

15. Archaeology

Introduction

- 15.1 This Chapter reports the outcome of the assessment of likely significant environmental effects arising from the Project for Assessment in relation to Archaeology. It also reports the likely significant environmental effects associated with the Proposed Scheme, which comprises the planning application.
- 15.2 The Chapter describes the technical consultation that has been undertaken during the EIA, the scope of the assessment and assessment methodology, and a summary of the baseline information that has informed the assessment.
- 15.3 In line with **Chapter 2: Approach to EIA**, the assessment reports on the likely significant environmental effects, the further mitigation measures required to prevent, reduce or offset any significant adverse effects, or further enhance beneficial effects. The conclusions are provided both in terms of the residual effects and whether these are considered significant. The assessment of effects takes into consideration both primary and tertiary mitigation (see **Chapter 2: Approach to EIA** for further details) and is informed by the EIA Scoping process (**Appendix 2.1 – 2.3**) and iterative scoping process where applicable.
- 15.4 This Chapter, and its associated **Figure 15.1** and **Appendix 15.1**, is intended to be read as part of the wider ES with particular reference to the introductory Chapters of this ES (**Chapters 1 – 6**).
- 15.5 In addition, this Chapter should be read in conjunction with **Chapter 19: Assessment of Cumulative Effects**.

Summary of Consultation

- 15.6 **Table 15.1** provides an overview of the consultation that has been undertaken to inform the EIA, including the consideration of likely significant effects and the methodology for assessment.

Table 15.1: Summary of Consultation

Body/Organisation	Contact	Date/Form of Consultation	Summary of Consultation Outputs
Greater Manchester Archaeological Advisory Service (GMAAS)	Heritage Management Director	2020 – Present Emails Phone calls Site monitoring visit, 24 th March 2022	Ongoing email and phone consultations to agree timing and scope of work for the Assessment Boundary, including Meadowcroft Fold. Archaeological works to date (i.e. trial trench evaluation for Meadowcroft Fold) have been completed to the satisfaction of GMAAS. The current agreement is that pending receipt of the final evaluation post excavation report for

Body/Organisation	Contact	Date/Form of Consultation	Summary of Consultation Outputs
		Email acceptance of evaluation report	Meadowcroft Fold (anticipated to be October 2024), no further archaeological fieldwork will be required to inform the EIA. It was agreed that the results of the trial trench evaluation did not merit consideration of Meadowcroft Fold as a Scheduled Monument. Further archaeological works will be required as a condition of planning consent.
Historic England	Science Advisor (North West)	2020 – 2022 Emails	Consulted in relation to proposed methodology for archaeological trial trenching works at Meadowcroft Fold. The methodology was agreed, and monitoring of the fieldwork was deferred to GMAAS with an offer of specialist advice if required. Historic England welcome further consultation however defer to GMAAS unless specialist input is required.
Greater Manchester Archaeological Advisory Service (GMAAS)	Heritage Management Director	EIA Scoping Response 11 th November 2024	Agreement that Archaeology should be ‘scoped in’ to the EIA and be supported by an Archaeology Desk-Based Assessment (ADBA). The ADBA is Appendix 15.1. Confirmation that the remainder of archaeological works to cover the Assessment Boundary will be secured as a planning condition.

Scope of the Assessment

- 15.7 An EIA Scoping Report was submitted to BC and RBC on 17th October 2024, as presented as **Appendix 2.1**. A Scoping Opinion has not been received to date; however, a number of consultation responses have been received and are provided in **Appendix 2.2**. A response to the comments in **Appendix 2.2** are provided in **Appendix 2.3**. This section provides an update on the scope of the assessment presented within this Chapter following submission of the EIA Scoping Report.

Effects Not Considered to be Significant

- 15.8 The following effects were not considered significant as part of the EIA Scoping Report and are not considered further in this Chapter:

- Indirect and direct effects to designated archaeological assets.

15.9 Following the EIA Scoping process the following additional effect(s) are now not considered significant and the evidence to support this determination is outlined below.

Direct effects including the truncation, disturbance, or removal of known and unknown non-designated archaeological assets (Plots CC, AAA, BBB, CCC and AAAA).

15.10 The Archaeology Desk-Based Assessment (**Appendix 15.1**) has identified that some Spatial Zones (specifically Spatial Zones CC, AAA, BBB, CCC and AAAA) have a low potential to contain archaeological finds and features due to previous, historic below ground works and construction activities. Any remains present are likely to be truncated and are of negligible heritage significance. Therefore, no significant effects are anticipated in relation to non-designated archaeological assets within Spatial Zones CC, AAA, BBB, CCC and AAAA. These receptors have not been considered further within the EIA or reported within this Chapter.

Direct effects including the truncation, disturbance, or removal of Unsworth Moss - Potential Peat and Prehistoric Deposits and Siddal Moor - Potential Peat and Prehistoric Deposits

15.11 The Archaeology Desk-Based Assessment, supported by a EIA Briefing Note on Peat (**Appendix 2.4**), has confirmed that there is very limited peat present within the Assessment Boundary. The absence of peat augments the information known about the HER recorded sites 'Unsworth Moss's and 'Siddal Moor' and illustrates that there is a low potential for these receptors to contain archaeological remains of heritage significance. The baseline data indicates that should archaeological remains be present within the limited peat at Unsworth Moss and Siddal Moor they would be of negligible-low heritage significance. Therefore, no significant effects are anticipated in relation to Unsworth Moss and Siddal Moor. These receptors have not been considered further within the EIA or reported within this Chapter.

Operation Stage

15.12 It is anticipated that any archaeological remains would have been removed from the Assessment Boundary prior to or during the construction stage.

15.13 Therefore, there are unlikely to be any effects on any discovered archaeological remains during the operational stage across all Spatial Zones and these will not be considered beyond the construction stage assessment in the ES.

Effects Considered Likely to be Significant

15.14 The following effects (**Table 15.2**) were considered likely to be significant and are reported within this Chapter.

Table 15.2: Effects Considered Likely to be Significant

Likely Significant Effect	Receptor(s)	Applicable Development Stage	Spatial Zone(s)
Direct effects including the truncation, disturbance, or removal of known and unknown archaeological remains	Meadowcroft Fold - Medieval Settlement and Iron Smelting Site	Construction	D
	Whittle Brook - Medieval Iron Smelting Site		D
	Castle Brook - Potential Prehistoric Camp		FF
	Non-Designated Archaeological Assets Across the Project for Assessment		A, B, C, D, E, F, AA, BB, DD, EE and FF

Assessment Methodology

Legislative Framework, Policy and Guidance

15.15 The following legislation and policy have informed the assessment of effects within this Chapter:

- Ancient Monuments & Archaeological Areas Act 1979¹.

15.16 The following guidance has informed the assessment of effects within this Chapter:

- Historic Environment Good Practice Advice In Planning Note 2: Managing Significance in Decision-Taking in the Historic Environment²;
- Historic Environment Good Practice Advice In Planning Note 3: The Setting of Heritage Assets³;
- Standard and guidance for historic environment desk-based assessment⁴;
- Management of Recording Projects in the Historic Environment: MORPHE⁵;
- Principles of Cultural Heritage Impact Assessment in the UK⁶; and
- Department for Culture Media and Sport Scheduled Monuments Policy Statement⁷.

Defining the Study Area

15.17 The study area is a 1km buffer from the Assessment Boundary which has been used to identify designated or non-designated archaeological assets that might be directly or indirectly impacted by the Project for Assessment and to inform the potential for previously unrecorded archaeological remains.

Background Studies to Inform the ES / Establishing the Baseline

15.18 **Table 15.3** summarises all studies, surveys and evaluations undertaken to inform the assessment presented within this Chapter.

Table 15.3: Background Studies, Surveys and Evaluations

Study / Survey / Analysis / Evaluation	Overview	Date of Completion
Geophysical Survey, Meadowcroft Fold ⁸	West Yorkshire Archaeological Services (WYAS) completed a geophysical survey of Meadowcroft Fold. The survey noted evidence of potential settlement, pits and features of unknown origin. The results of the geophysical survey are incorporated into the ADBA (Appendix 15.1).	November 2020
Pre-Application Discussion Report, Proposed Employment Development, Northern Gateway, Greater Manchester	Orion Heritage completed an initial assessment of the JPA 1.1 Site Allocation's archaeological resource to inform pre-application consultations.	March 2022
Archaeological Evaluation	L-P Archaeology (now Museum of London Archaeology [MoLA]) completed a trial trench evaluation in July-August 2022. The evaluation comprised 66 trenches and 53 test pits. The investigations recorded evidence of Medieval occupation and iron smelting ⁹ . The archiving work for this evaluation is ongoing. The results of the archaeological evaluation are incorporated into the ADBA (Appendix 15.1).	December 2022
ADBA Appendix 15.1	Orion Heritage has prepared an ADBA which identifies and characterises the Assessment Boundary / Application Boundary's archaeological potential and assesses the potential impacts to archaeology arising from the Project for Assessment / Proposed Scheme.	February 2025

Assessment Process

15.19 The approach to the archaeological strategy was first to gather the baseline data prepared as part of the JPA 1.1 site allocation work. Following discussion with GMAAS it was agreed to progress the archaeological evaluation at Meadowcroft Fold to augment the baseline information available and to determine the heritage significance of the archaeological

remains in the area. An ADDBA has been prepared to provide the baseline information required to inform the EIA and planning application which incorporates the results of all previous investigations within the Assessment Boundary. It has been agreed in consultation with GMAAS that no further pre-determination archaeological work is required.

Reporting of the Environmental Effects and Significance Criteria

- 15.20 The assessment of likely significant environmental effects as a result of the Project for Assessment has taken into account the construction and operational stages. The following sections define the approach adopted within the assessment for the determination of sensitivity (or value/importance), magnitude of change (or impact), the level of effect and significance.
- 15.21 The assessment methodology is in line with the methodology and significance criteria outlined in the Design Manual for Roads and Bridges (DMRB)¹⁰. DMRB was initially designed to ensure a consistent approach to the assessment of impacts resulting from trunk road schemes however it is routinely used to assess archaeology. The assessment of likely significant effects to sensitive receptors has considered the sensitivity of the receptor (on a scale of high, medium, low and negligible) and the magnitude of change (on a scale of large, medium, small and negligible) to determine the level of effect on a scale of major, moderate, minor and negligible. Significant effects will be determined following this through professional judgment.
- 15.22 The above categories for magnitude of change and level of effect vary from the terminology used in the DMRB. To achieve consistency in reporting across the ES, the ES terminology (where this differs to the DMRB terminology) has been adopted (**emboldened**) with the equivalent DMRB terminology provided in the tables below.

Determining Sensitivity of Receptor

- 15.23 The sensitivity of affected receptors has been considered on a scale of **high, medium, low or negligible**.
- 15.24 In order to assess the heritage significance of previously unrecorded or non-designated heritage assets, the criteria used by the Department of Culture, Media, and Sports (DCMS) publication, the 'Scheduled Monuments Policy Statements' is used. The criteria for establishing value/sensitivity of heritage assets for this assessment are presented in **Table 15.4**.
- 15.25 The ES terminology used in **Table 15.4** is consistent with the terminology used within the DMRB, but the latter has a five-point scale with the additional category of 'very high.' As there are no assets within the **'very high'** category (e.g. World Heritage Sites), this category has been omitted from the methodology.
- 15.26 It is widely recognised that the heritage significance/sensitivity of an asset is not the same as its sensitivity to changes to its setting. Thus, in determining effects upon the setting of assets by the Project for Assessment / Proposed Scheme, both value and sensitivity to changes to setting need to be considered. Factors considered when assessing sensitivity to change include, but are not limited to, heritage value/sensitivity, condition, type and period of asset and landscape positioning.

Table 15.4: Determining the heritage value/sensitivity of an Archaeology Asset

Heritage Importance/Sensitivity	Description
High (National)	Ancient monuments scheduled under the Ancient Monuments and Archaeological Areas Act 1979, or archaeological sites and remains of comparable quality, assessed with reference to the DCMS's principles of selection for scheduled monuments.
Medium (Regional/County)	Archaeological sites and remains which, while not of national importance, score well against most of the DCMS's principles of selection for scheduled monuments.
Low (Local)	Archaeological sites that score less well against the DCMS's principles of selection for scheduled monuments.
Negligible (None)	Areas in which investigative techniques have produced negligible or only minimal evidence for archaeological remains, or where previous large-scale disturbance or removal of deposits can be demonstrated.

Determining the Magnitude of Change

- 15.27 The magnitude of change has been considered as the change experienced from the current baseline conditions at the sensitive receptor and has been considered on a scale of **large, medium, small** or **negligible**.
- 15.28 The magnitude of the impact is a product of the extent of development impact on an asset. Change can be direct or indirect, adverse or beneficial. The criteria for assessing the magnitude of change are set out in **Table 15.5**.

Table 15.5: Magnitude of Change

Magnitude	Direct Change	Indirect Change
Large Adverse	Complete removal of an archaeological site.	Radical transformation of the setting of an archaeological monument.
Medium Adverse	Removal of a major part of an archaeological site and loss of research potential / heritage significance.	Partial transformation of the heritage significance of an archaeological site e.g. the introduction of significant noise or vibration levels to an archaeological monument leading to changes to amenity use, accessibility or appreciation of an archaeological site.
Small Adverse	Removal of an archaeological site where a minor part of its total area is removed but the site retains significant future research potential.	Minor harm to the heritage significance of an archaeological monument due to a change in setting.

Magnitude	Direct Change	Indirect Change
Negligible	Negligible impact from changes in use, amenity or access.	Negligible perceptible change to the heritage significance of an archaeological site due to a change in setting.
Small Beneficial	Land use change resulting in improved conditions for the protection of archaeological remains.	Decrease in visual or noise intrusion on the setting of an archaeological site or monument.
Medium Beneficial	Land use change resulting in improved conditions for the protection of archaeological remains plus interpretation measures (heritage trails, etc.)	Significant reduction or removal of visual or noise intrusion on the setting of an archaeological site or monument. Improvement of the wider landscape setting of an archaeological site or monument. Improvement of the cultural heritage amenity, access or use of an archaeological site or monument.
Large Beneficial	Alteration to an archaeological site which improves the archaeological sites accessibility, understanding, interpretation, preservation etc.	Significant enhancement to the setting of an archaeological site, its cultural heritage amenity and access or use.

Determining the Level of Effect

- 15.29 The level of effect has been informed by the magnitude of change due to the Project for Assessment and the evaluation of the sensitivity of the affected receptor. The level of effect has been determined using professional judgement and **Table 15.6** has been a tool which has assisted with this process.
- 15.30 Whilst **Table 15.6** provides ranges, the level of effect is confirmed as a single level and not a range, informed by professional judgement. For each effect, it has been concluded whether the effect is '*beneficial*' or '*adverse*'.

Table 15.6: Matrix to Support Determining the Level of Effect

Magnitude of change (or impact)	Sensitivity (or value, importance, etc.)				
		High	Medium	Low	Negligible
Large		Major	Moderate to Major	Minor to Moderate	Negligible
Medium		Moderate to Major	Moderate	Minor	Negligible
Small		Minor to Moderate	Minor	Negligible to Minor	Negligible
Negligible		Negligible	Negligible	Negligible	Negligible

15.31 The following terms have been used to define the level of the effects identified and these can be 'beneficial' or 'adverse':

- **Major effect:** where the Project for Assessment / Proposed Scheme is likely to cause a considerable change from the baseline conditions and the receptor has limited adaptability, tolerance or recoverability or is of the highest sensitivity;
- **Moderate effect:** where the Project for Assessment / Proposed Scheme is likely to cause either a considerable change from the baseline conditions at a receptor which has a degree of adaptability, tolerance or recoverability or a less than considerable change at a receptor that has limited adaptability, tolerance or recoverability;
- **Minor effect:** where the Project for Assessment / Proposed Scheme is likely to cause a small, but noticeable change from the baseline conditions on a receptor which has limited adaptability, tolerance or recoverability or is of the highest sensitivity; or where the Project for Assessment / Proposed Scheme is likely to cause a considerable change from the baseline conditions at a receptor which can adapt, is tolerant of the change or/and can recover from the change; and
- **Negligible:** where the Project for Assessment / Proposed Scheme is unlikely to cause a noticeable change at a receptor, despite its level of sensitivity or there is a considerable change at a receptor which is not considered sensitive to a change.

15.32 The duration of the effect has been assessed as either 'short-term', 'medium-term' or 'long-term'. Short-term is considered to be up to 1 year, medium-term is considered to be between 1 and 10 years and long-term is considered to be greater than 10 years.

Determining Significance

15.33 For each effect, a statement has been made as to whether the level of effect is '**Significant**' or '**Not Significant**'. This determination has been based on professional judgement and/or relevant guidance/legislation where applicable.

15.34 In general, '**Major**' and '**Moderate**' levels of effect are considered '**Significant**'. '**Minor**' and '**Negligible**' are considered 'Not Significant', however, professional judgement can deviate from this.

15.35 Significance has only been concluded for residual effects (i.e. following the identification of secondary mitigation).

Baseline Conditions

15.36 A detailed archaeological baseline of the Assessment Boundary is presented within the ADBA (**Appendix 15.1** and **Figure 15.1**). A summary of the archaeological baseline for each Spatial Zone is presented in **Table 15.7** below.

15.37 Peat deposits are indicated in the far southwest of the Assessment Boundary, on the British Geological Society (BGS) mapping (BGS Sheet 85 Manchester, Bedrock and Superficial 2011) and is shown in **Figure 13.5**. The waterlogged / oxygen free environment of peat can result in the potential for exceptional preservation of natural and cultural organic remains.

- 15.38 However, existing ground investigations are available within the mapped area and across Application Plots A, B, C, D, E and F, Assessment Plot AA and across parts of Assessment Plots BB, DD and EE (**Figure 13.4**). Based on a review of these boreholes (see **Chapter 13: Ground Conditions and Contamination** and **Appendix 2.4**), the known presence of peat within the Assessment Boundary is limited to the following:
- Application Boundary: one borehole location within Application Plot D (BH 207). This is an isolated pocket of peat and is anticipated to be organic clay; and
 - Assessment Boundary: a further three boreholes have recorded peat within Assessment Plot BB (BH 135 to 137). Two of these boreholes record 'peat traces' with one isolated borehole recording 1.15m of peat.
- 15.39 Given that there are only pockets of peat within a very small area, it is unlikely that the potential for archaeological remains present, are over and above that within the rest of the Assessment Boundary.

Table 15.7: Archaeology Baseline Summary by Spatial Zone

Spatial Zone	Archaeological Baseline
Application Plot A	The sand and gravel deposits within this Plot present a higher potential for archaeological remains, however, there are no known finds or features recorded from any period by the HER. Aerial imagery sources suggest some ridge and furrow may be present at the east of the Plot. Application Plot A has a known potential to contain ridge and furrow and a low potential for all further finds and features from all periods.
Application Plot B	The sand and gravel deposits within this Plot present a higher potential for archaeological remains, however, there are no known finds or features recorded from any period by the HER with the exception of a post medieval wall (2950.1.0), Figure 15.1. Application Plot B is known to have contained structures associated with Pilsworth Mill, these have since been demolished and significant remains are unlikely to be present below ground. The potential for further finds and features from all periods to be present within Application Plot B is considered low.
Application Plot C	The sand and gravel deposits within this Plot present a higher potential for archaeological remains, however, there are no known finds or features recorded from any period by the HER. Aerial imagery sources suggest some ridge and furrow may be present at the centre of the Application Plot C.

Spatial Zone	Archaeological Baseline
	Application Plot C has a known potential to contain ridge and furrow and a low potential for all further finds and features from all periods.
Application Plot D	The sand and gravel deposits within this Plot present a higher potential for archaeological remains. A single Bronze Age findspot is noted at the northwest of the spatial zone (MGM18975), Figure 15.1. Application Plot D contains medieval ridge and furrow (3425.1.0, 2947.1.0, 2897.2.1, Figure 15.1) alongside the shrunken and then deserted medieval settlement and iron smelting site at Meadowcroft Fold (2897.3.0, 2897.2.0, 2897.1.1, 2897.1.0), Figure 15.1. This area has been subject to archaeological investigation and found to be of regional (medium) heritage significance and will be subject to preservation by record (see Appendix C of Appendix 15.1). A further site of medium/regional heritage significance within Application Plot D is a medieval iron working site at Whittle Brook to the northwest of the spatial zone (5773.1.0), Figure 15.1. Undated features recorded by the HER within Application Plot D are likely associated with agriculture and extractive industries (2898.1.0, 2897.4.0, 2958.1.0, 2948.1.0), Figure 15.1. Application Plot D has a known potential to contain medieval settlement and iron working evidence of regional (medium) heritage significance alongside evidence of past extraction of negligible heritage significance. The available evidence suggests a low potential for all further finds and features from all periods.
Application Plot E	The sand and gravel deposits within this Plot present a higher potential for archaeological remains however there are no known finds or features recorded from any period by the HER. Aerial imagery sources suggest some ridge and furrow may be present at the north of Application Plot E. Application Plot E has a known potential to contain ridge and furrow of local (low) heritage significance and a low potential for all further finds and features from all periods.
Application Plot F	The sand and gravel deposits within this Plot present a higher potential for archaeological remains however there are no known finds or features recorded from any period by the HER. Aerial imagery sources suggest some ridge and furrow may be present to the south.

Spatial Zone	Archaeological Baseline
	Application Plot F has a known potential to contain ridge and furrow of local (low) heritage significance and a low potential for all further finds and features from all periods.
Assessment Plot AA	A cropmark of a sub-rectangular enclosure is noted within the centre of Assessment Plot AA (2900.1.2), Figure 15.1. The enclosure is undated although a connection with the mining industry is considered likely. Assessment Plot AA has a known potential to contain an undated cropmark enclosure of likely modern date and negligible-low (local) heritage significance and a low potential for all further finds and features from all periods.
Assessment Plot BB	Assessment Plot BB contains Siddal Moor (Doctor's Moss) (5076.1.0), Figure 15.1. This is an area of limited pockets of peat (see Appendix 2.4) and sand geology. This area is noted as having a higher potential to contain archaeological remains by the HER based on geology, it is however noted that investigation as outlined above has proven that limited peat deposits are present. Any archaeological deposits within Siddal Moor are likely to be of low (local) heritage significance due to the limited peat preservation. Aerial imagery and the HER suggest some ridge and furrow may be present at the west of the spatial zone (2961.1.0), Figure 15.1. Assessment Plot BB has a known potential to contain small pockets of peat deposits with the potential to contain archaeology of low (local) heritage significance, ridge and furrow of low (local) heritage significance and a low potential for all further finds and features from all periods.
Assessment Plot CC	The sand and gravel deposits within this Plot present a higher potential for archaeological remains, however, there are no known finds or features recorded from any period by the HER. The lack of recorded archaeological evidence and the impacts from construction within this Plot indicate that Assessment Plot CC has a low potential to contain finds and features from all periods.
Assessment Plot DD	The sand and gravel deposits within this Plot present a higher potential for archaeological remains. The peat deposits within this Plot present a higher potential for archaeological remains, however recent site investigations have noted that the peat preservation within the Spatial Zone is poor (as outlined above). Therefore should any peat within this Plot contain archaeological deposits, those deposits are likely to be of low (local) heritage significance).

Spatial Zone	Archaeological Baseline
	The HER records ridge and furrow of medieval – post medieval date within Assessment Plot DD (2939.2.0, 3477.1.0), Figure 15.1. The HER also records a medieval hollow way within the west of Assessment Plot DD which extends west into Assessment Plot FF and follows the route of Griffie Lane (2939.1.0), Figure 15.1. Assessment Plot DD is known to contain evidence of medieval ridge and furrow and a hollow way of low (local) heritage significance, there is considered a low potential for the Plot to contain further finds and features from all periods.
Assessment Plot EE	The sand and gravel deposits within this Plot present a higher potential for archaeological remains. Unsworth Moss (Back o’ the’ Moss) is an area of potential peat and sand geology which could contain archaeological evidence of prehistoric date (3878.1.0). However existing site investigations have recorded that peat is absent from the area of potential peat deposits as identified on BGS Sheet 85 Manchester, Bedrock and Superficial 2011 (see Appendix 2.4 and Figures 13.4 and 13.5). Any archaeological deposits within Unsworth Moss are likely to be of low (local) heritage significance due to the limited peat preservation. The route of Old Green Lane runs approximately north-south along the border of Assessment Plot DD, EE and FF (2939.1.1), Figure 15.1. A geophysical survey at Pike Golf Club identified ephemeral anomalies of uncertain origin. Two watching briefs at Pike Fold Golf Club did not record any finds or features of archaeological interest (17121.1.0, 17121.2.0), Figure 15.1. An undated square cropmark is noted by the HER within the northwest of Assessment Plot EE (3922.1.0), Figure 15.1. Assessment Plot EE is known to contain undated ephemeral anomalies of low (local) heritage significance identified by geophysical survey and a hollow way. There is considered a low potential for the Plot to contain further finds and features from all periods.
Assessment Plot FF	The sand and gravel deposits within this Plot present a higher potential for archaeological remains. The HER records an area of earthworks at the east of Assessment Plot FF, to the east of Castle Brook Farm, alongside an oval cropmark (2894.2.0), Figure 13.1. The area has been interpreted as a possible prehistoric camp; however, an alternate interpretation is that these features could relate to backfilled ponds.

Spatial Zone	Archaeological Baseline
	There is mention on historic mapping and place names of a 'castle', however no evidence of a castle has been identified. The HER records ridge and furrow of medieval – post medieval date within Assessment Plot FF (2936.1.0), Figure 15.1. The route of Old Green Lane runs approximately north-south along the border of Assessment Plots DD, EE and FF (2939.1.1), Figure 15.1. The mill race associated with former mills along the Hollins Brook is noted at the north of Assessment Plot FF (11098.1.0), Figure 15.1. Part of the Pilsworth Bleach Works extended into the north of Assessment Plot FF, however, these have now been removed. Assessment Plot FF is known to contain an undated oval cropmark and earthworks to the east of Castle Brook Farm, medieval ridge and furrow and the route of Old Green Lane all of which are considered to be of low (local) heritage significance. The north of Assessment Plot FF formerly contained part of Pilsworth Bleach Works; however, these features have been removed and significant below ground remains are considered unlikely. There is considered a low potential for the Plot to contain further finds and features from all periods.
Infrastructure Area AAA	There are no HER entries within Area. The lack of recorded archaeological evidence and the impacts from previous construction indicate that Infrastructure Area AAA has a low potential to contain finds and features from all periods.
Infrastructure Area BBB	The site of Birch Mill, a cotton and spinning mill is noted within the east of Infrastructure Area BBB (5121.1.0). Most of the site has been redeveloped and significant below ground remains are considered unlikely. The lack of recorded archaeological evidence and the impacts from previous construction indicate that Infrastructure Area BBB has a low potential to contain finds and features from all periods.
Infrastructure Area CCC	There are no HER entries within this Infrastructure Area . Aerial imagery showed north-south aligned ridge and furrow at the east of the Infrastructure Area, this has since been removed through development. The lack of recorded archaeological evidence and the impacts from previous construction indicate that Infrastructure Area CCC has a low potential to contain finds and features from all periods.

Spatial Zone	Archaeological Baseline
Infrastructure Area AAAA	There are no HER entries within this Infrastructure Area . The lack of recorded archaeological evidence and the impacts from previous construction indicate that Infrastructure Area AAAA has a low potential to contain finds and features from all periods.

Future Baseline

- 15.40 Without the implementation of the Project for Assessment or other planned development, the future baseline is anticipated to remain the same; however the assessment of archaeological potential would be informed by any archaeological investigations within the vicinity.

Primary and Tertiary Mitigation

Construction Stage

- 15.41 No primary or tertiary mitigation has been identified as part of the operational stage.

Operational Stage

- 15.42 No primary or tertiary mitigation has been identified as part of the operational stage.

Assessment of Effects, Secondary Mitigation and Residual Effects

Construction Stage

Direct effects including the truncation, disturbance, or removal of known and unknown archaeological remains (Project for Assessment and Proposed Scheme)

- 15.43 The construction of the Project for Assessment may result in the partial or complete removal of an archaeological site.
- 15.44 The HER records an area of earthworks at the east of Assessment Plot FF, to the east of Castle Brook Farm, alongside an oval cropmark. The area has been interpreted as a possible Prehistoric camp however an alternate interpretation is that these features could relate to backfilled ponds. There is mention on historic mapping and place names of a 'castle' however no evidence of a castle has been identified. Castle Brook Farm is considered to be of low (local) heritage significance.
- 15.45 Meadowcroft Fold at the north of Application Plot D is thought to represent a shrunken and then deserted medieval settlement. The settlement was largely agricultural however excavations have also recorded evidence of medieval iron smelting activity (2897.3.0, 2897.2.0, 2897.1.1, 2897.1.0, **Figure 15.1**). A further medieval iron working site has been identified through excavations at Whittle Brook within the northwest of Application Plot D (5773.1.0). The archaeological remains at Meadowcroft Fold and Whittle Brook are considered to be of medium (regional) heritage significance.
- 15.46 There is potential for non-designated archaeological assets to be present across all Plots from all time periods, these potential archaeological assets are likely to be of negligible, low

(local) or medium (regional) heritage significance. The heritage significance of any non-designated archaeological assets would be refined through further archaeological investigation (Application Plots A-F) and through future applications for the Assessment Plots AA, BB, DD, EE and FF.

Project for Assessment

- 15.47 The sensitivity of Castle Brook - Potential Prehistoric Camp (Assessment Plot FF) is considered to be low. The magnitude of change is considered to be medium to large. Therefore, there is likely to be a direct, permanent, long-term, adverse effect which is considered to be moderate.
- 15.48 The sensitivity of Meadowcroft Fold - Medieval Settlement and Iron Smelting Site, and Whittle Brook - Medieval Iron Smelting Site (Application Plot D) is considered to be medium because the receptors are considered to be of medium (regional) heritage significance. The magnitude of change is considered to be medium to large. Therefore, there is likely to be a direct, permanent, long-term, adverse effect which is considered to be moderate.
- 15.49 The sensitivity of Non-Designated Archaeological Assets across the Assessment Boundary is considered to be negligible-medium, this is based upon the presumption that non-designated archaeological assets present within the Assessment Boundary may be of negligible, low (local) or medium (regional) heritage significance. The heritage significance of any non-designated archaeological assets would be refined through further archaeological investigation (Application Plots A-F) and through third party applications for the Assessment Plots AA, BB, DD, EE and FF. The magnitude of change is considered to be medium-large. Therefore, there is likely to be a direct, permanent, long-term, adverse effect which is considered to be moderate to major.

Proposed Scheme

- 15.50 There are no anticipated effects in relation to Castle Brook - Potential Prehistoric Camp as this receptor is located outside of the Application Boundary.
- 15.51 The effects for Meadowcroft Fold - Medieval Settlement and Iron Smelting Site, and Whittle Brook - Medieval Iron Smelting Site are the same as that reported for the Project for Assessment.
- 15.52 The effects for Non-Designated Archaeological Assets Across the Project for Assessment is the same as that reported for the Project for Assessment.

Secondary Mitigation or Enhancement

- 15.53 Archaeological investigations and any archaeological mitigation work will be required, with the programme of works allowing for the realisation of any archaeological research potential prior to that loss.
- 15.54 The scope and location of further archaeological work has not yet been defined with the exception of the Meadowcroft Fold area where a WSI has been agreed. Consultation with GMAAS will take place to confirm the scope of such works.
- 15.55 Consultation with GMAAS has already confirmed that the archaeological investigations for the Proposed Scheme will be secured by a planning condition, should permission be granted.

15.56 Archaeological works associated with Castle Brook within the wider Project for Assessment will be a matter for when planning applications are made for those relevant areas.

Residual Effect

Project for Assessment

15.57 The residual effects for Castle Brook - Potential Prehistoric Camp; Meadowcroft Fold - Medieval Settlement and Iron Smelting Site, and Whittle Brook - Medieval Iron Smelting Site; and for Non-Designated Archaeological Assets across the Project for Assessment are the same as that reported in the pre-mitigation scenario.

Proposed Scheme

15.58 The effects for Meadowcroft Fold - Medieval Settlement and Iron Smelting Site, Whittle Brook - Medieval Iron Smelting Site and Non-Designated Archaeological Assets is the same as that reported for the Project for Assessment.

Significance

15.59 This effect is considered to be **Significant** for the Project for Assessment and the Proposed Scheme.

Limitations and Assumptions

15.60 To ensure transparency within the EIA process, the following limitations and assumptions have been identified.

- That data provided by the Greater Manchester Historic Environment Record (HER) is regularly updated, the information assessed by the baseline assessments and the this Chapter will be limited to the information available at point of data delivery by the HER; and
- Understanding of the archaeology baseline will evolve as further archaeological investigation is completed.

Summary

15.61 **Table 15.9** provides a summary of the effects, receptors, residual effects and conclusions of significance considered within the Chapter, with reference to both the Project for Assessment and Proposed Scheme.

15.62 The table only provides a summary of the residual effects identified within the assessment. Details of all primary, secondary and tertiary mitigation that has been taken into account is summarised within **Volume 3: Environmental Management Plan**.

Table 15.8: Summary of Residual and Significant Effects for the Project for Assessment and Proposed Scheme

Effect	Receptor	Project for Assessment		Proposed Scheme	
		Residual Effect	Is the Effect Significant?	Residual Effect	Is the Effect Significant?
Construction Stage					
Direct effects including the truncation, disturbance, or removal of known and unknown archaeological remains	Castle Brook - Potential Prehistoric Camp	Moderate Adverse	YES	N/A	N/A
	Meadowcroft Fold - Medieval Settlement and Iron Smelting Site	Moderate Adverse	YES	Moderate Adverse	YES
	Whittle Brook - Medieval Iron Smelting Site	Moderate Adverse	YES	Moderate Adverse	YES
	Non-Designated Archaeological Assets Across the Project for Assessment	Moderate – Major Adverse	YES	Moderate – Major Adverse	YES

References

- ¹ Ancient Monuments and Archaeological Areas Act 1979,
<https://www.legislation.gov.uk/ukpga/1979/46> [Accessed 12.02.2025]
- ² Historic England (2015) Historic Environment Good Practice Advice In Planning Note 2: Managing Significance in Decision-Taking in the Historic Environment.
- ³ Historic England (2017) Historic Environment Good Practice Advice In Planning Note 3: The Setting of Heritage Assets
- ⁴ Chartered Institute for Archaeologists (2020) Standard and guidance for historic environment desk based assessment
- ⁵ Historic England (2015) Management of Recording Projects in the Historic Environment: MORPHE
- ⁶ IEMA, IHBC & CIfA (2021) Principles of Cultural Heritage Impact Assessment in the UK
- ⁷ Department for Culture Media and Sport (2013) Scheduled Monuments Policy Statement. Available at: <https://www.gov.uk/government/publications/scheduled-monuments-policy-statement> [Accessed: 12.02.2025].
- ⁸ West Yorkshire Archaeological Services (November 2020) Meadowcroft Fold, Northern Gateway, Greater Manchester – Geophysical Survey. Report No. 3486.
- ⁹ L-P: Archaeology (2022) Archaeological Evaluation Report Meadowcroft Fold Northern Gateway Report No. LP4-15C-AER-v1.4
- ¹⁰ Highways Agency (2020) Design Manual for Roads and Bridges (DMRB) Volume 11, Section 3, Part 2.