LiDAR	N/A	N/A	Unknown	N/A	N/A	0
LiDAR 11	N/A	Possible pits or large stone holes.	Non-Designated	LiDAR	N/A	N/A	Unknown	N/A	N/A	0
LiDAR 12	N/A	Possible trackway/boundary of a furlong.	Non-Designated	LiDAR	N/A	N/A	Unknown	N/A	N/A	0
LiDAR 13	N/A	Possible trackway	Non-Designated	LiDAR	N/A	N/A	Unknown	N/A	N/A	0
LiDAR 14	N/A	Possible Paleochannel.	Non-Designated	LiDAR	N/A	N/A	Unknown	N/A	N/A	0
LiDAR 15	N/A	Old field systems, inclusive of ridge and furrows, old boundaries and undated features LiDAR 10 and 11.	Non-Designated	LiDAR	N/A	N/A	Unknown	N/A	N/A	0
LiDAR 16	N/A	Old field boundary.	Non-Designated	LiDAR	N/A	N/A	Unknown	N/A	N/A	0
LiDAR 17	N/A	Ridge and furrow.	Non-Designated	LiDAR	N/A	N/A	Unknown	N/A	N/A	0
LiDAR 18	N/A	Ridge and furrow.	Non-Designated	LiDAR	N/A	N/A	Unknown	N/A	N/A	0
LiDAR 19	N/A	Old field boundary.	Non-Designated	LiDAR	N/A	N/A	Unknown	N/A	N/A	0
LiDAR 20	N/A	Field system with old boundaries and ridge and furrow.	Non-Designated	LiDAR	N/A	N/A	Unknown	N/A	N/A	0



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