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Chapter 7: Archaeology and Cultural Heritage

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INDEX

7 ARCHAEOLOGY AND CULTURAL HERITAGE

7.1 Introduction

7.1.1.1 This Chapter of the Environmental Impact Assessment Report (EIAR) presents the results of the EIA as regards the potential effects of the Springfield Solar Farm and BESS (the Proposed Development) on archaeology and cultural heritage.

7.1.1.2 The Chapter provides an overview of the existing baseline environment for the Proposed Development, an assessment of potential significant effects on archaeology and cultural heritage receptors, and an assessment of potential cumulative effects with other relevant projects and effects arising from interactions on receptors across topics.

7.1.1.3 This Chapter should be read in conjunction with the following Technical Appendices found in **Volume 3** for this EIAR:

- Technical Appendix 7.1: Heritage Baseline;
- Technical Appendix 7.2: Sieving Exercise;
- Technical Appendix 7.3: Assessment of Setting Impacts; and
- Technical Appendix 7.4: Scheduled Monument Management Plan

7.1.1.4 The Archaeology and Cultural Heritage Chapter is supported by figures provided in **Volume 2** of the EIAR:

- Figure 4.1: Cumulative Developments;
- Figure 7.1: Study Areas for assessing Direct/Indirect Physical Impacts and Setting Impacts;
- Figure 7.2: All heritage assets within 1 km Study Area overlain on site infrastructure;
- Figure 7.3: All designated heritage assets within 3 km Study Area, overlain on bare earth ZTV;
- Figure 7.1.1: Site Location Plan;
- Figure 7.1.2: 1 km Study Area;
- Figure 7.1.3: Designated Assets within 1 km Study Area;
- Figure 7.1.4: Non-Designated Assets within the Site; and
- Figure 7.1.5: Non- Designated Assets within the 1 km Study Area

7.1.1.5 The Archaeology and Cultural Heritage Chapter is also supported by LVIA and Cultural Heritage visualisations provided in Volume 2 of the EIAR:

- VP1: Local Road between A1 and Oldhamstocks;
- VP2 Near A1;

- VP3 Core Path through Dunglass GDL;
- VP4; Hoprig;
- VP5; Local Road south-east of Oldhamstocks;
- VP6: Corepath near Oldhamstocks;
- VP7: Local road near Dirtside;
- VP8 Cocklaw Hill Core Path;
- CHVP1: Springfield, enclosure SM5892;
- CHVP2: CHVP1: Springfield, enclosure SM5892;
- CHVP3: Oldhamstocks Mains, enclosure SM5891;
- CHVP4: Oldhamstocks Mains, enclosure SM5891;
- CHVP5: Springfield, enclosure SM5894;
- CHVP6: Black Castle Cottage, promontory fort (SM5876);
- CHVP7: Dunglass GDL00154/LB14725 Dunglass Gazebo;
- CHVP8: Dunglass DGL00154/Dunglass Collegiate Church (SM13313);
- CHVP9: Dunglass GDL00154;
- CHVP10: Oldhamstocks CA288/Oldhamstocks Parish Church LB14710;
- CHVP11: Oldhamstocks CA288; and
- CHVP12: Oldhamstocks CA288.Chapter

7.1.1.6 This Chapter has been authored by ERM. Further competency details of the authors of this Chapter are outlined in **Volume 1, Chapter 1: Introduction** and detailed in **Volume 3, Technical Appendix 1.1**.

7.2 Legislation, Policy and Guidance

7.2.1 Legislation

7.2.1.1 The preparation of the Archaeology and Cultural Heritage Chapter has been informed by the policy, legislation and guidance set out below.

Legislation

- The Ancient Monuments and Archaeological Areas Act 1979;

- The Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997[1]; and
- The Historic Environment Scotland Act 2014[2];

Policy

- Scotland's Fourth National Planning Framework (NPF4)[3];
- Historic Environment Policy for Scotland (HEPS)[4];
- Our Past Our Future: The strategy for Scotland's Historic Environment[5]; and
- East Lothian Local Development Plan (LDP) adopted 2018[6]

Guidance

- Planning Advice Note 71/2004: Conservation Area Management[7];
- Planning Advice Note 2/2011: Planning and Archaeology[8];
- HES: Environmental Impact Assessment Handbook[9];
- HES: Managing Change in the Historic Environment Series[10]; and

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[1] UK Government (1997) Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997. Online. Available at http://www.legislation.gov.uk/ukpga/1979/46/pdfs/ukpga_19790046_en.pdf [Accessed 02/02/2025]
[2] UK Government (2014) Historic Environment Scotland Act 2014. Online. Available at https://www.legislation.gov.uk/asp/2014/19/contents [Accessed 02/02/2025]
[3] Scottish Government (2022) Scottish Planning Policy. Online. Available at https://www.gov.scot/publications/national-planning-framework-4// [Accessed 02/02/2025]
[4] HES. Historic Environment Policy for Scotland (2019). Available at https://www.historicenvironment.scot/advice-and-support/planning-and-guidance/historic-environment-policy-for-scotland-heps/. [Accessed 02/02/2025]
[5] HES. Our Past Our Future (2024). Available at https://www.historicenvironment.scot/archives-and-research/publications/publication/?publicationId=79204155-9eb2-4d29-ab14-aff200ec2801 [Accessed 02/02/2025]
[6] East Lothian Local Development Plan 2018. Available at Local Development Plan 2018 | Local Development Plan | East Lothian Council
[Accessed 07/05/2024]
[7] Scottish Government. Planning Advice Note (PAN) 71, on how to preserve and manage conservation areas (2004). Available at https://www.gov.scot/publications/conservation-management-planning-advice/. [Accessed 04/12/2024]
[8] Scottish Government. Planning Advice Note 2/2011: Planning and archaeology (2011). Available at https://www.gov.scot/publications/pan-2-2011-planning-archaeology/. [Accessed 04/12/2024]
[9] HES (2018). Environmental Impact Assessment Handbook. Available at https://www.historicenvironment.scot/archives-and-research/publications/publication/?publicationId=6ed33b65-9df1-4a2f-acbb-a8e800a592c0. [Accessed 04/12/2024]
[10] HES (2016) Managing Change in the Historic Environment. Online. Available at: https://www.historicenvironment.scot/advice-and-support/planning-and-guidance/legislation-and-guidance/managing-change-in-the-historic-environment/ [Accessed 04/11/2024]

- CIfA Guidance for Desk Based Assessment[11]

7.2.1.2 Additional information pertaining to the legislation, policy and guidance relevant to this Chapter can be found within **Volume 3: Technical Appendix 7.1 Heritage Baseline**, as well as **Volume 3: Technical Appendix 7.4 Chapter Specific Methodology**.

7.3 Assessment Methodology

7.3.1 Scoping Responses and EIA Consultation

7.3.1.1 Consultation is a key part of the application process. It has played an important part in ensuring that the baseline characterisation and impact assessment is appropriate to the scale of development as well as meeting the requirements of the regulators and their advisors.

7.3.1.2 Consultation with statutory bodies regarding Archaeology and Cultural Heritage has been conducted through email prior to the production of a Scoping Report, the EIA Scoping Opinion and subsequently through consultation via email during preparation and production of this EIAR Chapter.

7.3.1.3 The results of the public consultation are discussed where pertinent to this Chapter.

7.3.1.4 The points raised during consultation with statutory bodies specific to Archaeology and Cultural Heritage are outlined in **Table 7.1**, including consideration of where they have been addressed within this EIAR.

[11] CIfA Guidance for DBA. Available at Available at CIfAS&GDBA_4.pdf (archaeologists.net). [Accessed 02/02/2025]

TABLE 7.1 CONSULTATION RESPONSES FROM STATUTORY BODIES SPECIFIC TO ARCHAEOLOGY AND CULTURAL HERITAGE

CONSULTEE	TYPE AND DATE	SUMMARY OF CONSULTATION RESPONSE	ACTION
Historic Environment Scotland (HES)	Pre-Scoping Letter issued by ERM. 2025.01.28	ERM issued a consultation letter to HES providing an overview of the EIAR assessment methodology as relating to the Archaeology and Cultural Heritage Chapter, as well as a baseline of designated assets within the 3 km Setting Study Area. A list of photomontages and wirelines proposed to support the Chapter was also presented. Finally, the letter included a sieving exercise, along with a rationale for any assets included or excluded from a detailed assessment of Setting impacts.	HES issued a response via a letter dated 2025.02.26 and detailed below.
Historic Environment Scotland (HES)	Scoping Response issued by HES 2025.01.16 and the ECU on 2025.01.29.	In this response, HES highlighted their concern over Setting Impacts to SM5891 Oldhamstocks Mains, enclosure 300m NNW and SM5892 Springfield, enclosure 300m NNE. Within the HES response, there were recommendations for mitigation through design, as well as a request for additional visualisations to support the forthcoming EIA Report. HES also raised concerns over the potential for Direct Physical Impact to the monument as a result of the Proposed Development.	The concerns over the Setting Impacts to both scheduled monuments were fed into design changes in the fields surrounding SM5891 and SM5892, with infrastructure offset by 225 and 350 m respectively. HES recommendations for additional visualisations were taken forward, with the proposed visualisations included within the EIAR. The concerns over Direct Physical Impact to the monument have been addressed through physically offsetting infrastructure form the monument. In addition, a Heritage Management Plan has been produced for SM5891, which is included as a Technical Appendix to this Chapter.
	EIA Consultation letter issued by HES 2025.02.26	This letter reiterated the points made in the HES Scoping Response.	As above.

CONSULTEE	TYPE AND DATE	SUMMARY OF CONSULTATION RESPONSE	ACTION
	EIA Consultation letter issued by ERM 2025.04.04	This letter documented the design changes undertaken to limit Setting Impacts to SM5891 and SM5892 and confirmed that the visualisations requested by HES during their Scoping Response would be included within the EIAR.	No further action required.
East Lothian Council (ELC)	Pre-Scoping Letter issued by ERM. 2025.01.28	ERM issued a consultation letter to ELC providing an overview of the EIAR assessment methodology as relating to the Archaeology and Cultural Heritage Chapter, as well as a baseline of designated assets within the 3 km Setting Study Area. A list of photomontages and wirelines proposed to support the Chapter was also presented. Finally, the letter included a sieving exercise, along with a rationale for any assets included or excluded from a detailed assessment of Setting impacts.	No formal response has been received to date, although methodology and specific impacts, effects and mitigation was discussed at a subsequent Teams meeting held on the 12th February and detailed below.
	Scoping Response issued by ECU on 2025.01.29.	In this response ELC highlighted the potential of the Site for unknown archaeology, specifically relating to an Early Prehistoric raised beach and possible Direct Physical Impacts to this resource. The Council also raised the likelihood that 'significant programme of archaeological works required to offset direct impacts'. The Council also raised the possibility of Setting Impacts to the Garden and Designed Landscape at Dunglass and the Conservation Area of Oldhamstocks.	The concerns over the Setting Impacts to Dunglass GDL and Oldhamstocks were fed into design changes. In relation to Dunglass GDL, solar panels and infrastructure was removed from the fields abutting the GDL along its western edge, creating a buffer of agricultural land between the Proposed Development and the designed landscape. In relation to Oldhamstocks CA panels and infrastructure were removed, with panels being pulled to the north of the thin band of copse woodland at Cockit Hat Strip, in fields north of Oldhamstock, with panels located below the 175 m AOD contour line. Additionally, panels have been removed from the eastern limit of the

CONSULTEE	TYPE AND DATE	SUMMARY OF CONSULTATION RESPONSE	ACTION
			Conservation Area, and offset by 325 m from the Conservation Area. ELC concerns over Direct Physical Impacts to known and unknown assets are addressed through a programme of geophysical survey to support the heritage baseline within this Chapter, as well as through primary and tertiary mitigation, as set out within this Chapter.
	EIA Consultation via Teams meeting between ERM and ELC planning archaeologist 2025.02.12	In this meeting, the planning archaeologist reiterated concerns over Direct Physical Impacts to the heritage resource. Discussions were held over the scope of the primary survey needed to support the EIAR.	ELC concerns over Direct Physical Impacts to known and unknown assets are addressed through a programme of geophysical survey to support the heritage baseline within this Chapter, as well as through primary and tertiary mitigation, as set out within this Chapter. Intrusive archaeological site investigation will be undertaken post-determination, should consent S36 consent and deemed planning permission be granted. The scope of these works will be outlined through a Written Scheme of Investigation to be secured by condition.
	EIA Consultation letter issued by ERM 2025.04.04	This letter documents the design changes undertaken to limit Setting Impacts to Dunglass GDL and Oldhamstocks CA, as well as confirmation that the visualisations requested by HES during their Scoping Response would be included within the EAIR.	No further action required.

7.3.2 Scope of Assessment

7.3.2.1 This Chapter describes the potential Direct/Indirect Physical Impacts, Setting Impacts and Cumulative Impacts to Cultural Heritage assets arising from the Proposed Development and assesses whether those effects are Significant in the context of the EIA Regulations. This Chapter:

- compiles the existing environmental baseline determined from assessment of publicly available data, project-specific survey data and stakeholder consultation;
- presents the predicted environmental impacts to heritage assets and resulting effects arising from the Proposed Development through the Construction, Operation and Decommissioning phases;
- identifies mitigation measures designed to prevent, reduce, or offset adverse effects and enhance beneficial effects on the environment;
- identifies residual effects on heritage assets, including those considered to be significant, taking into account the above mitigation; and
- identifies any uncertainties or limitations in the methods used and conclusions drawn from the compiled environmental information.

7.3.3 Design Parameters

7.3.3.1 Direct and Indirect Physical Impacts will be assessed against the following design parameters, as described in full within **Volume 1: Chapter 3 Development Description**: Direct and Indirect Physical Impacts will be assessed against the following design parameters.

- Solar PV Array: spatial extent and maximum impact depth
- BESS: spatial extent and maximum impact depth
- Substation Electrical Infrastructure: spatial extent and maximum impact depth
- Access tracks: spatial extent and maximum impact depth
- Cable trenching: spatial extent and maximum impact depths
- Hard standing: spatial extent and maximum impact depths
- Temporary construction compound: spatial extent and maximum impact depths

7.3.3.2 Setting Impacts will be assessed against the following design parameters

- Solar Array: spatial extent and maximum above ground height
- BESS compound: spatial extent and maximum above ground height
- Substation: spatial extent and maximum above ground height
- A 40 year Operational lifespan for the Proposed Development

- Complete removal of all above ground infrastructure upon Decommissioning

7.3.4 Chapter Specific EIA Methodology

7.3.4.1 **Volume 1: Chapter 4: EIA Methodology** sets out the general approach to the assessment of likely significant effects that may arise from the Proposed Development.

7.3.4.2 Whilst **Chapter 4** provides a general framework for identifying impacts and assessing the significance of their effects, in practice, the approaches and criteria applied across different topics vary.

7.3.4.3 The approach to the Archaeology and Cultural Heritage assessment that has been addressed in the EIA is outlined below and is in line with HES guidance listed within **Section 7.2** above (HES 2018, Environmental Impact Assessment Handbook) and is compliant with the HES and NatureScot EIA handbook.

7.3.4.4 Specific information pertaining to the datasets used to support the EIA and the methodology for assessing the Site's potential, the value of heritage assets, magnitude of impact, and the significance of any identified effect to cultural significance are discussed below.

7.3.5 Terminology

7.3.5.1 In accordance with the HES Environmental Impact Assessment Handbook, the following definitions are applied throughout this Chapter:

Direct Physical Impacts

7.3.5.2 These occur where the physical fabric of the asset is removed or damaged as a direct result of the Proposed Development, such as from the removal of archaeological deposits as a result of the excavation of foundation trenches. Such impacts will generally result from the construction phase and will be permanent.

Indirect Physical Impacts

7.3.5.3 These occur where an asset's physical fabric is lost or better preserved as a result of the proposal even though the asset is located outside of the Site boundary. Examples include damage to walls as a result of vibration from piling operations or blasting, the degradation of waterlogged deposits as a result of dewatering and changes in currents resulting in increased/decreased erosion. Such impacts may result at any stage of development and are likely to be permanent.

Setting Impacts

7.3.5.4 These result from the proposal causing change within the setting of a heritage asset that affects its cultural significance or the way in which it is understood, appreciated and experienced. Such impacts are generally, but not exclusively, visual, occurring as a result of the appearance of the proposal in the surroundings of the asset. However, they may relate to other senses or factors, such as noise, odour or emissions, or historical relationships that do not relate entirely to intervisibility, such as historic patterns of land use and related

historic features. Such impacts may occur at any stage of a proposal's lifespan and may be permanent, reversible or temporary.

Cumulative Impacts

7.3.5.5 Cumulative impacts can relate to the physical fabric or setting of assets. They may arise as a result of impact interactions, either of different impacts of the Proposed Development itself or between the impacts of other projects, or additive impacts resulting from incremental changes caused by the Proposed Development together with other projects already in the planning system or allocated in a Local Development Plan.

Setting

7.3.5.6 This is the way the surroundings of a heritage asset contribute to how it is understood, appreciated and experienced. Setting can incorporate a range of factors including: current landscape context; views to, from and across the asset; key vistas; the prominence of the asset in views across the surrounding landscape; aesthetic qualities; relationships with other heritage assets or landscape features; non-visual factors such as historical, literary, artistic or scenic association; or a sense of place which may combine several of the factors detailed above. Setting is not simply the visual aspect of the asset in question. In general, there will be an appreciable historical relationship between the asset and its setting, either in terms of a physical relationship, or a more distant visual relationship. Some assets' cultural significance will relate to an aesthetic relationship with their surroundings which may result from design or be fortuitous.

Cultural Significance

7.3.5.7 This relates to the ways in which a heritage asset is valued by both specialists and the wider public. It may derive from factors including the asset's fabric, setting, context and associations. It applies to varying degrees to all of Scotland's historic environment. Cultural significance may change over time, for example as use changes or as understanding develops owing to new information or changes in ideas or values.

7.3.5.8 NPF4 Policy 7 a) provides as follows:

7.3.5.9 'Development proposals with a potentially significant impact on historic assets or places will be accompanied by an assessment which is based on an understanding of the cultural significance of the historic asset and/or place.'

7.3.5.10 The Glossary to NPF 4 (Part 3 – Annexes, p.147) defines 'cultural significance' as follows:

7.3.5.11 'Cultural significance means aesthetic, historic, scientific or social value for past, present or future generations. Cultural significance can be embodied in a place itself, its fabric, setting, use, associations, meanings, records, related places and related objects.'

7.3.5.12 This same definition is adopted in Historic Environment Policy for Scotland (HEPS) (2019), which acknowledges the derivation of this definition from the Burra Charter (Australia ICOMOS Burra Charter 2013, Article 1, 1.2), Article 6 of which provides that:

'The cultural significance of a place and other issues affecting its future are best understood by a sequence of collecting and analysing information before making

decisions. Understanding cultural significance comes first, then development of policy and finally management of the place in accordance with the policy.'

7.3.5.13 Cultural heritage (inclusive of artefacts, buried archaeological remains, above ground structures and earthworks, as well as intangible aspects of heritage) is considered in detail within a Practice Note accompanying the Burra Charter entitled 'Understanding and Assessing Cultural Significance'. This Practice Note provides that an asset's significance derives from its 'values', which it defines as follows:

- **Aesthetic value** 'refers to the sensory and perceptual experience of a place—that is, how we respond to visual and non-visual aspects such as sounds, smells and other factors having a strong impact on human thoughts, feelings and attitudes. Aesthetic qualities may include the concept of beauty and formal aesthetic ideals. Expressions of aesthetics are culturally influenced.'

- **Historic value** 'is intended to encompass all aspects of history—for example, the history of aesthetics, art and architecture, science, spirituality and society. It therefore often underlies other values. A place may have historic value because it has influenced, or has been influenced by, an historic event, phase, movement or activity, person or group of people. It may be the site of an important event. For any place the significance will be greater where the evidence of the association or event survives at the place, or where the setting is substantially intact, than where it has been changed or evidence does not survive. However, some events or associations may be so important that the place retains significance regardless of such change or absence of evidence.'

- **Scientific value** 'refers to the information content of a place and its ability to reveal more about an aspect of the past through examination or investigation of the place, including the use of archaeological techniques. The relative scientific value of a place is likely to depend on the importance of the information or data involved, on its rarity, quality or representativeness, and its potential to contribute further important information about the place itself or a type or class of place or to address important research questions. To establish potential, it may be necessary to carry out some form of testing or sampling. For example, in the case of an archaeological site, this could be established by a test excavation.'

- **Social value** 'refers to the associations that a place has for a particular community or cultural group and the social or cultural meanings that it holds for them.'

- **Spiritual value** 'refers to the intangible values and meanings embodied in or evoked by a place which give it importance in the spiritual identity, or the traditional knowledge, art and practices of a cultural group. Spiritual value may also be reflected in the intensity of aesthetic and emotional responses or community associations, and be expressed through cultural practices and related places.'

7.3.5.14 A cultural heritage asset may derive cultural significance from one, several or all of these values. For example, buried archaeological remains may typically derive cultural significance from their scientific value, whereas a Listed castle may derive cultural significance from its aesthetic and historic values as well as from its scientific value.

7.3.6 Study Areas

7.3.6.1 In order to assess potential Direct/Indirect Physical Impacts and Setting Impacts on the historic resource, the following study areas have been defined:

1 km Study Area

7.3.6.2 The 1 km Study Area will be used to produce a heritage baseline to inform Direct and Indirect Physical Impacts. This study area takes in the Site boundary and land within 1 km of the Site. The wider historic environment will be considered, as and when pertinent to the Proposed Development.

3km Study Area

7.3.6.3 The 3 km Study Area includes the area within a 3 km radius of the Site and was used to inform the assessment of Setting Impacts to designated assets and selected non-designated assets identified through consultation with the HES and ELC.

7.3.6.4 In relation to Cumulative Impacts arising from the Proposed Development and other projects in the surrounding landscape, a 3 km Study Area was used to guide the selection of projects assessed within this Chapter.

7.3.6.5 The 3 km Study Area for Setting Impacts and Cumulative Impacts was not used as an arbitrary cut-off point for assessing potential impacts. Due consideration was given to assets and projects beyond 3 km that fall within the bare earth Zone of Theoretical Visibility (ZTV), as well as assets or projects specifically identified for inclusion by stakeholders.

7.3.7 Referenced Data Sets

7.3.7.1 The data sources that have been used to inform this Chapter of the EIAR are presented within **Table 7.2**.

TABLE 7.2 SUMMARY OF KEY PUBLICLY AVAILABLE DATASETS FOR ARCHAEOLOGY AND CULTURAL HERITAGE

SOURCE	YEAR	SPATIAL COVERAGE	SUMMARY
HES datasets including: National Record of the Historic Environment (Canmore Catalogue); Database of World Heritage Sites; Database of Scheduled Monuments; Database of Listed Buildings; Database of Inventoried Garden and Designed Landscapes; and Database of Inventoried Battlefields.	2025	Scotland. Used Within 1 km Study Area for heritage baseline 3 km Setting Study Area	Geographic Information System (GIS) data sets of designated and non-designated assets to inform the heritage baseline and Direct/Indirect Physical Impacts. GIS data sets of designated assets to inform Setting and Cumulative Impacts.
ELC Historic Environment Record (HER)	2025	Used within 1 km Study Area to inform heritage baseline	GIS data sets of designated and non-designated assets to inform the heritage baseline and Direct/ Indirect Physical Impacts. GIS data sets of designated assets to inform Setting and Cumulative Impacts.
Conservation Area Appraisals and maps as held by the local planning authority	2025	Within 3 km Study Area. Used within 15 km Study Area to inform Setting Impacts to designated assets	Maps of Conservation Areas to inform Setting and Cumulative Impacts.
National Landscape Character Assessment	2025	Scotland	Online Web viewer. https://www.nature.scot/professional-advice/landscape/landscape-character-

SOURCE	YEAR	SPATIAL COVERAGE	SUMMARY
		Used within 1 km Study Area to inform heritage baseline	assessment/scottish-landscape-character-types-map-and-descriptions
Aerial and Satellite Photography, and LiDAR	1945-2025	UK Wide. Used within 1 km Study Area to inform heritage baseline	GIS and Environment Agency data sets for LiDAR were consulted but not available within the Site boundary. Google Maps and Google Earth were consulted. Canmore aerial photography and satellite imagery were consulted. These datasets were consulted to inform the heritage baseline and direct/ indirect (physical) impacts
Cartographic evidence from the Ordnance Survey (OS) and historic maps;	17th to 20th century	Scotland. Used within 1 km Study Area to inform heritage baseline	A review of the National Library of Scotland online historic mapping was undertaken to inform the heritage baseline and direct/ indirect (physical) Impacts. A review of OS online map archive was also undertaken.
Digital Terrain Model (DTM)	2025	UK wide. Used within 1 km Study Area to inform heritage baseline	OS Mapping. OS Terrain 5 software.
The Statistical Accounts for Scotland	Late 18th and 19th century	Scotland. Used within 1 km Study Area to inform heritage baseline	A review of the National Records of Scotland (NRS) online Catalogue was undertaken to inform the heritage baseline.
The National Records of Scotland (NRS)	17th to 20th century	Scotland. Used within 1 km Study Area for heritage baseline	A review of the NRS online Catalogue was undertaken to inform the heritage baseline

SOURCE	YEAR	SPATIAL COVERAGE	SUMMARY
Archaeological Data Service (ADS) for heritage data including grey literature reports, archaeological journals, and the Excavation Index for Scotland	1980-2025	UK wide. Used within 1 km Study Area to inform heritage baseline	A review of the ADS Library was undertaken to inform the heritage baseline
Published and grey literature, archaeological journals and monographs	1980-2025	UK wide. Used within 1 km Study Area to inform heritage baseline	A review of the ADS Library was undertaken to inform the heritage baseline
Regional and national research framework assessments and strategies	2025	Scotland. Used within 1 km Study Area to inform heritage baseline	A review of the Scottish Archaeological Research Framework (ScARF) was undertaken to inform the heritage baseline

7.3.8 Primary Survey

7.3.8.1 In order to provide site specific and up to date information on which to base this assessment, a walkover survey was conducted within the Site boundary. The walkover survey was intended to supplement regional and national datasets and to ground truth that data.

7.3.8.2 A geophysical survey was commissioned by the Applicant, with a detailed gradiometer (magnetometry) survey being carried out across the Site.

7.3.8.3 The results of this primary survey are available within **Volume 3, Technical Appendix 7.1: Heritage Baseline**. No additional heritage assets, beyond those identified during the production of the heritage baseline, or identified through geophysics, were identified during the walkover.

7.3.8.4 In addition, a setting site visit was undertaken in June of 2024, with key heritage assets within the Zone of Theoretical Visibility (ZTV) visited to both verify the ZTV and inform the magnitude of Setting Impacts.

7.3.9 Assessment of Archaeological Potential

7.3.9.1 The potential for surviving archaeological evidence of past activity within the Site boundary is expressed in the report as ranging between the scales of High and Negligible or Unknown, where this cannot be determined, as detailed within **Table 7.3**.

TABLE 7.3 CRITERIA FOR ASSESSING ARCHAEOLOGICAL POTENTIAL

POTENTIAL	DEFINITION
High	A known or strong potential for archaeological evidence to survive intact or reasonably intact;
Medium	A reasonable likelihood for past activity with a potential that archaeological evidence could survive.
Low	The area is not thought to contain archaeological evidence of past activity or said evidence is likely to have been disturbed since deposition.
Negligible	The area is highly unlikely to contain archaeological evidence of past activity or the area has been disturbed to such an extent that survival is all but impossible.
Unknown	Insufficient information to assess.

7.3.10 Assessing the Effect to Cultural Significance

7.3.10.1 Following identification of historic assets with the potential to be impacted by the Proposed Development, this Chapter identifies the predicted changes and assesses the magnitude of impact of these changes upon the historic environment. The impact assessment makes

specific reference to any alterations to the intrinsic, contextual or associative values of the heritage assets.

7.3.10.2 The assessment implements a systematic approach to understand the impact pathways and the level of impacts on given receptors. The process considers the following:

- the value ('cultural significance') of the asset;
- how/from what the asset derives its cultural significance;
- the Magnitude of Impact of the Proposed Development upon the asset; and
- the Significance of Effect of any impacts upon an asset's cultural significance.

7.3.10.3 The duration of an effect is also referred to. Direct (Physical impacts) will typically be permanent and irreversible. Indirect (Physical) Impacts such as damage to historic fabric of upstanding structures from ground vibration may be reversible through sympathetic repair/restoration or following removal or decommissioning of the cause of the impact. Setting Impacts are assumed to be reversible, following Decommissioning and removal of all above ground infrastructure at the end of the Development's working life.

7.3.11 Value of Receptor

7.3.11.1 The value of a heritage asset reflects the relative importance of an asset as described in the designation process. As a starting point, the value of the cultural heritage assets / receptors has been equated with designation status, as shown in **Table 7.4**.

TABLE 7.4 FRAMEWORK FOR DETERMINING THE VALUE OF RECEPTOR

VALUE	DEFINITION
High	Heritage Assets valued at national level. These may include Scheduled Monuments, Category A Listed Buildings, Registered Battlefields, Gardens and Designed Landscapes, and nationally important archaeological features and conservation areas (as defined in the Council's HER).
Medium	Heritage Assets valued at a regional level. These may include Category B and some Category C Listed Buildings as well as regionally important archaeological features and conservation areas. Regionally important non-designated assets have been assigned a medium value based upon professional judgment.
Low	Heritage Assets valued at a local level. These may include Category C Listed Buildings, some conservation areas and non-designated assets of local value.
Negligible	Badly preserved and/or damaged or very common archaeological features and buildings of little or no value at local or any other scale.
Uncertain	Historic assets for which the importance of the resource has not been ascertained and archaeological resources the importance of which cannot be ascertained.

7.3.11.2 In relation to below ground heritage resource, it is often not possible to confirm a value with any certainty, as the full spatial extent of an asset, density of archaeological remains and state of preservation cannot be known prior to further archaeological site investigation. In such circumstances a professional judgement as to the importance/value of the receptor may be applied. It should be noted that the assessment of value for non-designated assets is a matter of judgement applied by professional experts, based on the receptors within the relevant Study Area and input, where available, from ELC HER.

7.3.12 Magnitude of Impact

7.3.12.1 In respect of Direct/Indirect Physical Impacts, the magnitude of impact is the predicted degree of change to the physical fabric of the asset as a result of the Development.

7.3.12.2 In respect of Setting Impacts, the magnitude of impact comprises the extent of change (either beneficial or adverse) to the cultural significance of an asset as a result of change to its Setting.

7.3.12.3 Impacts may be beneficial or adverse, short term, long term or permanent. In relation to cultural heritage, impacts are generally adverse and are classified, for both Direct/Indirect Physical Impacts and Setting Impacts. The degree of impact is assigned on the criteria shown in detailed in **Table 7.5**.

TABLE 7.5 FRAMEWORK FOR DETERMINING MAGNITUDE OF IMPACT

MAGNITUDE	DESCRIPTION	
	POSITIVE CHANGE	NEGATIVE CHANGE
Substantial	Overwhelming positive changes to/around the asset such that the cultural significance of the asset is substantially enhanced; this may result from positive changes to an asset or to key aspects of an asset's setting, either physically, visually or in relation to noise, sound quality and/or improved access.	Setting Impacts: substantial adverse change to an asset's setting such that a total or near complete loss of cultural significance, and/or an inability to understand, appreciate or experience the heritage asset results.
		Direct/Indirect (Physical) Impacts: substantial change to an asset's physical fabric such that a total or near complete loss of cultural significance, and/or an inability/near-inability to understand, appreciate or experience the heritage asset results.
Moderate	Moderate (appreciable but neither substantial nor slight) positive changes to/around the asset such that the cultural significance of the asset is moderately enhanced; this may result from positive changes to an asset or to aspects of an asset's	Setting Impacts: a moderate level of adverse change to an asset's setting such that an appreciable (but not substantial) loss of cultural significance, and/or a moderate reduction in the ability to understand, appreciate or experience the heritage asset results.

MAGNITUDE	DESCRIPTION	
	POSITIVE CHANGE	NEGATIVE CHANGE
	setting, either physically, visually or in relation to noise, sound quality and/or improved access.	Direct/Indirect (Physical) Impacts: a moderate level of adverse change to an asset's physical fabric such that an appreciable (but not substantial) loss of cultural significance, and/or a moderate reduction in the ability to understand, appreciate or experience the heritage asset results.
Slight	Slight (perceivable to only a modest extent) positive changes to/around the asset such that the cultural significance of the asset is enhanced to a modest extent; this may result from positive changes to an asset or to aspects of an asset's setting, either physically, visually or in relation to noise, sound quality and/or improved access.	Setting Impacts: a slight level of adverse change to an asset's setting such that a modest loss of cultural significance, and/or a modest reduction in the ability to understand, appreciate or experience the heritage asset results.
		Direct/Indirect (Physical) Impacts: a slight level of adverse change to an asset's physical fabric such that a modest loss of cultural significance, and/or a modest reduction in the ability to understand, appreciate or experience the heritage asset results.
None	No positive changes to/around the asset such that the cultural significance of the asset is preserved but not enhanced; this may result from no/negligible positive changes to an asset or to aspects of an asset's setting, either physically, visually or in relation to noise, sound quality and/or improved access.	Setting Impacts: no adverse change to an asset's setting such that the asset's cultural significance and ability to understand, appreciate, and experience the heritage asset would be preserved.
		Direct/Indirect (Physical) Impacts: no adverse change to an asset's physical fabric such that the asset's cultural significance and ability to understand, appreciate, and experience the heritage asset would be preserved.

7.3.13 Significance of Effect

7.3.13.1 The significance of effect is broadly determined by correlating the value of the asset against the anticipated magnitude of impact, as detailed in **Table 7.6**. The final determination of the significance of effect in each instance is informed by professional judgement.

TABLE 7.6 FRAMEWORK FOR DETERMINING SIGNIFICANCE OF EFFECT

SIGNIFICANCE OF EFFECT		RECEPTOR VALUE			
		NEGLIGIBLE	LOW	MEDIUM	HIGH
MAGNITUDE OF IMPACT	NEGLIGIBLE	Negligible/None	Negligible/None	Negligible/None	Negligible/None
	SLIGHT	Negligible/None	Minor	Minor	Moderate
	MODERATE	Negligible/None	Minor	Moderate	Major
	SUBSTANTIAL	Negligible/None	Moderate	Major	Major

7.3.13.2 Effects predicted to be of 'Major' significance are considered to be 'significant' in the context of the EIA Regulations. Where an effect is predicted to be of 'Moderate' significance, professional judgment will be applied in determining whether the effect qualifies as 'significant' in the context of the EIA Regulations.

7.3.14 Limitations and Assumptions

7.3.14.1 The following limitations and assumptions have been identified for the Archaeology and Cultural Heritage Chapter and assessment:

- This assessment primarily comprises a desk-based review of information taken from HES datasets and data from the ELC HER, as well as a variety of secondary sources, supplemented by non-intrusive field survey. Whilst this information is assumed to be accurate, it does not constitute a complete record of the historic environment and does not preclude the potential for hitherto unidentified archaeological remains or deposits to be encountered within the Site. Undertaking primary survey work to support this Chapter does not preclude the potential for additional or subsurface archaeological remains to survive within the Site;

- Beyond the walkover survey, geophysical survey and setting impact site visits, no additional intrusive archaeological site investigation works, e.g. in the form of trial trenching, have been undertaken to inform this Chapter. As discussed with the Planning Archaeologist to ELC during consultation for the EIAR, additional a programme of additional intrusive archaeological works will be undertaken post-determination; and

- For the purposes of this assessment, a realistic worst-case scenario of impacts is used, such that the predicted effects may not reflect the actual impact / effect of the final design. In that context, however, and as a precautionary approach, it overestimates rather than underestimates the effects.

7.3.14.2 These limitations will primarily be mitigated through embedded mitigation measures as outlined within **Section 7.5**. Proposed mitigation measures are outlined within **Section 7.8**, and any residual effects are presented in **Section 7.8.3**.

7.4 Baseline Conditions

7.4.1 Heritage Baseline within the 1 km Study Area

7.4.1.1 There are 30 designated assets located within the 1 km Study Area and these are detailed within **Table 7.7**. Of these, two are located wholly or partially within the Site: SM5891 Oldhamstocks Mains, enclosure, and CA288 Oldhamstocks Conservation Area.

7.4.1.2 The majority of the nine scheduled monuments relate to Late Prehistoric settlement within the fertile agricultural belt between the Lammermuir Hills to the south and the coast to the north, in which the Site is located. The settlement sites are a mixture of enclosed and unenclosed settlements, with one monument representing a promontory fort.

7.4.1.3 Both Dunglass GDL and Oldhamstocks CA have Medieval origins, with Dunglass being a noted Medieval Estate within East Lothian and Oldhamstocks containing a Medieval church and the parish church. Both the GDL and Conservation Area evolved throughout the Medieval period and into the Post-Medieval period, with their associated Listed Buildings dating to this period, with fabric from the Medieval period reused and retained in some cases.

TABLE 7.7 DESIGNATED ASSETS WITHIN 1 KM STUDY AREA (ASSETS HIGHLIGHTED IN BLUE ARE LOCATED WITHIN THE SITE)

DESIGNATION	ASSET REFERENCES		NAME	DESCRIPTION
	REFERENCE	LB CATEGORY		
Scheduled Monument	SM5891		Oldhamstocks Mains, enclosure 300 m NNW of	The monument comprises the remains of an enclosed settlement of prehistoric date represented by cropmarks visible on oblique aerial photographs.
Scheduled Monument	SM5850		Black Castle, enclosure	The monument comprises the remains of an enclosed settlement of prehistoric date represented by cropmarks visible on oblique aerial photographs.
Scheduled Monument	SM5876		Black Castle Cottage, promontory fort 300 m SW of	The monument comprises the remains of a promontory fort of later prehistoric date represented by cropmarks visible on oblique aerial photographs. It is possible that, rather than a ditch, it represents the remains of dense occupation deposits associated with an external,

DESIGNATION	ASSET REFERENCES		NAME	DESCRIPTION
	REFERENCE	LB CATEGORY		
				rectilinear structure. The interior summit of the fort measures approximately 100m E-W by 40m and has no unambiguous traces of internal features.
Scheduled Monument	SM5890		Branxton Cottage, enclosure 300 m E of	The monument comprises the remains of an enclosed settlement of prehistoric date represented by cropmarks visible on oblique aerial photographs.
Scheduled Monument	SM5892		Springfield, enclosure 300 m NNE of	The monument comprises the remains of an enclosed settlement of later prehistoric date represented by cropmarks visible on oblique aerial photographs.
Scheduled Monument	SM5893		Springfield, palisaded enclosure and ring ditch 200 m E of	The monument comprises the remains of a palisaded enclosure and ring ditch of prehistoric date represented by cropmarks visible on oblique aerial photographs.
Scheduled Monument	SM5894		Springfield, enclosure 400 m SSE of	The monument comprises the remains of an enclosed settlement of prehistoric date represented by cropmarks visible on oblique aerial photographs.
Scheduled Monument	SM5958		Branxton, enclosure 350 m NNW of	The monument comprises the remains of an enclosed settlement of prehistoric date represented by cropmarks visible on oblique aerial photographs.
Scheduled Monument	SM3191		French camp, fort, Dunglass	The monument comprises the remains of a 16th century English fortification and used during the occupation of Haddington in 1548-9.
Garden and Designed Landscape	GDL00154		Dunglass	The Picturesque designed landscape of Dunglass was laid out between 1776 and 1832. It incorporated an earlier

DESIGNATION	ASSET REFERENCES		NAME	DESCRIPTION
	REFERENCE	LB CATEGORY		
				landscape associated with the existing house, church and French Camp. The design structure has remained relatively consistent although the composition of individual components has altered over the years. The original Dunglass Castle was built in the 14th century by Sir Thomas Home who had acquired the estate through his marriage to its heiress. In 1403 the Collegiate Church was built by their descendant, Sir Alexander Home.
Conservation Area	CA288		Oldhamstocks	The village of Oldhamstocks is recorded in the Medieval period, The village with the earliest physical remains in the village dating to the 14th century, with documentary sources pushing its origins back to the 12th century. with its church consecrated in the 13th century. The oldest building is the church that dates from the 16th Century but is built on the foundations of a 14th century church.
Listed Building	LB14698	B	Bilsdean Bridge	Within Dunglass GDL. Probably George Burn, circa 1800. 2 segmental spans, each circa 20' wide.
Listed Building	LB14702	B	Dunglass, Farm dairy	Within Dunglass GDL. Circa 1930. Single storey, symmetrical model dairy building.
Listed Building	LB14703	C	Dunglass, Farm lodge	Within Dunglass GDL. Early 19th century, made L-plan late in century.
Listed Building	LB14704	C	Dunglass, gardener's house with retaining walls and gate piers	Within Dunglass GDL. Possibly Richard Crichton, early 19th century. 2-storey L-plan house with single storey additions.

DESIGNATION	ASSET REFERENCES		NAME	DESCRIPTION
	REFERENCE	LB CATEGORY		
				Walled Garden to south-west is listed separately.
Listed Building	LB14708	C	Oldhamstocks, October Cottage with retaining wall	Within Oldhamstocks CA. Earlier 19th century. Single storey L-plan cottage, formed of 2 adjoined 3-bay cottages.
Listed Building	LB14709	B	Oldhamstocks, The Old Manse with walled garden and boundary walls	Within Oldhamstocks CA. Earlier 19th century. 2-storey, L-plan, 3-bay, symmetrical manse.
Listed Building	LB14710	A	Oldhamstocks Parish Church (church of Scotland) with graveyard walls and watch house	Within Oldhamstocks CA. 16th century aisle adjoined to church built in 1701, built on part foundations of circa 14th century church.
Listed Building	LB14711	B	Oldhamstocks, market cross	Within Oldhamstocks CA. 18th century. Ashlar market cross set on village green.
Listed Building	LB14712	B	Oldhamstocks, wellhead	Within Oldhamstocks CA. 18th century.
Listed Building	LB14713	B	Oldhamstocks, The Wight House with retaining walls	Within Oldhamstocks CA. Late 18th century. 2-storey house with single storey block adjoining and additional outbuilding.
Listed Building	LB14724	C	Dunglass, gate piers at west lodge	Within Dunglass GDL. Early 19th century. Square section classical ashlar gate piers.
Listed Building	LB14725	A	Dunglass, gazebo	Within Dunglass GDL. Dated 1712 (?). Heptagonal, classical summer house, of outstanding quality, set on high ground to west of former house and south-west of lake.
Listed Building	LB14728	C	Dunglass, Old Gardener's House	Within Dunglass GDL. Earlier 19th century. 2-storey, 3-bay house.
Listed Building	LB14732	B	Dunglass, walled garden	Within Dunglass GDL. Early 19th century. Rectangular plan

DESIGNATION	ASSET REFERENCES		NAME	DESCRIPTION
	REFERENCE	LB CATEGORY		
			and service buildings and hot-houses	walled garden with lean-to service buildings to N and circa 1925 traditional hot-houses against interior of north wall.
Listed Building	LB14733	B	Oldhamstocks, Braeview with retaining walls	Within Oldhamstocks CA. Late 18th century. 2-storey house with single storey wing to east, each of 2 bays.
Listed Building	LB14734	B	Oldhamstocks, bridge	Within Oldhamstocks CA.18th century or possibly earlier. Single span, bridge with semi-circular arch.
Listed Building	LB14735	C	Oldhamstocks, Greenend Cottage	Within Oldhamstocks CA. Dunglass Old Bridge to north-east, listed separately was of a 17th century date, and as the Oldhamstocks Bridge is similarly formed, it may also share an early date."
Listed Building	LB14736	C	Oldhamstocks, Hillcrest with retaining walls	Within Oldhamstocks CA. Late 18th century. Single storey 3-bay cottage, with modern extension at rear.
Listed Building	LB18958	C	Oldhamstocks, Mill Cottage	Within Oldhamstocks CA. Later 19th century. 2-storey gabled house with 1st floor breaking eaves and with single storey rear extensions.

7.4.1.4 There are a further 60 non-designated assets identified within the ELC HER data or Canmore data within the 1 km Study Area. Of the ELC HER data and Canmore data, only a single non-designated asset is located within the Site boundary. The geophysical survey of the Site identified five previously unrecorded assets within the Site boundary. **Table 7.8** lists all heritage known assets within the Site boundary (**Figure 7.2**).

TABLE 7.8 ALL ASSETS WITHIN THE SITE BOUNDARY

DESIGNATION	ASSET REFERENCES		NAME	DESCRIPTION
	REFERENCE	LB CATEGORY		
Scheduled Monument	SM5891		Oldhamstocks Mains, enclosure 300 m NNW of	The monument comprises the remains of an enclosed settlement of prehistoric date represented by cropmarks visible on oblique aerial photographs.
Conservation Area	CA288		Oldhamstocks	The village of Oldhamstocks is recorded in the Medieval period, The village with the earliest physical remains in the village dating to the 14th century, with documentary sources pushing its origins back to the 12th century. with its church consecrated in the 13th century. The oldest building is the church that dates from the 16th Century but is built on foundations of a 14th century church
Non-designated	MEL1894		Oldhamstocks Mains	Cropmark of possible enclosure
Non-designated	MS3.1		MS3.1	Geophysical anomalies possibly relating to archaeology. Within Field 3.
Non-designated	MS5.1		MS5.1	Geophysical anomalies possibly relating to archaeology. Within Field 5.
Non-designated	MS8.1		MS8.1	Geophysical anomalies possibly relating to archaeology. Within Field 8.
Non-designated	MS12.1		MS12.1	Geophysical anomalies possibly relating to archaeology. Within Field 12.
Non-designated	MS16.1		MS16.1	Geophysical anomalies possibly relating to archaeology. Within Field 16.

7.4.1.5 An overview of the heritage baseline is discussed by period in the following sections.

Early Prehistoric

7.4.1.6 There are no Early Prehistoric assets recorded within the Site boundary, with only a single HER record within the 1 km Study Area. MEL1871, records a pair of stone axe heads recovered from near Cocklaw, south-west of the Site. Mesolithic records from the wider

historic landscape are limited to a coastal settlement site at Dunbar. However, evidence for possible dunes and raised beach terraces with associated Mesolithic flints finds, have been reported within the vicinity of the Site. Neolithic records are more numerous, with the NSA recording a former stone circle north of the Site, with additional settlement and ritual sites located within 10 km. Based on the above, a medium potential for further Early Prehistoric finds within the Site is predicted, with assets, should they be present, likely to take the form of flints tools or scatters of worked flint. This potential exists across the Site, but is perhaps more focused around the northern half of the Site, in closer proximity to the coast.

Late Prehistoric

7.4.1.7 There are two Late Prehistoric assets recorded within the Site boundary, both relating to settlement. Within the 1 km Study Area, there are a further 26 assets assigned to this period, largely made up of settlement and funerary sites. Based on the above, there is considered to be a high potential for further Late Prehistoric remains to exist on the Site, with such assets likely to take the form of settlement, with associated field systems, enclosures and finds. This potential exists across the Site, but is heightened in areas adjacent to water courses. Whilst not firmly attributable to this period, it would seem likely, given the volume of prehistoric settlement in the local and wider historic landscape that some, at least some of these anomalies may date to this period.

Roman

7.4.1.8 There are no Roman assets recorded within the 1 km Study Area, with only limited recovery of Roman material from the wider historic landscape. Based on the above, there is considered to be a low potential for further unknown Roman assets to be found within the Site. Should such assets remain, they would likely take the form of isolated findspots of ceramic or metal.

Medieval

7.4.1.9 There are four assets dated to the Medieval period within the 1 km Study Area, one of which is located within the Site. The Site boundary overlaps with the Conservation Area for Oldhamstocks village, which has a Medieval foundation, 13th century church and associated castle. Immediately east of the Site is the Dunglass Estate, which again has a Medieval foundation, with a castle and Collegiate Church. The remaining record for Medieval activity relates to rig and furrow within the wider 1 km Study Area. The wider historic landscape records several castle sites and associated estates, the nearest of which are around Innerwick and the Thornton Burn. Settlement at this period, outside of the major settlements such as at Dunbar, is likely to have been in the form of low-density rural townships, hamlets and farmsteads with the local population working the estates of their lords and the nearby coastline. Based on the above there is considered to be a medium potential for further Medieval assets to exist within the Site, with these assets likely to take the form of rural settlement, associated field systems and isolated finds of metal and stone. This potential exists across the Site.

Post-Medieval

7.4.1.10 There are 54 assets ascribed to the Post-Medieval period within the 1 km Study Area. None of these are within the Site boundary. Outside of the nearby Dunglass Estate and the village

of Oldhamstocks, these assets are largely associated with farmsteads and the rural economy. Based on the above, there is considered to be a high potential for further Post-Medieval below ground remains to exist within the Site boundary, but these are likely to take the form of agricultural remains and associated former field boundaries and trackways.

Modern

7.4.1.11 Modern assets within the 1 km Study Area are limited to World War defences, monuments and modern road infrastructure. There are no assets within the Site boundary. Based on the above, there is considered to be a low potential for additional modern assets to exist on the Site, with modern activity more likely to take the form of ground disturbance and the truncation of archaeological remains.

7.4.1.12 Of the assets located within the Site boundary, the designated scheduled monument and Conservation Area have been assigned a high value. All other non-designated assets have been awarded a low value based on available evidence and professional judgement. However, the value of below ground assets is difficult to gauge without intrusive evaluation and/or excavation works to ground truth the results of a heritage baseline. The known non-designated assets within the Site boundary, as well as currently unknown assets, retain the potential to be of regional importance, and any value assigned to them prior to physical excavation is subject to change in the light of further evidence. The known heritage assets and the potential identified for further remains within the Site boundary are unlikely to yield high value below ground remains or remains considered to be of a national importance.

Summary of archaeological potential

7.4.1.13 A summary of archaeological potential broken down by period is presented within **Table 7.9** below.

TABLE 7.9 A SUMMARY OF THE SITE'S ANTICIPATED ARCHAEOLOGICAL POTENTIAL

PERIOD NAME		POTENTIAL
Early Prehistory	Palaeolithic	Negligible
	Mesolithic	Medium
	Neolithic	Medium
Later Prehistory	Bronze Age	High
	Iron Age	High
Romano-British	Roman	Low
Medieval	Early Medieval	Low
	Later Medieval	Medium
Post-Medieval		High

PERIOD NAME	POTENTIAL
Modern	Low

7.4.2 Setting assessment within the 3 km Study Area

7.4.2.1 With regards to designated assets under the statutory care of HES, there are 25 such assets within the Setting Study Area, as follows:

- 19 Scheduled Monuments;
- One Garden and Designed Landscape (GDL); and
- Five Grade A Listed Buildings

7.4.2.2 An initial ZTV (bare earth) for the infrastructure was produced to aid in a sieving exercise and decision making on which assets are likely to undergo an adverse change in setting. A setting site visit was also undertaken to inform the sieving exercise and ground truth an assets current setting and refine the understanding of Setting Impacts from the Proposed Development.

7.4.2.3 Based on the ZTV and initial sieving exercise and consultation with HES, ten scheduled monuments; a GDL, and two Category A Listed Buildings have been identified as warranting a detailed setting assessment within the EIA, with the remaining assets sieved out.

7.4.2.4 With regards to designated assets under the statutory care of ELC, there are 47 such assets within the Setting Study Area, as follows:

- Three Conservation Areas; and
- 44 Listed Buildings (27 Grade B and 17 Grade C).

7.4.2.5 Based on the ZTV and initial sieving exercise, 23 ELC assets were considered to warrant a detailed setting assessment, inclusive of one Conservation Area and 22 Listed Buildings. All other assets were sieved out.

7.4.2.6 The Scoping Opinion from ELC made specific reference to assessing Setting Impacts associated with the post glacial to Mesolithic landscape around the Site. The ECU commented that the 'raised Mesolithic beach should also be assessed as part of the setting, the general area is known to have been exploited during the Mesolithic period and nationally important settlement and artefact scatters have a high potential for this area.'

7.4.2.7 Assessing Setting Impacts to the general Mesolithic raised beach landscape is not considered practical within this EIA due to the lack of firm evidence relating to the spatial extent, inception and longevity of the system of raised beaches and dunes. It is not known for example whether the raised beach extended far enough from the coast to interact with the Proposed Development Site or if this landscape continued into the Neolithic and Late Prehistoric period and was part of the landscape setting for monuments dating to these periods. As such, it is proposed that further archaeological Site investigation is undertaken across the Proposed Development Site to better inform the potential for any raised beach

system within or in close proximity to the Site. Initial works, would entail archaeological monitoring of any Ground Investigation (GI works) across the Site to assess the presence and character of any such deposits. Further archaeological site investigation is identified within Sections 7.5 and 7.8. It is also of note that the Mesolithic raised beach landscape is not a defined heritage asset within either ELC or HES datasets.

7.4.2.8 No assets beyond the 3 km Study Area were considered to warrant inclusion within the assessment.

7.4.2.9 **Table 7.10** below details all assets taken forward for detailed assessment of setting impacts within Volume 3: Technical Appendix 3 Assessment of Setting Impacts.

TABLE 7.10 ASSETS TAKEN FORWARD FOR DETAILED ASSESSMENT OF SETTING IMPACTS

DESIGNATION	MAIN REFERENCE	LB CATEGORY	NAME	VALUE
Scheduled Monument	SM5891	N/A	Oldhamstocks Mains, enclosure 300m NNW of	High
Scheduled Monument	SM5892	N/A	Springfield, enclosure 300m NNE of	High
Scheduled Monument	SM5894	N/A	Springfield, enclosure 400m SSE of	High
Scheduled Monument	SM5890	N/A	Branxton Cottage, enclosure 300m E of	High
Scheduled Monument	SM5893	N/A	Springfield, palisaded enclosure and ring ditch 200m E of	High
Scheduled Monument	SM13313	N/A	Dunglass Collegiate Church, 70m E of 2 Stable Cottages	High
Scheduled Monument	SM5850	N/A	Black Castle, enclosure	High
Scheduled Monument	SM5958	N/A	Branxton, enclosure 350m NNW of	High
Scheduled Monument	SM5876	N/A	Black Castle Cottage, promontory fort 300m SW of	High
Scheduled Monument	SM3191	N/A	French Camp, fort, Dunglass	High
Listed Building	LB14710	A	Oldhamstocks Parish Church, Burial Ground and Watch House	High
Listed Building	LB14725	A	Gazebo, Dunglass House	High

DESIGNATION	MAIN REFERENCE	LB CATEGORY	NAME	VALUE
Garden and Designed Landscape	GDL00154	N/A	Dunglass	High
Conservation Area	CA288	N/A	Oldhamstocks	High
Listed Building	LB14701	C	East Lodge With Gate Piers And Quadrant Wall, Dunglass House	Low
Listed Building	LB14702	B	Farm Dairy, Dunglass House	Medium
Listed Building	LB14703	C	Farm Lodge, Dunglass House	Low
Listed Building	LB14704	C	Gardener's House, Dunglass House	Low
Listed Building	LB14708	C	October Cottage, Oldhamstocks	Low
Listed Building	LB14709	B	Manse and walled garden, Oldhamstocks	Medium
Listed Building	LB14711	B	Market Cross, Village Green, Oldhamstocks	Medium
Listed Building	LB14712	B	Pump, Village Green, Oldhamstocks	Medium
Listed Building	LB14713	B	The Wight House, Oldhamstocks	Medium
Listed Building	LB14724	C	West Lodge And Gate Piers, Dunglass House	Low
Listed Building	LB14728	C	Old Gardener's House, Dunglass House	Low
Listed Building	LB14729	B	Stables, Dunglass House	Medium
Listed Building	LB14730	B	Sundial, Dunglass House	Medium
Listed Building	LB14732	B	Hot Houses, garden service buildings and walled gardens, Dunglass House	Medium
Listed Building	LB14733	B	Hot Houses, garden service buildings and walled gardens, Dunglass House	Medium
Listed Building	LB14734	B	Brae View, Oldhamstocks	Medium

DESIGNATION	MAIN REFERENCE	LB CATEGORY	NAME	VALUE
Listed Building	LB14735	C	Oldhamstocks Bridge, Oldhamstocks Burn, Oldhamstocks	Low
Listed Building	LB14736	C	Greenend Cottage, Oldhamstocks	Low
Listed Building	LB18958	C	Hill Crest, Oldhamstocks	Low
Listed Building	LB4055	B	Mill Cottage, Oldhamstocks Mill, Oldhamstocks	Medium
Listed Building	LB4057	B	New Bridge, Dunglass	Medium
Listed Building	LB6414	C	Dunglass Bridge	Low

7.4.3 Cumulative development baseline

7.4.3.1 The assessment of Cumulative Effects will look at projects in planning, scoping, and construction stages. Operational developments are considered part of the landscape baseline against which Setting Impacts are measured. As such, operational developments will not be considered further in relation to Cumulative Effects.

7.4.3.2 Table 7.11 details all projects within 5 km of the Proposed Development. From this list, selected projects, predicted introduce overlapping Setting Impacts were assessed cumulatively within **Section 7.7** below.

TABLE 7.11 CUMULATIVE DEVELOPMENT WITHIN 5 KM OF SITE

PLANNING REFERENCE AND NAME	PLANNING DESCRIPTION	DEVELOPMENT DESCRIPTION	DISTANCE FROM DEVELOPMENT	STAGE OF DEVELOPMENT	OTHER NOTES
23/00616/PM - Branxton Substation1	Erection of 400KV Substation and associated developments	Rebuild and upgrade to a new 400kV Substation	Within 1 km	Planning permission approved	132 kV connection contracted at Branxton Substation for grid connections for offshore Berwick Bank Wind Farm
23/00162/PPM – Branxton connection2	Construct and operate electricity transmission infrastructure (Substation or converter station) and associated development including buried cabling	Onshore electricity transmission infrastructure in the form of either a Substation or converter station, and for associated development including underground electricity cables and landfall	Within 1 km	Planning permission approved	Associated with offshore Berwick Bank Wind Farm
ECU00004659 - Branxton BESS3	Battery Storage containers and associated infrastructure	BESS with a capacity exceeding 50 MW	Within 1 km	Planning permission approved	Associated with offshore Berwick Bank Wind Farm
ECU00004993 - Braxbess BESS4	Construction and operation of BESS, transformers, Substations and associated infrastructure.	BESS with a capacity exceeding 650 MW	1.8 km	Under consideration	N/A
Torness Nuclear Power Station defuel and decommission	No specific planning application.	Lifespan of Torness Nuclear Power Station extended to 2030 instead of 2028.	2.4 km	N/A	The decommissioning will commence after the planned construction period of the Proposed Development.

PLANNING REFERENCE AND NAME	PLANNING DESCRIPTION	DEVELOPMENT DESCRIPTION	DISTANCE FROM DEVELOPMENT	STAGE OF DEVELOPMENT	OTHER NOTES
23/01071/P - Aikengall 2 BESS9	Formation of a battery energy storage system facility and associated works	A BESS with a capacity of 19.99 MW, featuring 46 battery units	3.9 km	Planning permission approved	In association with Aikengall Wind Farm
22/00852/PPM - Eastern Green Link 110	Converter station and associated development including a landfall and connecting buried cabling	Onshore underground High Voltage Direct and Alternating Current electricity cables connecting the converter station to a landfall south of Thorntonloch Beach and Branxton Substation	4 km	Under construction	Associated with the Eastern Link project
P/0867/91 - Closure and restoration of Quarry	Restoration of quarry to agriculture by infilling with controlled waste - South Quarry	Closure and restoration of a quarry used for landfill	4 km	In planning	Restoration extended in 2020 for 5 years; expected completion by September 202511
ECU000005085 - Bowshiel Solar and BESS12	Construct and operate a Solar Farm with accompanying BESS, associated infrastructure, access, and landscaping	Solar farm generating up to 170 MW of power, including a 150 MW BESS	4.5 km	In planning	N/A

7.4.4 Future Baseline

7.4.4.1 Should the Proposed Development not proceed, then the general land use and rural character of the Site would remain unchanged, beyond small scale changes associated with the operation of Springfield Farm.

7.4.4.2 Based on the climate change projection scenario for the Proposed Development, as defined by HES within 'A Guide to Climate Change Impacts on Scotland's Historic Environment'[12] the future baseline environment for heritage assets is expected to be one of decreasing rainfall in summer months and wetter winters. The average yearly temperature is expected to increase with the additional energy in the atmosphere, generating more erratic weather and a greater number of winter storms with both prolonged and more intense bouts of rainfall and flooding.

7.4.4.3 Based on the climate change projections, there is expected to be increased and accelerating erosion of lowland and coastal soils as a result of wind loss during dry summers and greater run off from winter storms. Climate change is likely to affect arable land with monuments and earthworks affected by increased erosion from drying and wind loss, flooding and run off and the long-term saturation of farmland, which may alter the preservation of below ground remains, as well as a lengthier growing season allowing for greater disturbance from bioturbation.

7.4.4.4 In this no change scenario, this Chapter assumes that the arable land within the Site would be subject to the ongoing effects of climate change, affected by summer drought and winter flooding. This may result in long-term weathering and degradation of below ground archaeological remains currently sealed below ploughsoil.

7.5 Embedded Mitigation

7.5.1 Primary and Tertiary Mitigation

7.5.1.1 The embedded mitigation relevant to Cultural Heritage is presented in **Table 7.12**.

TABLE 7.12 EMBEDDED MITIGATION

IMPACT ID	MITIGATION ID	MITIGATION	PROJECT ASPECT	PROJECT PHASE
Direct Physical Impact	Primary Mitigation	No infrastructure has been placed within within 225 m of SM5891 in order to avoid impacts. Methodologies for avoiding Direct Physical	Piling need to anchor Solar Array;	Construction and Decommissioning.

[12] HES 2019. A Guide to Cilmate Change Impacts. Available at https://www.historicenvironment.scot/archives-and-research/publications/publication/?publicationId=843d0c97-d3f4-4510-acd3-aadf0118bf82 [Accessed 2025.05.20]

IMPACT ID	MITIGATION ID	MITIGATION	PROJECT ASPECT	PROJECT PHASE
		Impacts are detailed further within the Scheduled Management Plan for SM5891, as requested by HES. Preservation in situ of known non-designated assets has been prioritised as part of the design process, wherever possible. The use of non-intrusive foundations, suspended cabling / above ground cable trays, re-routing of any access tracks is proposed to limit ground disturbance around known assets. Where avoidance is not possible, appropriate mitigation strategies will be developed in consultation with statutory authorities.	Foundation Design for Substation/BESS site and control house; Fencing foundations; New access paths/tracks; Trenching for cable routes; Construction compound; and Any associated landscaping/site profiling.	
Indirect Physical Impact	Primary Mitigation	No additional embedded mitigation beyond that set out for Direct Physical Impacts and Setting Impacts	Piling need to anchor Solar Array; Foundation Design for Substation/BESS site and control house; Fencing foundations; New access paths/tracks; Trenching for cable routes; Construction compound; and Any associated landscaping/site profiling.	Construction and Decommissioning.
Setting Impacts	Primary Mitigation	Solar array repositioned within Fields 5 and removed from Field 19 to reduce the magnitude of Setting Impacts to SM5891 and SM5892, a pair of Late Prehistoric scheduled monuments. Infrastructure excluded from Fields 10 and 11, to limit Setting Impacts to CA288 Oldhamstocks. Mitigation by design was undertaken by the Applicant	Above ground elements of Solar Array; Above ground fencing;	Operation and Maintenance,

IMPACT ID	MITIGATION ID	MITIGATION	PROJECT ASPECT	PROJECT PHASE
		following the receipt of the Scoping Opinion offered by HES, ELC and over the course of public consultation.		
Direct Physical Impact	Tertiary Mitigation	Archaeological monitoring of any GI works ahead of construction. Archaeological works are intended to inform the potential for any buried dune/ raised beach deposits and associated Mesolithic exploitation of the landscape. A Written Scheme of Investigation (WSI) will be produced following submission of the EIAR. This will be agreed and issued subsequent to grant of consent. The WSI will outline the provision for further post-consent archaeological site investigation to ground truth the results of the geophysical survey and clarify the extent of any previously unknown below ground heritage resource. The WSI will also detail provision for any mitigation works ahead or during the construction phase. The WSI will detail the requirements for Walkover Survey, Trial Trench Evaluation, Open Area Excavation and/or Watching Brief.	GI Works Piling need to anchor Solar Array; Foundation Design for Substation/BESS site and control house; Fencing foundations; New access paths/tracks; Trenching for cable routes; Construction compound; and Any associated landscaping/site profiling.	Construction, Operation and Maintenance, Decommissioning.

7.5.2 Setting Impacts and Mitigation

7.5.2.1 HES, in their Scoping Opinion and subsequent consultation undertaken during the course of producing the EIAR, raised concerns about the proximity of infrastructure to SM5891 and SM5892 and the loss of rural character around the monuments as well as the height of the solar panels, which they advised risked blocking views between SM5891 and SM5892.

7.5.2.2 Primary mitigation, in relation to these two monuments, has taken the form of mitigation by design. Infrastructure has been removed from Fields 18 and 19 and from the eastern part of Field 5 in order to reduce Setting Impacts to SM5891 and SM5892. Whilst the Proposed Development would be clearly visible in farmland around these monuments, the Applicant has made several design changes to the Scoping Layout to limit Setting Impacts associated with the scheme:

- A 100 m exclusion zone around the scheduled monument was initially put in place to avoid encroachment and encirclement of SM5891 as well as to maintain elements of the sites historic rural character. The Applicant has gone beyond this, and now no infrastructure is located within 350 m of the asset; and

- Infrastructure has been pulled back from both SM5892 and SM5891, to the north-west in an effort to maintain a visual link between these two associated late prehistoric settlements. No infrastructure is now located within 225 m of SM5892.

7.5.2.3 Given the relative position of the monuments to each other and the Proposed Development within Field 5, any further mitigation in the form of screening/planting is likely to further erode and restrict views between the two Late Prehistoric settlement sites and create additional Setting Impacts.

7.5.2.4 In relation to other assets and Setting Impacts, infrastructure has been deliberately avoided within Field 12. Infrastructure has been removed from Fields 10, 11, and 12, and repositioned within Fields 13 and 14 in order to reduce Setting Impacts to Oldhamstocks Conservation Area. Design changes were made to reduce Setting Impacts from key viewpoints that contributed to the scenic value of the Conservation Area, namely from around Cocklaw and views facing south-east over the Oldhamstocks Burn valley, in south facing views from the northern approach to the Conservation Area from Branxton and in north facing views over and across the Oldhamstocks Burn valley from Woollands farm. In order to reduce Setting Impacts, panels and infrastructure were removed, with panels being pulled to the north of the thin band of copse woodland at Cockit Hat Strip, in fields north of Oldhamstock, with panels located below the 175 m AOD contour line. Additionally, panels have been removed from the eastern limit of the Conservation Area, and offset by 325 m from the Conservation Area.

7.5.3 Management of Scheduled Monuments

7.5.3.1 As part of the embedded mitigation measures outlined above, the Applicant has removed all infrastructure from within Fields 18 and 19, ensuring that no groundworks will take place within 225 m of SM5891 Oldhamstocks Mains, enclosure 300m NNW of, located within the Site boundary. This embedded mitigation will avoid Direct and Indirect Physical Impacts to the monument and limit Setting Impacts.

7.5.3.2 In addition, a Scheduled Monument Management Plan/Protection Plan is provided within **Volume 3, Technical Appendix 7.4: Scheduled Monument Management**. This document details the measures the Applicant will put in place to limit Direct/Indirect Physical Impacts to SM5891 associated with the Construction, Operation and Decommissioning of the Proposed Development. The Management Plan also provides details of how the Applicant will manage the land around and on which the scheduled zone is located during the lifetime of the Proposed Development, with the aim of limiting impacts associated with encroachment from trees and root action, taking the field out of arable cultivation and being left fallow, livestock damage, rutting from any vehicles.

7.5.4 Alternate Foundation Design

7.5.4.1 The heritage baseline has identified locally important but substantive archaeological remains within Field 5, containing Late Prehistoric enclosed settlement. The relevant non-designated asset within Field 5 is:

- MEL1894 Oldhamstocks Mains: Cropmark of possible enclosure

7.5.4.2 It is proposed that Direct Physical Impacts upon this asset be avoided via:

- The use of non-intrusive foundations, such as concrete or ballast bases;
- The use of suspended cabling / above ground cable trays, as opposed to buried cabling, negating the need for cable trenching;
- Re-routing of any access tracks or other infrastructure to avoid these areas; and
- The installation of the above non-intrusive infrastructure, and (at point of decommission) its removal, in accordance with a sensitive installation and decommissioning strategy.

7.5.4.3 The above solutions should be applied across the footprints of the aforementioned remains, and should extend to a suitable distance around them in order to ensure their efficacy. Any such strategy would be approved by the ELC Archaeological Officer in advance.

7.5.4.4 Additional below ground remains have been identified through geophysical survey within Fields 3, 5, 8, 12 and 16. The date, character and value of these remains is as of yet uncertain and will be tested through further post-determination archaeological site investigation, as detailed within **Table 7.12** Should these, or other heritage assets identified during the course of future site investigations, be of sufficient value to warrant preservation in situ, then additional mitigation by design, as described within **Table 7.12** may be required to limit Direct/Indirect Physical Impacts to these assets.

7.5.5 Additional Commitments

7.5.5.1 The heritage baseline has identified a potential for buried deposits associated with an Early Prehistoric raised beach and dunes within the area of the Site. The geographic extent of this buried landscape, its duration as a landscape feature and relationship to Later Prehistoric settlement and funerary activity is not well understood. Given this, it is proposed that any preconstruction Ground Investigation (GI) works in this area will be attended by a monitoring archaeologist, the aim of which being to assess the presence or otherwise of any buried raised beach and dune deposits within the Site.

7.5.5.2 NPF4 (especially Policy 7 relating to Archaeology and Cultural Heritage) states that 'Where there is potential for non-designated buried archaeological remains to exist below a site, developers will provide an evaluation of the archaeological resource at an early stage so that planning authorities can assess impacts.'

7.5.5.3 Primary survey work completed to date has included a walkover survey and a geophysical survey of the Proposed Development, to supplement the desk-based assessment of the Site's potential. It is proposed that any further archaeological site investigation work be undertaken as a condition of development consent.

7.5.5.4 Tertiary mitigation will take the form of a further program of archaeological works, undertaken post consent as a condition of consent. The scope of these works will be detailed within a WSI submitted to ELC for approval prior to any construction or ground disturbance is undertaken within the Site boundary. Details of a program of archaeological

works proportionate to the significance of the effect and potential of the Site are provided below;

7.5.5.5 Walkover survey: An appointed archaeological contractor will undertake a walkover survey along the final and fixed positions of all site infrastructure and within land 50 m surrounding this infrastructure. The aim of this work is to identify any previously unrecorded heritage assets that may be impacted by the Proposed Development and to afford an opportunity for micro siting infrastructure to avoid these impacts or to agree suitable mitigation with ELC should avoidance not be possible.

7.5.5.6 Archaeological monitoring of any GI works. The aim of these works are to inform the potential for buried raised beach and dunes associated with the Early Prehistoric landscape.

7.5.5.7 Targeted Trial Trench Evaluation: An appointed archaeological contactor will carry out, where feasible, a program of trial trench evaluation across the footprint of the Site, with trenching limited to portions of the Site where ground disturbance will occur. The aim of this survey is to further assess the below ground potential for archaeological remains across the Site as well as to ground truth the results of the geophysical survey and, where desired by ELC to further explore the character, age and preservation of known assets.

7.5.5.8 These initial works will inform the need and scope of additional archaeological works such as Targeted Open Area Excavation and/or Watching Brief.

7.6 Assessment of Potential Effects

7.6.1 Potential Construction Effects

Direct Physical Impacts

7.6.1.1 Direct Physical Impacts are only likely to occur as a result of construction activities within the footprint of the Proposed Development. Direct Physical Impacts would be permanent.

7.6.1.2 The heritage baseline has identified eight assets within the Site boundary, consisting of three assets identified within ELC HER or HES datasets and five further assets identified through geophysical survey. Designated assets include SM5891 Oldhamstocks Mains, enclosure and Oldhamstocks Conservation Area CA288. The remaining six assets are non-designated. These eight assets date from the Later Prehistoric period through to the Post-Medieval period and are located within Fields 3, 5, 8, 12, 16 and 19. **Table 7.13** below lists these known assets by field.

7.6.1.3 No panels or associated infrastructure are located within Fields 12 and 19. Field 12 will be set aside for BNG gains. There are no predicted Direct Physical Impacts within Field 12. Field 19 contains SM5891 and is currently used as arable land. The long-term management of Field 19 and the associated scheduled monument is discussed in **Volume 3, Technical Appendix 7.4: Scheduled Monument Management Plan**. The actioning of this Management Plan will result in no Direct Physical Impact to SM5891.

7.6.1.4 Embedded mitigation, in the form of amended foundation design, above ground cabling and the micro siting of access tracks, as discussed in **Section 7.5** would avoid Direct Physical Impacts to MEL18949 within Field 5.

TABLE 7.13 HERITAGE ASSETS LOCATED BY FIELD

FIELD	MAIN REFERENCE	NAME	DESCRIPTION	PERIOD	PREDICTED IMPACT
3	MS3.1	MS3.1	Geophysical anomalies possibly relating to archaeology. Within Field 3.	Unknown	Yes
5	MEL1894	Oldhamstocks Mains of	Cropmark of possible enclosure	Late Prehistoric	None
5	MS5.1	MS5.1	Geophysical anomalies possibly relating to archaeology. Within Field 5.	Unknown	Yes
8	MS8.1	MS8.1	Geophysical anomalies possibly relating to archaeology. Within Field 8.	Unknown	Yes
12	CA288	Oldhamstocks	The village of Oldhamstocks is recorded in the Medieval period. The village with the earliest physical remains in the village dating to the 14th century, with documentary sources pushing its origins back to the 12th century. with its church consecrated in the 13th century. The oldest building is the church that dates from the 16th century but is built on foundations of a 14th century church	Medieval	None
12	MS12.1	MS12.1	Geophysical anomalies possibly relating to archaeology. Within Field 12.	Unknown	None

FIELD	MAIN REFERENCE	NAME	DESCRIPTION	PERIOD	PREDICTED IMPACT
16	MS16.1	MS16.1	Geophysical anomalies possibly relating to archaeology. Within Field 16.	Unknown	Yes
19	SM5891	Oldhamstocks Mains, enclosure 300m NNW of	The monument comprises the remains of an enclosed settlement of prehistoric date represented by cropmarks visible on oblique aerial photographs.	Late Prehistoric	None. See **Volume 3, Technical Appendix 7.4**: Scheduled Monument Management Plan

7.6.1.5 Following implementation of the embedded mitigation measures outlined within **Section 7.4** there are four known non-designated assets considered to be at risk of Direct Physical Impact during construction. These assets are listed within **Table 7.14**.

TABLE 7.14 HERITAGE ASSETS PREDICTED TO UNDERGO DIRECT PHYSICAL IMPACT

FIELD	MAIN REFERENCE	NAME	DESCRIPTION	PERIOD	NGR
3	MS3.1	MS3.1	Geophysical anomalies possibly relating to archaeology. Within Field 3.	Unknown	375231, 672153
5	MS5.1	MS5.1	Geophysical anomalies possibly relating to archaeology. Within Field 5.	Unknown	374851, 672091
8	MS8.1	MS8.1	Geophysical anomalies possibly relating to archaeology. Within Field 8.	Unknown	374516, 671257
16	MS16.1	MS16.1	Geophysical anomalies possibly relating to archaeology. Within Field 16.	Unknown	374293, 671296

7.6.1.6 Without suitable mitigation, construction of the solar array, cable trenching and the installation of access track have the potential to disturb these low value assets. The degree of disturbance is uncertain but is not likely to result in the complete loss of these assets, with piling from the solar array and the cutting of cable trenches predicted to impact sections of the below ground remains. This construction activity is predicted to generate

slight to moderate impacts, resulting in a Minor adverse effect. This would be **Not Significant** in the context of the EIA regulations.

7.6.1.7 If, after further archaeological site investigation, these assets are deemed to warrant preservation in situ and mitigation by design, in the form of alternate foundation design, above ground cabling and the micro siting of access tracks is implemented, as discussed in **Section 7.5**, then no Direct Physical Impacts are predicted.

7.6.1.8 In relation to currently unrecorded assets within the site boundary, the heritage baseline has identified a high potential for further unknown Late Prehistoric assets and Post-Medieval assets to be present within the site boundary. There is a medium potential for Early Prehistoric and Medieval assets. The potential for all other periods is considered Minor or Negligible.

7.6.1.9 Without suitable mitigation in place there is potential for the complete loss of low value assets within areas of the Site subject to high levels of ground disturbance, such as the Substation/BESS compound and construction compound, resulting in a substantial magnitude of impact and a Moderate adverse effect, which could be considered Significant in the context of the EIA regulations.

7.6.1.10 In areas of the site with less ground disturbance, such as piling associated with the solar array, the degree of disturbance is uncertain, but likely to be of a lower order, resulting in the loss of sections of the below ground remains. This construction activity is predicted to generate slight to Moderate impacts, resulting in a Minor adverse effect. This would be **Not Significant in the context of the EIA regulations**.

Indirect Physical Impacts

7.6.1.11 Indirect Physical Impacts are only likely to occur as a result of ground vibration associated with plant movement, groundworks for the foundation of the Substation/BESS site, the cutting of cable trenches, any topsoil stripping and earth movement and the installation of solar panels through piling or placement of concrete feet/ballast blocks. Indirect Physical Impacts would be permanent.

7.6.1.12 No Indirect Physical Impacts are predicted to assets within the Site or within the 1 km Study Area. Impacts to heritage assets during construction will be limited to Direct Physical Impacts, with Indirect Physical Impacts resulting from ground vibration predicted to be Negligible, with no effect on nearby heritage assets. Effects would be **Not** Significant in the context of the EIA regulations.

Setting Impacts

7.6.1.13 Construction activities are short-term in nature and therefore have only a temporary impact to setting which would not result in a significant effect to cultural significance. As such, setting impacts are discussed in terms of Operational Effects in **Section 7.6.2**.

7.6.2 Potential Operational Effects

Direct Physical Impacts

7.6.2.1 As the footprint of the Proposed Development will not increase from the construction footprint during its operational lifetime, there are no additional Direct Physical Impacts during the operational and maintenance phase of the Proposed Development beyond those considered during construction.

Indirect Physical Impact

7.6.2.2 Should repair and maintenance during the operational lifetime of the Proposed Development require additional groundworks and the introduction of heavy plant to site, then the four non-designated assets identified within **Table 7.14** may be subject to a negligible degree of ongoing Indirect Physical Impact.

Setting Impacts

7.6.2.3 **Volume 3, Technical Appendices 7.2: Sieving Exercise** identified a total of 36 designated assets for further detailed assessment. No non-designated assets were identified as warranting assessment.

7.6.2.4 **Volume 3, Technical Appendix 7.3: Assessment of Setting Impacts** has identified Moderate Adverse Effects to two high value assets; SM5891 Oldhamstocks Mains, enclosure, and SM5892 Springfield, enclosure. These effects are considered **Not Significant** in the context of the EIA regulations.

7.6.2.5 All other Setting Impacts are predicted to be negligible or none. These effects are considered **Not Significant** in the context of the EIA regulations.

SM5891 Oldhamstocks Mains: Description of Asset

7.6.2.6 SM5891 comprises an enclosed settlement of prehistoric date represented by cropmarks with no above ground earthworks. The scheduled area encompasses the visible features and an area around them in which traces of associated activity may be expected to survive. The enclosure is formed by a single ditch some 6 m wide which encloses a sub-circular area some 70 m in diameter. The enclosure has a south-east entrance from which a further ditch runs north-west to south-east for a distance of some 10-15 m before turning sharply to the west and following a curving course to the south-west edge of the field. This ditch appears to represent part of a stock control or field boundary system contemporary at least in part with the occupation of the enclosure.

7.6.2.7 The north part of the enclosure, comprising approximately one fifth of its original area, lies under trees and is outwith the field in which the cropmarks are visible. The bulk of the scheduled monument sits within agricultural land. The monument lies on sloping ground at around 125 m AOD above the south bank of Bilsdean Burn. The enclosure would not have been visible from beyond the immediate catchment area when constructed. The enclosure sits within an area of low rolling hills within farmland used for both pasture and agriculture. The asset is located within a fertile band of farmland between the coast to the north and the uplands of the Lammermuir Hills to the south. This band of fertile agricultural land is home

to several prehistoric settlement sites, around the Bilsdean Burn and nearby Dunglass Water. The most notable of these settlement sites are SM5892, SM5893 and SM5894, all of which are located south-east of SM5891 and on the eastern edge of the Proposed Development.

7.6.2.8 The asset's cultural significance derives from its historic and scientific (archaeological) values, specifically its potential to contribute to an understanding of prehistoric settlement within south-east Scotland.

Setting of the Asset

7.6.2.9 The monument is located within the agricultural belt between the coast and the Lammermuir Hills, south of the Bilsdean Burn. Historically, views from the enclosure towards the surrounding prehistoric settlement sites are likely to have been attainable, specifically, based on the surrounding topography, those to the north around modern-day Branxton and south-east around Springfield Farm, notably SM5892. These views are likely to have been reciprocal.

7.6.2.10 Changes to the landscape around the monument as a result of Medieval and Post-Medieval agricultural activity, not least enclosure and forestry, have resulted in the loss of several of these historic views. Those to the north from the monument are now blocked by the woodland abutting the monument, and views to the west and south are similarly restricted. Views to the east, south-east and south remain, however, and continue to make a positive contribution to setting by providing views towards associated monuments and taking in the rural character of land surrounding the monument, which serves as a proxy for the rural Late Prehistoric landscape contemporary with the monument's use. Views directly south-east towards SM5892 are still open and these also contribute by providing direct views to the associated Late Prehistoric settlement. Overall, despite the changes that have taken place to the asset's setting during more recent times, setting continues to make a contribution to the asset's cultural significance, alongside its inherent historic and archaeological values.

7.6.2.11 The asset is sensitive to change to its immediate rural environs around Bilsdean Burn, and to the introduction of any infrastructure that would obstruct views to associated nearby prehistoric settlement sites, in particular, specifically SM5892. That said, the asset's setting already contains existing electrical infrastructure, including in the form of a pylon alignment in fields to the east of SM5891. An alignment of pylon towers extends from the north-west, crossing the Bilsdean Burn before turning to the south and running into the Lammermuir Hills, the nearest pylon tower being 450 m east of the monument and clearly visible in views towards SM5892. As such, modern power infrastructure already forms an aspect of the character of the asset's setting.

7.6.2.12 The Proposed Development would introduce additional infrastructure into farmland east, south-east and south of the enclosure; the nearest panels and infrastructure being 225 m away, and it would be visible in localised views to and from the enclosure.

Development Impact

7.6.2.13 Whilst the Proposed Development would be visible to the east, south-east and south of the monument, the Applicant has made several design changes to the Scoping Layout to limit any Setting Impacts, including:

- a 100 m exclusion zone around the scheduled monument was initially put in place to avoid encroachment and encirclement around the enclosure as well as to maintain elements of the Sites historic rural character;

- the Applicant then went further and removed all infrastructure within 225 m of the asset; and

- infrastructure has been pulled back from both SM5891 and SM5892, to the south-east, in an effort to maintain a clearer visual link between the asset and these two associated late prehistoric settlements; no infrastructure is now located within 350 m of SM5892.

7.6.2.14 The above core aspects of the monument's setting have therefore been maintained by means of a proactive design mitigation response, but some degree of setting impact would still occur. While the ability to understand and appreciate the asset within its setting would be retained, the visibility and proximity of the infrastructure might detract from the experience of the asset. In particular, while views between the two late prehistoric settlement sites (SM5891 and SM5892) have been maintained, they would be altered, and the character of those views, which, while it includes some modern recent power infrastructure, remains largely rural, would be further modernised. The degree to which the Proposed Development would detract from the experience of the asset in these respects is inherently subjective and cannot be readily quantified.

7.6.2.15 Overall, and on balance, a slight magnitude of impact would be anticipated. This would result in a Moderate adverse effect. This is considered **Not Significant** in the context of EIA regulations.

SM5892 Springfield Enclosure: Description of the Asset

7.6.2.16 Springfield Enclosure (SM5892) comprises an unenclosed settlement of prehistoric date represented by cropmarks with no above ground earthworks. The scheduled area encompasses the visible features and an area around them in which traces of associated activity may be expected to survive. It is rectilinear with dimensions of 120 m E-W by 80 m defined by a single ditch some 3-4 m wide of which three sides are visible on the available aerial photographs. The overall dimensions of the enclosure are approximately 40 m east to west by a minimum of 20 m. There are possible indications of an entrance in the centre of the south side of the enclosure. Although the north side of the enclosure is not visible, the north part of the asset is occupied by a diffuse cropmark which may represent the remains of associated occupation material.

7.6.2.17 Rectilinear enclosures of this type are generally interpreted as native settlements of Later Iron Age or Roman origin. The enclosure lies on well-drained, locally high ground at around 120 m OD, above the Bilsdean Burn. The enclosure sits within an area of low hills within farmland used for both pasture and arable. The asset is located within a fertile band of farmland between the coast to the north and the uplands of the Lammermuir Hills to the south. This band of fertile agricultural land is home to several prehistoric settlement sites, around the Bilsdean Burn and nearby Dunglass Water. The most notable of these settlement sites are SM5891, SM5893 and SM5894, with SM5891 located north-west of the monument and SM5893 and SM5894 to the south.

7.6.2.18 The significance of the monument is derived from its historic and archaeological values, specifically its potential to contribute to an understanding of prehistoric settlement within south-east Scotland.

Setting of the Asset

7.6.2.19 The asset is located within the agricultural belt between the coast and the Lammermuir Hills, south of the Bilsdean Burn. Historically, views from the enclosure towards associated prehistoric settlement sites would have been attainable, specifically, based on the surrounding topography, those to the north-west around modern day Branxton, inclusive of SM5891 and south around Springfield Farm. These views would likely have been reciprocal.

7.6.2.20 Changes to the landscape around the monument as a result of Medieval and Post-Medieval agricultural activity, not least enclosure and forestry, have resulted in the loss of several of these historic views. Those to the north from the monument are now blocked by the woodland abutting the monument, and views to the east and south-east are similarly restricted. Views to the north-west, west, south-west and south remain, however, and continue to make a positive contribution to setting by providing views towards associated monuments and taking in the rural character of land surrounding the monument, which serves as a proxy for the rural Late Prehistoric landscape contemporary with the monuments use. Views directly north-west towards SM5891 are still open and these also contribute by providing direct views to associated Late Prehistoric settlement. Overall, despite the changes that have taken place to the asset's setting during more recent times, setting continues to make a contribution to the asset's cultural significance, alongside its inherent historic and archaeological values.

7.6.2.21 The asset is sensitive to change to its immediate rural environs around Bilsdean Burn, and to the introduction of any infrastructure that would obstruct views to associated nearby prehistoric settlement sites, in particular, specifically SM5891, SM5893 and SM5894. That said, the asset's setting already contains existing electrical infrastructure, including in the form of a pylon alignment in fields to the west of SM5892. An alignment of pylon towers extends from the north-west, crossing the Bilsdean Burn before turning to the south and running into the Lammermuir Hills, the nearest pylon tower being 200 m west of the monument and clearly visible in views towards SM5891. As such, modern power infrastructure already forms an aspect of the character of the asset's setting.

7.6.2.22 The Proposed Development would introduce additional infrastructure into farmland north-west, west and south-west of the enclosure, with the nearest visible panels and infrastructure within 350 m, and it would be visible in localised views to and from the enclosure.

Development Impact

7.6.2.23 Whilst the Proposed Development would be visible to the west, south-west and south of SM5892, the Applicant has made several design changes to the Scoping Layout to limit any Setting Impacts, as follows:

- a 100 m exclusion zone around the scheduled monument was initially put in place to avoid encroachment and encirclement around the enclosure as well as to maintain elements of the Sites historic rural character;

- the Applicant then went further and removed all visible infrastructure within 350 m of the asset; and

- infrastructure has been pulled back from both SM5892 and SM5891, to the north-west, in an effort to maintain a clearer visual link between the asset and these two associated late prehistoric settlements; no infrastructure is now located within 225 m of SM5891.

7.6.2.24 The above core aspects of the monument's setting have therefore been maintained by means of a proactive design mitigation response, but some degree of setting impact would still occur. While the ability to understand and appreciate the asset within its setting would be retained, the visibility and proximity of the infrastructure might detract from the experience of the asset. In particular, while views between the two late prehistoric settlement sites (SM5891 and SM5892) have been maintained, they would be altered, and the character of those views, which, while it includes some modern recent power infrastructure, remains largely rural, would be further modernised. The degree to which the Proposed Development would detract from the experience of the asset in these respects is inherently subjective and cannot be readily quantified.

7.6.2.25 Overall, and on balance, a slight magnitude of impact would be anticipated. This would result in a Moderate adverse effect. This is considered **Not Significant** in the context of EIA regulations.

7.6.3 Potential Decommissioning Effects

Direct Physical Impacts

7.6.3.1 As the footprint of the Proposed Development will not increase from the construction footprint during its operational lifetime, there are no additional Direct Physical Impacts during the decommissioning phase of the Proposed Development beyond those considered during construction (refer to **Section 7.6.1**).

Indirect Physical Impacts

7.6.3.2 Should decommissioning of the Proposed Development require additional groundworks and the introduction of heavy plant to site, then the four non-designated assets identified within **Table 7.14** may be subject to a negligible degree of ongoing Indirect Physical Impacts.

Setting Impacts

7.6.3.3 Decommissioning activities are short-term in nature and therefore have only a temporary impact to setting. Setting Impacts associated with the decommissioning stage are of a lower magnitude of impact than those discussed within the Operational Effects and would be **Not Significant** in the context of EIA regulations.

7.6.3.4 Ultimately, decommissioning and removal of the infrastructure would return the site to its pre-construction baseline, negating the Operation Phase setting impact and having an overall beneficial effect, including in relation to the two scheduled monuments described above.

7.7 Cumulative Effects

7.7.1 Cumulative Projects

7.7.1.1 All heritage assets with a predicted minor adverse effect, or greater, resulting from Setting Impacts associated with the Proposed Development, were considered for cumulative/in-combination Setting Impacts with other schemes. Heritage assets with No or negligible adverse effects resulting from Setting Impacts associated with the Proposed Development were not considered.

7.7.1.2 The Proposed Development, in isolation, this assessment has identified Moderate Adverse Effects to two Scheduled Monuments, SM5891 Oldhamstocks Mains, enclosure, and SM5892 Springfield, enclosure. Setting Impacts to these monuments derived from an erosion of the views between said monuments and an erosion of experience for visitors relating to the loss of surrounding rural farmland, which whilst having changed substantially since their construction, is nevertheless representative of the rural character of the Late Prehistoric landscape. All other Setting Impacts generated from the Proposed Development are **Negligible or No Effect**.

7.7.1.3 SM5891 and SM5892 are located within a fertile band of farmland between the coast to the north and the uplands of the Lammermuir Hills to the south. This band of fertile agricultural land is home to several prehistoric settlement sites, around the Bilsdean Burn, Braidwood Burn, Thornton Burn, Ogle Burn and nearby Dunglass Water. The most notable of these settlement sites are SM5893, SM5894, SM5876, SM5850, SM5890, SM5958, SM5848, SM5849, SM5771, SM5770 and SM3990. The potential for Cumulative Effects to Setting are dependent on a project's further erosion of historic views between Late Prehistoric monuments and/or the further loss of rural land surrounding these monuments. Cumulative Effects are only predicted where the Setting Impacts of a project overlap with those from the Proposed Development.

7.7.1.4 From the baseline list of nine cumulative projects a total of four projects were considered to have potential to generate cumulative/in-combination effects. The projects with the potential for cumulative/in-combination effects with the Proposed Development.

7.7.1.5 Cumulative projects have been excluded from consideration where they are at a sufficient distance to preclude Cumulative Impacts to Setting or they have been fully assessed through an EIAR and no overlapping Setting Impacts have been predicted.

23/00616/PM Branxton Substation 1 and 23/00162/PPM Branxton Connection 2

7.7.1.6 Consent has been granted for Planning Application 23/00616/PM Branxton Substation 1. The application was for Erection of a 400KV Substation and associated development, including associated temporary infrastructure including construction compounds and access road on land to the south of Thornton Bridge, 1 km north of the Proposed Development.

7.7.1.7 Planning permission in principle has also been granted for Planning Application 23/00162/PPM Branxton Connection 2 for underground cabling connecting the Offshore Berwick Bank Wind Farm to the 400KV Substation detailed within Planning Application 23/00616/PM.

7.7.1.8 Setting Impacts generated as a result of these two projects are limited to the operational effects of the above ground Substation and its associated upstanding infrastructure. The predicted Setting Impacts are limited to SM5958, SM5850, SM5850, SM5849 and SM771 and do not interact with the two adverse effects to Setting identified in this Chapter.

ECU00004993 Branxton BESS4

7.7.1.9 An application has been submitted to the ECU (ECU Ref:00004933) for the construction and operation of a Battery Energy Storage System of up to 650 megawatts (MW) on land south of Innerwick and north of the Thurston Main Burn, c. 2.3 km north-west of the Proposed Development.

7.7.1.10 Setting Impacts generated as a result of this project are limited to the operational effects of the above ground Substation and its associated upstanding infrastructure. The predicted Setting Impacts are likely limited to SM5848, SM5849, SM5771 and SM3916 and do not interact with the two adverse effects to Setting identified in this Chapter.

ECU0004659 Branxton BESS3

7.7.1.11 Consent has been granted for the construction of a grid services facility, comprising battery storage modules designed to balance power flows and adjust and support frequency and voltage conditions on the national electricity grid, and other associated ancillary electrical infrastructure. The electrical export capacity of the project will exceed 50 MW. The project is located on land 800 m east of Thornton, adjacent to the main East Coast railway line between Edinburgh and Berwick and 1.1 km north of the Proposed Development.

7.7.1.12 Setting Impacts generated as a result of this project are limited to the operational effects of the above ground infrastructure. The predicted Setting Impacts are likely limited to SM3990 and SM5958 and do not interact with the two adverse effects to Setting identified in this Chapter.

7.7.1.13 Based on the above assessment, there are **no predicted Cumulative Effects** to Setting. Neither are there any Cumulative Direct or Indirect Physical Impacts.

7.8 Mitigation and Residual Effects

7.8.1 Proposed Mitigation: Direct and Indirect Physical Impacts

7.8.1.1 Embedded mitigation, as detailed within **Section 7.5**, **Table 7.12**, outlines a series of primary and tertiary mitigation measures intended to reduce the effect of Direct Physical Impacts generated across the lifetime of the Proposed Development, to a level where the potential for significant adverse effects is removed.

7.8.1.2 These initial works will inform the need and scope of additional archaeological works such as Targeted Open Area Excavation and/or Watching Brief.

7.8.1.3 The Applicant is not proposing any further mitigation at this time.

7.8.2 Proposed Mitigation: Setting Impacts

7.8.2.1 Setting Impacts are predicted to generate moderate adverse effects, which are considered not significant in the context of EIA regulations, to two Scheduled Monuments, SM5891 Oldhamstocks Mains, enclosure, and SM5892 Springfield, enclosure.

7.8.2.2 Primary mitigation, in relation to these two monuments, has taken the form of mitigation by design. Infrastructure has been removed from Fields 18 and 19 and from the eastern part of Field 5 in order to reduce Setting Impacts to SM5891 and SM5892.

7.8.2.3 In relation to other assets, and Setting Impacts, infrastructure has been deliberately avoided within Field 12. Infrastructure has been removed from Fields 10 and 11 and reposition within Fields 13 and 14 in order to reduce Setting Impacts to Oldhamstocks Conservation Area.

7.8.2.4 The Applicant is not proposing any further mitigation at this time.

7.8.3 Residual Effects

7.8.3.1 Following the implementation of the mitigation strategy outlined above, Residual Effects are limited to the identified Setting Impacts.

7.8.3.2 Setting Impacts will persist throughout the lifetime of the Proposed Development but will be fully reversible following decommissioning.

7.9 Conclusions

7.9.1 Summary of Effects

7.9.1.1 Direct, Indirect, Setting and Cumulative Impacts upon Cultural Heritage assets have all been considered. Assuming the implementation of tertiary mitigation measures outlined within **Table 7.12** above, the Proposed Development is considered to be **Not Significant** with regards Direct or Indirect Physical impacts during construction**.**

7.9.1.2 Moderate adverse effects have been identified to the cultural significance of two scheduled monuments, SM5891 and SM5892, resulting from Setting Impacts. These effects are considered to be **Not Significant** in the context of EIA regulations. Setting Impacts will persist throughout the lifetime of the Proposed Development but will be fully reversible following decommissioning.

7.9.1.3 Cumulative Effects relating to Setting Impacts are considered to be **Not Significant** in the context of EIA regulations.