

CFA Archaeology Ltd

archaeological consultants

Advice on Archaeology & Planning

Environmental Impact Assessment

Interpretation, Design & Display

Finds/ Environmental Analysis

Field Evaluation & Excavation

Historic Building Recording

Site & Landscape Survey

Geophysical Survey

Proposed Middle Farm Solar PV Site, Silloth, Cumbria

Cultural Heritage Assessment

Report No. 3188

CFA ARCHAEOLOGY LTD

Old Engine House
Eskmills Park
Musselburgh
East Lothian
EH21 7PQ
Tel: 0131 273 4380

email: cfa@cfa-archaeology.co.uk

web: www.cfa-archaeology.co.uk

Author	Hélène Gray MA (hons) AIfA
Illustrator	Shelly Werner BA MPhil PhD MIfA
Editor	George Mudie MA (hons) MIfA
Commissioned by	Livos Energy
Date issued	July 2014
Version	0
National Grid Ref.	313864 552996

This document has been prepared in accordance with CFA Archaeology Ltd standard procedures.

Proposed Middle Farm Solar PV Site, Silloth, Cumbria

Cultural Heritage Assessment

Report No. 3188

CONTENTS

1.	INTRODUCTION	3
2.	LEGISLATION AND PLANNING CONTEXT	3
3.	APPROACH TO ASSESSMENT	14
4.	CULTURAL HERITAGE BASELINE	17
5.	POTENTIAL IMPACTS	21
6.	MITIGATION PROPOSALS	24
7.	SUMMARY AND CONCLUSIONS	25
8.	REFERENCES	26

Appendices

Appendix 1:	Heritage Assets within the Proposed Development Area	28
Appendix 2:	Heritage Assets within 500m of the Proposed Development Area	29
Appendix 3:	Designated Heritage Assets within 2km of the Proposed Development Area	30

Figures (bound at rear)

Figure 1:	Heritage Assets within the Proposed Development Area and within 500m of the Proposed Development Area
Figure 2:	Proposed Development Area and OS 1 st Edition map (1868)
Figure 3:	Proposed Development Area and OS 2 nd Edition map (1901)
Figure 4:	Designated Heritage Assets within 2km of the Proposed Development Area

1. INTRODUCTION

This report considers the archaeological and historic environment baseline within and within 500m of the proposed development area and designated assets within 2km of the site boundary for the Middle Farm Solar PV site, near Silloth, Cumbria. The report has been prepared by CFA Archaeology for Livos Energy, and takes into account the screening opinions provided by English Heritage and Allerdale Borough Council, and information provided by the Cumbria County Council Historic Environment Service (CCCHES).

The assessment has been conducted in accordance with the IfA ‘Code of Conduct’ (2014) and ‘Standard and Guidance for Historic Environment Desk-based Assessment’ (2012).

The specific objectives of the cultural heritage study were to:

- Identify the cultural heritage baseline;
- Consider the proposed development site in terms of its archaeological and historic environment potential;
- Assess the potential and predicted effects of the construction and operation of the development on the baseline cultural heritage resource, within the context of relevant legislation and planning policy guidelines; and,
- Propose measures, where appropriate, to mitigate any predicted significant adverse effects.

Figure 1 shows the proposed development area, together with heritage assets identified during the assessment that lie within, and within 500m of the site boundary. Gazetteers of these are provided as Appendices 1 and 2.

Figures 2 and 3 show the proposed development area together with the Ordnance Survey 1st (1868) and 2nd Edition maps (1901).

Figure 4 shows the proposed development site, together with designated heritage assets that lie within 2km of the proposed development site boundary. A gazetteer of these is provided as Appendix 3.

2. LEGISLATION AND PLANNING CONTEXT

Legislation governing the protection and conservation of cultural heritage sites and features includes:

- Ancient Monuments and Archaeological Areas Act 1979;
- Planning (Listed Buildings and Conservation Areas) Act 1990;
- Town and Country Planning (Development Management Procedure) (England) Order 2010, and
- Town and Country Planning Regulations (Environmental Impact Assessment) (England) 2011.

Planning Policy comprises:

- The National Planning Policy Framework (NPPF) 2012;
- Regional Spatial Strategy (RSS);
- Structure Plan and Local Plan.

Cultural heritage assets include:

Assets with statutory designations (protected under national legislation):

- Scheduled Monuments;
- Listed Buildings; and
- Conservation Areas.

And assets with non-statutory designations (not protected by Statute):

- World Heritage Sites;
- Historic Parks and Gardens and other historic landscapes;
- Historic Battlefields;
- Other archaeological sites and features
- Unlisted buildings of historic or architectural importance;
- Other significant historic townscapes; and
- Other sites with cultural heritage designations identified in Local Development Plans.

Heritage assets identified as being relevant to this assessment are:

- World Heritage Sites
- Scheduled Monuments and other archaeological sites and features; and
- Listed Buildings.

Hadrian's Wall Management Plan 2008-2014

As part of the development of the first Hadrian's Wall Management Plan, all 12 Local Authorities agreed a three-level planning policy framework. This proposed that:

- There should be a presumption in favour of preserving the fabric, integrity and authenticity of archaeological sites that form part of the WHS, and development that would have a detrimental effect on archaeological remains and their setting should be refused.
- Proposed development in the Buffer Zone should be assessed for its impact on the OUV of the WHS, and particularly on key views both into and out of it: development that would have an adverse impact on OUV should be refused.
- Proposed developments outside the boundaries of the Buffer Zone will be carefully assessed for their effect on the OUV, and any that would have an adverse effect on it should be refused. Most Local Authorities have such protective policies in place. It is important that they are carried forward in new LDFs. This also needs to be remembered when Northumberland local government is restructured into a single-tier authority in April 2009.

Policies within the Hadrian's Wall Management Plan indicate the level of commitment that is requested of Local Authorities:

- Policy 3a: The MPC will be alert to policy changes coming into force during the period of the Management Plan which have a bearing on the WHS.
- Policy 3b: Local Authorities and English Heritage should be adequately resourced to continue the same high standards of protection through Heritage Asset Consent as currently applied to the granting of Scheduled Monument Consent.
- Policy 3c: Under the proposed reform of heritage protection, local planning authorities should be encouraged to adopt and apply standards that are both uniform, and consistent with the OUV of the WHS when granting Heritage Asset Consent.
- Policy 3d: Local Authorities should carry forward the proposals of the three-level framework into new LDFs.
- Policy 3e: Local Authorities will require formal environmental impact assessment for significant developments affecting Hadrian's Wall WHS and its Buffer Zone.
- Policy 3f: Local Authorities should assess developments outside the Buffer Zone for their impact on the OUV. They should consult with appropriate expert advisers and where necessary require applicants to commission further information to allow this assessment. Development adversely affecting the OUV will not be permitted.

During the period of the previous Management Plan, a Research Framework for Hadrian's Wall was developed. This was generated through consultation and discussion among the frontier archaeological community and stakeholder groups. The document is divided into:

- an assessment, summarising current knowledge of the Wall;
- an agenda, identifying gaps in knowledge; and,
- the strategy, proposing initiatives by which to plug these gaps.

The projects advocated in the strategy represent the consensus view of the archaeological community, and funding should be sought to implement them. However, it must be emphasised that the role of the framework is to encourage research rather than stifle it. It should not prevent new ways of thinking or full advantage being taken of new opportunities. Projects should maximise public and academic benefit, with provision for the involvement of the public where appropriate.

- Policy 9c: Wherever possible, non-invasive methods of archaeological investigation should be used in preference to excavation.
- Policy 9d: Archaeological excavation will be undertaken under guidance from the Archaeological Research Framework.
- Policy 9e: Archaeological excavation will only take place where there is adequate provision for post-excavation, publication and the conservation of finds.

Scheduled Monuments and other Archaeological Features

Under the Ancient Monuments and Archaeological Areas Act, 1979 the Secretary of State for Culture, Media and Sport has a duty to compile and maintain a schedule of monuments. Monuments on the schedule are afforded statutory protection. The statutory consent of the Secretary of State is required before any works are carried out which would have the effect of demolishing, destroying, damaging, removing, repairing, altering, adding to, flooding or covering up a scheduled monument. Effects of proposed development works upon the setting of a scheduled monument form an important consideration in the granting or refusal of planning permission.

Listed Buildings

Under the Planning (Listed Buildings and Conservation Areas) Act, 1990, the Secretary of State has a duty to compile lists of buildings of special architectural or historic interest. There are three grades of listing:

- Grade I buildings are those of exceptional interest (this class constitutes 2.5% of those listed).
- Grade II* are particularly important buildings of more than special interest (this class constitutes 5.5% of those listed).
- Grade II are of special interest, warranting every effort to preserve them (this class constitutes 92% of those listed).

Under the 1990 Act there is a presumption in favour of the preservation of listed buildings and a statutory requirement on local planning authorities to have special regard to the desirability of preserving the building or its setting or any features of special architectural or historic interest which it possesses. This statutory protection extends also to other features within its curtilage (e.g. stables, garden walls).

National Planning Policy Framework (NPPF)

Conserving heritage assets is a core planning principle of the NPPF (2012) and plan-making and decision-taking is required, amongst other things, ‘to conserve heritage assets in a manner appropriate to their significance, so that they can be enjoyed for their contribution to the quality of life of this and future generations’ (para. 17).

In determining applications, local planning authorities are required to ensure that an applicant describes the significance of any heritage assets affected, including any contribution made by their setting. The level of detail provided should be proportionate to the asset’s importance and no more than is sufficient to understand the potential effect of the proposal on its significance (para. 128).

The policy framework goes on to state that:

‘When considering the impact of a proposed development on the significance of a designated heritage asset, great weight should be given to the asset’s conservation. The more important the asset, the greater the weight should be. Significance can be harmed or lost through alteration or destruction of the heritage asset or development within its setting. As heritage assets are irreplaceable, any harm or loss should require clear and convincing justification. Substantial harm to or loss of a grade II listed building, park or garden should be exceptional. Substantial harm to or loss of designated heritage assets of the highest significance, notably

scheduled monuments, protected wreck sites, battlefields, Grade I and II* listed buildings, Grade I and II* registered parks and gardens, and World Heritage Sites, should be wholly exceptional.’ (para 132) that:

- Where a proposed development will lead to substantial harm to or total loss of significance of a designated heritage asset, local planning authorities should refuse consent, unless it can be demonstrated that the substantial harm or loss is necessary to achieve substantial public benefits that outweigh that harm or loss (para. 133); and
- Where a development proposal will lead to less than substantial harm to the significance of a designated heritage asset, this harm should be weighed against the public benefits of the proposal (para.134).

Significance (for heritage policy) is described as ‘The value of a heritage asset to this and future generations because of its heritage interest. That interest may be archaeological, architectural, artistic or historic. Significance derives not only from a heritage assets’ physical presence, but also from its setting’.

Setting of a heritage asset is described as ‘The surroundings in which a heritage asset is experienced, its extent is not fixed and may change as the asset and its surroundings evolve. Elements of a setting may make a positive or negative contribution to the significance of an asset, may affect the ability to appreciate that significance or may be neutral’ (Annex 2).

North West of England Plan Regional Spatial Strategy to 2021 (2008)

The Regional Spatial Strategy (RSS) is committed to using the natural and man-made resources of Cumbria actively, prudently and efficiently, as well as protecting and enhancing the Region’s historic, built and natural environmental assets, and unique culture and heritage. Under RSS Policy EM 1:

- The Region’s environmental assets should be identified, protected, enhanced and managed.
- Plans, strategies, proposals and schemes should deliver an integrated approach to conserving and enhancing the landscape, natural environment, historic environment and woodlands of the region.
- Plans and strategies should define spatial objectives and priorities for conservation, restoration and enhancement as appropriate, and provide area-based guidelines to direct decisions and target resources. These will be founded on a sound understanding of the diversity, distinctiveness, significance and sensitivity of the region’s environmental assets, and informed by sub-regional environmental frameworks. Special consideration will be given to the impacts of climate change and adaptation measures.
- Priority should be given to conserving and enhancing areas, sites, features and species of international, national, regional and local landscape, natural environment and historic environment importance.
- Where proposals and schemes affect the region’s landscape, natural or historic environment or woodland assets, prospective developers and/or local authorities should first avoid loss of or damage to the assets, then mitigate any unavoidable

damage and compensate for loss or damage through offsetting actions with a foundation of no net loss in resources as a minimum requirement.

Policy EM1 (A): plans, strategies, proposals and schemes should identify, protect, maintain and enhance historic features that contribute to the character of landscapes and places within the North West. They should be informed by and recognise the importance of... the characteristics and setting of World Heritage Sites.

Policy EM1 (C): plans, strategies, proposals and schemes should protect, conserve and enhance the historic environment supporting conservation-led regeneration in areas rich in historic interest.

Cumbria and Lake District Structure Plan 2001 - 2016 (adopted April 2006)

Structure Plan guidance is provided by the saved policies from the Cumbria and Lake District Structure Plan (Structure Plan). The structure plan states that states that Cumbria's Historic Environment provides it with a unique cultural heritage, which includes archaeological remains, structures and buildings, ancient woodlands, historic trees, park and gardens registered as being of historic interest and other elements of the landscape. Cumbria's maritime heritage, the influence of extraction industries and the Anglo-Scottish Border disputes contribute to a distinctive man-made landscape. The Structure Plan adds that the historic environment gives a sense of identity and can be a valuable stimulus for economic regeneration. Development proposals must avoid damage to and where possible, should enhance the overall quality of the historic environment.

Policy E38 specifies that measures will be taken to identify, record, protect, conserve and enhance areas, sites, buildings and settings of archaeological, historic and architectural importance. Proposals which fail to preserve or enhance the character or appearance of Conservation Areas, or which damage, obscure or remove important archaeological sites or other historic features or are detrimental to the character or setting of a listed building will not be permitted unless the harm caused to their importance and intrinsic interest is clearly outweighed by the need of the development. Development and land use changes should be compatible with the distinctive characteristics and features of 'Cumbria's Historic Landscape Characterisation Programme'.

Local Plan

Local planning policy guidance is provided by the saved policies from the Allerdale Local Plan 1999, (which will eventually be replaced; see below for draft pre-submission policies). The policies of the Local Plan relevant to this proposed development are as follows:

Policy EN19: proposals for development will be expected to give particular regard to the conservation and enhancement of the landscape of the Plan Area and retention of local distinctiveness in that landscape. Whenever possible, estate features, enclosure features, stone walls, and other built features of landscape importance should be protected and enhanced.

Policy CO18: Development proposals which affect the setting of a Listed Building will only be permitted where:

(i) it does not have a seriously adverse effect on the character of the setting of the Listed Building; and

(ii) the development is sympathetic in scale, character, materials and detailing.

Policy CO19 (Ancient Monuments): development will not be permitted if it fails to preserve the archaeological value and interest of a Scheduled Ancient Monument or nationally important archaeological remains, or their settings.

Policy CO20 (Archaeological Evaluation): the Local Planning Authority may, on receipt of a planning application which would affect a site known or suspected of being of archaeological interest and before a decision is made, require the applicant to carry out such surveys on site as will establish the presence and/or extent of archaeological remains.

Policy CO21: where development is proposed which affects a site of archaeological interest the Local Planning Authority will require precise details of site levels and of any proposed excavation depths e.g. of foundations, drainage, service trenches, to be submitted prior to consideration of the application.

Policy CO22: where development which affects a site of archaeological interest, whether scheduled or not, is permitted it will be subject to conditions requiring supervision, recording or consolidation and/or preservation in situ, whether before or during actual development according to an agreed scheme of investigation. Such conditions may be augmented or replaced by a legally binding agreement with the application entered into before permission is granted.

Hadrian's Wall was designated by UNESCO as a World Heritage Site in 1987. The nomination includes the wall from Wallsend to Bowness-on-Solway and the coastal defences. The designation implies both legal protection and a management mechanism for the conservation of the monument. In seeking to implement the designation English Heritage has produced, in conjunction with a range of other bodies, the Hadrian's Wall Military Zone Management Plan. This identifies the boundary of the archaeological core and the setting of the wall as far as Maryport. The existence of the World Heritage Site is a material consideration in determining any planning application and has considerable significance for the Council.

Policy CO23: there is a presumption in favour of the physical preservation of archaeological sites, whether scheduled or not, which comprise the Hadrian's Wall Military Zone World Heritage Site (as defined on the Proposals Map). Development will not be permitted if it fails to preserve the archaeological value and interest of the archaeological remains.

Policy CO24: Development which fails to preserve the setting of the Hadrian's Wall Military Zone World Heritage Site will not be permitted. Proposals will be judged against the following criteria:

- a) the scale, siting or design of proposed developments being appropriate to the landscape setting;
- b) existing landscape features should be incorporated in a way which preserves or enhances the character of the area and mitigates the effects of development; and
- c) the development complies with the other general development and built environment policies of the Local Plan.

Allerdale Local Plan (Part 1) – Updated version of the Allerdale Local Plan (Part 1) Pre-submission draft Submitted Document including the Council’s Proposed Modifications (February 2014)

The pre-submission Allerdale Local Plan (Part 1) contains two Strategic Objectives (SO’s) regarding the historic environment:

- SO5a: Ensure that all new development meets high standards of quality of design, energy efficiency, safety, security and accessibility, and relates well to existing development, enhances the public realm and develops locally distinctive and high quality places.
- SO5b: Conserve and enhance both non-designated and designated historic heritage assets and their settings, including the Frontiers of the Roman Empire (Hadrian’s Wall) World Heritage Site (Hadrian’s Wall World Heritage Site), and where possible seek the opportunity to enhance and better reveal significance.

Under Sustainable Strategy S2, the Council will:

- Promote high standards of design that make a positive contribution to the local area and ensure that, wherever possible, existing natural, historic and environmental assets are enhanced and in all circumstances conserved.
- Conserve and enhance the diversity and distinctiveness of towns, villages and landscapes including the character, appearance and significance of Heritage Assets.

Under Design Principle S4, the Council will:

- Enhance, protect and integrate effectively with the historic and natural environment.

Under Development Principle S5, the Council states that:

- For settlements within the hierarchy, proposals, including conversions, will be acceptable provided that the proposed development is in conformity with all policies set out within the Local Plan and that the development will not incur any significant harmful effects on environmental or heritage assets, habitats or wildlife, which cannot be successfully mitigated.

Under the Silloth Area Policy, the Council will:

- Safeguard and where appropriate enhance the attractive and distinctive Victorian character and architectural heritage within Silloth, including the Green and the town centre. The Council will support development which responds positively to the character, history and distinctiveness of the Locality’s historic assets and integrates well with existing development.
- Protect Hadrian’s Wall World Heritage Site given its status as a designated heritage asset of the highest significance, follow the aims and objectives of the Management Plan and ensure the conservation of the Outstanding Universal Value of the World

Heritage Site. Furthermore, encourage opportunities for new development within the World Heritage Site and setting that enhance or better reveal its significance.

- Protect the distinctive character of villages and settlements by ensuring all new development respects and enhances existing traditional designs and features.

The Council states that Allerdale's historic environment contributes enormously to its economy and to its attractiveness as a place to live and therefore to the quality of life of its residents and workforce. Its historic environment attracts many tourists and visitors to the district and as such its conservation and enhancement is very important to the local economy. Heritage assets are an irreplaceable resource; therefore, decisions affecting their future must be taken with full understanding of the consequences.

Under Strategic Policy S19 Renewable Energy and Low Carbon Technologies, the Council states that they will seek to promote and encourage the development of renewable and low carbon energy resources given the significant wider environmental, community and economic benefits. Proposals where impacts (either in isolation or cumulatively) are, or can be made acceptable will be permitted. The Council will take a positive view where; within Hadrian's Wall World Heritage Site and its buffer zone, and the Solway Coast Area of Outstanding Natural Beauty only small scale renewable energy schemes, which preserve the special qualities of these designations and accord with the aims and objectives of their Management Plans will be acceptable.

Under Strategic Policy S27 Heritage Assets, the Council states that the historic environment including all heritage assets and their settings will be conserved and enhanced in a manner appropriate to their intrinsic historic value and significance, their importance to local character, distinctiveness and sense of place, and to other social, cultural economic or environmental benefits/values.

The Council will work with partners to seek the conservation and enhancement of all designated or non-designated heritage assets within the Plan Area.

In determining applications that could affect the significance (including character, appearance, historic value, value to people and setting) of a heritage asset and/or archaeological asset, the following factors will be taken into account:

- The level of significance of the heritage asset(s).
- The impact of the proposal on the significance (including setting) of the heritage asset(s).
- How the significance and/or setting of the asset could be better revealed.
- Opportunities for mitigating climate change without damaging significance.

Only proposals which do not harm any positive qualities of the heritage asset(s) will be approved, unless there is a clear and convincing public benefit to the proposal that will outweigh the harm caused to the asset(s). If the public benefits of a proposal outweighs and justifies the loss of a heritage asset, it must be fully recorded in accordance with agreed criteria which will be proportionate to the value and significance of the heritage asset.

Where there is evidence of deliberate or conscious damage to, or neglect of, a heritage asset, the Council will take action that may involve prosecution, serving an Urgent Works or Repairs Notice to prevent further decay or adding the building to the National Buildings at Risk Register.

Schemes which help ensure a sustainable future for Allerdale's heritage assets, especially those identified as being at risk of loss or decay will be supported.

Policy S27 sets out a framework for all decisions that affect heritage assets and provides a presumption in favour of conserving all heritage assets and against allowing harm to assets. The strength of this presumption will be affected by the level of designation and importance of the heritage asset and the amount of public benefit of the proposals.

The strongest presumption against any damage will be accorded to those with the highest designations. For example, Hadrian's Wall World Heritage Site, where proposals that cause damage to its 'Outstanding Universal Value' would have to be wholly exceptional.

Applications that will affect the significance of a heritage asset (positively or negatively) should include a Heritage Statement which explains the value of the heritage asset (including an explanation of its character, appearance, historic value, value to people and its setting), how the proposal will affect any of these qualities, and an explanation of the public benefits of the proposal. The complexity and depth of the Heritage Statement should be proportionate to the significance of the heritage asset(s) and the scale of impact upon the asset(s).

Locally designated and non-designated heritage assets can be protected by this policy where there is evidence of their value or significance to the local community or economy, and a lack of sufficient public benefit to outweigh any loss to them.

There are 21 Conservation Areas designated in the Allerdale Local Plan Area which vary considerably in size, type and character. Article 4 directions, which remove certain permitted development rights, have been applied to some houses within conservation areas in order for the Council to retain control over alterations that could affect character. Any proposals for change should preserve, conserve or enhance its character. Proposals for demolitions of buildings within conservation areas will only be considered acceptable if it is clear that the replacement buildings or space will contribute at least as much to, and will preferably enhance, the character and significance of the conservation area. The Council will review its conservation areas when appropriate, and will seek to provide up to date conservation area appraisals for each which identify the architectural and historic interest, distinctiveness and character of the conservation area.

There is the opportunity to identify and locally list those assets that are significant or which may provide an important environmental, social and economic benefit for the local area. These are locally important historic buildings and other heritage assets that make a valuable contribution to the character or history of the Borough. Where appropriate the Council will provide support for communities to identify locally significant historic buildings.

Where the demolition or partial demolition of a heritage asset is proposed, an appropriately detailed recording shall be undertaken and deposited with the relevant local Historic Environment Record. When development affecting archaeological sites and assets is acceptable in principle, the Council will seek to ensure mitigation of damage through preservation of the remains in situ as a preferred solution. When in situ preservation is not

justified, the developer should make adequate provision for excavation and recording before or during development. Where necessary the Council will secure the recording of loss by appropriate planning conditions or obligations.

Under Strategic Policy S28 Hadrian's Wall, the Council state that there is a presumption in favour of preserving the fabric, integrity and authenticity of archaeological sites that form part of Hadrian's Wall World Heritage Site. Development that would have a detrimental effect on archaeological remains and their setting will be refused.

Proposed development in the Buffer Zone should be assessed for its impact on the Outstanding Universal Value of the World Heritage Site, and particularly on key views both into and out of it. Development that would have an adverse impact on Outstanding Universal Value will be refused.

Proposed developments outside the boundaries of the Buffer Zone will be assessed for their effect on the Outstanding Universal Value. Any proposals that would have an adverse effect on this will be refused.

New development within Hadrian's Wall World Heritage Site and its Buffer Zone, which enhances or better reveals its significance, will be supported. Significant development proposals affecting Hadrian's Wall World Heritage Site and its Buffer Zone will require a formal environmental impact assessment to ensure their impacts and implications for the longer term are evaluated in full.

The Hedgerow Regulations 1997

The 1997 Hedgerow Regulations were introduced under section 97 of the Environment Act 1995 and owners wishing to remove all or part of a hedgerow considered to be 'historically important' must notify the Local Planning Authority (LPA). Under the Regulations it is against the law to remove or destroy certain hedgerows without permission from the LPA. The LPA is also the enforcement body for offences created by the Regulations. Permission is normally required before removing hedges that are at least 20m in length, more than 30 years old and contain certain plant species.

The LPA will assess the importance of the hedgerow using criteria set out in the Regulations. A hedgerow is 'important' if it has existed for 30 years or more and it meets **one** of the criteria set out in the Regulations, which include:

- It marks a boundary between parishes existing before 1850;
- It marks an archaeological feature of a site that is a scheduled monument or noted on the Historic Environment Record;
- It marks the boundary of a pre-1600 estate or manor or a field system pre-dating the Enclosure Acts.

The LPA may also issue a 'hedgerow retention notice' prohibiting removal.

3. APPROACH TO THE ASSESSMENT

Study Area Description

The cultural heritage study area consists of two parts:

- The potential for direct impacts on heritage assets has been considered within the proposed development area, as shown on Figure 1. A wider study area extending 500m from the red-line boundary, has been used to gather data to inform assessment of the archaeological potential of the proposed development area. Gazetteers of the assets identified within, and within 500m of the proposed development area are provided in Appendices 1 and 2.
- The consideration of potential indirect impacts upon the setting of designated heritage assets uses a study area which extends 2km from the proposed development area boundary. A list of these heritage assets is provided in Appendix 3, along with a summary of the predicted indirect effects on a site-by-site basis. Figure 4 shows the locations of these assets.

Consultation

Pre-application Screening Opinions relevant to cultural heritage matters were received from Allerdale Borough Council and English Heritage. The CCCHES were consulted in order to agree the methodology and scope of assessment required. A summary of the Screening Opinions and the CCCHES consultation response are provided in Table 1 below.

Table 1: Summary of Consultation Responses

Consultee	Issue raised
English Heritage Screening Opinion (28.06.14)	<ul style="list-style-type: none"> • Stated that there would appear to be minimal impact from the development on those aspects of the historic environment within English Heritage’s statutory remit, particularly with regards to Hadrian’s Wall World Heritage Site.
Allerdale Borough Council Screening Opinion (02.06.14)	<ul style="list-style-type: none"> • Stated that there are no Scheduled Monuments within or close to the proposed development site, but that there are a number of Listed Buildings and sites of archaeological interest in the surrounding area. • Stated that the proposal has the potential to affect the character and setting of nearby Listed Buildings within 2km of the proposed development site and effects on their settings would need to be assessed in full as part of any submission. • Stated that the impact from the development on the setting of Hadrian’s Wall would appear to be minimal and that the impact on the historic environment is not considered to be significant.
CCCHES consultation response (14.07.14)	<ul style="list-style-type: none"> • Stated that a thorough impact assessment of the intended works of the development should be undertaken, taking into account detailed elements of the proposed scheme including, for example, underground cabling, access roads, compounds etc. • Stated that the site visit should pay attention to the topography of the proposed development site as archaeological cropmark sites are concentrated on higher ground relative to the lower-lying areas that would have been in existence during the prehistoric and Romano-British periods.
English Heritage consultation response (14.07.14)	<ul style="list-style-type: none"> • Suggested that the assessment need only cover effects on the setting of Hadrian’s Wall WHS in cursory detail.

Baseline Characterisation

Desk-based Assessment

The English Heritage List for England (on-line) was consulted to obtain details of all designated statutory assets within the 2km of the proposed development area. GIS data for relevant assets was available for download from English Heritage.

Up-to-date data was obtained in GIS from the Cumbria County Council Historic Environment Record (HER). The records obtained provided baseline information on archaeological sites and monuments previously recorded within, and within 500m of, the proposed development area and on previous archaeological interventions and events in the wider area. Available aerial photographs of the proposed development area held at the HER were also consulted.

The Carlisle Archive Centre was visited (on 16th July 2014) to examine pre-Ordnance Survey historic mapping, and any other relevant secondary sources held in the archive.

Historic Ordnance Survey maps were examined together with any other readily available on-line cartographic sources.

On-line vertical aerial photographic coverage (GoogleTM and BingTM) was examined to obtain an overview of the present-day landscape and land-use of the proposed development site and the immediate area.

Bibliographic, documentary and internet sources were sought to provide background information on the study area, to augment information derived from the principal sources. References to all resources, including online resources appear at the end of this report.

Site Visit

A site visit was undertaken to confirm the findings of the desk-based work and to examine the character of the landscape and topography of the proposed development area to aid in the assessment of the archaeological potential.

Impact Assessment Methodology

Archaeological and built heritage sites and features (heritage assets) represent a non-renewable resource that are often fragile and suffer from constant attrition, from both natural and human causes.

The potential impacts, direct and indirect, of the proposed development on heritage assets were assessed using pre-defined criteria. They were assessed in terms of their longevity, reversibility and nature (beneficial / neutral / adverse). This allowed the magnitude of effect to be predicted for each heritage asset. The assessment of significance of predicted impacts was undertaken using two key criteria: the importance of the asset and the magnitude of effect. Table 2 summarises the relative importance of cultural heritage assets.

Table 2: Definitions of Importance of Cultural Heritage Assets

Heritage Importance	Asset Type
International	<ul style="list-style-type: none">• World Heritage Sites
National	<ul style="list-style-type: none">• Scheduled Monuments• Sites of schedulable quality identified and proposed for scheduling• Grade I & II* Listed Buildings

Heritage Importance	Asset Type
	<ul style="list-style-type: none"> • Historic Parks and Gardens • Registered Battlefields • Outstanding Conservation Areas
Regional	<ul style="list-style-type: none"> • Archaeological sites and areas of distinctive regional importance • Grade II listed buildings • Conservation Areas
Local	<ul style="list-style-type: none"> • Archaeological sites and areas of local importance
Lesser	<ul style="list-style-type: none"> • Other archaeological sites • Findspots • Unlisted buildings of minor historic or architectural interest

Criteria for assessing the magnitude of effect, which measures the degree of change to the baseline condition which would arise as a result of the proposed development, are classified in Table 3

Table 3: Definitions of Magnitude of Impact

Magnitude of Impact	Definition
High	Major effects fundamentally changing the baseline condition of the asset, leading to total or major alteration of character or setting.
Medium	Moderate effects changing the baseline condition of the asset materially but not fundamentally, leading to partial alteration of character or setting.
Low	Minor detectable effects which do not alter the baseline condition of the asset materially.
Imperceptible	A very slight and barely distinguishable change from baseline conditions, approximating to the “no change” situation.
None	No discernible change to the baseline condition of the character or setting of the asset.

Table 4 combines these criteria to provided as assessment of whether or not an effect is considered to be significant as required by *Town and Country Planning Regulations (Environmental Impact Assessment) (England) 2011*.

Table 4: Matrix for Assessing Significance of Impact

Magnitude of Impact ▼	Importance of Heritage Asset ►			
	National / International	Regional	Local	Lesser
High	Major	Major	Moderate	Minor
Medium	Major	Moderate	Minor	Negligible
Low	Minor	Minor	Negligible	Negligible
Imperceptible	Minor	Negligible	Negligible	Negligible
None	None	None	None	None

4. CULTURAL HERITAGE BASELINE

Heritage Assets recorded within the Proposed Development Area (Figures 1-3; Appendix 1)

Desk-based assessment

There is one recorded heritage asset within the proposed development area (HER no. **43691**), a former medieval deer park identified from historic sources during the Cumbria Historic Landscape Characterisation Project. The land in which the extent of the deer park recorded in the HER lies, is now occupied by rectilinear improved fields. The boundary of that part of the former deer park which lies within the proposed development area appears to follow the course of a watercourse or ditch and former field boundary shown on the Ordnance Survey 1st Edition map (1868). The deer park is considered to be of lesser heritage importance.

Examination of cartographic sources identified three other heritage assets (**1-3**) within the proposed development area. Each of these was identified from historic Ordnance Survey mapping (Cumberland, sheets XX and XXI, 1868; Cumberland, sheets XXI.SW, and XX.SW & SE, 1901) (Figures 2 and 3), and continue to be shown on subsequent Editions until at least the mid-20th century (Cumberland, sheets XXI.SW, and XX.SW & SE, 1927; 1952).

These assets are all minor historic environment features associated with the agricultural land-use of the area and, other than some of the former field boundaries (**3**), do not appear to be extant (based on examination of modern satellite imagery (GoogleTM; BingTM) and (where accessible) the site visit). These assets are all of lesser heritage importance and include:

- a possible pond (**1**), visible as an irregular L-shaped feature abutting a field boundary, the location of which is now overlain by a small copse of trees (GoogleTM; BingTM);
- a small sub-square enclosure (**2**); and,
- several former field boundaries (**3**) which no longer appear to be present as upstanding features, but traces of which are visible as faint linear features on modern satellite imagery (GoogleTM; BingTM).

The southern access route for the proposed development follows the farm access through one of the three current Blackdyke farms, which lie on the boundary of the proposed development area. These are all shown on the Tithe map (1850) and on the Ordnance Survey 1st Edition map (Cumberland, sheets XX and XXI, 1868; Figure 2), associated with a field system of enclosed rectilinear fields. Large-scale pre-Ordnance Survey mapping (Faden, 1810; Greenwood, 1824), annotate 'Black Dike' and 'Black Dyke', in similar locations to those shown on the Tithe map (1850) and the Ordnance Survey 1st Edition map (1868). The Enclosure Map of 1814 depicts some of the Blackdyke farm buildings in detail, but does not show the land to the north of the farm buildings within which the proposed development area is sited.

The Blackdyke farmsteads and field system all have similar layouts on Ordnance Survey Editions subsequent to the 1st Edition (Cumberland, sheets XXI.SW, and XX.SW & SE, 1901; 1927; 1952; Figure 2). Modern aerial photographic imagery (GoogleTM; BingTM) shows the historic farmstead buildings together with additional modern buildings associated with them. Other than the field boundaries noted above (**3**), the land within and around the proposed development area is visible as enclosed arable fields, the general layout of which remains largely unchanged to that depicted on the Tithe map (1850) and the Ordnance Survey

1st Edition map (1868). The Tithe map (1850) indicates that the fields which comprise the proposed development area were owned by several different land-owners at that time, and were almost entirely in use for arable agriculture.

The HER records that the Historic Landscape Character (HLC) of the proposed development area comprises largely of former common arable strip fields, suggesting that the current field boundaries may be medieval in origin. Much of the land to north and east of the proposed development area is recorded as being similar in character, although that immediately to the west and south is recorded as originating as 19th century Planned Enclosure. This may explain why the Enclosure Map of 1814 shows only this land, and not the land to the north in which the proposed development lies, which was likely already under cultivation and divided into unenclosed strip fields.

Calvo Grange (HER no. 43409), which lies just beyond the study area, to the north-east, was originally a Grange of the former Cistercian Abbey and monastery of Holme Cultram (SM No. 1007164), which was founded in 1150 by monks from Melrose Abbey. Extensive lands were granted to the monks by Prince Henry of Scotland, much of which comprised of marshland and salt pans. Following drainage of the marshland and salt pans area, the Abbey monks became successful sheep farmers (Holme St Cuthbert History Group). Following the Dissolution, the lands left the ownership of the Abbey, but became the parish of Holme Cultram, of which the district of Holm Low, in which the proposed development area lies, formed a part.

Topography and Geology

The land in which the proposed development lies is a relatively flat plateau which gently slopes southwards to more lower lying ground beyond the site boundary. The bedrock geology consists of Mercia Mudstone which underlies raised tidal flat deposits of silt (BGS, 2014), and supports loamy clayey soils (LandIS, 2014).

Site visit

Site access was restricted at the time of the site visit due to the land (including the proposed development area) being under crop, but nearby public bridleways allowed limited access to the northern and western edges of the proposed development area. Visible field boundaries were generally c. 2m in height, and comprised of hedges interspersed with trees. Four wind turbines (Hellrig wind farm) were noted to lie in close proximity and to the south of the proposed development site, visible above the hedgerows. A poultry house and warehouse lie immediately to the north-west of the proposed development area and a factory and scrap yard lie to the south-west.

Character of Heritage Assets within 500m of the Proposed Development Site (Figure 1, Appendix 2)

Only four heritage assets have been identified and recorded in the HER within 500m of the proposed development area. These all relate to post-medieval and modern period features, and include:

- the mid to late 18th century Blackdyke Farmhouse and adjoining barns (Grade II Listed Building **1144614**);
- the farmstead of Hartlaw (HER no. **41521**), shown on the Ordnance Survey 1st Edition map (1868);

- the Victorian Northern British Railway, Carlisle & Silloth Branch (HER no. **10036**); and,
- the recorded location of a former WWII pillbox (HER no. **2808**).

The HER database holds information showing areas recorded as part of the English Heritage Hadrian's Wall National Mapping Programme (NMP), which identified archaeological features and areas of interest using vertical aerial photography. The locations and extent of these areas was obtainable from the HER due to copyright issues; however, information on relevant sites and features is described here. Within the 500m study radius, and immediately to the west of the proposed development area, the NMP recorded a former WWII and post-War military airfield (ID no. 1409920) on aerial photographs from 1946. The airfield is recorded to have opened in 1939, when it comprised of three concrete runways, a range of aircraft hangars, and personnel accommodation, closing in 1960. It was later used as a civilian airfield from at least 1985. Three other areas were recorded as being associated WWII military airfield architecture (ID no. 1470992) in fields to the south and south-east of Blackdyke, and to the south of Calvo.

In addition, pockets of ridge and furrow cultivation were recorded on aerial photographs from 1946 and 1948, around Meadow Lodge, Calvo and Wath Farm (ID no. 1471942).

Slightly further afield, the HER holds records for similar assets to those recorded within the 500m study radius: several other WWII pill boxes (e.g HER No.15216, to the north-west) and additional remains relating to WWII airfield architecture (ID No. 1471024) have been recorded, together with medieval and post-medieval farmsteads and additional pockets of ridge and furrow cultivation.

Little pre-medieval archaeology has been recorded in the wider area, although the HER records the find-spots of two prehistoric axes (HER No.s 374 and 376), together with the cropmarks of two Romano-British settlements visible as cropmarks to the south-west of the proposed development area (HER No.s 4197 and 4195). Archaeological evaluation work in advance of ground work for a digester plant at Dryholme Farm near one of the cropmarks (4197), revealed evidence of a cobbled surface and field system; the former interpreted as a the remains of a possible Roman road leading to Blitterlees Mile fortlet 12 (Martin, 2010). A watching brief undertaken during groundworks for the Hellrigg wind farm (McElligott, 2011), near the second Roman-British cropmark (4195) near Parkhead farm, revealed only modern drainage.

Archaeological Potential

The HLC and evidence from documentary sources suggest that the land within the proposed development area appears to have been used for agricultural purposes since the medieval period, when it formed part of the Holme Cultram Abbey lands. Cartographic sources suggest that it has been used for arable purposes since at least the mid-19th century and likely earlier, and has seen little intrusive activity other than agricultural ploughing.

There is some evidence suggesting Romano-British settlement in the wider landscape, (to the south-west of the proposed development area near the farms of Dryholme and Parkhead) but these sites are located beyond 1km from the proposed development site boundary.

Little intrusive archaeological investigation has taken place within or near the proposed development area. That which has been undertaken closest to the proposed development area

has revealed little of archaeological note other than the remains of a possible Roman road (as yet unconfirmed).

The location of the proposed development area, upon slightly raised ground, and with raised coastal flat subsoil deposits of silt which support generally good topsoil, may suggest that there is some possibility of finding buried prehistoric and Romano-British remains within the proposed development area, although the extensive English Heritage mapping programme has not revealed any such remains visible as cropmarks on aerial photography.

The available evidence of the character of the heritage assets recorded within the proposed development area, and in the wider landscape, together with the largely undeveloped nature and historical and ongoing agricultural land-use of the land within it the proposed development site, suggests that the area has a moderate archaeological potential.

5. POTENTIAL IMPACTS

Potential Construction (Direct) Impacts

Any ground-breaking activities associated with the construction of the proposed solar farm (such as ground penetrations for panel supports, excavations for access tracks, cable routes, compounds, etc) have the potential to disturb or destroy features of cultural heritage interest. Other construction activities, such as vehicle movements, soil and overburden storage and landscaping also have the potential to cause direct, permanent and irreversible effects on the cultural heritage.

Upstanding heritage assets

There are no upstanding cultural heritage remains within the proposed development site other than the surviving system of enclosed fields defined by hedgerows, none of which appear to conform to the criteria of ‘important’ hedgerows as defined in the Hedgerow Regulations Act (1997). The proposed development design (See Livos Figure ES63/1L/1B) shows that existing internal hedgerows will be retained, whilst external hedgerows will be ‘gapped up’ and reinforced. Direct impacts on existing field boundaries within the site boundary are therefore assessed as being of no more than negligible significance. Restorative impacts on the external hedgerows would be beneficial and of moderate significance.

Buried heritage assets

There is the potential for infilled remains of the possible pond (1), buried footings of the small enclosure (2) and the former field boundaries (3), and remains of the recorded north-eastern extent of the medieval deer park (43691) to survive within the proposed development area. As these assets are all considered to be of lesser heritage importance, direct impacts on surviving buried remains of any, or all of these assets, would be of no more than minor significance.

Given the topography and geology of the site, there is some archaeological potential in this locale of hitherto unknown surviving archaeological remains being present within the proposed development area. The significance of any direct impacts upon such remains cannot be assessed at this stage, although it is considered unlikely that any remains would be of such importance as to warrant preservation in situ.

Potential Operational (Indirect) Impacts

The sole sites with statutory and non-statutory designations within 2km of the proposed development area are seven Grade II listed buildings. A list of these assets is provided in Appendix 3 and they are shown on Figure 4.

Hadrian’s Wall WHS

The proposed development area lies just beyond the edge of the Buffer Zone for Hadrian’s Wall WHS (Figures 1 and 4), and around 2km to the south-east of the nearest Core Area of the Hadrian’s Wall WHS: the buried scheduled remains (1015250) of two palisade ditches, a Roman camp, road and a Romano-British field system (associated with the nearby Romano-British settlement at Silloth Farm).

Hadrian's Wall marks one of the frontiers of the Roman Empire, running from Wallsend in the east to Bowness in the west, a distance of c.120km (Breeze, 1982), and is formed from a series of forts, milecastles and turrets linked by the Wall itself (*ibid*). The Wall ends at Bowness, but the defensive system continues westwards around the Cumbrian coast for at least 27 miles, as a chain of fairly regularly spaced forts, milefortlets and towers in places supplemented by lengths of palisade fences (The National Heritage List for England). These features generally survive as earthworks or buried archaeological remains, the latter sometimes visible on aerial photographs and identified through excavation and geophysical survey (such as is the case here for scheduled monument 1015250) (The National Heritage List for England).

The importance of the WHS is derived from its Outstanding Universal Value (OUV). The OUV of Hadrian's Wall WHS (Inscribed 1987) and the Frontiers of the Roman Empire (Inscribed 2005) is defined by meeting three of the criteria for cultural WHS Inscription (ii, iii and iv). Specifically, the WHS demonstrates:

- the development of military architecture, roads and urbanisation;
- the complexities of Roman culture and its spread across Europe and the Mediterranean world; and,
- the spread of classical culture and Romanisation which shaped the subsequent development of Europe (Hadrian's Wall Management Plan, 2008-2014).

The Buffer Zone has been designed to protect the setting of the WHS and those aspects of the WHS which contribute to its OUV. The remains recorded as part of the WHS Core Area at Silloth (SM No. **1015250**) provide further insights into Roman military strategy and organisation, patterns of conquest and settlement and landscape organisation, and contribute to further study of the Roman frontier defences along the Cumbrian coast and therefore contribute to the OUV of the WHS. The Hadrian's Wall Management Plan states that developments which lie outside the Buffer Zone should be assessed for their impact on the OUV of the WHS. Local Planning Policy states that the WHS is a material consideration in determining any planning application, and that any development which adversely affects the setting of the WHS will not be permitted.

Both English Heritage and Allerdale Borough Council agree that the impact of the proposed development on the setting of Hadrian's Wall WHS (and its OUV) would be minimal. The nearest Core Area of the WHS (as described above), is located near an urban settlement, and does not survive above ground. The proposed development would not affect the ability to appreciate and understand Roman land use and military planning that gives the setting of the WHS its importance and forms a major part of its OUV. Overall, the impact upon the setting of the WHS and its Buffer Zone is considered to be of negligible significance.

Listed Buildings

With the exception of Blackdyke farmhouse and adjoining barns (**1144614**), the Listed Buildings all lie beyond 1km from the proposed development area, and are situated within a largely improved rural landscape and have localised settings. These Listed Buildings, comprising of farmsteads and associated structures, generally have modern farm buildings or copses of mixed woodland and trees located adjacent to them, which, together with more distant intervening woodland, partially screen views in the direction of the proposed development area.

The Listed Buildings are considered to be of regional heritage importance (Table 2) and are examples of late 18th to 19th century vernacular rural farm buildings, typical of this part of Cumbria. The introduction of the proposed development into the landscape near these Listed Buildings would have little affect on the ability to appreciate the rural setting of the buildings, and as such, the proposed development would have a negligible impact upon the setting, and thereby the significance, of these assets (**1144615, 1144616, 1212678, 1212680, 1275775 and 1289446**).

Blackdyke farmhouse and adjoining barns (**1144614**) are located immediately to the south-east of the proposed development area. The farm lies within an improved rural landscape, and has a localised setting, although some open views out to the surrounding countryside are afforded from the location of the buildings, particularly to the south.

Blackdyke Farm and adjoining barns is considered to be of regional heritage importance (Table 2) as an example of a mid to late 18th century vernacular rural farm buildings, typical of this part of Cumbria. Modern farm buildings lie adjacent to the listed building elements and partially screen views to the north-west, west and south-west, including views towards the proposed development area. Therefore, the proposed development would have no more than a minor impact on the setting of Blackdyke Farm and Adjoining Barns.

6. MITIGATION PROPOSALS

In accordance with the guidance contained in NPPF and the requirements of Allerdale Borough Council, the preferred option for mitigation is preservation of important remains *in situ* wherever practicable and by record where preservation is not possible.

Local Plan Policy CO20 states that the Council may require additional survey work to be undertaken on the proposed development site to establish the presence and / or extent of any archaeological remains prior to determination of the planning application where development proposals affect sites of known or suspected archaeological importance.

The results of the desk-based assessment show that there are no upstanding remains of archaeological importance present within the proposed development area. It is, however, recognised that there is some potential for the preservation of buried remains of archaeological features, although it is considered unlikely that any remains would be of such importance as to warrant preservation *in situ*.

A programme of archaeological mitigation may therefore be required prior to or during the construction phase. Such mitigation may include an archaeological field evaluation and / or a watching brief.

Any mitigation works required as a planning condition would be discussed and agreed with the Council's Archaeologist and would be presented for approval by the planning authority in one or more Written Schemes of Investigation (WSIs), and carried out prior to and during construction, as appropriate. The WSIs would make provision for further excavation, post-excavation analyses and dissemination of the results of the mitigation works, as well as for archiving of the project materials and records, as appropriate.

Written guidelines would be issued for use by all construction contractors, outlining the need to avoid unnecessary damage to known archaeological sites. Those guidelines would contain arrangements for calling on retained professional archaeological support in the event that buried archaeological remains of potential interest were discovered in areas not subject to any archaeological monitoring agreed under a WSI. The guidance would make clear the legal responsibilities placed upon those who disturb artefacts or human remains.

7. SUMMARY AND CONCLUSIONS

Four heritage assets have been identified within the proposed development area. Other than the documentary record of a medieval deer park, these are all minor agriculture related features and are considered to be of lesser heritage importance.

An additional four heritage assets have been identified and are recorded in the HER within 500m of the proposed development area; one of which is a Grade II Listed Building (**1144614**). Additional sources available at the Cumbria HER, suggest that the land within the proposed development area preserves former common arable strip fields (the Cumbria HLC), and record that pockets of ridge and furrow cultivation were visible on aerial photographs from the 1940s within 500m of the proposed development area (the English Heritage Hadrian's Wall NMP). The same aerial photographs also provided evidence for the layout and extent of a former WWII airfield and associated structures, which formerly lay in fields bordering the west of the proposed development area and to the south-east. The HER records similar types of heritage assets in the wider area, with few records pertaining to Romano-British or prehistoric sites or finds.

No significant direct effects are predicted on any of the sites identified by the desk-based assessment. There is some potential that additional, buried and unrecorded remains of archaeological interest survive across the proposed development area. A mitigation strategy would require to be agreed with CCCHES and would be carried out under the terms of a WSI and carried out prior to or during construction, as required by CCCHES.

Seven Grade II Listed Buildings and the outer south-east extent of the Hadrian's Wall World Heritage Site Buffer Zone lie within 2km of the proposed development area. Indirect effects of no more than minor significance are predicted on the settings of the Listed Buildings; an indirect effect of no more than negligible significance is predicted on the WHS.

8. REFERENCES

Bibliography

Breeze, D. J. (1982) *The Northern Frontiers of Roman Britain*. London: Batsford

Egerton, L. (2005) *Carlisle: a review of its industrial archaeology*

Hindmarsh, E. (2008) *Port Road Carlisle: Watching Brief Report*. Unpublished report, AOC Archaeology

Institute for Archaeologists (2014) *By-Laws: Code of Conduct*, Reading: IfA

Institute for Archaeologists (2012) *Standard and Guidance for Historic Environment Desk-based Assessment*, Reading: IfA

Martin, G. (2010) *Archaeological Evaluation, Dryholme Farm, Silloth. Report 61*. Unpublished report, Gerry Martin Associates Ltd.

McElligott, M. (2011) *Hellrigg Wind Farm, Silloth, Cumbria. Watching Brief Report. CP No.1272/11*. Unpublished report, North Pennines Archaeology Ltd.

Vannan, A. (2011) *Abbeystown Wastewater Treatment Works Revised Pipeline Route. Archaeological Watching Brief*. Unpublished report, Oxford Archaeology North

Cartographic

Enclosure Map (1814) *Holm Cultram Inclosure Award* (Archive reference QRE/1/148)

Faden, W. (1810) *The County of Cumberland and parts of Lancaster and Westmorland making a map of The Lakes*

Greenwood, C. & J. (1824) *Map of the County of Cumberland*

Ordnance Survey 1st Edition (1868) Cumberland, Sheet XX, six inches to one mile

Ordnance Survey 1st Edition (1868) Cumberland, Sheet XXI, six inches to one mile

Ordnance Survey 2nd Edition (1901) Cumberland, Sheet XX.SW & SE, six inches to one mile

Ordnance Survey 2nd Edition (1901) Cumberland, Sheet XXI.SW, six inches to one mile

Ordnance Survey 3rd Edition (1927) Cumberland, Sheet XX.SW & SE, six inches to one mile

Ordnance Survey 3rd Edition (1927) Cumberland, Sheet XXI.SW, six inches to one mile

Ordnance Survey 4th Edition (1952) Cumberland, Sheet XX.SW & SE, six inches to one mile

Ordnance Survey 4th Edition (1952) Cumberland, Sheet XXI.SW, six inches to one mile

Tithe Map (1850) *Holme Cultram Part 3 North Division* (Archive reference DRC 8/93/3)

Web-based data sources

Archaeology Data Service (ADS) available at <http://archaeologydataservice.ac.uk/> (accessed July 2014)

Bing™ (2014) maps [online], available from <http://www.bing.com/maps/> (accessed July 2014)

British Geological Survey data (2014) available at <http://www.bgs.ac.uk/data/mapViewers/home.html?src=topNav> (accessed July 2014)

Google™ (2011) Google maps [online], available from www.maps.google.co.uk (accessed July 2014).

Holm St Cuthbert History Group website <http://myweb.tiscali.co.uk/hstchg/history.htm> (accessed July 2014)

Heritage Gateway available at <http://www.heritagegateway.org.uk/1> (accessed July 2014)

LandIS, Cranfield Universtiy (2014); available at <http://www.landis.org.uk/services/soilscapes.cfm> (accessed July 2014)

Maps of the Lakes, Norgate, J & M. (2013) available at: <http://www.geog.port.ac.uk/webmap/thelakes/html/maps/mapsfram.htm> (accessed July 2014)

National Library of Scotland (NLS) available at <http://maps.nls.uk/> (accessed July 2014)

The National Heritage List for England available at <http://www.english-heritage.org.uk/professional/protection/process/national-heritage-list-for-england/> and <http://www.english-heritage.org.uk/professional/protection/process/spatial-data/> (accessed July 2014)

Appendix 1 Heritage Assets within the Proposed Development Area

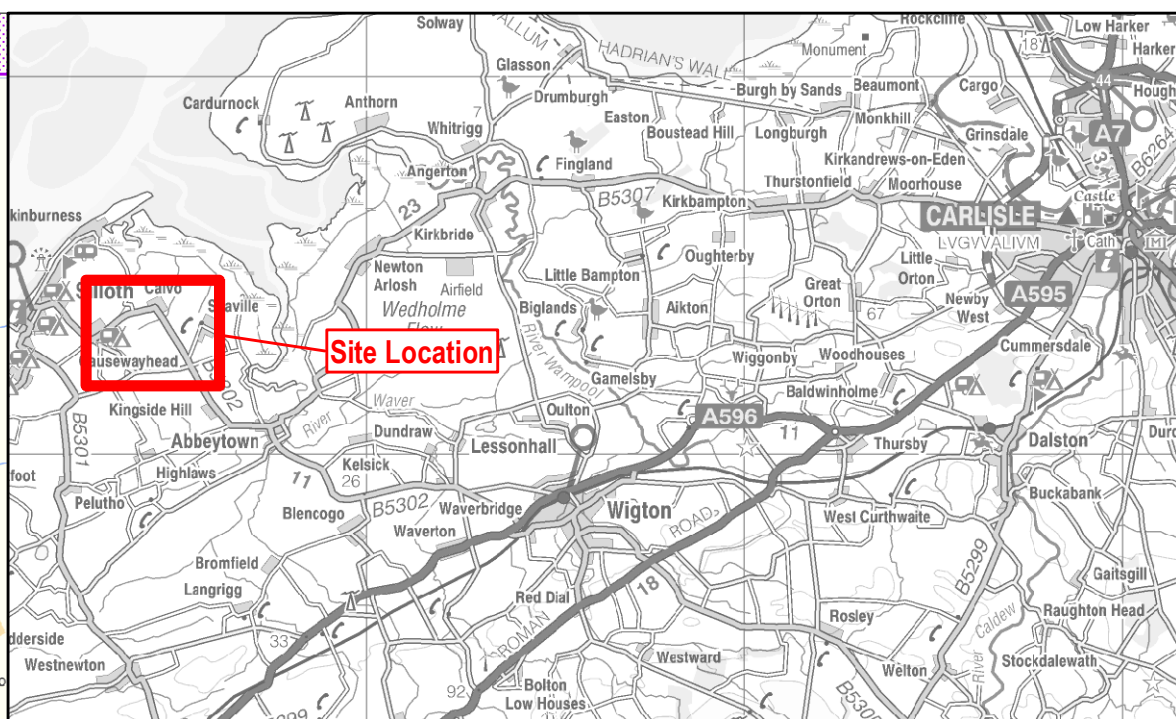
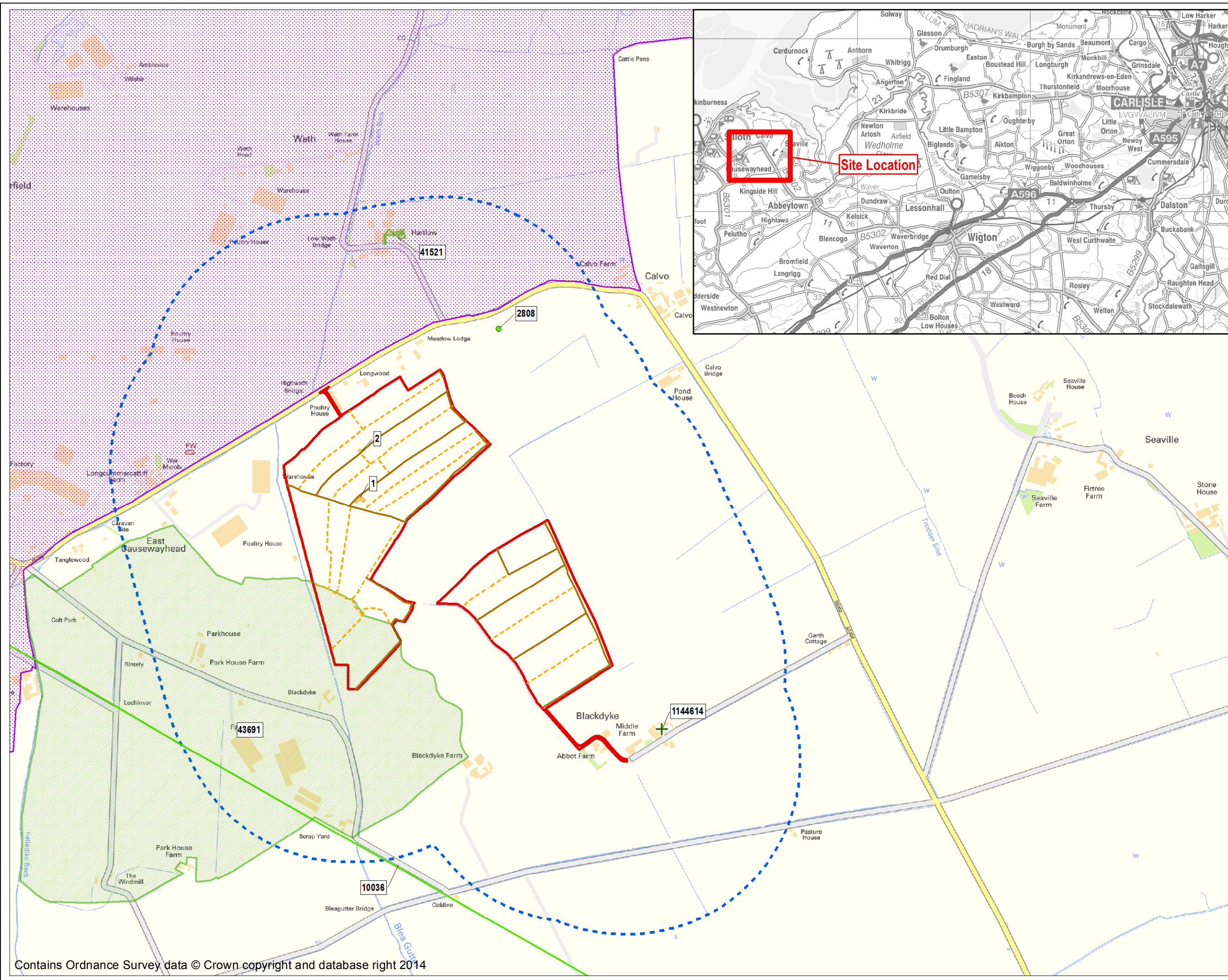
Asset ID	Asset Name /Type	Status	Easting	Northing	Description	Heritage Importance
1	Pond (possible)		313596	553208	<p>A possible pond is visible on the Ordnance Survey 1st Edition map (Cumberland, sheet XX, 1868) as an irregular L-shaped feature abutting a field boundary. The outline of the feature is shown on subsequent Editions (Cumberland, sheet XX.SW & SE, 1901; 1927; 1958).</p> <p>The location of the possible pond is now occupied by a small copse of trees (GoogleTM; BingTM).</p>	Lesser
2	Enclosure		313600	553347	<p>A mall sub-square enclosure is shown on the Ordnance Survey 2nd Edition map and on subsequent Editions (Cumberland, sheet XX.SW & SE, 1901; 1927; 1958).</p> <p>The enclosure is not visible on modern aerial photographic imagery (GoogleTM; BingTM).</p>	Lesser
3	Field Boundaries		n/a	n/a	<p>Several field boundaries are shown on the Tithe map (1850) and on the Ordnance Survey 1st Edition map (1868); they are also shown on subsequent Editions (Cumberland, sheets XX1.SW and XX.SW & SE, 1901; 1927; 1958).</p> <p>The field boundaries no longer appear to be present as upstanding features, but traces of them are visible as faint linear features on modern aerial photographic imagery (GoogleTM; BingTM).</p>	Lesser
43691	Colt Park, Holme Low		313100	552700	<p>The HER records that a former medieval deer park was identified from documentary evidence during the Cumbria Historic Landscape Characterisation Project.</p>	Lesser

Appendix 2 Heritage Assets within 500m of the Proposed Development Area

Asset ID	Asset Name /Type	Status	Easting	Northing	Description
1144614	Blackdyke Farmhouse and adjoining barns (not to be confused with Farm of same name to west)	Grade II Listed Building	314470	552542	Mid or late 18 th century farmhouse and adjoining barn. Large scale pre-Ordnance survey mapping (Faden, 1810; Greenwood, 1824) indicates a farm or small settlement at Blackdykes from at least the early 19 th century. The Enclosure map of 1814 depicts the listed Blackdyke farmstead, together with a single building at the locations of the other two Blackdyke farms to the west. The Tithe map (1850) indicates several land-owners owned fields to north of Blackdykes, and the land is listed as under arable use.
2808	Meadow Lodge Pillbox, Holme Low		314000	553700	The HER records that there is a World War II pillbox listed as being at this location, although there were no visible remains of the pillbox identified during a site visit in 2003 (D Parkin).
10036	North British Railway, Carlisle & Silloth Branch		315000	551370	The HER records the North British Railway, Carlisle and Silloth Branch; which is recorded as opening in 1859 following the success of the main railway which had been converted from a former canal route in 1852 (Egerton and Lea, 2005). The line was absorbed by the London and North Eastern Railway in 1923, nationalised in 1948, and closed in 1964. Features relating to the infilling of the canal, a culvert and industrial building were recorded during a watching brief at Port Road (Hindmarsh, 2008). A desk-based assessment and watching brief were undertaken in advance of a proposed pipeline at Abbeytown which identified a high quantity of clinker from the construction of the Silloth Branch line (Bullock, 2009). No above or below ground remains were recorded during a later phase of watching brief (Vannan, 2011).
41521	Hartlaw, Silloth: farmstead		313680	553980	The HER records that the farmstead of Hartlaw is shown on the Ordnance Survey 1 st Edition map (1868) with a possible gin case to north elevation.

Appendix 3 Designated Heritage Assets within 2km of the Proposed Development Area

Asset ID	Asset Name	Status	Easting	Northing	Heritage Importance
WHS Core Area - 1015250 (and Buffer Zone)	Hadrian's Wall World Heritage Site (Frontiers of the Roman Empire):Palisade ditches, part of Roman frontier defences along Cumbrian coast, Roman camp & road and part of Romano-British field system, 250m north of Silloth Farm	WHS (Core Area) - Scheduled Monument	311327	554105	International / National
1144614	Blackdyke Farmhouse and adjoining barns (not to be confused with Farm of same name to west)	Grade II Listed Building	314470	552542	Regional
1144615	Whinclose and adjoining barn	Grade II Listed Building	315432	554170	Regional
1144616	Garden Wall and Railings in front of Causewayhead Farmhouse	Grade II Listed Building	312103	552663	Regional
1212678	Barn formerly adjoining Dixon's Cottage	Grade II Listed Building	315659	553428	Regional
1212680	Causeway Farmhouse and adjoining barns/byres	Grade II Listed Building	312091	552665	Regional
1275775	Kingside Hill	Grade II Listed Building	315584	551503	Regional
1289446	Seaville Farmhouse	Grade II Listed Building	315552	553310	Regional



- Key:**
- Proposed Development Area
 - 500m Buffer
 - + Grade II Listed Building
 - Former Field Boundary (Site 3)
 - Existing Field Boundary
 - Cultural Heritage Site (area)
 - HER Site (point)
 - HER Site (linear)
 - HER Site (area)
 - Hadrian's Wall World Heritage Site Buffer Zone

CFA ARCHAEOLOGY LTD
 Old Engine House
 Eskmills Park
 Musselburgh
 East Lothian, EH21 7PQ
 T: 0131 273 4380
 F: 0131 273 4381
 info@cfa-archaeology.co.uk
 www.cfa-archaeology.co.uk

Fig. No: **1** Report No: -

Title:
Heritage Assets within the Proposed Development Area and within 500m of the Proposed Development Area

Project:
Solar PV site at Middle Farm, Sillioth

Client:
Livus Energy

Scale at A3:
1:10,000

Drawn by: **SW** Checked: **HG** Date: **25/07/2014**

Reproduced with the permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stationery Office, © Crown copyright. CFA Archaeology Ltd, Old Engine House, Eskmills Park, Musselburgh EH21 7PQ AL100034785

The copyright in this document (including its electronic form) shall remain vested in CFA Archaeology Ltd (CFA) but the Client shall have a licence to copy and use the document for the purpose for which it was provided. CFA shall not be liable for the use by any person of this document for any purpose other than that for which the same was provided by CFA. This document shall not be reproduced in whole or in part or relied upon by third parties for any use whatsoever without the express written authority of CFA.



Key:

Proposed Development Area



CFA ARCHAEOLOGY LTD
 Old Engine House
 Eskmills Park
 Musselburgh
 East Lothian, EH21 7PQ
 T: 0131 273 4380
 F: 0131 273 4381
 info@cfa-archaeology.co.uk
 www.cfa-archaeology.co.uk

Fig. No: **2** Report No: -

Title:
**Proposed Development Area
 and OS 1st Edition Map
 (1868)**

Project:
**Solar PV site at Middle Farm,
 Sillioth**

Client:
Livus Energy

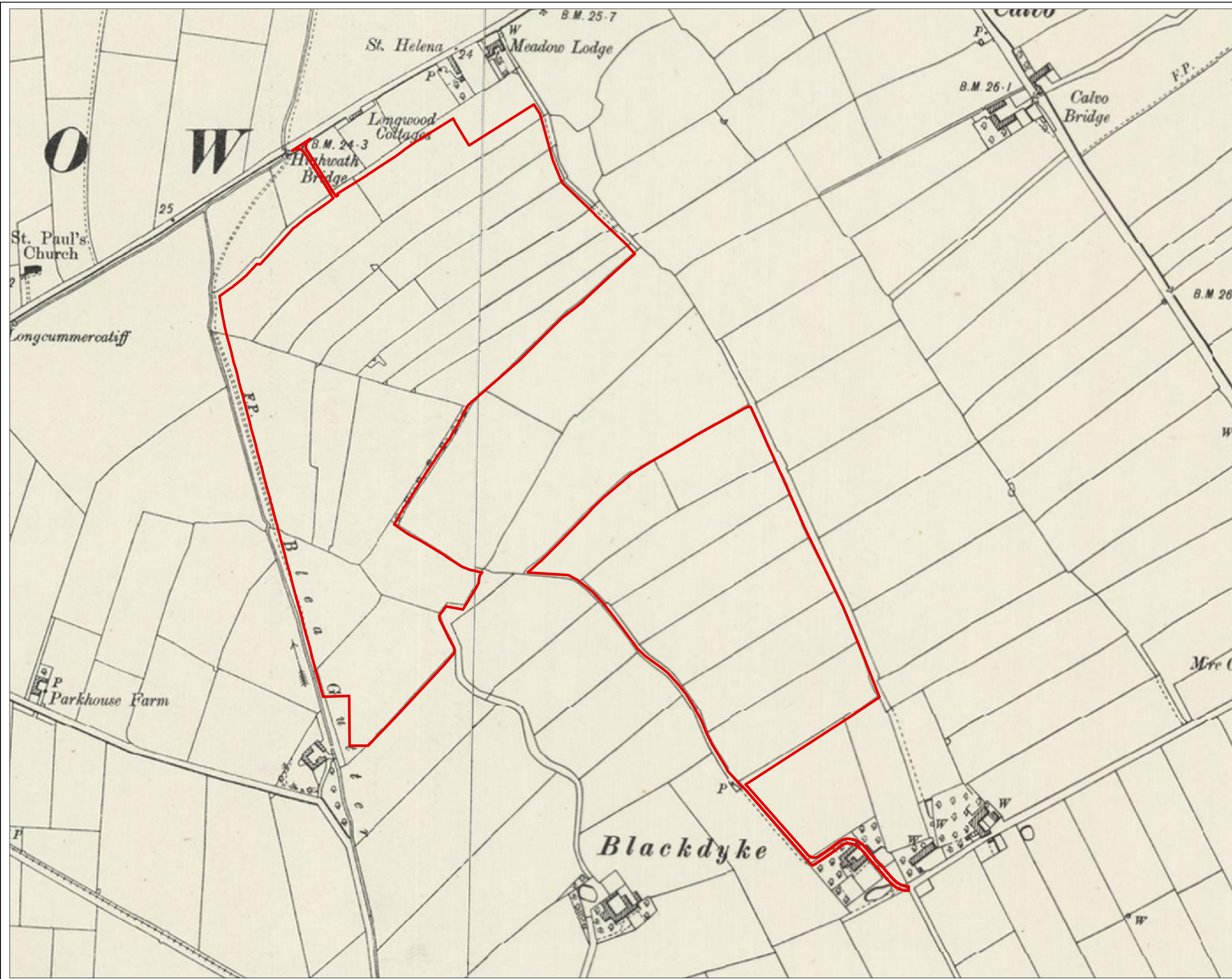
Scale at A3:
1:5,000

Drawn by: **SW** Checked: **HG** Date: **23/07/2014**

Reproduced with the permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stationery Office, © Crown copyright. CFA Archaeology Ltd, Old Engine House, Eskmills Park, Musselburgh EH21 7PQ AL100034785

The copyright in this document (including its electronic form) shall remain vested in CFA Archaeology Ltd (CFA) but the Client shall have a licence to copy and use the document for the purpose for which it was provided. CFA shall not be liable for the use by any person of this document for any purpose other than that for which the same was provided by CFA. This document shall not be reproduced in whole or in part or relied upon by third parties for any use whatsoever without the express written authority of CFA.





Key:

Proposed Development Area



CFA ARCHAEOLOGY LTD
 Old Engine House
 Eskmills Park
 Musselburgh
 East Lothian, EH21 7PQ
 T: 0131 273 4380
 F: 0131 273 4381
 info@cfa-archaeology.co.uk
 www.cfa-archaeology.co.uk

Fig. No: **3** Report No: -

Title:
**Proposed Development Area
 and OS 2nd Edition Map
 (1901)**

Project:
**Solar PV site at Middle Farm,
 Sillioth**

Client:
Livus Energy

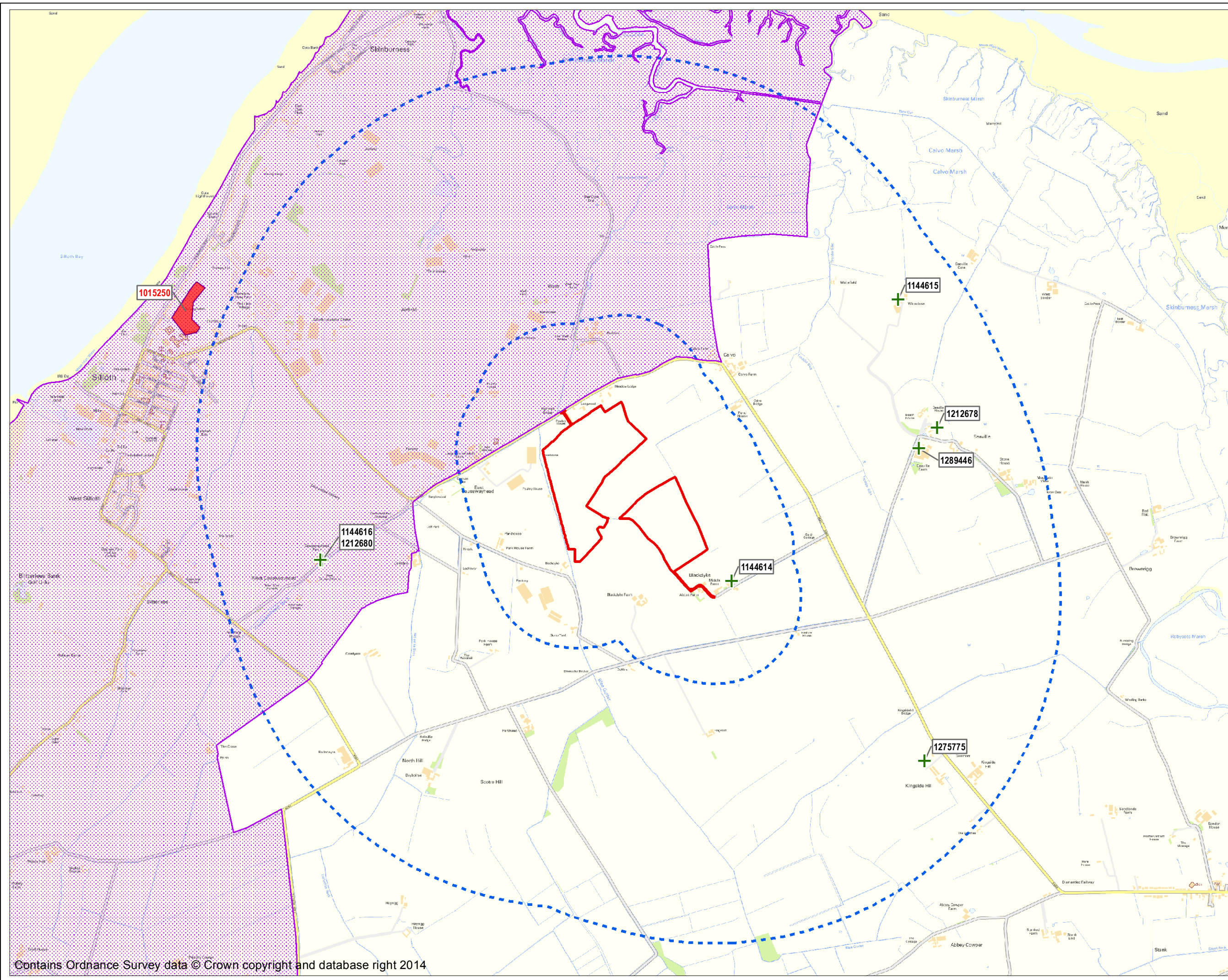
Scale at A3:
1:5,000

Drawn by: **SW** Checked: **HG** Date: **23/07/2014**

Reproduced with the permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stationery Office, © Crown copyright. CFA Archaeology Ltd, Old Engine House, Eskmills Park, Musselburgh EH21 7PQ AL100034785

The copyright in this document (including its electronic form) shall remain vested in CFA Archaeology Ltd (CFA) but the Client shall have a licence to copy and use the document for the purpose for which it was provided. CFA shall not be liable for the use by any person of this document for any purpose other than that for which the same was provided by CFA. This document shall not be reproduced in whole or in part or relied upon by third parties for any use whatsoever without the express written authority of CFA.





Key:

- Proposed Development Area
- 500m and 2km Buffer
- Scheduled Monument
- + Grade II Listed Building
- Hadrian's Wall World Heritage Site Buffer Zone



CFA ARCHAEOLOGY LTD
 Old Engine House
 Eskmills Park
 Musselburgh
 East Lothian, EH21 7PQ
 T: 0131 273 4380
 F: 0131 273 4381
 info@cfa-archaeology.co.uk
 www.cfa-archaeology.co.uk

Fig. No: 4	Report No: -
-------------------	--------------

Title:
**Designated Heritage Assets
 within 2km of the Proposed
 Development Area**

Project:
**Solar PV site at Middle Farm,
 Sillioth**

Client:
Livus Energy

Scale at A3:
1:20,000

Drawn by: SW	Checked: HG	Date: 24/07/2014
------------------------	-----------------------	----------------------------

Reproduced with the permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stationery Office, © Crown copyright. CFA Archaeology Ltd, Old Engine House, Eskmills Park, Musselburgh EH21 7PQ AL100034785

The copyright in this document (including its electronic form) shall remain vested in CFA Archaeology Ltd (CFA) but the Client shall have a licence to copy and use the document for the purpose for which it was provided. CFA shall not be liable for the use by any person of this document for any purpose other than that for which the same was provided by CFA. This document shall not be reproduced in whole or in part or relied upon by third parties for any use whatsoever without the express written authority of CFA.