



Chapter 7: Cultural Heritage and Archaeology

Dupplin Solar EIA Report

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Acronyms and Abbreviations

ALGAO	Association of Local Government Archaeological Officers
aOD	Above Ordnance Datum
CHVP	Cultural Heritage Viewpoint
EIA	Environmental Impact Assessment
GDL	Garden and Designed Landscape
HEPS	Historic Environment Policy for Scotland
HER	Historic Environment Record
HES	Historic Environment Scotland
HLA	Historic Land Use Assessment
LB	Listed Building
LVIA	Landscape and Visual Impact Assessment
NCAP	National Collection of Aerial Photography
NLS	National Library of Scotland
NPF4	National Planning Framework 4
OS	Ordnance Survey
PKHT	Perth and Kinross Heritage Trust
SLR	SLR Consulting Limited
SM	Scheduled Monument
VP	Viewpoint
ZTV	Zone of Theoretical Visibility
OS	Ordnance Survey
SLR	SLR Consulting Limited



7. Cultural Heritage and Archaeology

7.1 Introduction

- 7.1.1 This Chapter presents the assessment of the likely significant effects (as per the ‘Environmental Impact Assessment (EIA) Regulations’) on Archaeology and Cultural Heritage Receptors arising from Dupplin Solar (‘the Proposed Development’) during construction, operation and decommissioning.
- 7.1.2 The ‘cultural heritage’ of an area comprises archaeological sites, historic buildings, Inventoried Gardens and Designed Landscapes (GDLs), Inventoried Battlefields and other historic environment features. Alongside its inherent values, the ‘setting’ of an asset may also contribute to its cultural heritage significance.
- 7.1.3 The Cultural Heritage Impact Assessment (CHIA) identifies cultural heritage assets that may be subject to significant effects, both within the footprint of the infrastructure of the Proposed Development and within a surrounding radius of 10 km; establishes the potential for currently unknown archaeological assets to survive buried within the Site; assesses the predicted effects on these assets; and proposes a programme of mitigation where appropriate. It will consider direct effects (such as physical disturbance or effects through setting change), indirect effects (such as might result from dewatering), and cumulative effects (where assets affected by the Proposed Development are also likely to be affected by other development proposals of a similar nature). The proposed approach to the assessment of effects on cultural heritage is set out below.
- 7.1.4 The objectives of the Chapter are to:
- describe the current baseline established from desk studies, targeted surveys and feedback obtained during consultation with statutory consultees;
 - describe the assessment methodology and significance criteria used in completing the impact assessment;
 - describe the potential effects, including direct (physical), direct (setting), indirect, and cumulative effects;
 - assess the residual effects remaining following the implementation of mitigation measures; and
 - reach a conclusion on the likely significant effects based on the information gathered and the analysis and assessments undertaken.
- 7.1.5 The Chapter then highlights any further measures recommended to prevent, minimise, reduce, or offset any environmental effects.
- 7.1.6 The assessment has been carried out by Elise Christensen MA (Hons) ACIfA FSA Scot, Senior Heritage Consultant, of SLR Consulting Ltd with contributions from Elliot Carter MLitt ACIfA, Associate Heritage Consultant, and Harleigh Broughton MA (Hons), Graduate Heritage Consultant. The Chapter has been reviewed by Beth Gray, MA (Hons) MCIfA, Principal Heritage Consultant and approved by



John Trehy (BA (Hons), MClfA, Technical Discipline Manager – Archaeology and Heritage).

7.1.7 The Chapter is supported by:

- **Appendix A:** Cultural Heritage Gazetteer
- **Appendix B:** Site Photographs
- **Figure 7.1:** Heritage Constraints
- **Figure 7.2:** Site Layout and Infrastructure
- **Figure 7.3** ZTV and Designated Heritage Assets
- **Figure 7.4:** CH1 Viewpoint from Old Gallows Road

7.2 Legislation, Policy & Guidance

Legislation

The assessment will be undertaken in accordance with the following principal relevant legislation:

- The Ancient Monuments and Archaeological Areas Act 1979;
- The Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997;
- The Historic Environment (Amendment) (Scotland) Act 2011; and
- Scottish Statutory Instrument No. 101 The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017.

Planning Policy

7.2.1 The Planning Statement associated with this Section 36 application sets out the planning policy framework that is relevant to the EIA. This section considers the relevant aspects of National Planning Framework 4 (NPF4), Planning Advice Notes, the Perth and Kinross Council Local Development Plan (LDP) and other relevant guidance. Of relevance to the assessment presented within this chapter, regard has been had to the following policies:

- National Planning Framework 4 (NPF4) (2023);
- Historic Environment Scotland: Designation Policy and Selection guidance (2019c);
- Historic Environment Policy for Scotland (HEPS) (2019a); and
- Perth and Kinross Local Development Plan 2 (2019).
 - Policy 26: Scheduled Monuments and Archaeology;
 - Policy 27A: Listed Buildings;
 - Policy 29: Gardens and Designed Landscapes;
 - Policy 30: Protection, Promotion and Interpretation of Historic Battlefields; and
 - Policy 31: Other Historic Environment Assets.



Guidance

- 7.2.2 The Scottish Government and HES have issued a number of statements of policy with respect to dealing with the historic environment in the planning system:
- Our Past, Our Future: The Historic Environment Strategy for Scotland (2023);
 - Historic Environment Scotland Guidance on Managing Change in the Historic Environment: Setting (2016b);
 - Historic Environment Scotland Guidance on Managing Change in the Historic Environment: Historic Battlefields (2016a);
 - A Guide to Climate Change Impact: On Scotland’s Historic Environment (2019);
 - NatureScot and Historic Environment Scotland Environmental Impact Assessment Handbook (2018);
 - IEMA Principles of Cultural Heritage Impact Assessment in the UK (2021);
 - Chartered Institute for Archaeologists Standard and Guidance for Historic Environment Desk Based Assessment (2014, updated 2020); and
 - Planning Advice Note 2/2011: Planning and Archaeology.

7.3 Consultation

- 7.3.1 Consultation was conducted with consultees to agree a methodology and scope in lieu of a formal scoping exercise. This is summarised below in **Table 7-1**.

Table 7-1: Consultation Responses

Consultee	Consultation Response	Applicant Action
First Marquis of Montrose Society	The Applicant attended a virtual meeting via MS Teams on 13 August 2025 to introduce the project and discuss potential assessment methodology. No response received since this first meeting, however, the Consultee agreed verbally on the call that the proposed Site was not located within the likely key battlefield site.	SLR have utilised the relevant information regarding the Battle of Tippermuir (BTL39) presented in the Battlefield Conservation Plan, which has been reviewed previously by the First Marquis of Montrose Society.
Historic Environment Scotland (HES)	<p>HES have agreed with the proposed methodology issued by SLR Consulting Ltd. in a pre-application advice note on 29 August 2025.</p> <p>HES have identified likely significant effects on Battle of Tippermuir (BTL39), further identifying key areas and features of the battlefield which contribute to the value of the battlefield, namely:</p> <ul style="list-style-type: none"> • views from the Old Gallows Road, running 300m north of the Proposed Development; and • the high ground of Lamberkine Ridge and West Lamberkine Wood, where 	<p>This report has scoped in Battle of Tippermuir (BTL39) for assessment due to potential significant adverse impacts – see Section 7.16.</p> <p>Visualisation locations used for assessment have been chosen based on the consultation with HES and those utilised by Chapter 5 Landscape and Visual.</p>



	<p>Montrose took on the Royalist right flank.</p> <p>Wirelines and photomontages have been suggested at these locations to illustrate the impacts from these locations.</p>	
Perth and Kinross Heritage Trust	No response received to the issued by SLR Consulting Ltd. in a pre-application advice note on 29 August 2025.	SLR have utilised the Local Development Plan and PKHT's response to other known solar farms and developments in the area, using them to inform the assessment and mitigation presented in Section 7.10 .

7.4 Assessment Methods & Significance Criteria

The assessment methodology adhered to for purposes of preparing this chapter is detailed below.

Study Area

7.4.1 The following study areas are proposed on the grounds of professional experience¹:

- A 1 km radius to ascertain potential for unknown buried remains was applied to the Site boundary (**Figure 7.1**); and
- To assess the impact on the settings of heritage assets, a 2 km Study Area was defined around the development area. (**Figure 7.3**).

Information and Data Sources

7.4.2 **Table 7-2** sets out the main data sources used in this study.

Table 7-2: Main Data Sources Used in the Production of this Chapter

Subject	Source	Location
Designated heritage assets (except conservation areas)	HES	HES digital data download
Conservation areas	PKHT	HES digital data download
Non-Designated heritage assets	HES Database – Trove	Digital data supplied as download
Non-Designated heritage assets	HER data held by PKHT	Digital data supplied as download
Historic maps	National Library of Scotland	Online
Aerial photography	HES	HES database Canmore and National Collection of Aerial Photograph (NCAP) (online)
Historic Land-Use Assessment (HLA)	HES	Online
Historic environment	Unpublished reports	Various
	Published synthetic works	Various



Subject	Source	Location
Condition of recorded heritage assets within site	Field inspection	Inspected by SLR Consulting Surveyor on 8 August 2025
Setting of heritage assets	Field inspection within study areas and other specified assets from areas of public access.	Inspected by SLR Consulting Surveyor on 8 August 2025

Field Survey

- 7.4.3 A field survey was conducted to inspect the Site and the surrounding heritage assets. Due to limitations regarding crop height, the Site was inaccessible for a walkover survey that would have normally been conducted to support this EIA chapter. A visual survey was conducted by Unmanned Aerial Vehicle (UAV or 'drone') to inspect the Site. The aim was to establish the condition of recorded assets and identify the potential for any as yet unrecorded heritage assets within the Site. Two heritage assets were identified, those being **SLR60** and **SLR74**, composed of extant field boundaries which are shown on the 1st edition OS six-inch map (1866, sheet xcvi) (**Plate 1** and **Photograph 1**). Evidence of the Roman Road (**SLR61**) was visible as a cropmark at the western end (**Photograph 3**). The Site visit also confirmed the preservation of the quarry (**SLR14, Photograph 2**) and a field boundary (**SLR69, Photograph 1**) visible above ground.
- 7.4.4 A survey to undertake settings assessments and observations was carried out on the 8 August 2025. This included assets scoped into the assessment, namely locations around Battle of Tippermuir (**BTL39**), and other assets which have since been scoped out and ground truth visibility from third points of appreciation.

LiDAR Methodology

- 7.4.5 LiDAR provides topographic data and is particularly useful in the detection and identification of heritage assets that survive as earthworks. The Remote Sensing Portal (Scotland)³ collates the available LiDAR data and makes this available for public use through their online portal. Digital Terrain Models (DTM) are routinely used for heritage purposes as this model shows the ground's surface with buildings and trees filtered out to create a 'bare earth' effect. The available data for the Site was gathered at 1 m resolution in 2009 (Phase I). This data was processed in October 2025 using the Relief Visualisation Toolkit (RVT) plugin on QGIS.

Assessment of Significance

- 7.4.6 The Proposed Development has the potential to result in effects upon the cultural significance of heritage assets where it changes their baseline condition and/or their setting.
- 7.4.7 In accordance with the EIA Regulations and the EIA Handbook¹, this assessment has identified any development impacts as either direct or indirect, adverse, or

¹ Scottish Natural Heritage and HES (2018). Environmental Impact Assessment Handbook



beneficial, and short-term, long-term, or permanent. The definition of impact is described below:

- Direct (physical) impacts: occur where the physical fabric of the asset is removed or damaged, or where it is preserved or conserved, as a direct result of the Proposed Development. Such impacts are most likely to occur during the construction phase and are most likely to be permanent.
- Indirect (physical) impacts: occur where the fabric of an asset, or buried archaeological remains, is removed or damaged, or where it is preserved or conserved, as an indirect result of the proposal (such as might result from dewatering), even though the asset may lie some distance from the proposal. Such impacts are most likely to occur during the construction phase and are most likely to be permanent.
- Direct (Setting) impacts: 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 directly as a result of the appearance of the proposal in the surroundings of the asset. Setting impacts may also 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: 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 proposal itself, or additive impacts resulting from incremental changes caused by the proposal together with other projects already in the planning system or allocated in a Local Development Plan.

7.4.8 Direct impacts upon the cultural significance of heritage assets have taken into account the level of their cultural significance (where known) and the magnitude (extent) of the identified impacts.

7.4.9 Impacts on cultural heritage assets will be identified and assessed with reference to the guidance set out by NatureScot and HES (2018). Assessment will be carried out in the following stages:

- initial consideration of intervisibility and other factors leading to the identification of potentially affected assets;
- assessment of the cultural significance of potentially affected assets;
- assessment of the contribution of setting to the cultural significance of those assets;
- assessment of the extent to which change to any contributing aspects of the settings of those assets, as a result of the Proposed Development, would impact their cultural significance (magnitude of impact); and
- determination of the significance of any identified effects.



- 7.4.10 Assessment on the impacts on the setting of cultural heritage assets has been carried out following the three-stage approach outlined in Managing Change in the Historic Environment: Setting (HES 2020):
- Stage 1: identify the historic assets that might be affected by the proposed development;
 - Stage 2: define and analyse the setting by establishing how the surroundings contribute to the ways in which the historic asset or place is understood, appreciated and experienced; and
 - Stage 3: evaluate the potential impact of the proposed changes on the setting, and the extent to which any negative impacts can be mitigated.

Zone of Theoretical Visibility

- 7.4.11 The settings assessment has been assisted by a Zone of Theoretical Visibility (ZTV) calculation, presented on **Figure 7.3**. A ZTV calculation maps the predicted degree of visibility of the Proposed Development from all points within a proportionate, defined study area around the Site, as would be seen from an average observer's eye level (two metres above ground level). The ZTV model presented on **Figure 7.3** is based upon the maximum level of theoretical visibility. As bare earth topographical data was used, the ZTV assumes the worst-case scenario, with no screening from existing vegetation or buildings. For further information on the ZTV methodology, refer to **Chapter 5: Landscape and Visual Impact Assessment**.

Cultural Heritage Significance

- 7.4.12 The categories of cultural significance referred to are presented in **Table 7-3**, which acts as an aid to consistency in the exercise of professional judgement and provide a degree of transparency for others in evaluating the conclusions drawn.
- 7.4.13 The cultural significance categories take into account factors such as designation, status, and grading. For non-designated assets, consideration has been given to their inherent heritage interests, intrinsic, contextual, and associative



characteristics as defined in HES’s Designation Policy and Selection Guidance². In relation to these assets, the assessment focuses upon the following:

- An assessment of the assets’ inherent capability to contribute to our understanding of the past;
- The character of their structural, decorative and field characteristics as informed by the Historic Environment Record (HER) and Trove records and/or site visit observations;
- The contribution of an asset to their class of monument, or the diminution of that class should an asset be lost; and
- How a site relates to people, practices, events, and/or historical or social movements

Assessments of the cultural significance of specific assets, where recorded within the HER, have been taken into account where appropriate.

Table 7-3 Cultural Heritage Significance Criteria

Cultural Heritage Significance	Criteria
Highest	Sites of international importance, including: <ul style="list-style-type: none"> • World Heritage Sites.
High	Sites of National importance, including: <ul style="list-style-type: none"> • Scheduled Monuments; • Category A Listed Buildings; • Gardens and Designed Landscapes included on the national inventory; • Designated Battlefields; • Conservation areas containing nationally important buildings; and • Non-designated assets of equivalent significance.
Medium	Sites of Regional/Local importance, including: <ul style="list-style-type: none"> • Category B and C Listed Buildings; • Conservation Areas containing buildings that contribute significantly to its character; and • Non-designated assets of equivalent significance.
Low	Assets of Local importance. Heritage assets compromised by poor preservation and/or poor survival of contextual associations or with little of the asset remaining to justify a higher importance.
Negligible	Assets that are of very little or no heritage interest. Heritage assets where the ability to interpret their archaeological context has been removed/eroded.
Unknown	Further information is required to assess the significance of these assets.

² Historic Environment Scotland (2019c) Designation Policy and Selection Guidance



- 7.4.14 The setting of a heritage asset can be a contributing factor to its cultural significance³. Each element of an asset’s setting may make a positive, neutral, or negative contribution to the cultural significance of an asset.
- 7.4.15 An asset’s sensitivity of change refers to the capacity of the asset’s setting to retain its ability to contribute to the understanding, appreciation, and experience of the asset and its cultural significance despite the introduction of changes caused by the Proposed Development to the asset’s baseline environment.
- 7.4.16 The contribution of the asset’s setting to its cultural significance and sensitivity thereof varies based on the type of asset, its preservation, and its current setting. As part of the assessment, the contribution of the asset’s setting and relative sensitivity to change will be presented with relevant justification, utilising the results of desk-based research, a field visit, and professional judgement.
- 7.4.17 Due to the unique qualities of each heritage asset, this will be determined on a case-by-case basis for each receptor in line with HES’s Managing Change in the Historic Environment: Setting⁴ guidance and the EIA Handbook⁵ as per the above methodology (**Paragraph 7.4.10**).

Magnitude of Impact

- 7.4.18 Determining the magnitude of any likely impacts includes consideration of the nature of the activities proposed during the construction, operational and decommissioning phases of the Proposed Development.
- 7.4.19 Changes could potentially include ground disturbance and changes to setting. The latter might include visual change, as well as noise, vibration, smell, dust, traffic movements etc. Impacts may be beneficial or adverse, and may be short term, long term or permanent.
- 7.4.20 Where adverse impacts on cultural heritage assets are possible, the magnitude of impact can be reduced through measures to prevent, reduce and/or, where possible, offset these effects.
- 7.4.21 Taking into account all embedded mitigation measures (**Section 7.17.7**), the magnitude of any impact has been assessed using professional judgement, with reference to the criteria set out in **Table 7-4**.

Table 7-4: Magnitude of Impact

Magnitude of Impact	Explanatory Criteria
High Beneficial	Changes to the elements of the fabric or the setting of the cultural heritage asset that contribute to its cultural significance, such that this cultural significance, or the ability to understand, appreciate and experience the asset, is considerably enhanced.

³ HES (2019c)

⁴ HES (2016b)

⁵ NatureScot and HES (2018)



Medium Beneficial	Changes to the elements of the fabric or the setting of the cultural heritage asset that contribute to its cultural significance, such that this cultural significance, or the ability to understand, appreciate and experience the asset, is enhanced to a clearly discernible extent.
Low Beneficial	Changes to the elements of the fabric or the setting of the cultural heritage asset that contribute to its cultural significance, such that this cultural significance, or the ability to understand, appreciate and experience the asset, is enhanced to a minor extent.
Very Low Beneficial	Changes to the elements of the fabric or the setting of the cultural heritage asset that contribute to its cultural significance, such that this cultural significance, or the ability to understand, appreciate and experience the asset, is enhanced to a very minor extent.
Neutral/None	The Proposed Development would not impact the cultural heritage significance of the heritage asset, or the ability to understand, appreciate and experience it.
Very Low Adverse	Changes to the elements of the fabric or the setting of the cultural heritage asset that contribute to its cultural significance, such that this cultural significance, or the ability to understand, appreciate and experience the asset, is eroded to a very minor extent. This level of impact would not be considered to affect the integrity of the asset's setting.
Low Adverse	Changes to the elements of the fabric or the setting of the cultural heritage asset that contribute to its cultural significance, such that this cultural significance, or the ability to understand, appreciate and experience the asset, is eroded to a minor extent. This level of impact would rarely be considered to affect the integrity of the asset's setting.
Medium Adverse	Changes to the elements of the fabric or the setting of the cultural heritage asset that contribute to its cultural significance, such that this cultural significance, or the ability to understand, appreciate and experience the asset, is eroded to a clearly discernible extent. This level of impact might be considered to affect the integrity of the asset's setting.
High Adverse	Changes to the elements of the fabric or the setting of the cultural heritage asset that contribute to its cultural significance, such that this cultural significance, or the ability to understand, appreciate and experience the asset, would be considerably eroded. This level of impact would probably be considered to affect the integrity of the asset's setting.

7.4.22 **Table 7-5** provides a matrix that relates the cultural significance of the asset to the magnitude of impact on its cultural significance, to produce an overall anticipated level of effect (significance of effect).

Table 7-5: Significance of Effect

Magnitude of Impact	Cultural Significance (Excluding Unknown)				
	Highest	High	Medium	Low	Negligible
High Beneficial	Major	Major	Moderate	Minor	Very Minor
Medium Beneficial	Major	Moderate	Minor	Very Minor	Negligible
Low Beneficial	Moderate	Minor	Very Minor	Very Minor	Negligible



Very Low Beneficial	Minor	Very Minor	Negligible	Negligible	Negligible
Neutral/None	Neutral/Nil	Neutral/Nil	Neutral/Nil	Neutral/Nil	Neutral/Nil
Very Low Adverse	Minor	Very Minor	Negligible	Negligible	Negligible
Low Adverse	Moderate	Minor	Very Minor	Very Minor	Negligible
Medium Adverse	Major	Moderate	Minor	Very Minor	Negligible
High Adverse	Major	Major	Moderate	Minor	Very Minor

Cumulative Effect

- 7.4.23 Cumulative effects have been assessed in line with the guidance provided in the EIA Handbook⁶. A cumulative effect is considered to occur when there is a combination of:
- an impact on an asset or group of assets due to changes resulting from the proposed development; and
 - an impact on the same asset or group of assets resulting from other solar farm developments (consented or proposed, but not operational) within the surrounding landscape.
- 7.4.24 Assets with a minor or higher significance of effect resulting from the Proposed Development in isolation have been considered for cumulative assessment, as these assets are most likely to be susceptible to significant cumulative effects.
- 7.4.25 Consideration of other developments have been limited to:
- solar farm planning applications, within 5 km, that have been submitted and have a decision pending;
 - solar farm planning applications, within 5 km, that have been granted permission but not yet constructed; and
 - other developments within 2 km of a similar scale.
- 7.4.26 Any effect resulting from operational solar farms (within 5 km of the Proposed Development) is considered as part of the baseline impact assessment. Cumulative impact is considered in two stages:
- assessment of the combined impact of the developments, including the Proposed Development; and
 - assessment of the extent to which the Proposed Development contributes to the combined impact.

Significance and NPF4

Significance

- 7.4.27 Once the anticipated effects of the Proposed Development upon cultural heritage assets are defined, professional judgement is used to determine whether those

⁶ NatureScot and HES (2018)



effects would be either ‘Significant’ or ‘Not Significant’ for the purposes of EIA. As part of this determination process, regard was given to any relevant guidance.

7.4.28 With reference to the matrix presented in **Table 7-5**:

- any effects identified as ‘major’ would most probably be considered ‘significant;’
- any effects identified as ‘moderate’ might also be considered ‘significant,’ although professional judgement may determine otherwise on the basis of the associated site-/asset-specific detail; and
- any effects identified as ‘minor’ or less are unlikely to be considered ‘significant,’ though again, professional judgement has been exercised.

7.4.29 A clear statement has been made in relation to all affected assets as to whether the identified effects upon them are considered to be ‘significant’ or ‘not significant’ for purposes of EIA.

NPF4

Inventory Battlefields

7.4.30 Policy 7j) of NPF4 states that development proposals affecting Historic Battlefields will only be supported where *“they protect and, where appropriate, enhance their cultural significance, key landscape characteristics, physical remains, and special qualities.”*

Scheduled Monuments

7.4.31 Policy 7h) of NPF4 states that development proposals affecting scheduled monuments will only be supported where; *“significant adverse impacts on the integrity of the setting of a scheduled monument are avoided.”*

Gardens and Designed Landscapes

7.4.32 Policy 7i) states that development proposals affectedly national important Gardens and Designed Landscapes will be supported where they *“protect, preserve, or enhance their cultural significance, character and integrity and where the proposals will not significantly impact on important views to, from and within the stie or its setting.”*

Listed Buildings

7.4.33 Policy 7c) of NPF4 states that development proposals affecting the setting of listed buildings should *“preserve its character, and its special architectural or historic interest.”*

Mitigation

7.4.34 The main approach to mitigating both direct and indirect impacts has been through design (see **Section 7.10**). Avoidance of direct impacts on heritage



- assets has been a consideration throughout the design process. Where avoidance is not possible, further mitigation is proposed as a condition to consent.
- 7.4.35 In relation to direct physical impacts, embedded mitigation measures including layout and height, have been considered and incorporated as part of the design process (See **Chapter 2: Site Selection and Design Iterations**).
- 7.4.36 Suitable measures for minimising effects through ground disturbance might include:
- the micro-siting of Proposed Development infrastructure away from sensitive locations;
 - the fencing off or marking out of heritage assets or features in proximity to construction activity in order to avoid disturbance where possible;
 - a programme of archaeological work where required, such as an archaeological watching brief during construction activities in or in proximity to areas of archaeological sensitivity, or excavation and recording where impact is unavoidable; and/or
 - a working protocol to be implemented should unrecorded archaeological features be discovered.
- 7.4.37 Suitable embedded mitigation measures for mitigating any setting effects include:
- alteration of the proposed solar array layout;
 - reduction of proposed array heights; and/or
 - repositioning of panels or creation of bunding to utilise to topography as a screening measure.
- 7.4.38 A statement of any embedded mitigation measures proposed to be implemented in response to identified cultural heritage impacts is provided, with the impact predictions taking these into account.
- 7.4.39 Further potential mitigation measures, not referenced above, such as archaeological fieldwork undertaken as a condition to consent or other post-consent measures associated with public benefits, is presented in **Section 7.10**.

Residual Effect

- 7.4.40 Residual effects are the resulting effects after consideration of proposed mitigation measures. A statement of the residual effects of the Proposed Development has



been provided, taking into account any Site-specific mitigation measures which could be implemented as a condition of consent.

Limitations

- 7.4.41 The assessment is based on the sources outlined in both **Table 7-2** and **References**, and, therefore, shares the same range of limitations in terms of comprehensiveness and completeness of those sources.
- 7.4.42 Due to limitations regarding crop height, the Site was inaccessible for a walkover survey that would have normally been conducted to support this EIA chapter. A visual survey was conducted by Unmanned Aerial Vehicle (UAV or 'drone') to inspect the Site. Relevant photographs are in **Appendix B**.

7.5 Archaeological Baseline

Designated Heritage Assets

- 7.5.1 There is one inventoried Battlefield within the proposed development area, the Battle of Tippermuir (**BTL39**). No Scheduled Monuments, Garden and Designed Landscapes, Conservation Areas, nor any Listed Buildings are within the proposed Site boundary.
- 7.5.2 Within 2 km of the proposed solar panel locations, there are two Scheduled Monuments, two Inventory Battlefields, one Garden and Designed Landscape, five Category B Listed Buildings, and three Category C Listed Buildings. There are no Conservation Areas within 2 km of the Site boundary. These assets are presented in **Appendix A, Figures 7.1 and 7.3**, and listed below:
- Roman Watch Tower 1280 m ESE of Mayfield (**SM2902**);
 - Mayfield, Roman Signal Station and Enclosure 650 m SE of (**SM5400**);
 - Battle of Dupplin Moor (**BTL8**);
 - Battle of Tippermuir (**BTL39**);
 - Dupplin Castle (**GDL00165**);
 - Dupplin Castle Stables (Category B, **LB5873**);
 - Dupplin Castle Estate Office and Adjoining Cottages (Category B, **LB5874**);
 - Dupplin Castle, North Lodge and Gates (Category B, **LB5870**);
 - Tibbermore Parish Kirk (Category B, **LB18297**);
 - Manse, Tibbermore Parish Kirk (Category B **LB18299**);
 - Dupplin Castle Icehouse (Category C **LB18300**);
 - Registrar's House, Milltown of Aberdalgie (Category C, **LB44183**); and
 - Kirkyard, Tibbermore Parish Kirk (Category C, **LB18298**).



Topography, Geology and Historic Land Use

- 7.5.3 The Site is located on land that gently slopes to the north east, where the ground flattens. The high point of c.151 m aOD is in the south western portion of the Site and slopes down to 104 m aOD in the north eastern side of the Site. The nearest large watercourse is the River Earn, located c.2.3 km to the south of the Site.
- 7.5.4 The soil composition of the Site is defined as brown earths, which are derived mainly from sandstones of Lower Old Red (British Geological Survey, 2025). Brown earth soils are well-draining and nutrient dense, suggesting they would have been good for settlement and agricultural practices as well as being relatively suitable for preserving archaeological assets due to their neutral to slightly acidic pH levels. The bedrock geology of the Site consists of Scone Sandstone Formation, which are sedimentary rocks of fluvial origin, ranging from coarse to fine-grained, providing suitable drainage for the surface soil. Sandstone is also a very good natural resource, relatively accessible, with strong and weather resistant properties making for a preferable building material that would have been sought-after during the medieval and post-medieval periods. This is evident within the Site with the extensive quarrying sites, demonstrating the utilisation of local natural resources.
- 7.5.5 An appraisal of the Historic Land Use Assessment Data, created by Historic Environment Scotland, notes that the majority of the Site consists of Rectilinear Fields and Farms formed as part of agricultural improvements in the 18th and 19th centuries, with some field boundaries being recently amalgamated with agricultural developments.

Prehistoric Context

- 7.5.6 There are no known prehistoric heritage sites within the Site boundary.
- 7.5.7 Three findspots have been identified within the study area (**SLR3**, **SLR4**, **SLR9**). **SLR3**, found from Windyedge Bin, is described as a leaf-shaped flint, approximately 8 cm long, slightly curved, and chipped on one of the edged sides. Located 0.3 km south east from the southeastern portion of the Site, the flaking tool demonstrates evidence for prehistoric craftsmanship and utilisation of the natural resources available in the area. The find was donated in 1921 to the Perth Museum, and limited context for the flint fabricator is publicly available.
- 7.5.8 Similarly, **SLR9**, a barbed and tanged arrowhead of yellow flint, was recovered from Wester Cultmalundie, 0.3 km south from the north western boundary of the Site. The arrowhead is 3.5 cm long and supports the limited prehistoric activity in the study area and can also be visited in the Perth Museum.
- 7.5.9 **SLR4** consists of numerous assets found by William Roy at Cultmalundie, comprising of a bronze fibula brooch in the form of a dog, a sandstone spindle whorl, three barbed arrowheads, as well as a series of scrapers, knives, and worked flints. Situated 0.8 km north from the north western boundary of the Site, the finds contribute to the prehistoric activity in the area. Spindle whorls are often associated with yarn production and the 4 cm diameter of the sandstone whorl



recovered, suggests it was used to spin threads. The bronze fibula demonstrates that those occupying the area were either trading or undertaking metalwork production. Today, the findspots are preserved in Perth Museum.

Romano-British Context

- 7.5.10 There is one known Roman heritage asset within the Site boundary.
- 7.5.11 A Roman road (**SLR61**) stretches across the Site, from the south west from Cultmalundie Woods and up through to Ruthvenfield to the north east, crossing through the centre of the Site. Included alongside the Roman road is the location of an associated quarry, measuring at 0.2 km east to west and 0.11 km north to south. The quarry pit shows the location where the raw materials were extracted to produce the possible Roman road. Alterations to the road, including its re-pavement during the early 19th century demonstrates the ongoing use of the road, with slight truncation in later developments.
- 7.5.12 Outwith the Site, an additional Roman road (**SLR70**) forks from **SLR61** to the south west of the Site before heading north east up to the current Old Gallows Road. At its nearest, **SLR70** is 30 m from the north western-most point of the Site. Records also suggest that there may be a relationship between **SLR61** and **SLR70** with other Roman roads located in the Perthshire area, including that of the known Roman sites in Ardoch, 23km south west of the Site boundary.
- 7.5.13 Further west of the road and just outside the 1 km study area, is Roman watch tower 1280 m ESE of Mayfield (SM2902). The watchtower, visible as a cropmark on oblique aerial photographs, appears as a circular feature with a possible entrance on its south side. This south entrance would have faced onto the Roman Road and suggests that the area was a monitored routeway forming part of a fortified Roman presence within a larger strategic network north of the Forth-Clyde. Approximately 0.8 km south west from the western Site boundary, is another potential strip of Roman Road (SLR28). The remains of the road are visible on aerial photography and publicly available records infer that SLR28 is the remains of a portion of the Gask Ridge Roman Road, further connecting to both SLR70 and SLR61 which traverse the Site. These assets illustrate a distinct Roman presence and confirm the study area contains a portion of the Gask Ridge – the Roman’s earliest fortified land frontier in Scotland. Over the course of a 16 km ridgeway, a system of watchtowers, roads, forts, and camps were constructed to strategically monitor from land north of the frontier and protect from invasions from the Highlands.

Early Medieval Context

- 7.5.14 There are no known early medieval heritage assets identified within the Site.
- 7.5.15 There is one known early medieval heritage asset within the study area (**SLR5**). Approximately 0.7 km north west of the Site boundary, near Wester Cultmalundie, lies a double-ditched oval enclosure identifiable by crop marks. The enclosure is not visible on any early mapping nor later 19th to 20th century OS maps. South of the enclosure is marked a natural spring, visible on the 1st edition OS six-inch map



(1866, sheet xcvi) (**Plate 1**), suggesting that the enclosure may have been an early farmstead, as it was located near a natural water source and on brown earth soils which are suitable for agricultural practices.

Medieval Context

- 7.5.16 There are no known medieval heritage assets identified within the Site.
- 7.5.17 Within 1 km of the Site boundary, nine known medieval heritage assets are located, mostly to the western and southern portion of the study area.
- 7.5.18 The remains of the Wester Cultmalundie medieval village (**SLR10**) are situated 0.3 km north from the north western boundary of the Site. Four small cottages are all that remain. Limited information is publicly available about the medieval village and no indication of when the settlement was deserted is provided. The presence of the village indicates a past agricultural population who would have worked the surrounding agricultural land. The John Adair 1650-1722 map first identifies the 'Town of West Cultmalinde' and is also listed as 'Wester Cutmalundie' in the 1st edition OS six-inch map (1866, sheet xcvi). Today, the area appears to be in use as farm buildings and agricultural land with no evidence for ruinous structures.
- 7.5.19 There are seven heritage assets defined as rig and furrow (**SLR25, SLR34, SLR66, SLR18, SLR19, SLR20, SLR71**).
- 7.5.20 **SLR25** is found 0.7 km north west from the most north western point of the Site boundary and provides evidence of medieval cultivating practices. The rig and furrow at Westmuir remain visible and in use for pastoral farming practices. The field boundaries prevalent in mid-19th century OS maps demonstrate slight alterations to the surrounding field boundaries where the rig and furrow is prevalent, indicating land use management changes overtime.
- 7.5.21 Further evidence of rig and furrow is identifiable to the east and south of the Site boundary (**SLR34, SLR66, SLR18, SLR19, SLR20**). **SLR34**, located 0.8 km south west from the most western edge of the Site boundary, which is now covered by forestry, making up Cultmalundie Woods and enclosed by a deer fence. The location of the old field boundaries suggests that this enclosed area was once used for cultivating land up until the post-medieval period and has only recently been altered. **SLR66, SLR18, SLR19**, and **SLR20** are covered within the mature woodland of Dupplin Castle. **SLR66** is situated in Blairbell Wood, **SLR18** and **SLR19** are within Backhill Wood, and **SLR20** is most southerly to the Site, in Harlaypoint Wood. Aerial photography from the mid to late-20th century records the large extent to which rig and furrow is prevalent, suggesting the land was continually cultivated since at least the medieval period.
- 7.5.22 The Battle of Dupplin Moor (**BTL8**) spans almost the entirety of the southern portion of the study area. The battlefield, recorded in its listing as having taken place in August 1332, was designated by HES in 2011, with the site marking a significant past to Scotland's History in the struggle for independence. The fighting took place between Bruce Loyalists supporting King David II, who at the time was only four years old, against Edward Balliol supporters and his English allies



including King Edward III. Edward Balliol wanted to reclaim his father - King John Balliol's throne who had reigned prior to Robert the Bruce.

- 7.5.23 The substantial losses from the Scots army demonstrates the success of English warfare tactics, especially with the introduction of the long bow acting as a strong first line of defence. The inventory boundary defines the area in which the main events of the battle took place, including the northern slopes of the valley of Earn, the Dupplin plateau where the Scots were camped, and the terrain, slopes, plateau, and advantageous viewpoints deployed by the Balliol supporters.

Post-medieval Context

- 7.5.24 There are two known post-medieval heritage assets within the Site boundary.
- 7.5.25 The designation boundary of the Tippermuir Battlefield (**BTL39**) extends into the north eastern portion of the Site. The battle took place on September 1st, 1644, and marks the first victory of Montrose's campaign within Scotland on behalf of Charles I. The fighting took place between Montrose's Royalist forces consisting mostly of Highlanders and Irish supports, against the Covenanters army led by Lord Elcho. Following the siege, Montrose's forces stayed in Perth before continuing their campaign up into Aberdeen, demonstrating how unprepared the Covenanter forces were in Scotland. Incorporated in the inventoried battlefield boundary is the Old Gallows Road (**SLR68**), north of the Site boundary and a crucial track believed to be where the deployments of the armies took place. Subsequently, Tibbermore village comprises the extent to which the Royalists advanced to deploy and the high ground of the Lamberkine Ridge and West Lamberkine Wood is where Montrose took on the Royalist right flank. The area to the West Lamberkine farm is understood to be where much of the fighting occurred and through which the Irish Royalist troops broke through the Covenanter lines. Finally, to the west of the modern A9, near Glendevon Farm, is where the Covenanter army are understood to have been deployed.
- 7.5.26 Additionally, a sandstone quarry (**SLR14**) dating to the post-medieval period is within the Site boundary. The deep, relatively large quarry is within an arable field, 0.2 km south of the northern boundary and 0.4km SSE of Wester Cultmalundie steading. Depicted on the 1st edition OS six-inch map (1866, sheet xcvi) (**Plate 1**) (**Photograph 2**), the quarry is understood to have been used for working slate and has been reused for modern rubbish in recent years.
- 7.5.27 Within 1 km of the Site boundary, there are an additional 22 known post-medieval heritage assets.
- 7.5.28 Dupplin Castle GDL (**GDL00165**) contains substantial remains of the formal 18th century landscape, combining a variety of plant species, horticultural species, architectural buildings, artistic design, and archaeological preservation, the gardens surrounding Dupplin Castle are an outstanding aspect of the estate's heritage. Continued developments and management of the gardens were ongoing throughout the 19th and 20th centuries, highlighting multi-period use of the site. The most northern boundary of the designed landscape is 80 m south of the Site's



- southern boundary, separated by the A9 dual carriageway separates the Site and the estate.
- 7.5.29 Dupplin Castle Icehouse (**LB18300**) is located 0.8 km south east from the Site boundary. Dating to the 19th century, the listed building was constructed on a prominent ridge north of Dupplin Loch. The remaining drystone construction remains intact but is heavily overgrown. The Icehouse would have provided suitable storage for Dupplin Castle.
- 7.5.30 Three quarries are to the south east of the Site (**SLR12, SLR22, SLR31**). The grass covered remnants of Brachman Quarry (**SLR12**) are located 0.9 km south from the Site southern boundary. Swines Quarry (**SLR31**) is 0.9 km south of the southern Site boundary and offset to the north east of **SLR12**. North Lodge Quarry (**SLR22**) is a rectangular quarry, situated 0.9 km south east from the furthest southern point of the Site boundary and east to the Dupplin estates driveway. All three quarries are within Dupplin Castle's estate, recorded on the 1st edition OS six-inch map (1866, sheet xcvi) and have been disused from the early 20th century. The evidence for quarrying taking place in the area demonstrates a degree to which natural resources were being used for production or settlement development, showing an ongoing use of the land's natural resources from the prehistoric period up until the post-medieval period.
- 7.5.31 Four assets are classed as horse engine houses, farmhouses and farm steadings (**SLR13, SLR17, SLR30, SLR49**). Windyedge Horse Engine House (**SLR30**) is 0.3 km south from the Sites' southern boundary and has been dated to the 19th century. The surrounding farmhouse and farmstead at Windyedge remain undated but are most likely associated with this period. Windyedge Well (**SLR2**) is also located within the cluster.
- 7.5.32 Wester Cultmalundie (**SLR17**) is situated 0.2 km north from the northern boundary of the Site. Easter Cultmalundie (**SLR13**) is offset 0.6 km to the north east of Wester Cultmalundie and 0.4 km north from the Site's northern boundary. Gateside (**SLR49**) can be located 0.5 km north east from the most north eastern boundary of the Site. **SLR13, SLR17, and SLR49** are similar to **SLR30**, in that their horse engine houses, which were once prevalent on their Sites, have been dated to the 19th century from early Perthshire OS mapping (Sheet xcvi, 1866) before being removed in the early 20th century. Wester Cultmalundie (**SLR17**), Easter Cultmalundie (**SLR13**), and Gateside (**SLR49**) farmhouse and farm steadings all in use today evidencing ongoing settlement and cultivating practices in the area.
- 7.5.33 Two farmsteads are to the south of the Site boundary (**SLR36, SLR45**). Cotton farmstead and farmhouse (**SLR36**) is 0.9 km east from the south eastern boundary of the Site. Crossgates farmhouse and farmstead (**SLR45**) is south of the A9, approximately 0.2 km south of the Site's southern boundary. Both assets are in use as a current farmhouses and developments.
- 7.5.34 The four cottages distributed across the Study area appear to be associated with their surrounding developments. For example, Windyedge cottages (**SLR27**) are



- 44 m east from the southeastern point of the Site boundary and are 0.3 km north east from Windyedge farm steading and settlement. The cottages are most likely an extension of the Windyedge settlement and demonstrates a period of ongoing development in the post-medieval period.
- 7.5.35 West Lamberkine Cottages (**SLR32**) are situated 0.9 km north east from the north eastern boundary of the Site. Limited information is publicly available on the cottages, but their development is most likely related to West Lamberkine Farmstead which is situated east of the cottages and not in the study area for this development.
- 7.5.36 Cotton Cottages (**SLR37**) located 0.8km east from the northeastern boundary of the development and located to the north of the A9, also appears to be an additional development to the previously discussed Cottom farm steading.
- 7.5.37 A further two assets comprise curling ponds (**SLR29, SLR33**). Both are situated within the Cotton Cottage's cluster, approximately 0.7 km and 0.4 km east from the Site's eastern boundary. Limited information is publicly available about the ponds, and both were probably mill ponds intended to be a supplement to water supplying the Milltown of Aberdalgie.
- 7.5.38 There are no longer any identifiable remains for Weetit Cottage (**SLR35**) which is 0.1 km north east from the northern Site boundary. Limited records are available about Weetit Cottage, however, details describing the slated roof and two storey houses are listed in mid-19th century records and the cottage is identifiable on the 1st edition OS six-inch map (1866, sheet xcvi). The cottage appears to have been removed and repurposed into arable land for farming before the 2nd edition OS six-inch map (1901, sheet xcvi.ne).
- 7.5.39 Three milestones are located near the current A9 (**SLR56, SLR57, SLR58**) and one along the Roman Road (**SLR59**). Campbell's milestone (**SLR59**) is recorded 0.6 km west from the most south west point of the Site boundary. While there is documentation for the milestone being erected during the 19th century, there is no longer any visible marker and no details on whether this is the accurate recording of the asset. Burnside Lodge (**SLR58**) is to the east of the A9 and 0.9 km south west from the south western boundary of the development area. The milestone also recorded on 19th century OS mapping, was not found in recent surveying in 2010. Crossgate's Milestone (**SLR56**) is 25m south of the southern boundary and Cotton Cottages Milestone (**SLR57**) located further northeast along the A9, and 0.8km east from the Southeastern site boundary are both no longer visible today due to the development of the current A9 dual carriageway. While the milestones are not visible today, their history and recorded location would suggest that the



current main roads are larger development from previous post-medieval highways that would have been used when travelling to and from Perth.

Modern Context

- 7.5.40 No known modern heritage assets are within the Site boundary and none within 1 km of the Proposed Development area.
- 7.5.41 Modern mapping shows little change in the land distribution and use within the Site from the post-medieval period to the present day. The field boundaries from the post-medieval period are still in place with areas of land being expanded into larger parcels for upscaling cultivating practices. Agricultural practices continue to be the only form of land use within the Site.

Undated Heritage Assets

- 7.5.42 There are 10 undated heritage assets within the Site boundary and 27 undated heritage assets within 1 km of the Study area.
- 7.5.43 Newbigging Quarry (**SLR24**) is central within the Site, 0.4 km south west from the north eastern boundary. No identifiable remains of the quarry are present but OS map records from the early 19th century identify the quarry. Additionally, an undated track (**SLR64**) is recorded south of Newbigging farmstead (**SLR23**) and 0.2 km north from **SLR24**. The track appears to run northeast to south west across the arable farmland. Another road (**SLR54**) recorded c.40 m west from Newbigging Quarry (**SLR24**) is likely an additional point for the Roman road (**SLR61**). Newbigging farmstead (**SLR23**) lies 50 m east from the north eastern boundary. The earlier mapping associated with the Newbigging asset cluster suggests that they belong to a post-medieval farm steading with surrounding land used and cleared for farming practices.
- 7.5.44 Three stone linear field boundaries' (**SLR60**, **SLR74**, **SLR69**) were identified during the Site visit in August 2025. The field boundaries are visible on mid-19th century OS mapping, suggesting that they most likely date to the post medieval period and can be associated with the Newbigging or neighbouring farmsteads. **SLR74** appears as a stone parallel boundary, bordering the field to the north and south with no trace of continuation along the east and west side.
- 7.5.45 Two quarries are located along the southern boundary of the Site at Crossgate; **SLR43** is located c.37 m north from the southern boundary and to the west, **SLR42** extends into the Site boundary. The sandstone quarries were most likely used during the post-medieval period given the numerous quarries within the study area recorded on the Perthshire OS mapping (Sheet xcvi, 1866). **SLR43** was removed from early 20th century OS mapping suggesting its infill, with **SLR42** partially destroyed and infilled during the road upgrades for the current A9 but is recorded on the Perth and Clackmannan 2nd edition OS six-inch map (1901, sheet xcvi.sw).
- 7.5.46 Cultmalundie Woods is located to the west of the Site, extending c.45 m east from the Site boundary. Within the wooded area are the remains of four quarries



- (**SLR15, SLR16, SLR39, SLR67**) which have been recorded on early OS mapping and therefore probably originate to the post-medieval period. A linear field boundary (**SLR8**) has recorded extending from Cultmalundie Woods into the proposed development area. The field boundary's central point in the Site is 0.3 km south from the northern boundary. Limited information on the asset is available but given the surrounding land is used for farming suggests an earlier post-medieval agricultural presence.
- 7.5.47 A further 11 quarries are distributed across the south west to south east portion of the study area⁷. The majority of the quarries are recorded on post-medieval OS mapping and have been covered or repurposed during the 20th century. **SLR51** and **SLR52** are closely related to the public road coming off to the west of the A9 and evidence for slightly quarrying practices. **SLR47** most likely dates to the modern period due to OS mapping detailing the development of the surrounding woodland landscape. The extensive quarrying in the area shows an ongoing practice over numerous periods. There is limited information available for Dupplin Lake quarry/pit (**SLR7**), however, Cauldhame farmstead (**SLR53**) is next to the Site and has been recorded in post-medieval OS mapping, suggesting both assets date to this period.
- 7.5.48 Westmuir Road (**SLR11**) is located southwest of Cultmalundie woods. The roads' close proximity to surrounding quarries suggests that the road may be of post-medieval date.
- 7.5.49 Howlet Ha' (**SLR41**) is a cottage and is approximately c.50 m east from the eastern Site boundary. The cottage is to the west of the Windyedge Plantation and today is surrounded by woodland. Evidence on post-medieval OS mapping identifies the cottage before its abandonment in the early 20th century.
- 7.5.50 Additionally, a stone axehead (**SLR73**) has been recorded 0.3 km east from the eastern Site boundary. The stone axehead was recovered from Lamberkin Farm in 1909 together with four stone with picked out hollow. This asset represents early craftsmanship in the area and evidence for early settlement within the proximity of the Site, although no discernible date has been established for the object it can be indicative of prehistoric activity.
- 7.5.51 Within the study area, there is one category C listed building – a lodge and gate which form part of the wider Dupplin Castle estate and GDL (**LB5870**). The south and north lodges to Dupplin Castle are most likely dated to the post-medieval period, although limited information is publicly available, both are described as gothic in architectural design. Another asset associated with Dupplin Castle, are two mill ponds (**SLR40**), which are now partly infilled but most likely date to the

⁷ SLR7, SLR26, SLR52, SLR51, SLR47, SLR46, SLR44, SLR48, SLR22, SLR38, SLR72



post-medieval period where they supplemented the water supply to the mills at the Milltown of Aberdalgie.

- 7.5.52 In the northern portion of the study area, there are three enclosures (**SLR1**, **SLR62**, **SLR63**), one field boundary (**SLR55**), and an undated Road (**SLR68**). The enclosure **SLR1**, located 0.7 km north east from the northern Site boundary, is recorded as the remains of a possible house. There is very limited publicly available information regarding the remaining enclosures and field boundary. The undated Old Gallows Road (**SLR68**) running west to east, approximately 0.3 km north of the northern Site boundary, is understood to have been the main route to and from Perth for centuries. Whilst the date of the road is not discernible, evidence of it being in use is present on Roy's 1747-1755 Military Survey of Scotland. There is no recording of the road on the earlier Adair and Moxon's 1638 map, suggesting that the road is post-medieval in date but does not rule out the possibility of there being an earlier presence.

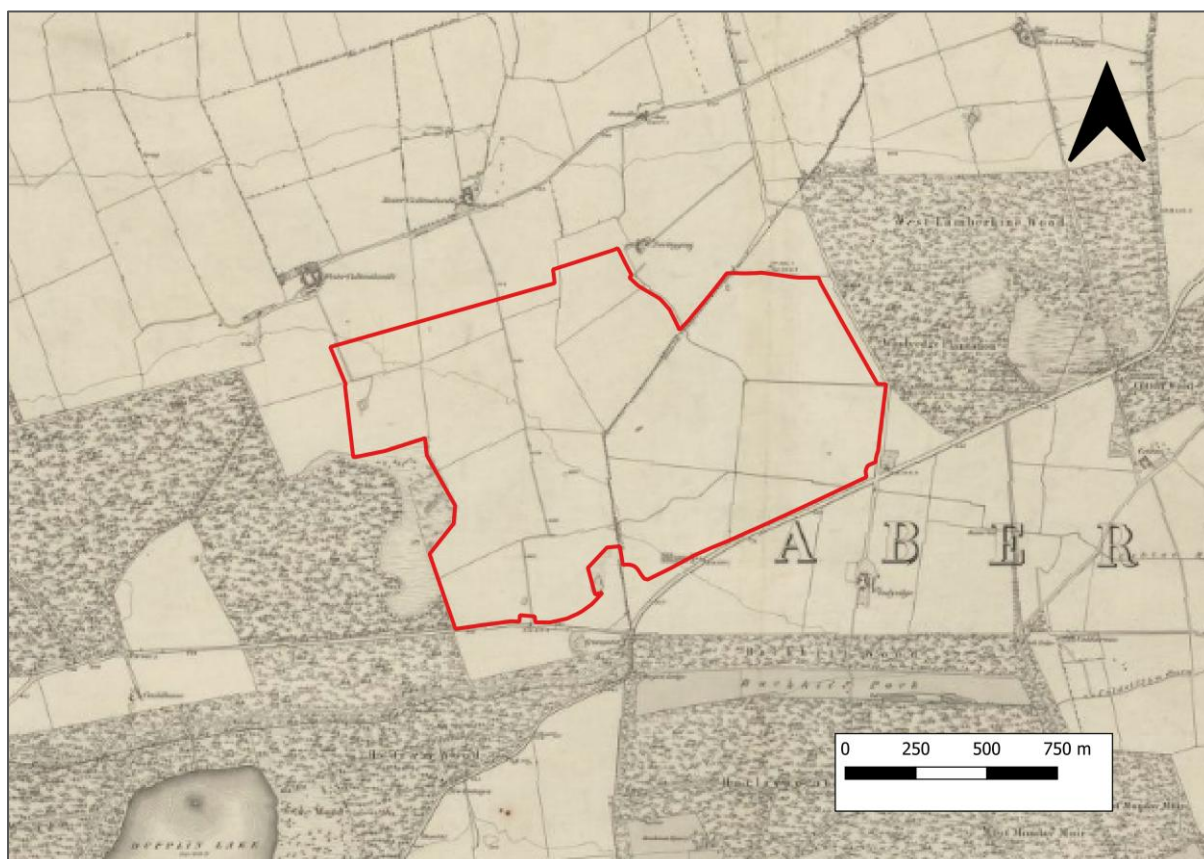
Historic Mapping

- 7.5.53 A review of the online historic mapping available from the National Library of Scotland (NLS, 2025) was undertaken.
- 7.5.54 Upon reviewing the historical maps dating from the mid-17th to mid-18th century
- 7.5.55 The John Adair 1650-1722 Map of Straithern, Stormount, and Cars of Gourie, with the Rivers Tay and Jern, identifies the Site and associated settlements, including Tibbermoor K. (Tibbermore), Cultmalinde (Cultmalundie), and Newbiging (Newbigging). No distinct field boundaries are shown on the map; however, the main road visible to the south of the Site remains in use today as the A9 dual carriageway. Equally evident is the 'Roman Paved Way', which forms the foundation of the country road that diverges from the A9 to southwest of the Site boundary.
- 7.5.56 The Roy Military Survey of Scotland, published in 1755, also records the Site in general detail. No detailed land boundaries are shown within the Site, however,



Newbiggin (Newbigging) farmstead, West and East Coplandy (Cultmalundie) is detailed on the map.

- 7.5.57 Earliest discernible illustration for the land-use within the Site is attainable from the 1st edition OS six-inch map (1866, sheet xcvi) (**Plate 1**). The map details some quarries within the study area, including Brachman quarry and sheepfold (**SLR12**) to the south of the Site. Developments to the details of this earlier OS Perthshire map are found in the 1st edition one-inch map for Perth (1868, sheet 48). Both editions show the surrounding farmsteads, settlements, roads, parcels of land, and woods in and around the Site. The 1868 OS map has also recorded archaeological assets including Dupplin Castle to the south and a Roman Outpost to the south west of the Site. However, in this later edition, no references are made to quarries on the map but a subtle cartographic trace for where they may have been discernible.



**Plate 1: The Site boundary on the six-inch OS Map (Perthshire, 1866, sheet XCVII).
Reproduced with permission from the National Library of Scotland.**

- 7.5.58 The 1:25,000 OS map, published in 1948, extensively details the Site and study area. Recorded are the locations and names of quarries within the study area, as well as the newer post-medieval modern developments, including the addition of cottages, curling ponds, and the Windyedge Planation to the southwest of the



Site. Establishing field boundaries is relatively difficult but little appears to have changed within the Site, with the land still being used for agricultural practices.

Site Visit

- 7.5.59 The Site walkover was conducted on 8 August 2025. During the Site walkover, two field boundaries (**SLR60** and **SLR74**) were identified and later cross-referenced with Trove for HER records. Weather was sunny and clear with excellent visibility.
- 7.5.60 The fields comprising the Site boundary were in crop and the margins were overgrown with weeds/natural vegetation. The general topography is flat with very gentle rise towards the north northeast from the A9 which drops after Old Gallows Road in the North. This rise of topography limits visibility of the Site when driving towards the Site from Tibbermore village in the north.
- 7.5.61 Traces of the Roman road to the west of the Site (**Photograph 3**), were visible near the woodland but otherwise not seen, most likely destroyed by movement along the field margins. There were no scheduled monuments visible to the east due to trees acting as buffer. Additionally, no definitive boundaries of Battle of Tippermuir were visible in the landscape.

Previous Archaeological Investigations

- 7.5.62 No previous developments and archaeological investigations have taken place within the Site boundary or study area. The nearest major investigations took place c. 1.3 km to the north east for Perth West between 2016 and 2020. This included a Cultural Heritage Desk Based report⁸ and a Battlefield Conservation Plan⁹ to support the EIA report.

Aerial Photography

- 7.5.63 The National Collection of Aerial Photography has published one aerial image from 1988 covering the Site. The aerial photograph shows little change to the land within the Site, with the same field boundary systems and agricultural land use,

⁸ Barron, S (2016) Perth West (Lamberkin) Historic Environment Report, Smith Scott Mullan Associates Ltd.

⁹ Ferguson, N (2020) The Battle of Tippermuir 1644 Battlefield Conservation Plan. Guard Archaeology.



still in place today. None of the previously discussed quarries are readily discernible.

LiDAR

- 7.5.64 An analysis of available LiDAR data was undertaken according to the methodology presented in **Section 7.4.5**, resulting no new additional features of archaeological interest.

7.6 Discussion of Archaeological Potential

Prehistoric

- 7.6.1 The prehistoric findspots recovered to the north west and south east of the Site have been recorded as isolated assets. The flint arrowheads recovered demonstrate a degree of craftsmanship taking place within the study area, however, given that these flints were most likely discarded suggests limited archaeological potential for further finds within the Site.
- 7.6.2 The larger findspot recovered at Cultmalundie, which includes spindle whorls, arrowheads, a bronze fibula and further craftsman tools, enhances our understanding for the types of activity and potential trading that would have been taking place within the study area. Although, given the limited evidence for further prehistoric activity in the area, including that of any settlement, suggests that any further prehistoric assets would most likely have been destroyed as a result of ongoing agricultural activity within the Proposed Development. This would indicate that there is a low archaeological potential for prehistoric remains within the Site. Any finds prevalent within the Site would likely be of low significance and would not be likely to preclude the Proposed Development. If any identified remains relate to settlement evidence, these would be of medium significance and further mitigation may be required.

Romano-British

- 7.6.3 Activity from the Roman period is evident in the centre of the Proposed Development and extends out to the west of Site. The Roman Road and quarrying, both within the Site and in the vicinity of the Site, have been associated with the Roman watch tower 1280m ESE of Mayfield (**SM2902**) situated on the south western periphery of the study area, approximately 1 km from the western Site boundary, and the further Mayfield, Roman Signal Station And Enclosure 650 m SE of (**SM5400**) situated along the same road c. 0.7 km SW of **SM2909**. The relationship between these assets would infer that this area of the landscape was an important channel for monitoring the movement of people along the Gask Ridge. The known occupation of the area along this ridge indicates that there is at least temporary transient activity associated within the Site, with the possibility of additional watch towers located within the Site. However, most remains in the topsoil from this period would most likely have been destroyed due to agricultural activity within the Site or otherwise would have been incorporated into surrounding tracks on the farmland. As such, it is considered that there is moderate potential for Romano-British remains within the Site where they survive in the subsoil,



particularly near the known location of the Roman Road. These would likely consist of transient activity related to movement along the road or further quarrying evidence associated with the construction of the road. Such additional remains would still be of regional interest due to their presence along the Gask Ridge, thereby being of medium significance.

Early-medieval

- 7.6.4 There are no early medieval remains within the study area. There is one known enclosure (**SLR5**) recorded approximately 0.7 km north west of the Site. The enclosure is likely settlement related, and thereby any associated remains would be localised around the enclosure. It is unlikely to have extended into the Site. Should any activity have taken place, it has most likely been destroyed due to surrounding farmstead developments and ongoing agricultural practices. As such it is considered that there is a low potential for early medieval remains within the Site.

Medieval

- 7.6.5 Dupplin Moor Battlefield (**BTL8**) spans almost the entirety of the southern portion of the study area, just outside of the Site. While the perimeter of the battlefield is within 1 km of the Site, there is no evidence for any significant activity relating to the battle taking place within the Proposed Development. This portion of the Battlefield has already experienced ongoing landscape development, including the construction and management of the A9 public road, and the numerous woodland areas that are within the Dupplin Estate and GDL. Therefore, continuous disturbances to the designated battlefield have taken place with ongoing mitigation suggesting no further expansion of the protected area. As such, it is unlikely that any medieval remains associated with the battle would be extant within the Proposed Development.
- 7.6.6 While there is clear evidence of medieval settlement and agricultural cultivating practices taking place within the vicinity of the Site, the land within the Site has been continuously used for cultivating practices. This implies that any shallow archaeological remains would have been destroyed or previously recorded as supported by the lack of features visible on LiDAR. Therefore, there is a low potential for medieval remains to be present within the Site. If present, these would likely relate to the scattered rural settlement seen around the Site and would be of low significance.

Post-medieval

- 7.6.7 The boundary of the Tippermuir Battlefield (**BTL39**) extends into the north eastern portion of the Site. According to the available information about the battle, the position and movements of the two opposing forces were most likely situated further northeast of the battle designation boundary, nearer to West Huntingtower c.3.3 km to the north east of the Site and outside the Site. This infers that the area of the battlefield that extends into the Site was at the outmost periphery of where



- any fighting or conflict activity was taking place. The Old Gallows Road, c.300 m north of the Site is also considered to be a key transport route for the battle.
- 7.6.8 Additionally, there is little known archaeological remains associated with the battle. Within the New Statistical Accounts (NSA)¹⁰, it is mentioned that traces of the Covenanter camp were still visible, located in the south of Tibbermore parish, which would place it near the Old Gallows Road and Lamberkine Ridge c. 1 km to the north east at its closest to the Site. Within the account, it is also mentioned that artefacts, including lead shot and broken spears, had been recovered but no new associated artefacts have recently been recorded.
- 7.6.9 The potential for post-medieval remains from the battlefield being present within the Site is considered to be low. If present and where these would contribute to the special qualities of the battlefield and the broader understanding of the battle, they would be of high cultural significance. Findspots and unstratified remains would be of low significance, as they would not contribute significantly to the broader understanding of the battle.
- 7.6.10 There is negligible potential for other post-medieval remains within the Site. Given the relatively well-documented nature of this period through historic mapping, which shows little change in land-use in the post-medieval period, any unknown remains would likely comprise loose artefacts or agricultural remains such as drainage ditches, field drains, and field boundaries and therefore be of negligible archaeological significance.

Modern

- 7.6.11 There is a negligible potential for unknown heritage assets of a modern date to be present within the Site. The area contained within the Site has been in use for agricultural purposes throughout this period.

7.7 Future Baseline

- 7.7.1.1 If the Proposed Development was not to proceed, there would be no change to the baseline condition of the Site, and it would continue to be used for agricultural purposes.
- 7.7.1.2 As per Association of Local Government Archaeological Officers (ALGAO) Guidance for Peatland Restoration and the Historic Environment in Scotland¹¹, peat is classed as a cultural heritage resource due to its unique ability to preserve organic and inorganic archaeological remains. Formed after the ice-age, the peatlands provide a waterlogged and anaerobic environment which leads to a much slower rate of decay for archaeological and paleoenvironmental remains

¹⁰ Tulloch, W. (1845) Tibbermore, County of Perth. New Statistical Accounts, Vol. X

¹¹ Mann (2022) Guidance for Peatland Restoration and the Historic Environment in Scotland.



compared to other soil types¹². According to **Chapter 8 – Hydrology, Geology and Hydrogeology**, there is no identified peat across site, which reduces the potential for environmental or organic deposits to survive.

- 7.7.1.3 Other impacts of climate change on buried remains might result from increased rainfall and fluctuating temperatures, with the sequence and frequency of natural soil saturation and desiccation changing the preservative conditions. This might result in damage or loss of organic artefacts. For upstanding remains, such change has the potential to result in increased water penetration, which may then cause/accelerate erosion/decay of historic fabric.
- 7.7.1.4 Notwithstanding the above, it is considered that the description of the baseline conditions remains robust for purposes of this assessment, and that it allows for a robust assessment of the impacts of the Proposed Development on the cultural heritage resource.

7.8 Scope of the Assessment

- 7.8.1 This Chapter takes an appropriate and topic specific approach to assessment of the Proposed Development within the parameters identified in **Chapter 3: Proposed Development**. This Chapter provides a worst-case assessment for Cultural Heritage and Archaeology and presents sufficient information for consultees and the decision makers to comment on and determine the application within the parameters of the Proposed Development.

Receptors Requiring Assessment

- 7.8.2 A single designated heritage asset was identified to be scoped into further assessment due to potential for significant effects resulting from changes of setting, direct (physical) and indirect impacts resulting from the Proposed Development:
- Battle of Tippermuir (**BTL39**)
- 7.8.3 In addition, 12 non-designated heritage assets are scoped in for direct (physical) and indirect impacts resulting from the construction of the Proposed Development:
- Newbigging, linear feature (**SLR64**)
 - Wester Cultmalundie, sandstone quarry (**SLR14**)
 - Cultmalundie Woods, linear feature (**SLR8**)
 - Cultmalundie Woods / Wester Cultmalundie, quarry (**SLR15**)
 - Newbigging, quarry (**SLR24**)
 - Crossgates/Dupplin Castle Policies, sandstone quarry (**SLR42**)

¹² Gearey, et al. (2010) Peatland Restoration for Safe-Guarding Knowledge Archives. Peatlands and the Historic Environment IUCN Review



- Crossgates/Dupplin Castle Policies, sandstone quarry (**SLR43**)
- Roman Road 9B (**SLR61**)
- Newbigging, road (**SLR54**)
- Canmore Field Boundary (**SLR69**)
- Field Boundary (**SLR60**)
- Field Boundary (**SLR74**)

7.8.4 A more detailed breakdown of scope is provided below.

Assets within the Site

7.8.5 All heritage assets within the Site boundary, inclusive of **12** non-designated heritage assets and one designated heritage asset, are scoped in for both direct (physical) and direct (settings) impacts.

Assets within 2 km of the Site

7.8.6 Due to the nature of the development, general topography observed from the Site visit, and professional judgement, a study area of 2 km for settings impacts was proposed. Within this 2 km study area, there are five Category B Listed Buildings, three Category C Listed Buildings, one Scheduled Monument, one GDL, and two Inventory Battlefields (inclusive of Battle of Tippermuir (**BTL39**) which is partially within the Site).

7.8.7 Visibility of the Site is limited from the south throughout the majority of the Dupplin Castle GDL (**GDL00165**) and south west along the Roman road, owing to the change in topography. Only from the closer approach on the A9 from the south west, does the landscape open and the Site become visible (**Volume 3b Visualisations - VP1 View North West from A9**). The northern-most portions of both Battle of Dupplin Moor (**BTL8**) and Dupplin Castle Garden and Designed Landscape (**GDL00165**) where they border the A9 would have visibility of the Proposed Development, however, outward facing views to the north from these portions of both designations do not contribute to their respective cultural significances. The ability to understand, appreciate, and experience these assets would remain intact. As such, these assets have been excluded from further assessment.

7.8.8 According to the bare-earth ZTV (**Figure 7.3**) the listed buildings associated with Dupplin Estate (**LB18300, LB5874, LB5873, LB5871**) and located between 0.7 km and 2 km to the south and south west of the Site would have no predicted visibility of the Proposed Development due to the topography. Third points of appreciation that contribute to the cultural significance of these buildings, such as from the designed routes in the GDL and woodland would similarly have no visibility of the Proposed Development. As such, these buildings have been excluded from further assessment.

7.8.9 North Lodge and Gates (**LB5870**), located at the north east corner of Dupplin Castle GDL (**GDL00165**) would have visibility of the Proposed Development in



- views to the north west. However, as a lodge, its cultural significance is derived from its relationship with Dupplin Castle GDL (**GDL00165**) and views along the historical approach from the west. It is not anticipated that visibility of the Proposed Development would infringe on the ability to understand, appreciate, and experience this asset within its setting. As such, this building has been excluded from further assessment.
- 7.8.10 The Listed Buildings south of Tibbermore (**LB18298, LB18297, LB18299**), c.1.2 km to the north of the Site, are the 17th and 18th century parish kirk, kirkyard, and manse associated with Tibbermore and the wider parish. These assets are historically and temporally linked with one another, and while they would possess some visibility of the Proposed Development, their cultural significance is derived more from their internal links with each other and the village to the north. Any visibility would be distant and non-intrusive in key views, thus would not disrupt these links or impact on the ability to appreciate, understand, or experience these to a significant extent. As such, these buildings have been excluded from further assessment.
- 7.8.11 According to the bare-earth ZTV (**Figure 7.3**) Roman watch tower 1280 m ESE of Mayfield (**SM2902**) and Mayfield, Roman signal station and enclosure 540 m NW of (**SM5400**), c. 1.3 km and 2 km to the west of the Site, would not have visibility of the Proposed Development, nor would there be any visibility on approach to these watch towers from the south west. The watch towers' function would have been related to their presence along the Roman Road (**SLR61, SLR28**) across the Gask Ridge, monitoring travellers along the road and as intermittent signal stations. While both towers are reduced to mere cropmarks, it can be assumed that these two would have been intended to have visibility of one another and the road in between. Even if the towers were at their full height, it is unlikely that they were intended to have views beyond the immediate stretches of road they sit along and towards each other.
- 7.8.12 The Proposed Development would not feature in any key views both from the assets and from third points of appreciation and the ability to understand, appreciate, and experience these assets would remain intact. As such, Roman Watch Tower (**SM2902**) and Mayfield, Roman signal station and enclosure 540 m NW of (**SM5400**), have been excluded from further assessment.

Assets outwith 2 km of the Site

- 7.8.13 An analysis of the ZTV was carried out to determine the visibility of the Proposed Development beyond 2 km from the Site boundary. Due to the distance, surrounding topography, and the characteristics of heritage assets within the viewshed, no additional assets were identified as likely to experience significant effects. Therefore, these have been excluded from further assessment

Environmental Measures Embedded into the Development Proposals

- 7.8.14 Embedded mitigation proposals are those mitigation measures that are inherent to the Proposed Development. Embedded mitigation includes all mitigation usually



assumed to be in place during construction, operation and decommissioning, and is generally regarded as industry standard or Best Practice.

- 7.8.15 The Proposed Development has been designed, as far as possible, to avoid and minimise impacts and effects to the cultural and archaeological resource through the process of design development, and by embedding mitigation measures into the design. Where heritage assets were not able to be avoided, appropriate mitigation is suggested (**Section 7.10**).

7.9 Assessment of Potential Effects

- 7.9.1 The assessment provided within this section of this chapter is based on the parameters of the Proposed Development identified in **Chapter 3: Proposed Development**. The assessment of potential direct effects on heritage assets is based on the maximum likely impact that could be caused by the Proposed Development

Construction Effects

7.9.1.1 Direct Construction Impacts

- 7.9.2 Direct Impacts on the setting of heritage assets as a result of construction activity are considered to be minimal at most and temporary in nature. The worst-case scenario for settings impacts, comprising the completed proposed development, are considered under **Operational Effects**.
- 7.9.3 Direct (physical) impacts would comprise any groundworks or other ground disturbance undertaken as part of the construction phase of the Proposed Development. Specific activities which have the potential to cause impacts through the construction phase of the Proposed Development include:
- Solar arrays, suspended on module frames anchored to the ground via steel piles, driven approximately 1.5 m to 3 m below ground;
 - DNO substation, measuring 6.1m in length by 2.6 m in width, with an indicative height of 2.7m (**Figure 3.4**);
 - Onsite cabling, connecting the PV modules to inverters via underground trenches. These trenches typically measure 0.7 m to 1 m in depth and 0.4 m to 1 m in width;
 - Security fencing around the edge of solar array areas, measuring 2.4m AGL;
 - Site access tracks, measuring 4 m in width; and
 - Temporary Construction compound, incorporating a temporary laydown and parking area.
- 7.9.4 Where ground disturbance takes place, these activities would remove, truncate or change any heritage assets located within the area of ground disturbance.



Damage to heritage assets caused in this way would be permanent and irreversible.

Known Remains

- 7.9.5 Within the Site, there are five known heritage assets which would be directly impacted by the Proposed Development – SLR8, SLR15, SLR54, SLR61, and Battle of Tippermuir (**BTL39**)

SLR8, SLR61

- 7.9.6 These assets would be impacted from ground disturbance relating to the construction of the internal tracks. These impacts would be minimal as they would only encompass a very small portion of these assets, which are visualised as polygons showing their approximate extents. Therefore, impacts resulting from the track crossing these polygons would be a Very Low Adverse magnitude of impact. SLR8 is considered to be of low cultural significance, with the resulting significance of effect being **Negligible**. **SLR61** is of medium significance, with the resulting significance of effect being **Negligible**. Due to the significance of SLR61 and potential for associated remains, where groundbreaking works go through **SLR61**, archaeological monitoring and recording is recommended. Mitigation is detailed in **Section 7.10**.

SLR54

- 7.9.7 This asset is likely a duplicate point for the remains of the Roman road (**SLR61**). As this has been avoided by design, there will be no impacts resulting from the construction phase of the Proposed Development. As such, this has been removed from further assessment and no mitigation is proposed.

SLR15, SLR61, SLR8

- 7.9.8 These assets will be impacted from ground disturbance where a portion of the proposed fence would cross these polygons. These posts would be driven into the ground similar to the erection of a field boundary fence. This would be minimal disturbance and only on a very small portion of each of the total polygons of the assets. As such, this is considered to be a Very Low Adverse magnitude of impact. For SLR15 and SLR8, which are considered to be of low significance, the significance of effect would be **Negligible**. For SLR61, which is of medium



significance, the significance of effect would be **Negligible**. This is not of a level of impact that warrants additional mitigation.

Battle of Tippermuir (BTL39)

- 7.9.9 Battle of Tippermuir (**BTL39**) is an Inventory Battlefield, marking out the boundaries of a significant battle between the Royalists and the Covenanters in 1644. As an Inventory Battlefield, this is considered to be of high significance.
- 7.9.10 The special qualities of the battlefield, defined as the physical features within the battlefield area within the Managing Change: Historic Battlefields (2016)¹³ guidance, are listed below:
- The Old Gallows Road which was situated south of Tibbermore village and represented the main route west from Perth, thus the likely routeway for movement of troops, artillery and supplies.
 - Tibbermore Parish Church (Category B: **LB18297**) which is the only contemporary surviving building, where Montrose is recorded as stopping for water, and where a number of Covenanters are said to have been buried.
 - Other artefactual finds and remains associated with the areas of conflict, located between Tibbermore and Perth.
- 7.9.11 The portion of the battlefield within the Site is not linked to any of the special qualities defined above. **Paragraphs 7.9.25 to 7.9.27** outline the events of the battle, which—though still debated—likely took place to the north and east of the designated area, along Old Gallows Road and Lamberkine Ridge, and in between Tibbermore and Perth, with no known activity occurring within the Site itself.
- 7.9.12 As the nearest of the surviving physical features significant to the Battle is the Old Gallows Road, c. 0.3 km north of the Proposed Development, the battlefield area holds some archaeological potential for associated remains that contribute to its special qualities. In the case that these associated remains contribute to a broader understanding of the Battle¹⁴, these would be of high cultural significance, however, this is unlikely. The nature of these potential remains is more likely to be findspots or unstratified remains, and they are unlikely to contribute materially to a broader understanding of the Battle and would be of low cultural significance.
- 7.9.13 The Proposed Development would install a number of solar arrays, underground cabling, and internal tracks (described in **Section 7.9.3**) on the south eastern extent of the battlefield where it extends into Site. These activities would not impact directly on any of the special qualities of the battlefield, though would have the potential to disrupt any archaeological remains that may be associated with

¹³ HES (2016) Managing Change in the Historic Environment: Historic Battlefields.

¹⁴ Determined using professional judgement and in consultation with PKHT and HES.



the battlefield. As mentioned above, these would be unstratified remains and be of low cultural significance.

- 7.9.14 It is anticipated that the Proposed Development would impact Battle of Tippermuir (**BTL39**) to a High Adverse magnitude of impact in a worst-case scenario. On remains of low significance, this would result in a **Minor** significance of effect.
- 7.9.15 Due to the unknown nature or number of the unrecorded remains and based on the above assessment, professional judgement has been applied, and the impact is unlikely to be significant in EIA terms.

Unknown Remains

- 7.9.16 As outlined in the **Section 7.13**, the potential for unknown archaeological remains within the Site is varied between negligible to moderate across all discussed periods.

Unknown Roman Remains

- 7.9.17 There is moderate potential for the presence of unknown remains from the Roman period. These would likely be located near to the known extents of the Roman road (**SLR61**) as it crosses the Site. As mentioned in **Paragraph 7.6.3**, these would be of at least medium significance. As detailed in **Section 7.9.3** and **Chapter 3**, the Proposed Development would compose multiple types of impact where ground disturbance below the topsoil is likely.
- 7.9.18 In a worst-case scenario where the Proposed Development would result in the complete removal of any unknown and currently unrecorded remains, this would be a High adverse magnitude of impact, resulting in a **Moderate** significance of effect. 'Complete removal' would be determined dependent on the type of remains, their extent, and professional judgement. Any remains would be subject to preservation through a programme of recording.
- 7.9.19 Due to the unknown nature or number of the unrecorded remains and based on the above assessment, professional judgement has been applied, and the impact has the potential to be considered significant in EIA terms. This is based on potential rather than known archaeological remains. If not present, no significant effect would be found.

Unknown remains associated with Battle of Tippermuir (BTL39) outwith the battlefield extents

- 7.9.20 There is low potential for the presence of unknown archaeological remains relating to the Battle of Tippermuir (**BTL39**) outwith the battlefield extents. If present, these would likely be near to the known extents of the battlefield in the central and eastern portion of the Site. As mentioned in **Paragraph 7.6.9**, these would be of high significance only where the remains contribute to our understanding of the battle and its events and movements. Based on the known documentary evidence of the battle and the main events, remains of high significance are unlikely. If present, remains relating to the battle would more likely



be findspots and unstratified remains and would be of low significance, as they would not contribute significantly to the broader understanding of the battle. As detailed in **Section 7.9.3** and **Chapter 3**, the Proposed Development would compose multiple types of impact where ground disturbance below the topsoil is likely.

- 7.9.21 The current boundaries of the battlefield are based on various historical sources, which place the main events of the battle to the north and east of the designated area. The rationale for the western boundary is unclear, except that it appears to have been drawn to include land near West Lamberkine Wood—where Montrose is said to have engaged the Royalist right flank—and the Old Gallows Road. Any remains would likely be findspots rather than any built or landscape features.
- 7.9.22 In a worst-case scenario where the Proposed Development would result in the complete removal of any unknown remains, this would be a High adverse magnitude of impact, resulting in a **Minor** significance of effect. ‘Complete removal’ would be determined dependent on the type of remains, their extent, and professional judgement. Any remains would be subject to preservation through a programme of recording.
- 7.9.23 Due to the unknown nature or number of the unrecorded remains and based on the above assessment, professional judgement has been applied and the impact is unlikely to be significant in EIA terms.

Table 7-6: Potential Direct Construction Impacts

Asset	Infrastructure	Cultural Heritage Significance	Magnitude of Impact	Significance of Effect	Is the Effect Significant In EIA Terms?
Battle of Tippermuir (BTL39)	Solar arrays, drainage pipes, and internal tracks	Low	High* Adverse	Minor	No
SLR15	Proposed Fence	Low	Very Low Adverse	Negligible	No
SLR8	Proposed Fence, internal tracks	Low	Very Low Adverse	Negligible	No
SLR61	Proposed Fence, internal tracks	Medium	Very Low Adverse	Negligible	No
Unknown Roman Remains	Solar arrays, drainage pipes, and internal tracks, inverters	Medium	High* Adverse	Moderate	Yes – only where high significance remains are present
Unknown remains associated with Battle of Tippermuir (BTL39) outwith	Solar arrays, drainage pipes, and internal tracks, inverters	Low	High* Adverse	Minor	No



the battlefield extents					
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** Where High Adverse magnitude of effect, this assumes entire extent of remains would be completely removed.*

Operational Effects

7.9.24 Effects during the operation of the Proposed Development will relate to changes within the setting of cultural heritage assets. In agreement with HES and PKHT, a single heritage asset – Battle of Tippermuir (**BTL39**) has been scoped in for an assessment on its setting and is assessed in detail below. The justification for assets scoped out of detailed assessment is provided in **Section 7.15**. This assessment has been undertaken with reference to the Managing Change: Battlefields (2016)¹⁵ guidance, which details the consideration of impacts of proposed developments on sites in the Inventory and the Battlefield Conservation Plan (2020)¹⁶ produced by Guard Archaeology in advance of the Perth West development in terms of potential impacts on Battle of Tippermuir (**BTL39**).

Battle of Tippermuir (BTL39)

Description

7.9.25 In 1644, in response to Covenanter support for the English Parliamentarians, the Royalist’s dispatched James Graham, 1st Marquis of Montrose, to Scotland to raise support for the Royalist cause and disrupt the operations of the Covenanters. Arriving in Scotland with only two retainers, Montrose was able to link up to Irish and Highlander forces under the command of Alasdair Mac Colla, who had been dispatched to Scotland to support the Royalist effort. Low on ammunition, and caught between two armies at Stirling and Perth, Montrose went on the attack, and advanced from the west to seize Perth.

7.9.26 With Montrose’s forces advancing east along The Old Gallows Road, the two armies met outside Perth on September 1st, 1644, somewhere on the flat plains to the west between the city and the village of Tibbermore. The comparative size of both forces is debated. Early sources highlight how outnumbered Montrose was, with Wishart (1893)¹⁷ records 6,700 Covenanters, and Patrick (1850)¹⁸ lists 7,000 Covenanters against 3,200 Royalists. Some more recent accounts dispute this, such as Philippou and Hands (2009)¹⁹, who place the armies at similar sizes. The official designation entry²⁰ does not give full numbers for the Covenanter forces, though states Montrose’s forces were around 3,000. What is consistent

¹⁵ HES (2016) Managing Change in the Historic Environment – Historic Battlefields

¹⁶ Ferguson, N (2020) The Battle of Tippermuir 1644 Battlefield Conservation Plan. Guard Archaeology

¹⁷ Wishart, G. (1893) Memoirs of James, Marquis of Montrose 1639 – 1650, translated by G. Murdoch

¹⁸ Patrick, G. of Ruthven, (1850) A Short Abridgement of Britane’s Distemper, from the yeare of God MDCXXXIX to MDCXLIX

¹⁹ Philippou, P. and Hands, R. (2009) Battleground Perthshire: Two Thousand Years of Battles, Encounters & Skirmishes, Perth

²⁰ <https://portal.historicenvironment.scot/apex/f?p=1505:300:::::VIEWTYPE,VIEWREF:designation,BTL39>



across sources is that the Covenanters had superior numbers of firearms, as well as artillery, and while the Royalist forces lacked ammunition, many of their troops were veteran soldiers as opposed to the Covenanter raw militia.

- 7.9.27 The battle began with forces from the Covenanter's moving forward to skirmish with the Royalists, but these were driven back by Mac Colla's men. Taking advantage of the confusion this caused, Montrose ordered a general attack, and despite their disadvantages his men threw the Covenanters into confusion, overrunning their cannon, and then forcing their troops into disarray. Accounts suggest that Montrose's right wing took the high ground on the Lamberkine Ridge, then attacked the Covenanters left by charging downhill to the east. Scattering their forces, and killing or capturing the majority, Montrose was able to seize Perth.

Historical association

- 7.9.28 The battle derives its cultural significance in part due to its historical association to key figures. Though Lord Elcho, the commander of Covenanter forces, is little remembered, both Montrose and Mac Colla, commanding the Royalist's, were key figures in the Wars of the Three Kingdom's, and this victory marked the start of their campaign in Scotland. This was the first of many victories that would, albeit temporarily, install him in command of much of Scotland. Despite its historical importance in this way, the battle is little remembered, with few memorials for the battle (aside from a solitary plaque to Covenanter graves on Needless Road), and no famous commemoration in song or verse.
- 7.9.29 The battle also derives historical significance as potentially the first use of the Highland Charge battle tactic in Scotland. Used previously in Ireland, the manoeuvre involved the rapid advance of troops upon the enemy, the discharge of firearms at point-blank range, and then an advance into melee. This would become a staple of Montrose's forces and was used by Highlanders over the next hundred years, many times successfully, until Jacobite forces attempting a charge were defeated at Culloden in 1746.

Significant physical remains and/or archaeological potential (special qualities)

- 7.9.30 As discussed in **Section 7.12** and **Section 7.16**, no archaeological remains have been discovered from the battlefield in modern times, though that does not mean that, at key areas of the engagement, artefactual material (most likely in the form of lead shot and other metal artefacts), is not present. Though archaeological findspots, especially lead shot, are not rare from this period, any artefactual material could confirm the position of the key areas of the battlefield and the weapons and equipment of both armies. There are two upstanding remains which survive and are considered to be associated with the battlefield. Montrose is recorded as stopping for water at Tibbermore Parish Church (**LB18297**), where a number of Covenanters are said to have been buried and the Old Gallows Road (**SLR68**), which formed a central focus point for the battle for the troop



movements of both armies, still survives as sections of footpath, tracks, and field boundaries.

- 7.9.31 Potential direct (physical) impacts on the archaeological remains and special qualities of the battlefield is covered in **Construction Effects**.

Battlefield Landscape

- 7.9.32 Tippermuir derives significance from key landscape features, which contribute to the overall integrity, significance, character, and experience of the battle. The designation lists these features as;
- Old Gallows Road, which survives as a track running along the edge of fields and can be traced through field boundaries, and which likely formed the focus of both the deployments (**Photograph 4**).
 - The village of Tibbermore, which is the modern form of Tippermuir, and surrounding area, through which the Royalists advanced to deploy.
 - The high ground of the Lamberkine Ridge and West Lamberkine Wood that Montrose took on the Royalist right flank.
 - The area around West Lamberkine farm, where much of the fighting occurred and through which Mac Colla and his Irish troops charged and broke through the Covenanter lines.
 - The area west of the modern A9 around Glendevon Farm, where the Covenanter army initially deployed.

Landscape Context and Setting

- 7.9.33 The setting of the battlefield comprises the flat plain between Tibbermore and Perth, which rises to the south to form the Lamberkine Ridge, and through which the Old Gallows Road ran northeast to southwest. The landscape has remained primarily agricultural since the battle, with modern Perth mainly contained east of the A9, though the landscape has become steadily enclosed since the battle, with open arable land replaced with hedges, forestry, and enclosed fields. The earliest landscape depiction since the Battle is shown on Roy's Military Survey, published in 1755, showing the land west of Perth as a patchwork of agricultural fields. By the middle of the 19th century, the 1st edition OS six-inch map (1866, sheet xcvi) (**Plate 1**), shows the land boundaries and more detailed areas of forestry that start to occupy the landscape. These boundaries and trees have largely been retained since this time, with planted boundaries becoming more mature over time.
- 7.9.34 Within the designated area, more modern houses and farms have been built since the battle, including the addition of modern housing added to the village of Tibbermore, although the area has retained its rural characteristics. The disuse and subsequent fragmentation of the Old Gallows Road, and the instalment of the Tibbermore-Perth Road, as well as the A9 to the south, has altered the landscape and the main modes of transport westwards from Perth. Only small elements of this road have survived at the western and eastern extents of the designation. The expansion of Perth westwards has been a change to the setting of the battlefield, and while the current expansion lies outwith the designation boundary, it does lie



over the area of the Covenanter retreat and Royalist advance eastwards into Perth.

Contribution of Battlefield Landscape to Integrity, Significance, Character, and Experience

- 7.9.35 Given the uncertainties around the details of the battle and the limited amount of physical remains, the landscape and setting of the battlefield is a key contributor to the Integrity, Significance, Character, and Experience of the battlefield. Through the understanding of the landscape context, it is possible to understand not only why the battle unfurled the way it did, but why both armies chose to manoeuvre as they did in the lead up to, and throughout, the battlefield.
- 7.9.36 Those aspects of the setting of the battlefield that contribute to its Integrity, Significance, Character and Experience are defined as:
- a) the topography of the landscape and its contribution to the understanding and appreciation of the battlefield, in particular the relatively flat ground over which both forces were able to deploy, and the high ground of the Lamberkine Ridge on which Montrose was able to seize to support his victory.
 - b) the surviving elements of the Old Gallows Road and the key lines of sight along it. This road marks the main axis of advance for both armies, and though disused and incorporated into field boundaries in the centre of the battlefield, from surviving elements on the western and eastern ends of the designation. From moving along the road, it is possible to understand the geographical importance of the high ground of the Lamberkine Ridge to the south. Lines of sight along this road, northeast to southwest and towards the ridge to the south are considered to be key contributors to the Integrity of the battlefield.
 - c) the rural character of the area. While the battlefield has much changed since the 17th century, most notably through forestry, enclosing fields, and the building of scattered buildings, it has been far less developed than many battlefields in Scotland especially those in proximity to major cities. Though the changes to the landscape have obscured some key views and broken up the open area over which it was fought, key elements of the landscape have not been impacted by major development.

Development Effects

- 7.9.37 The Proposed Development would introduce visible solar arrays in the landscape both within and bordering the battlefield. According to the ZTV (**Figure 7.3**), these would be visible from most parts of the battlefield, with the exception of the lower ground on the northern side of Lamberkine Ridge and north of West Lamberkine Wood.
- 7.9.38 With regards to the factors that contribute to the Integrity of the battlefield, there is potential for the key sight lines (**b**) to be impacted. The key sight lines from the closest portion of the Old Gallows Road, c. 300 m north of the Site, would be



- focused eastward, following the troop movement toward the known camps and fighting to the east and north east. When travelling south west along the Old Gallows Road, the ZTV indicates that there would be potential visibility of solar arrays when looking towards the higher ground of the ridge to the south and along the road to the southwest (see **Figure 7.4**). It is anticipated that this would not affect the key sight lines of the battlefield beyond a slight distraction resulting in an impact on the Integrity to a very minor extent.
- 7.9.39 As mentioned, there would be visibility of the Proposed Development in views from the Old Gallows Road towards Lamberkine Ridge (**a**) (**7.4**). It is considered that any visibility of the Proposed Development, would not affect appreciation of Lamberkine Ridge as a high point within the landscape, and as such, this aspect of the significance would remain unaffected. When moving northeastward, the appreciation of the topographical feature of Lamberkine Ridge would remain intact with no visibility of the Proposed Development.
- 7.9.40 With the introduction of solar panels, there would be a perceived change in the rural landscape (**c**) within which the battle took place. The battlefield has been minimally changed in comparison to other battlefields around Scotland, and thus a distinct impression of the rurality can still be experienced and appreciated. This is most appreciated in the central and northern portions of the battlefield where the Lamberkine Ridge screens the A9 to the south. **Volume 3b Visualisations: VP2 - View West from Minor Road near Windyedge Cottages** presents the south west area of the battlefield boundary, where it would intersect with the Proposed Development and **VP4 - View South West from Tibbermore** is from Tibbermore Village, located in the northern portion of the battlefield boundary. Where the Proposed Development would be visible, there would be some level of erosion to the rural character of the land, but from where there is the highest level of appreciation near the village of Tibbermore, the arrays would be distant and minimally visible on the horizon if not thus reducing their potential distraction. The solar arrays are situated near the edge of the battlefield, adjacent to the A9 and the Windyedge Plantation—both of which represent modern elements within the wider landscape. While these features already contribute to a degree of modern influence on the setting, it is considered that the Proposed Development would result in a minor additional effect on the Character and Experience of the battlefield at most.
- 7.9.41 Though within the designation of the battlefield, the Site is not located within any of the key events relating to the battlefield and many of the aspects which contribute to the Integrity, Significance, Character and Experience are unaltered.
- 7.9.42 The Proposed Development would form a small change within the broad rural landscape south of the major engagements of this Battle, thus impacting the Character and Experience (**c**) to a minor extent. Due to the visual distraction in some key sight lines along the Old Gallows Road (**b**), the Integrity and Significance would be impacted to a very minor extent. Other aspects which contribute to the Integrity, Significance, and Character of the battlefield, such as the sightlines and topographical nature of Lamberkine Ridge and its significance to the battle will not be impacted by the Proposed Development. Overall, the



magnitude of change is anticipated to be Low Adverse. On an asset of high significance, this would result in a **Minor** significance of effect. This is considered not significant in EIA terms. It is considered that the cultural significance, key landscape characteristics, physical remains and special qualities of the battlefield would be adequately retained with the introduction of the Proposed Development, and as such, is considered to be in accordance with Policy 7j of NPF4

Decommissioning Effects

Embedded Measures

- 7.9.43 It is assumed that the decommissioning of the Proposed Development would return the landscape to its current state after the operational period of the Proposed Development.

Potential Effects

- 7.9.44 There would be no direct physical effects on any assets on the assumption there would be no new ground works taking place during decommissioning, above that already disturbed during construction. There would be no adverse effects upon the setting or significance of any assets within 2 km, as the landscape would be returned to its original pre-development state.

7.10 Mitigation

- 7.10.1 Where mitigation through design was not possible, mitigation has been proposed for identified direct and indirect impacts upon archaeological remains within the Site. Mitigation is suggested but will need to be agreed with PKHT prior to implementation.

- 7.10.2 Suitable measures for mitigating direct impacts include:

- the micro-siting of Proposed Development infrastructure away from sensitive locations, considered in embedded mitigation.
- the fencing off or marking out of heritage assets or features in proximity to construction activity in order avoid disturbance where possible.
- a programme of archaeological work, such as an archaeological watching brief during construction activities in or in proximity to areas of archaeological sensitivity, or excavation and recording where impact is unavoidable; and/or
- a working protocol to be implemented should unrecorded archaeological features be discovered.

7.10.3 Construction Effects Mitigation

- 7.10.4 Where direct impacts on heritage assets have not been avoided by embedded mitigation measures, additional mitigation is recommended. These suggestions



are in line with NPF4 Policy 7 and Policy 26 of Perth and Kinross Local Development Plan, which states:

“There will be a strong presumption in favour of preservation in situ. Where, in exceptional circumstances, preservation of the archaeological features is not feasible, the developer, if necessary, through appropriate conditions attached to the granting of planning permission will be required to make provision for the survey, excavation, recoding and analysis of the threatened features prior to development commencing.

If discoveries are made during any development, work should be suspended, the local Planning Authority should be informed immediately, and mitigation measures should be agreed.”

7.10.5 With reference to the identified construction impacts highlighted in **Table 7-6**, **Table 7-7** outlines the proposed mitigation for the assets that have potential for direct impacts as a result of the construction phase of the Proposed Development. All proposed mitigation would be subject to approval by PKHT and outlined in a Project Design, previously known as Written Scheme of Investigation (WSI). Exact extents of investigation, such as the targeted metal detecting survey and geophysics would be outlined in said Project Design.

7.10.6 Given the extent of the known remains and archaeological potential within the Site which may be of medium significance, it is recommended that an Archaeological Clerk of Works (ACoW) or qualified archaeologist be present for all ground-breaking works. Specific mitigation for assets experiencing direct physical impacts from construction are outlined below.

Table 7-7: Proposed Mitigation for Potential Construction Impacts

Asset	Infrastructure	Proposed Mitigation
Battle of Tippermuir (BTL39)	Solar arrays, drainage pipes, and internal tracks	Archaeological monitoring and recording, Site procedure toolbox talk/programme.
All known heritage assets which have been avoided by design	All elements of Proposed Development	Demarcation and avoidance to avoid accidental damage
SLR15 - Cultmalundie Woods, quarry	Proposed Fence	N/A
SLR8 – Newbigging, road	Internal Tracks, Proposed Fence	N/A
SLR61 – Roman Road	Internal Tracks, Proposed Fence	Archaeological monitoring and recording
Unknown Roman Remains	Solar arrays, drainage pipes, and internal tracks, inverters	Geophysical survey subject to ground conditions, followed by an appropriate means of mitigation once the full extent of remains are known.
Unknown remains associated with Battle of Tippermuir (BTL39) outwith the battlefield extents	Solar arrays, drainage pipes, and internal tracks, inverters	Archaeological monitoring and recording, Site procedure toolbox talk/programme, recording



7.10.7 Operational Effects Mitigation

7.10.8 Embedded mitigation measures are outlined in **Chapter 2: Site Description and Design Iterations**. During the design stages non-designated heritage assets were identified as constraints and have been avoided as part of the design, ensuring no direct (physical) impacts.

7.11 Assessment of Residual Effects

Construction

7.11.1 A summary of the residual effects of the Proposed Development, following implementation of the mitigation measures detailed above (**Table 7-7**) is presented in **Table 7-9** below.

7.11.2 Adverse direct impacts on archaeological remains would be offset to some degree by the positive effect that archaeological recording would have in respect to our understanding of the archaeological record, which will be of wider benefit to the archaeological and local community. Whilst the proposed mitigation would be a benefit of the Proposed Development, it would not offset the impact caused by the removal of assets due to proposed construction works. As such, after the implementation of the proposed mitigation, the residual effect upon the impacted assets would remain the same.

7.11.3 As noted previously, all mitigation would be agreed with PKHT.

Operational

7.11.4 Residual operational impacts are summarised in **Table 7-9**.

Decommissioning

7.11.5 There would be no residual effects resulting from the decommissioning of the Proposed Development.

7.12 Assessment of Cumulative Effects

7.12.1 There are no anticipated cumulative effects resulting from direct (physical) impacts from the Proposed Development. As such, the following assessment is based on the potential for cumulative effects on the setting of cultural heritage assets arising from the operational stage of the Proposed Development.

7.12.2 Cumulative effects have been considered with regard to any solar farm developments that are:

- solar farm planning applications, within 5km, that have been submitted and have a decision pending; and
- solar farm planning applications, within 5km, that have been granted permission but not yet constructed.



7.12.3 The developments listed in **Table 7-8** fall within the above criteria that has been considered for cumulative assessment:

Table 7-8: Cumulative Developments

Development	Stage	Distance from the Proposed Development
Kinnon Park Solar Farm Array	Application, decision pending	2.2km

Battle of Tippermuir (BTL39)

- 7.12.4 The asset, its setting, and the potential impact as a result of the Proposed Development are outlined in **Section 7.16**.
- 7.12.5 There is a single development which falls under the cumulative criteria within 5km of Battle of Tippermuir (**BTL39**). If consented, Kinnon Park Solar Farm would introduce an additional c. 102 ha of solar panels c. 2.2 km to the north of the Proposed Development at its closest point.
- 7.12.6 According to the screened ZTV provided with the application (**24/01188/FLM**), Kinnon Park Solar Farm Array would be visible in its entirety in views from the south, with visibility gradually reducing to the east towards Perth.
- 7.12.7 From the location of the main events of the Battle and aspects of the landscape which contribute to the Character, Integrity, Significance and Experience, as described in **Paragraph 7.9.36**, there would be some visibility of the Kinnon Park Solar Farm Array development. These would be most obvious in views from the north facing slopes of West Lamberkine ridge looking towards the north, from the village of Tibbermore. The proposals would not interrupt views between these two areas and therefore would not have a perceivable impact on these aspects. The visibility would, however, be an adverse impact to the general rural character of the landscape where the Battle took place. Additionally, in views along the Old Gallows Road from north east to south west, mimicking the movements of the Royalists troop movements, there would be some peripheral visibility which could result in a very slight distraction.
- 7.12.8 As noted in **Section 7.16**, the Proposed Development would form a small change within the broad rural landscape affecting both the Character and Experience to a minor extent and affect the Integrity and Significance to a minor extent due to slight visual distractions in views along the Old Gallows Road.
- 7.12.9 When viewed cumulatively with Kinnon Park Solar Array, the Proposed Development would not be visible in these same views except along the Old Gallows Road, where Kinnon Park Farm Solar Array would only be visible as a very slight distraction in addition to the visual effect of the Proposed Development on this key sight line (Outlined in **Paragraph 7.16.38**). The degree of visual



- change is considered minimal and there would not be any additional adverse effect in these views that contribute to the cultural significance of the battlefield.
- 7.12.10 Kinnon Park Solar Array would also add to the change of the rural landscape and would be visible in views to the west from the western portions of the battlefield. While important to the landscape context of the battle, the Kinnon Park Solar Farm Array would only introduce modern elements in a small portion of the wider landscape views resulting in an impact on the rural landscape to a minor extent. The overall rural and agricultural nature of the landscape within the battlefield would remain unaltered. With the addition of the Proposed Development, there would be an increase in modern development in views to the west from the battlefield, however, this would be at such a distance that the change would be minimal enough to not warrant a significant effect.
- 7.12.11 Cumulatively, it is considered that there would be slight changes to the setting of the Battlefield. However, when considering all other aspects which contribute to the Character, Integrity, Significance and Experience of the Battlefield, the asset as a whole will not experience a change from these developments to the point that it would increase the overall Significance of Effect beyond what is assessed in **Section 7.16**. As both impacts individually would be to a very minor extent at most, it is considered that cumulatively there would be an overall magnitude of impact of Low Adverse. On an asset of high significance, this would result in a **Minor** significance of effect. This is considered **not significant** in EIA terms.

7.13 Summary

- 7.13.1 **Table 7-9** provides a summary of the likely effects resulting from the Proposed Development.
- 7.13.2 This assessment has considered data from a diverse range of sources in order to determine the presence of heritage assets which may be affected by the Proposed Development. The potential direct, indirect, settings, and cumulative effects of the Proposed Development on the identified assets, mitigation measures for protecting known assets during construction or recording of currently unknown features which could be lost due to groundworks during construction, and the residual effects of the Proposed Development have also been assessed. The assessment has considered the potential direct, indirect and setting effects on Battle of Tippermuir (**BTL39**), the known heritage assets, and the archaeological potential within the Site.
- 7.13.3 Mitigation through design has been embedded throughout the design process, as outlined in **Chapter 2: Site Description and Design Iterations**.
- 7.13.4 The majority of physical impacts resulting from the Proposed Development have been avoided through design. There are three non-designated heritage assets within the Site boundary that have the potential to be impacted by the Proposed Development. These are **SLR15**, **SLR8**, and **SLR61**. The magnitude of impact is anticipated to be Very Low Adverse on heritage assets of low and medium significance. This would result in Negligible significance of affect. For SLR15 and



- SLR8 which are of low significance, this does not warrant any additional mitigation. For **SLR61**, a Roman Road, its medium significance warrants additional mitigation. In this case, it is suggested that all ground breaking works within the footprint of **SLR61** are subject to archaeological monitoring and recording.
- 7.13.5 It is assessed that there is potential for direct (physical) impacts during construction on Battle of Tippermuir (**BTL39**), as well as unknown heritage assets relating to the Roman period and unknown heritage assets relating to Battle of Tippermuir (**BTL39**).
- 7.13.6 For remains relating to the Battle of Tippermuir (**BTL39**) both within the designated boundary and outwith, any remains would likely be of low significance, and, at worst, physical impacts would result in a Minor Significance of Effect, which is considered not significant in EIA terms. Where unknown Roman remains are present, these are likely to relate to the Gask Ridge and be of medium significance. Therefore, at worst, physical impacts would result in a **Moderate** significance of effect. Due to the unknown nature or number of the unrecorded remains, this impact has the potential to be considered significant in EIA terms. This is based on potential rather than known archaeological remains. If not present, no significant effect would be found.
- 7.13.7 Mitigation including the presence of an ACoW or qualified archaeologist on all groundbreaking works within the Site and a metal detecting survey where direct (physical) impacts are anticipated on the Battle of Tippermuir (**BTL39**) is recommended. Additionally, it is recommended a programme of geophysics is undertaken ahead of groundbreaking works to determine the extent, if any, of Roman remains. A full scheme of mitigation would be agreed with PKHT and presented in Project Design.
- 7.13.8 A **Minor** significance of effect has been identified resulting from the effects of the Proposed Development on the setting of Battle of Tippermuir (**BTL39**). This results from the minor infringement of visual distraction to two aspects of the landscape context which compose the Integrity, Character, Significance, and Experience of the battlefield. This impact is not significant in EIA terms.
- 7.13.9 When considered cumulatively with the surrounding relevant developments, the cumulative impact of the Proposed Development on Battle of Tippermuir (**BTL39**) would remain **Minor** and not significant in EIA terms. The proposals are considered to retain the cultural significance, key landscape characteristics, physical remains and special qualities as required by NPF4 Policy 7j and Perth and Kinross Local Development Plan (2019) Policy 30.
- 7.13.10 Overall, the Proposed Development would be compliant with relevant policy and guidance, including the National Planning Framework 4 (NPF4) Policy 7 j, Historic Environment Policy for Scotland (HEPS) and Perth and Kinross Local Development Plan (2019) Policy 26 and Policy 30.



Table 7-9: Summary Table

Description of Effect	Significance of Effect		Mitigation Measures	Significance of Residual Effect	
	Significance Beneficial / Adverse			Significance Beneficial / Adverse	
During Construction & Decommissioning					
Battle of Tippermuir (BTL39)	Minor	Adverse	Targeted metal detecting survey, archaeological monitoring and recording, Site procedure toolbox talk/programme	Minor	Adverse
SLR15 - Cultmalundie Woods, quarry	Negligible	Adverse	N/A	Negligible	Adverse
SLR8 – Cultmalundie, linear feature	Negligible	Adverse	N/A	Negligible	Adverse
SLR61 – Roman Road	Negligible	Adverse	N/A	Negligible	Adverse
Unknown Remains - Roman	Moderate	Adverse	Geophysics if suitable conditions, followed by an appropriate means of mitigation once the full extent of remains are known.	Moderate	Adverse
Unknown Remains – Battle of Tippermuir	Minor	Adverse	Archaeological Monitoring and recording, Site procedure toolbox talk/programme, recording	Minor	Adverse



During Operation					
Battle of Tippermuir (BTL39)	Minor	Adverse	N/A	Minor	Adverse
Cumulative Effects					
Battle of Tippermuir (BTL39)	Minor	Adverse	N/A	Minor	Adverse



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Appendix A Site Gazetteer

Dupplin Solar EIA Report

TRIO Dupplin Solar LLP

SLR Project No.: 405.065787.00001

1 December 2025



This Appendix presents the designated and non-designated heritage assets which are within 1 km of the Proposed Development and is to accompany **Chapter 7: Cultural Heritage and Archaeology** of the EIA Report. This data was provided by Perth and Kinross Heritage Trust and publicly available data from Trove (HES).

Gazetteer of Heritage Assets

SLR Number	Designation Reference	MPK	Canmore ID	Site Name	Site Type	Period
Designated Heritage Assets						
SLR65*	SM2902	MPK2258	26954	Roman Watch Tower 1280m ESE of Mayfield	Watch Tower	Roman
SLR75	GDL00165			Dupplin Castle Estate		Post-Medieval
SLR76	BTL39		26863	Battle Of Tippermuir		Medieval
SLR77	BTL8	MPK17754		Battle Of Dupplin Moor	Battlefield	Medieval
SLR6	LB5872	MPK2241	26936	Dupplin Castle, Burnside Lodges, North Lodge / Dupplin Castle Policies; Burnside Lodge (North)	Lodge	Undated
SLR21	LB5870	MPK6056	88432	Dupplin Castle, North Lodge and Gates / Dupplin Castle Policies	Lodge/Gate Pier	Undated
SLR50	LB18300	MPK7903	100793	Dupplin Castle Policies, Ice-House / Dupplin Loch; Loch Wood	Icehouse	Post-medieval
Non-designated Heritage Assets						
SLR1		MPK2192	26887	Gateside	Enclosure	Undated
SLR2		MPK2194	26889	Windyedge, Well	Well	Post-medieval
SLR3		MPK2231	26926	Windyedge Bin	Findspot	Prehistoric
SLR4		MPK2233	26928	Cultmalundie	Findspot/Lithic Scatter	Prehistoric
SLR5		MPK2235	26930	Wester Cultmalundie / Tibbermore	Oval Enclosure	Early-medieval



SLR Number	Designation Reference	MPK	Canmore ID	Site Name	Site Type	Period
SLR7		MPK2248	26943	Dupplin Lake / Dupplin Loch; Dupplin Castle Policies	Pit, Quarry	Undated
SLR8		MPK2249		Cultmalundie Woods	Linear Feature	Undated
SLR9		MPK2250	26945	B&T Arrowhead, Wester Cultmalundie	Findspot	Prehistoric
SLR10		MPK2251	26946	Wester Cultmalundie	Village	Medieval
SLR11		MPK2259	26955	Westmuir, Old Road	Road	Undated
SLR12		MPK5658	88415	Dupplin Castle Policies, Brachman Quarry / Dupplin Estate; Oak Wood	Quarry	Post-medieval
SLR13		MPK5804	88849	Easter Cultmalundie	Horse Engine House/Farmhouse/Farmstead	Post-medieval
SLR14		MPK5805	88850	Wester Cultmalundie	Sandstone Quarry	Post-medieval
SLR15		MPK5806	88851	Cultmalundie Woods / Wester Cultmalundie	Quarry	Undated
SLR16		MPK5807	88852	Cultmalundie Woods / Wester Cultmalundie	Quarry	Undated
SLR17		MPK5808	88848	Wester Cultmalundie	Horse Engine House/Farmstead/Farmhouse	Post-medieval
SLR18		MPK6053	88427	Dupplin Castle Policies, Backhill Wood / Backhill Park; Windyedge; Coldstream Burn	Rig And Furrow	Medieval
SLR19		MPK6054	88428	Dupplin Castle Policies, Backhill Wood / Backhill Park	Rig and Furrow	Medieval
SLR20		MPK6055	88430	Dupplin Castle Policies,	Rig and Furrow	Medieval



SLR Number	Designation Reference	MPK	Canmore ID	Site Name	Site Type	Period
				Harlaypoint Wood		
SLR22		MPK6057	88438	Dupplin Castle Policies, North Lodge / Backhill Wood	Quarry	Undated
SLR23		MPK6183	88892	Newbigging	Farmstead/Farmhouse	Undated
SLR24		MPK6184	88894	Newbigging	Quarry	Undated
SLR25		MPK6191	88881	Westmuir	Rig and Furrow	Medieval
SLR26		MPK6192	88882	Dupplin Castle Policies, Blairbell Wood	Quarry	Undated
SLR27		MPK6388	88409	Windyedge Cottages	Cottage	Post-medieval
SLR28		MPK6402	69957	Cultmalundie Woods / Westmuir; Gask Ridge	Linear Feature	Roman
SLR29		MPK6655	88405	Cotton Cottages, Curling Pond / West Lamberkine Wood	Curling Pond	Post-medieval
SLR30		MPK6656	88408	Windyedge	Horse Engine House/Farmstead/Farmhouse	Post-medieval
SLR31		MPK6675	88413	Dupplin Castle Policies, Swines Quarry / Dupplin Estate; Harlaypoint Wood	Quarry	Post-medieval
SLR32		MPK7267	88398	West Lamberkine Cottage	Cottage	Post-medieval
SLR33		MPK7273	88404	Windyedge, Curling Pond / West Lamberkine Wood	Curling Pond	Post-medieval
SLR34		MPK7275	88864	Cultmalundie Woods	Rig and Furrow	Medieval
SLR35		MPK7277	88868	Weetit / Mains of Cultmalundie	Cottage	Post-medieval
SLR36		MPK7449	88361	Cotton	Farmstead/Farmhouse	Post-medieval



SLR Number	Designation Reference	MPK	Canmore ID	Site Name	Site Type	Period
SLR37		MPK7450	88362	Cotton Cottages	Cottage	Post-medieval
SLR38		MPK7451	88363	Cotton Cottages / West Lamberkine Wood	Quarry	Undated
SLR39		MPK7456	88854	Cultmalundie Woods / Wester Cultmalundie	Sandstone Quarry	Undated
SLR40		MPK7463	88483	Dupplin Castle Policies, Backhill Park, Mill Ponds / Coldstream Burn	Mill Pond/Sluice	Undated
SLR41		MPK7464	88410	Howlet Ha' / West Lamberkine Wood; Windyedge Plantation	Cottage	Undated
SLR42		MPK7471	88844	Crossgates / Dupplin Castle Policies	Sandstone Quarry	Undated
SLR43		MPK7472	88845	Crossgates / Dupplin Castle Policies	Sandstone Quarry	Undated
SLR44		MPK7510	88839	Crossgates	Quarry	Undated
SLR45		MPK7511	88840	Crossgates	Farmstead	Post-medieval
SLR46		MPK7512	88841	Crossgates / Dupplin Castle Policies	Quarry	Undated
SLR47		MPK7513	88842	Crossgates / Dupplin Castle Policies	Quarry	Undated
SLR48		MPK7514	88843	Crossgates / Dupplin Castle Policies	Quarry	Undated
SLR49		MPK7763	90419	Gateside	Farmhouse/Farmstead/Horse Engine House	Post-medieval
SLR51		MPK7911	101221	Dupplin Castle Policies, Campbell's Isle / Crossgates	Quarry	Undated



SLR Number	Designation Reference	MPK	Canmore ID	Site Name	Site Type	Period
SLR52		MPK7912	101222	Dupplin Castle Policies, Campbell's Isle / Crossgates	Quarry	Undated
SLR53		MPK7915	101367	Cauldhame / Dupplin Castle Policies	Farmstead	Undated
SLR54		MPK16025		Newbigging	Road	Undated
SLR55		MPK17063	288507	Wester Cultmalundie	Field Boundary/Pit	Undated
SLR56		MPK19503	354746	Crossgates	Milestone/Benchmark	Post-medieval
SLR57		MPK19504	354747	Cotton Cottages	Milestone/Benchmark	Post-medieval
SLR58		MPK19506	354749	Burnside Lodge	Milestone	Post-medieval
SLR59		MPK19533	354844	Campbell's Isle	Milestone	Post-medieval
SLR60					Field Boundary	Undated
SLR61		MPK2242	26937	Camelon - Ardoch - Strageath - Cargill Roman Road / Rr 9b	Quarry Pit/Road	Roman
SLR61			26900		Roman Road	Roman
SLR61			26937		Quarry Pit(S), Roman Road	Roman
SLR62		MPK2245	26940	Easter Cultmalundie / Easter Cultmalundie 1	Enclosure	Undated
SLR63		MPK2246	26941	Easter Cultmalundie / Easter Cultmalundie 2	Enclosure	Undated
SLR64		MPK2252	26947	Newbigging	Linear Feature	Undated
SLR66		MPK7274	88862	Dupplin Castle Policies, Blairbell Wood	Rig and Furrow	Medieval
SLR67		MPK7455	88853	Cultmalundie Woods / Wester Cultmalundie	Quarry	Undated
SLR68		MPK18634		Old Gallows Road	Road	Undated
SLR69			26944		Field Boundary	Undated
SLR70			26937		Quarry Pit(S), Roman Road	Roman



SLR Number	Designation Reference	MPK	Canmore ID	Site Name	Site Type	Period
SLR71			88858	Dupplin Castle Policies, Blairbell Wood	Ridge And Furrow	Medieval
SLR72			100817		Quarry	Undated
SLR73			26881		Axehead	Undated
SLR74					Field Boundary	Undated

**Due to design changes, these assets are now outwith the 1 km study area but have been retained as part of the baseline for the current design.*



Appendix B Site Photographs

Dupplin Solar EIA Report

TRIO Dupplin Solar LLP

SLR Project No.: 405.065787.00001

1 December 2025





Photograph 1 – View of extant Field Boundary (**SLR69**) facing northwest



Photograph 2 – Identified Stone Field Boundary (**SLR60**). Extant quarry (**SLR14**) in background, facing west.





Photograph 3 – View of Roman road (**SLR61**), visible as a slight ridge crossing the photograph horizontally, facing south.



Photograph 4 – General view of landscape to the north and northeast of Site and the extant remains of the Old Gallow Road (**SLR68**), extending northeast from Wester Cultmalundie (left).

