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# **The North Wales Wind Farms Connection Project**

## **Environmental Statement Chapter 8 - Historic Environment**

Application reference: EN020014

March 2015



Regulation reference: The Infrastructure Planning  
(Applications: Prescribed Forms and Procedure)  
Regulations 2009 Regulation 5(2)(a)

Document reference 6.8



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## **Environmental Statement**

### **Chapter 8 Historic Environment**

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The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 – Regulation 5(2)(a)



**The Planning Act 2008**

**The Infrastructure Planning (Applications: Prescribed Forms and Procedure)  
Regulations 2009**

**Regulation 5(2)(a)**

**The North Wales Wind Farms Connection Project**

**Environmental Statement**

**Chapter 8 Historic Environment**

<b>Document Reference No.</b>	<b>6.8</b>
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## Environmental Statement Documents

<b>Volume 6: Environmental Statement</b>		
DCO Document Reference	Chapter	Document
6.1	1	Introduction
6.2	2	Description of the Proposed Development
6.3	3	Alternatives and Design Evolution
6.4	4	EIA Methodology
6.5	5	Planning Policy Considerations
6.6	6	Ecology and Biodiversity
6.7	7	Landscape and Visual
6.8	8	Historic Environment
6.9	9	Flood Risk and Water Resources
6.10	10	Land Use and Agriculture
6.11	11	Socio-Economics and Tourism
6.12	12	Traffic and Transport
6.13	13	Emissions
6.14	14	Electric and Magnetic Fields
6.15	15	Summary of Environmental Effects
6.28		Non-Technical Summary
		Glossary

This Chapter includes the following Appendices:

<b>DCO Document Reference</b>	<b>Appendix</b>	<b>Document</b>
6.21	8.1	Historic Environment Technical Report
6.21	8.2	Historic Environment Figures

Reference is also made to the following documents:

<b>DCO Document Reference</b>	<b>Document</b>
6.17	Proposed Works at St Asaph Substation (Appendix 1.1 to this ES)
	Proposed Underground Cable; St Asaph Substation to the Terminal Point (Appendix 1.2 to this ES)
	Proposed Collector Substation; Clocaenog Forest; Environmental Report (Appendix 1.3 to this ES)
	Lower Voltage Diversions (Appendix 1.4 to this ES)
	Potential Connection Routes for the Derwydd Bach, Nant Bach and Brenig Wind Farms (Appendix 1.5 to this ES)
6.18	Construction Environmental Management Plan (Appendix 2.1 to this ES)
6.30	Planning Inspectorate: North Wales Wind Farm Connections Project; Scoping Opinion: (February 2014)

## **8 HISTORIC ENVIRONMENT**

### **8.1 Introduction**

- 8.1.1 This Chapter presents the findings of a historic environment assessment carried out for the Proposed Development. It draws on a desk-based assessment and a field reconnaissance and recording survey, carried out during the course of 2014. These studies have collated details of the known archaeological and historic sites and features, or ‘heritage assets’, and considered the potential for the presence of unknown or unrecorded heritage assets, in order to produce a baseline assessment of the cultural heritage of the area through which the Proposed Development passes.
- 8.1.2 This historic environment assessment considers all stages of the Proposed Development, including construction, operation and decommissioning, as described in Chapter 2 ‘Description of the Proposed Development’ (DCO Document Ref 6.2). Where likely significant adverse effects are identified, mitigation measures to prevent, reduce, or offset them are proposed, and likely residual effects remaining after mitigation are determined. The effects of decommissioning are assessed in the same way as the construction phase, as both activities necessitate similar kinds of ground disturbance and therefore give rise to similar potential effects.
- 8.1.3 The chapter fully assesses the likely significant environmental effects of the Proposed Development on all heritage assets, including archaeological sites, features and finds, historic buildings and historic landscapes, recorded in the course of the desk-based assessment and field surveys. The potential for the Study Area, as defined within this chapter (see Section 8.4.8), to contain buried and as yet unrecognised archaeological remains is also considered.
- 8.1.4 The assessment also includes an evaluation of visual effects on the setting of heritage assets that may arise from the Proposed Development. This includes any potential combined and cumulative effects to the visual amenity which could arise where Proposed Development is seen in conjunction with the Wider Scheme, along with other existing, consented or proposed developments.
- 8.1.5 The assessment recommends mitigation to minimise potential adverse effects of the Proposed Development on the historic environment. The significance of any residual effects has been assessed.

### **8.2 Legislation and Policy Background**

- 8.2.1 Planning policy is covered in Chapter 5 ‘Planning Policy Considerations’ including UK-wide, Welsh national and local development plan policies.
- 8.2.2 The Overarching National Policy Statement for Energy (EN-1) Section 5.8 discusses generic issues relating to the historic environment and how these should be identified and addressed by applicants.

**Table 8.1 Compliance with NPS EN-1 Requirements**

<b>NPS EN-1 Section</b>	<b>Covered in ES Section</b>
<p>Paragraph 5.8.8 requires applicants to provide a description of the significance of the heritage assets affected by the proposal and the contribution of their setting to that significance. It also advises applicants to include details proportionate to the importance of the heritage assets.</p>	<p>A description of the significance of the heritage assets potentially affected by the Proposed Development and the contribution of their setting to that significance is presented in Sections 8.5 and 8.7 of this chapter. The details presented are proportionate to the importance of each heritage asset.</p>
<p>Paragraph 5.8.14 indicates that there should be a presumption in favour of the conservation of designated heritage assets; the more significant the asset, the greater the presumption in favour of its conservation.</p>	<p>The guiding principle that heritage assets constitute a finite and non-renewable resource that must be preserved, unless there are convincing and overriding reasons for their damage or destruction, is outlined in Paragraph 8.4.55 of this chapter.</p> <p>The greater the presumption in favour the conservation of assets of more significance, with the conservation of designated assets carrying the highest weighting, is addressed in Paragraphs 8.4.56-8.4.58 and in Section 8.6 of this chapter.</p> <p>The response adopted by this assessment to this guiding principle, preservation in situ by avoidance, is outlined in Section 8.4.75 of this chapter.</p>
<p>Paragraph 5.8.15 advises that any harmful effects on designated heritage assets should be weighed against public benefit of the development.</p>	<p>The balancing between potential public benefits and harmful effects on designated heritage assets of the development proposal in policy terms is considered in Section 8.4 of this chapter.</p>

- 8.2.3 The National Policy Statement for Electricity Networks Infrastructure (EN-5) does not address the historic environment directly, unlike other environmental issues, but does refer to heritage assets in the context of undergrounding<sup>1</sup>.
- 8.2.4 Significant weight is attached to these over-arching policy documents (EN-1 and EN-5), which provide the policy context for Nationally Significant Infrastructure Projects (NSIPs).
- 8.2.5 Other national planning policy and guidance relevant to this assessment includes:
- Planning Policy Wales (7th Edition, July 2014, Chapter 6);
  - Welsh Office Circular 60/96: Planning and the Historic Environment – Archaeology;
  - Welsh Office Circular 61/96: Planning and the Historic Environment – Historic Buildings and Conservation Areas;
  - Welsh Office Circular 1.98: Planning and the Historic Environment: Directions by the Secretary of State for Wales;
  - Welsh Assembly Government (Cadw): Conservation Principles for the Sustainable Management of the Historic Environment in Wales;
  - PPS5: Historic Environment Planning Practice Guide; and
  - Technical Advice Note 8: Planning for Renewable Energy (2005).
- 8.2.6 Of the individual types of heritage asset, the only category of asset of international importance is the World Heritage Site, as designated by UNESCO. Planning Policy Wales (PPW) (7th Edition, July 2014, Chapter 6); affirms the outstanding international importance of such sites and stresses the need to protect both the sites and their settings for future generations.
- 8.2.7 PPW also seeks to preserve, protect and enhance all components of the historic environment encompassing sites of archaeological interest, ancient monuments, Listed Buildings, Conservation Areas, Registered Historic Landscapes and Registered Historic Parks and Gardens, and their settings.
- 8.2.8 PPW (Section 6.5.1) states that '*The desirability of preserving an ancient monument and its setting is a material consideration in determining a planning application, whether that monument is scheduled or unscheduled*', and as such this is a consideration for the application for a DCO.
- 8.2.9 The principal legislation relating to the archaeological heritage is the Ancient Monuments and Archaeological Areas Act (1979), which provides statutory protection to Scheduled (Ancient) Monuments (SMs). Their settings are also protected. Setting is not defined within the Act, but as a concept it is covered in Planning Policy Wales (2014; 7th edition: 2014), and in more detail in a supporting Welsh Office Circular on Planning and the Historic Environment: Archaeology (60/96). SMs are designated features of national importance.
- 8.2.10 Buildings of heritage interest are protected under the Planning (Listed Building and Conservation Areas) Act (1990), as amended. Three grades of Listed

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<sup>1</sup> NPS EN-5 (2011): Section 2.8.9)

Building exist – Grades I, II\* and II – but all are considered to be of national significance. The Act requires local planning authorities to have special regard to the desirability of preserving the setting of a Listed Building, and it also requires planning proposals to meet the test of determining the extent to which a development affects views to and from a Listed Building.

- 8.2.11 It also requires planning proposals to meet the test of determining the extent to which a development affects views to and from such an area. Further guidance is provided within the Welsh Office Circular on Planning and the Historic Environment: Historic Buildings and Conservation Areas (61/96).
- 8.2.12 This assessment has applied the test outlined in EN-1 and has additionally considered and fully taken into account the principles of the Barnwell Manor Court of Appeal case (Barnwell Manor Wind Energy Ltd v E.Northants DC, English Heritage, National Trust & SSCLG [2014] EWCA Civ 137), albeit that this case was set in the context of a Town & Country Planning Act 1990 planning application.
- 8.2.13 Historic hedgerows are protected under the Hedgerow Regulations (1997). A hedgerow is deemed to be historic if it marks a parish or township boundary which pre-dates A.D. 1850, incorporates an archaeological feature, is part of or incorporates an archaeological site, marks the boundary of (or is associated with) an estate or manor which pre-dates A.D. 1600 or forms an integrated part of a pre-parliamentary enclosure.
- 8.2.14 A survey of historic parks and gardens in Wales was initiated by Cadw in 1992 and completed ten years later. Those considered to be of exceptional (Grade I), great (Grade II\*) and special interest (Grade II) were published in seven volumes, with that for Denbighshire and Conwy appearing in 1998, and together they form Part 2 of the Register of Landscapes, Parks and Gardens of Special Historic Interest in Wales. The Register is advisory and the inclusion of a particular park or garden does not signify a statutory designation. However, as indicated in PPW, Welsh Government considers that the effect of a proposed development on a registered park or garden or its setting may be a material consideration in the determination of a planning application, and as such this is a consideration for the application for a DCO.
- 8.2.15 Some historic landscapes in Wales are considered particularly significant and/or well-preserved. These have been recorded in a Register of Landscapes of Historic Interest in Wales. Classed as either of outstanding or of special interest, these have been published in two volumes, which form Part 2 of the Register of Landscapes, Parks and Gardens of Special Historic Interest in Wales published in 1998 and 2001. Again, this part of the Register is advisory and non-statutory, but Historic Landscapes on the Register need to be taken into account when considering the implications of developments that will have more than a local impact.
- 8.2.16 Heritage assets without statutory protection are curated through the archaeological advisors to the local planning authorities and are afforded protection through Local Development Plan policies.

8.2.17 Denbighshire County Council Local Development Plan (2013) summarises its heritage protection policy in Policy VOE1:

*'The following areas will be protected from development that would adversely affect them. Development proposals should maintain and, wherever possible, enhance these areas for their characteristics, local distinctiveness, and value to local communities in Denbighshire:*

- *Statutory designated sites for nature conservation;*
- *Local areas designated or identified because of their natural landscape or biodiversity value*
- *Sites of built heritage; and*
- *Historic Landscape, Parks and Gardens.'*

8.2.18 Planning policies in the Conwy Local Development Plan 2007-2022 (Revised Edition 2011) relevant to heritage assets are summarised in Strategic Policy CTH/1 –Cultural Heritage:

- Ensuring that the location of new development on both allocated and windfall sites within the Plan Area will not have a significant adverse impact upon heritage assets in line with Policies CTH/2 – 'Development Affecting Heritage Assets';
- Recognising and respecting the value and character of heritage assets in the Plan Area and publishing Supplementary Planning Guidance to guide development proposals in line with Policy DP/7 – 'Local Planning Guidance';
- Seeking to preserve and, where appropriate, enhance conservation areas, Conwy World Heritage Site, historic landscapes, parks and gardens, listed buildings, scheduled ancient monuments and other areas of archaeological importance in line with Policies DP/6 & DP/7;
- Protecting buildings and structures of local importance in line with policy CTH/3 – 'Buildings and Structure of Local Importance' and supplementary planning guidance;
- Enhancing heritage assets through heritage and regeneration initiatives; and
- Preserving and securing the future of heritage assets by only permitting appropriate enabling development in line with policy CTH/4 – 'Enabling Development'.

- 8.2.19 Relevant guidance which has been used in this assessment includes:
- Guide to Good Practice on Using the Register of Landscapes of Historic Interest in Wales in the Planning and Development Process” (Cadw, Revised 2nd edition 2007);
  - Managing Change in the Historic Environment: Setting’ (Historic Scotland, 2010);
  - ‘The Settings of Heritage Assets’ (English Heritage 2011), and
  - ‘Seeing the History in the View, a Method of Assessing Heritage Significance within View’ (,English Heritage, 2011).
- 8.2.20 This assessment has been undertaken with reference to the Chartered Institute for Archaeologists’ (CIfA):
- Code of Conduct, December 2014;
  - Standards and Guidance for Historic Environment Desk-based Assessment, December 2014, and
  - Standard and Guidance for Archaeological Field Evaluation, December 2014.

### 8.3 Consultation

- 8.3.1 The following table summarises the points raised by the Secretary of State (SoS) in the Scoping Opinion. It also provides a response to each of those points raised and how they have been fully dealt with.

**Table 8.2: Issues Raised and Responses to the SoS Scoping Opinion**

Issue Raised by SoS	Response
<p><b>Para 3.48:</b> As any underground sections of the proposed connection will not be included in any DCO application, their potential impacts on historic assets should be included in the cumulative impacts assessment.</p>	<p>The potential impacts of the underground section are included in Appendix 1.2 (DCO Document Ref 6.17) to this ES and considered within the Assessment of Cumulative Effects (Section 8.9 of this Chapter)</p>
<p><b>Para 3.50:</b> The applicant is referred to the comments of Cadw ... particularly in relation to the identified heritage assets, and on the approach to the assessment of undesignated assets and battlefields.</p>	<p>The comments made by Cadw on these issues are fully addressed by this assessment. A detailed response on each point can be found in Table 8.3 below.</p>

Issue Raised by SoS	Response
<p><b>Para 3.51:</b> The SoS notes ...no invasive archaeological investigation is planned 'during this stage'. It is not clear whether such an investigation is likely to be undertaken at a later date, and the applicant is referred to the comments on Cadw on this point.</p>	<p>The comments made by Cadw on these issues have been taken into account by this assessment. A detailed response on each point can be found in Table 8.3 below.</p> <p>Sufficient information to assess likely significant effects on the historic environment of the Proposed Development is available in this assessment. Further information, such as from invasive archaeological investigations, is not therefore required to make a decision regarding its future management (see Sections 8.4 and 8.8 of this chapter.)</p>
<p><b>Para 3.52:</b> The applicant should ensure that all references in the ES to published guidance accurately reflect their status and content.</p>	<p>Relevant and accurate published guidance is presented in Section 8.2 of this chapter.</p>

- 8.3.2 Cadw, Natural Resources Wales and the Archaeological Advisers to the two Local Planning Authorities, Denbighshire County Council and Conwy County Council, through which the Proposed Development passes, were consulted on the scope and specification for the assessment. Contact was maintained with these consultees, and their advice sought, during the duration of the Environmental Impact Assessment (EIA) and preparation of this Environmental Statement (ES).
- 8.3.3 Responses received from consultees are summarised in Table 8.3 below.

**Table 8.3: Responses to Consultation**

Organisation	Issue raised	Response
CADW	DMR&B (2007) has not been endorsed by the Welsh Government apart from for use in association with the highways Act 1980.	DMRB has been endorsed by the Welsh Government for use in association with the highways Act 1980. Although designed for road developments, DMRB promotes a methodology that is equally applicable for energy connections. DMRB is routinely applied to the environmental assessment of energy and other non-road projects (see Paragraph 8.4.17 of this chapter)
	Parks and gardens; Not all parks and gardens of significance appear on the non-statutory Register of Landscapes, Parks and Gardens of Special Historic Interest in Wales. Inclusion in the Register requires the agreement of the owner and therefore some significant parks and gardens are not included, but the impacts of the proposed development on these assets and their settings will also need to be considered	The protection of historic landscapes, parks and gardens, which do not necessarily appear on the Register of Landscapes, Parks and Gardens of Special Historic Interest in Wales, is implicit in both Denbighshire's and Conwy's Local Development Plans (see Section 8.2 of this Chapter).  Landscapes, parks and gardens which do not appear on the Register of Landscapes, Parks and Gardens of Special Historic Interest in Wales have been included in this assessment (see Section 8.4 of this Chapter).
	Undesignated assets; Planning Policy Wales states, not implies, that an undesignated asset is a material consideration in the planning process.	The need to assess undesignated assets in the context of PPW is addressed (see Section 8.4 of this Chapter). Undesignated assets have been included within this assessment.
	Battlefields; Although a Register of Battlefields for Wales has not yet been issued, a list of battlefields	The list of battlefields being considered for inclusion in the Register of Historic Battlefields of Wales has been consulted. Potential likely

Organisation	Issue raised	Response
	being considered for inclusion in such a register is available. The impact of the development on these sites should be included in the study.	significant environmental effects of direct impacts on battlefields have been included in this assessment (see Section 8.4 of this Chapter of the ES).
	Battlefields need to be included in the list of assets that could be the subject of indirect visual impacts.	Potential indirect visual impacts on battlefields have been included in this assessment (see Section 8.4 of this Chapter).
	Although invasive archaeology is not planned at this stage .... A geophysical survey of the route should be considered especially in areas where it is clear that the archaeological record is deficient. In order to determine the extent, survival and significance of archaeological features there is likely to be a requirement for invasive archaeology, in particular archaeological evaluation to be carried out. These works may need to be carried out to produce the full cultural heritage section of the environmental impact assessment.	Professional judgement is that sufficient information (from the desk-based assessment and field reconnaissance survey) to assess likely significant effects on the historic environment of the Proposed Development is available in this assessment. Further information, in the form of archaeological evaluation is not therefore required to make a decision regarding its future management (see Sections 8.4 and 8.8 of this chapter.)
	The proposal lies within the development boundary (and also the 2km buffer) of the Historic Landscape Area HLW (C) 4 Lower Elan Valley, however the development boundary only juts enters the registered historic landscape, impact on it is therefore unlikely to be more than local, therefore does not meet the criteria for an ASHIDOL	The ZTV <sup>2</sup> s (see Environmental Statement Figures 7.1 and 7.2 (DCO Document Ref 6.16)) have been reviewed and concur with Cadw's view that potential effects of the Proposed Development on the Lower Elwy Valley registered Historic Landscape Area are unlikely to be more than local, and do not, therefore, meet the criteria for an ASIDOHL2 assessment (see Section 8.4 of

<sup>2</sup> Zones of Theoretical Visibility

Organisation	Issue raised	Response
	assessment.	this Chapter).
CPAT	<p>Scope of Cultural Heritage Assessment</p> <p>Further stage of (targeted) evaluation may be required after information is gathered from the DBA and Field Reconnaissance.</p>	<p>Professional judgement is that sufficient information (from the desk-based assessment and field reconnaissance survey) to assess likely significant effects on the historic environment of the Proposed Development is available in this assessment. Further information, in the form of archaeological evaluation is not therefore required to make a decision regarding its future management (see Sections 8.4 and 8.8 of this Chapter.)</p>
	<p>Baseline and PEIR</p> <p>Historic Landscapes (9.1.4) – to aid assessment of indirect visual effects upon the Lower Elwy, Denbigh Moors and Vale of Clwyd Historic Landscapes it would be appropriate to draw up ZTV plans with a radius of 5km based on the centreline of the pole route and a 15m height sphere of influence. ... If significant visual influence is highlighted it might be appropriate to complete an ASIDOL2.</p>	<p>A ZTV with a radius of 5km based on the centreline of the pole route and a 15m height have been compiled (see Environmental Statement Figures 7.1 (DCO Document Ref 6.16)), to assess the visual sphere of influence of the proposed overhead line and determine the need or otherwise for undertaking an ASIDOL2.</p> <p>The ZTV has been reviewed, in combination with site visits, and it has been concluded that potential effects of the Proposed Development on the Lower Elwy, Denbigh Moors and Vale of Clwyd Historic Landscape Areas are unlikely to be more than local. In the absence of significant visual influence, the criteria for an ASIDOL2 has not been met, and such assessment, therefore, has not been undertaken (see Section 8.4 of this Chapter).</p>

Organisation	Issue raised	Response
	Registered Park and Gardens – it would be appropriate to include photomontages / wireframes of the views to / from the Fox Newydd RPG to assess indirect visual impact.	Wireframes of the views to / from the Fox Newydd RPG have not been undertaken as part of this assessment, as it was considered, following site visits that effects of the Proposed Development would be negligible.
	SAM - it would be appropriate to include photomontages / wireframes of the views to / from New Foxhall House (De 054), Bedd-y-Cawr Hillfort (De 037) and Tyddyn Bleiddyn burial cairn (De037) to assess indirect visual impact	Wireframes of the views to / from New Foxhall House (De 054), Bedd-y-Cawr Hillfort (De 037) and Tyddyn Bleiddyn burial cairn (De037) have not been undertaken as it was considered, following site visits that effects of the Proposed Development would be negligible. have not been undertaken as part of this assessment
	Conservation Areas - it would be appropriate to include photomontages / wireframes of the views to / from the Henllan Conservation Area to assess indirect visual impact	Wireframes of the views to / from the Henllan Conservation Area have not been undertaken as part of this assessment. Following consultation the Proposed Development is located at a greater distance from Henllan
Denbighshire County Council	<p>All SAMs, listed buildings, conservation areas, historic parks and gardens, essential settings etc. should be clearly identified so the relationship with historic assets is explicit.</p> <p>As stated in the Council's response to PINS scoping opinion consultation, it is noted that the revised Design Manual for Roads and Bridges is proposed to be used as a framework for the historic environment assessment. The Council consider that all listed buildings and historic landscapes, parks</p>	<p>The scope of the archaeological assessment includes World Heritage Sites, Scheduled (Ancient) Monuments, Listed Buildings, Conservation Areas, Registered Landscapes, Registered Parks and Gardens and undesignated assets (see Section 8.4 and 8.7 of this Chapter).</p> <p>This assessment uses the revised Design Manual for Roads and Bridges (2013) as a framework for the historic environment assessment (see Section 8.4 of this Chapter).</p> <p>In accordance with the Council's response to the</p>

Organisation	Issue raised	Response
	<p>and gardens, regardless of the listing grade, are assets of national importance; the Council therefore consider that all listed buildings and historic landscapes, parks and gardens should be treated as high value assets for the purposes of the historic environment assessment.</p>	<p>SoSs Scoping Opinion (see DCO Document Ref 6.30) consultation, the following assets have been attributed 'high' value in this assessment, as detailed in Table 8.1:</p> <ul style="list-style-type: none"> <li>• Scheduled Monuments (including those proposed);</li> <li>• Undesignated monuments which could potentially be worthy of scheduling;</li> <li>• Listed Buildings – Grade I, II* and II;</li> <li>• Registered Historic Landscapes, Parks and Gardens; and</li> <li>• Assets that can contribute significantly to acknowledged national research objectives.</li> </ul>
NRW	<p>Historic Environment</p> <p>..... routed such that it avoids Registered Historic Landscapes, the closest being the Lower Elwy Valley, which is approximately 250m away at its closest point. This and the decision to use only wooden poles for the entire route mean that in our view an ASIDOHL2 assessment (as outlined in the - Revised 2nd Edition; CCW/ Cadw /WAG 2007), will not be required.</p> <p>...note that ancillary developments such as the collector substation to the south and the section of the route to be undergrounded at the scheme's northern end "...will be considered as part of an</p>	<p>The ZTVs has been reviewed and concur with NRW that ASIDOHL2 assessment is not appropriate in this instance (see Section 8.4 of this Chapter).</p> <p>Potential combined and cumulative effects of the ancillary developments, such as the collector substation to the south and the section of the route to be undergrounded at the scheme's northern end, are assessed in Section 8.9 of this Chapter.</p>

Organisation	Issue raised	Response
	assessment of cumulative effects in the environmental impact assessment which will accompany the DCO application”.	
Welsh Government	In Cadw’s opinion the chosen route corridor now appears to avoid all of the impacts on any designated archaeology /historic landscapes although there is still some potential for setting / indirect impacts on some of the sites and particularly on the Lower Elwy Valley historic landscape. However the impacts are likely to be reduced due to the overhead line being only a low height timber pole construction rather than lattice towers.  That being the case there is the potential for undesignated assets to be affected....	<p>This assessment has identified no direct impacts on any designated archaeology /historic landscapes (see Section 8.8 of this Chapter).</p> <p>This assessment has identified potential indirect visual effects on the setting of designated/registered assets (see Section 8.8 of this Chapter).</p> <p>This assessment has identified potential effects on undesignated assets (see Section 8.8 of this Chapter).</p> <p>The assessment has therefore considered and assessed undesignated assets in full.</p>

## 8.4 Methodology

8.4.1 This section sets out the finalised scope and objectives of the historic environment assessment undertaken and summarises the methods (Stages 1-4) used for the historic environment assessment, including those used in the desk-based assessment and field studies. A summary of the history of scoping and consultations is provided above (Section 8.3).

### **Proposed Development: Technical Scope**

8.4.2 The principal elements of the Proposed Development are described in Chapter 2 'Description of Proposed Development' (DCO Document Ref 6.2). The Order Limits and the Limits of Deviation have evolved through the routing and design process as outlined in Chapter 3 'Alternatives and Design Evolution (DCO Document Ref 6.3).

### **Archaeological Scope**

8.4.3 The material remains of human activity that has survived to the present day can range from large-scale patterns in the apportionment and use of whole landscapes to single artefacts or 'portable antiquities' and include visible monuments, buried sites of settlement, industry or ritual revealed only by excavation, and standing buildings or other structures. All of these can be broadly categorised as 'heritage assets' and it is the aim of archaeology to interpret them in order to glean knowledge and understanding of past human society. Heritage assets can range in date from the earliest humans through to twenty-first century buildings, townscapes and artefacts.

8.4.4 Heritage assets may be individually designated as subject to the provisions of specific heritage protection legislation. In Wales these include:

- World Heritage Sites: The only statutorily recognised category of international importance;
- Scheduled (Ancient) Monuments: Designated features of national importance, protected under the Ancient Monuments and Areas of Archaeological Importance Act 1979. As well as the monuments themselves, their settings are also protected, though setting is not defined within the Act;
- Listed Buildings: Protected under the Planning (Listed Buildings and Conservation Areas) Act 1990. these are classified into three categories: Grade I, II\* or II, in descending order of interest, though all are considered to be of national importance; and
- Conservation Areas: Protected under the Planning (Listed Buildings and Conservation Areas) Act 1990.

- 8.4.5 Undesignated heritage assets may be registered. Though not legally protected, these heritage assets should be considered in much the same way as legally designated assets, as indicated in Planning Policy Wales (2014). These are listed in the Register of Landscapes, Parks and Gardens of Special Historic Interest in Wales and are classified as either ‘outstanding’ or ‘special’:
- Registered Landscapes of Special Historic Interest; and
  - Registered Parks and Gardens of Special Historic Interest.
- 8.4.6 Historic Landscapes of National Significance in Wales (HLAWs), 58 in total, are defined in a Register issued in two parts in 1998 and 2001. The ‘Guide to Good Practice on Using the Register of Landscapes of Historic Interest in Wales in the Planning and Development Process’ revised and reissued by Cadw and CCW in 2007, provides a method of assessment of the effect of a development on such a landscape: ‘the Assessment of the Significance of the Impact of Development on Historic Landscape Areas’ or ASIDOHL2. The guidelines have been consulted for the assessment of indirect effects on the three Registered Historic Landscapes (Vale of Clwyd, Lower Elwy Valley and Denbigh Moors), which fall partly within the Study Area, as defined within this chapter (see Section 8.4.8).
- 8.4.7 Undesignated heritage assets include:
- Significant undesignated assets: NPS EN-1 (Para. 5.8.4), recognises that there can be nationally important assets which have not been scheduled, but should be subject to the same policy considerations as designated assets;
  - Battlefields: Unlike England there is currently no register of battlefield sites for Wales. Cadw is currently engaged in a process of consultation and pilot fieldwork to establish a non-statutory Register of Historic Battlefields;
  - Undesignated archaeological sites: A large number of undesignated heritage assets exist in the landscape, both above ground where they are still visible and buried beneath the surface. PPW states that an undesignated asset is a material consideration in the planning process. Undesignated assets may include sites recorded on County Historic Environment Records (HER), unlisted buildings and other structures of historic or architectural interest, and archaeological sites of unrecognised potential; and
  - Palaeo-environmental sites: An area of land such as a bog, mire or marsh where there is a high potential for studying preserved organic remains within the deposits in order to elucidate past land use.

## **Spatial Scope – Study Areas**

8.4.8 The spatial scope of this assessment has considered three Study Areas centred on the Final Route Alignment: a 100m-wide Study Area, a 200m-wide Study Area and a 4km-wide Study Area:

- The 100m-wide Study Area was selected to identify and fully assess, by desk-based assessment and field reconnaissance, potential direct impacts on heritage assets resulting from the development itself and also from working areas and works traffic, during construction. A distance of 100m was chosen, as this was felt to be the likely maximum distance within which the ‘footprint’ of the Proposed Development could be located prior to the design being finalised;
- The 200m-wide Study Area was selected for two reasons:
  - to identify by desk-based assessment and field reconnaissance, those assets which, because their extents are not currently fully known, might in actuality extend into the ‘footprint’ of the Proposed Development; and
  - to assess potential direct impacts on heritage assets resulting from works traffic accessing the Proposed Development from public roads during construction. During the course of the EIA, the design developed to include several accesses and a construction compound. The 200m-wide Study Area has been extended to include these components.
- The 4km-wide Study Area was selected primarily for the purpose of establishing the visual impact of the Proposed Development on the setting of heritage assets that are unlikely otherwise to be impacted directly by the Proposed Development. A distance of 2 km from the Final Route Alignment was selected because this is regarded as the maximum point at which the Proposed Development would potentially give rise to significant visual effects (see Chapter 7 ‘Landscape and Visual’, DCO Document Ref 6.7. A number of designated assets, located immediately outside the 4km-wide Study Area and/or located within designated areas of landscape which extend into the 4km-wide Study Area, have also been included in the assessment.

8.4.9 Collectively, the three Study Areas assess the whole Order Limits.

8.4.10 Throughout this chapter, the term ‘Study Area’ means the combined area of the above three Study Areas, unless otherwise stated.

## **Temporal Scope**

8.4.11 The temporal scope includes the construction, operation and decommissioning stages of the Proposed Development.

## Objectives

8.4.12 The specific objectives of this historic environment assessment were to:

- Establish and define from existing sources, including new fieldwork, the known (and potential) historic environment resource within the proposed study areas and the surrounding region, describing individual heritage assets to a level where the reader can determine their form, nature, location and relationships;
- Provide an assessment of the value and importance of identified heritage assets;
- Assess the impact (both physical and visual, direct and indirect) of the Proposed Development on known and potential heritage assets during the construction, operation or decommissioning stages, and identify those assets for which the Proposed Development would give rise to likely significant environmental effects;
- Examine potential combined and cumulative effects which could arise where the Proposed Development is seen in conjunction with the Wider Scheme and the Wind Farms and with other existing, consented or proposed developments;
- Make recommendations on the need for, and scope of, further investigative work in the formulation of a strategy where the nature or value of the resource is not sufficiently well defined to permit a suitable mitigation strategy. The need for such additional targeted work will depend upon the results of the initial studies;
- Recommend avoidance, archaeological mitigation and, if appropriate, enhancement measures, to generate an acceptable strategy that ensures the preservation, recording and management of the cultural heritage resource, and
- Reassess any significant adverse effects following mitigation and summarise any residual likely significant effects.

8.4.13 The above objectives have been addressed via a three stage process:

### **Stage 1: Baseline - Desk-based Assessment and Field Studies**

- 8.4.14 Desk-based assessment has examined all readily-available primary and secondary records derived from published, documentary, cartographic, aerial photographic and LiDAR sources, including:
- Designated monuments and buildings and Registered Historic Parks and Gardens and Registered Historic Landscapes within the 4km Study Area. Cognisance was also taken of designated heritage assets beyond this zone;
  - The regional Historic Environment Record (HER) maintained by CPAT at Welshpool, including records of historic landscapes, parks and gardens which do not appear on the Register of Landscapes, Parks and Gardens of Special Historic Interest in Wales;
  - Other records held by CPAT in Welshpool;
  - Coflein, the online record maintained by the National Monuments Record, part of the Royal Commission on the Ancient and Historical Monuments of Wales (RCAHMW);
  - The National Monuments Record held by the RCAHMW in Aberystwyth;
  - The National Library of Wales in Aberystwyth;
  - The Flintshire and Denbighshire County archives;
- 8.4.15 Additionally, Cadw was consulted as regards the developing, non-statutory Register of Historic Battlefields of Wales. Cadw confirmed that no battlefield for which Cadw has commissioned detailed research upon is located within the Study Area. Research has been carried out on the Siege of Denbigh (AD 1646). The siege was conducted on the castle, which is outside to the east of the Study Area and the main earthworks and incidents appear to have occurred to the east and north of the town.

### **LANDMAP**

- 8.4.16 The planning framework in Wales advocates the use of LANDMAP as an information source for landscape assessment. LANDMAP comprises five evaluated, spatially-related aspects (datasets of information), of which one is the Historic Landscape Aspect.
- 8.4.17 A consideration of the LANDMAP data for the region through which the Proposed Development would pass is provided in Chapter 7 'Landscape and Visual' of this ES. This includes a table which summarises the evaluation scores and other datasets for all five Aspect Areas, including those relevant LANDMAP Historic Landscape Aspect Areas, potentially affected by the Proposed Development (see Appendix 7.4 'Assessment of Effects on Landscape Character' (DCO Document Ref 6.20)).

- 8.4.18 The application of all five aspects within a single assessment as undertaken in Chapter 7 is in accord with guidelines issued by Natural Resources Wales which states that ‘it is the use of all five datasets of information that promotes sustainable landscape decision-making’. For this reason, this chapter provides a summary of those Historic Landscape Aspect Areas potentially affected by the Proposed Development but does not consider them in isolation.

#### **TAN 8 Strategic Search Areas**

- 8.4.19 Clocaenog Forest (A) Strategic Search Area (SSA) extends into the 4km-wide Study Area. The SSA has been subject to historic landscape characterisation, jointly commissioned and funded by Cadw and Powys CC (Britnell, 2006). The assessment has not been officially endorsed. There is no published full assessment of significance of this landscape area (ASIDOHL).

#### **ZTVs**

- 8.4.20 ZTV plans with a radius of 5km, based on the centre-line of the pole route and a 15m height, have been compiled to assess the visual sphere of influence of the proposed overhead line (see Appendix 7.3 to this ES (DCO Document Ref 6.20)). These plans have been consulted to assist in the determination of potential visual effects on the historic environment and specifically to determine the need or otherwise for undertaking ‘Assessment of the Significance of the Impact of Development on Historic Landscape Areas’ or ASIDOHL2. Three Historic Landscape Areas, the Lower Elwy, Denbigh Moors and Vale of Clwyd, lie partly within the 4km-wide Study Area. The Lower Elwy extends to within a few hundred metres of the Proposed Development.

#### **Field Reconnaissance Survey**

- 8.4.21 Field reconnaissance has complemented the desk-based work. Reconnaissance has been undertaken of the entire 100m-wide Study Area, and also of any land crossed by access tracks and the construction compound, where these extend into the 200m-wide and 4km-wide Study Areas. The reconnaissance recorded all visible heritage features, and sought to identify areas with the potential to contain unrecorded buried archaeological remains. Particular attention was paid to corroborating known assets and, where appropriate, their settings so as to assist in assessing the potential environmental effects of the Proposed Development. No invasive archaeological investigation was carried out as part of this assessment.

8.4.22 During the field reconnaissance survey, the nature of all field boundaries within the 100m-wide Study Area, access tracks and construction compound was recorded, in order to facilitate a check on where a proposed pole position and certain boundaries coincide. The Hedgerow Regulations (1997) define a set of archaeological and historical criteria used for determining whether hedges are “important”. Under the regulations, a hedgerow is regarded as ‘important’ on archaeological or historical grounds if it: a) marks a pre-1850 parish or township boundary; b) incorporates an archaeological feature; c) is part of, or associated with, an archaeological site, d) marks the boundary of, or is associated with, a pre-1600 estate or manor; or e) forms an integral part of a pre-Parliamentary enclosure field system (DOE, 1997). DEFRA guidance (May 2002) indicates that the hedgerow should be earlier than 1845, the date of the earliest Inclosure Act mentioned in the Short Titles Act of 1896.

### **Assessment of Settings**

8.4.23 Designated assets within the 4km-wide Study Area were visited to determine both their settings and also the likely indirect visual effects from the Proposed Development.

### **Stage 2: Assessment of Effects**

#### *Approach*

8.4.24 The approach to the assessment of effects is based on the methodology set out within the Design Manual for Roads and Bridges (DMRB), Volume 11 Section 3 Part 2 (Highways Agency, rev. 2013). DMRB has been endorsed by the Welsh Government for use in association with the highways Act 1980. Although designed for road developments, DMRB is routinely applied to the environmental assessment of energy projects. Its suitability in this respect derives from a) its long-term development and proven approach, b) its suitability to linear schemes, and c) its promotion of a methodology which meets the EIA Regulations; it considers all components of the historic environment, and addresses both direct and indirect effects on assets and their settings.

#### *Significance Criteria*

8.4.25 A judgement about the likely significance of effect arising from the Proposed Development on each of the heritage assets identified during the baseline assessment is a function of the value (or importance) of the asset and the magnitude of change likely to arise from it.

8.4.26 These three sub-topics – Value (Importance), Magnitude of Effect and Significance of Effect - have been determined against criteria laid out in a series of tables and matrices provided by the DMRB. These offer a set of standards that has been successfully and widely used for EIAs throughout Wales for a number of years and thus allow consistency in determining levels of effect and significance. These three sub-topics are discussed in turn below:

Value (Importance)

8.4.27 The definitions of relative value (or importance) of heritage assets which have been ascribed to heritage assets in this assessment are presented in Table 8.4. It is adapted from the classifications given in the DMRB.

**Table 8.4: Definition of Value of Heritage Assets**

Very High	<ul style="list-style-type: none"> <li>• World Heritage Sites (including those nominated)</li> <li>• Assets of acknowledged international importance</li> <li>• Assets that can contribute significantly to acknowledged international research objectives</li> </ul>
High	<ul style="list-style-type: none"> <li>• Scheduled Monuments (including those proposed)</li> <li>• Undesignated monuments which could potentially be worthy of scheduling</li> <li>• Listed Buildings – Grade I, II* and II</li> <li>• Registered Historic Landscapes, Parks and Gardens</li> <li>• Assets that can contribute significantly to acknowledged national research objectives</li> </ul>
Medium	<ul style="list-style-type: none"> <li>• Conservation Areas</li> <li>• Undesignated assets that contribute to regional research objectives</li> </ul>
Low	<ul style="list-style-type: none"> <li>• Undesignated assets of local importance</li> <li>• Assets compromised by poor preservation and/or poor survival of contextual associations</li> <li>• Assets of limited value, but with the potential to contribute to local research objectives</li> </ul>
Negligible	<ul style="list-style-type: none"> <li>• Assets with very little or no surviving cultural heritage interest</li> </ul>
Unknown	<ul style="list-style-type: none"> <li>• Assets of limited value, but with the potential to contribute to local research Importance of the asset not ascertained</li> </ul>

Magnitude of Effect

8.4.28 The assessment of the magnitude of effect considers the extent to which the heritage asset may be changed or affected by the Proposed Development by reason of its location or design.

8.4.29 The thresholds for assessing magnitude of effect are set out in Table 8.5, which is derived from the DMRB.

**Table 8.5: Definition of Magnitude of Effect**

Major	<ul style="list-style-type: none"> <li>• Changes to most or all of the key cultural heritage elements</li> <li>• Comprehensive changes to setting</li> <li>• Extreme visual effects</li> </ul>
Moderate	<ul style="list-style-type: none"> <li>• Changes to many key cultural heritage elements such that the asset is clearly modified</li> <li>• Considerable changes to setting which affect the character of the asset</li> <li>• Visual changes to many key elements</li> </ul>
Minor	<ul style="list-style-type: none"> <li>• Changes to key cultural heritage elements such that the asset is slightly altered or different</li> <li>• Sight changes to setting</li> <li>• Slight visual changes to a few key elements</li> </ul>
Negligible	<ul style="list-style-type: none"> <li>• Very minor changes to cultural heritage elements, or setting</li> <li>• Virtually unchanged visual effects</li> </ul>
None	<ul style="list-style-type: none"> <li>• No change</li> </ul>

### Significance of Effect

- 8.4.30 A key step in the EIA process is to attach some measure of significance to the predictions of effect. No formal guidance exists for the assessment of significance of effects on heritage assets.
- 8.4.31 Table 8.6 illustrates how information on the value of the asset and the magnitude of effect are combined to arrive at an assessment of the significance of effect. This process doesn't mechanise the judgement for the significance of effect but serves as a check to ensure that judgements regarding value, magnitude and significance of effect are balanced. The correlation of these two sets of criteria is ultimately a matter of professional judgement supported by a reasoned professional explanation of the rationale behind the conclusions that are drawn. For example, a highly valued heritage asset may require only a limited amount of change to result in an effect that is assessed as moderate or large, whereas a greater magnitude of change is likely to be required to result in equivalent effects on a less sensitive asset.

**Table 8.6: Matrix for Assessing Significance Of Direct And Indirect Effects On Heritage Assets**

<b>Value of Asset</b>	<b>Very High</b>	<b>High</b>	<b>Medium</b>	<b>Low</b>	<b>Negligible</b>
<b>Magnitude of Effect</b>					
Major	Very Large	Large / Very Large	Moderate / Large	Slight / Moderate	Slight
Moderate	Large or Very Large	Moderate / Large	Moderate	Slight	Neutral / Slight
Minor	Moderate / Large	Moderate / Slight	Slight	Neutral / Slight	Neutral
Negligible	Slight	Slight	Neutral / Slight	Neutral / Slight	Neutral
No change	Neutral	Neutral	Neutral	Neutral	Neutral

- 8.4.32 In the context of the EIA Regulations an effect judged to be Moderate or greater is deemed to be 'Significant', and is presented as a shaded background in Table 8.6. Determinations of Moderate/Slight and Slight/Moderate do not constitute Significant effects. In the subsequent tables within this chapter, any effect which is considered to be Significant, under the EIA Regulations, is bold and accompanied by a note stating 'Significant'.
- 8.4.33 Effects judged to be Significant under the terms of the EIA Regulations do not necessarily equate in policy terms to 'Substantial Harm' and do not mean that the Proposed Development becomes unacceptable in planning terms. Ratings of significance are independent of 'acceptability' which is a judgement above and beyond that of significance. Acceptability is about the overall balance of benefits and harm from the proposals as viewed or weighted by national policy and development plan policies and determined in this case through the DCO examination process.

### Categories of Effect

8.4.34 Site-specific and scheme-wide effects of the Proposed Development on heritage assets were assessed in the following categories:

- **Direct:** where there would be a physical impact on a heritage asset caused by the Proposed Development, typically, although not exclusively, at the construction or decommissioning stage (see Paragraph 8.4.34);
- **Indirect:** where there would be visual (noise or other) effect on a heritage asset or its setting (see Stage 3 below), or the setting is affected physically a heritage asset or its setting may be affected visually, or where the setting is affected physically. The former is likely to occur during the operational life of the Proposed Development, the latter typically, although not exclusively, at the construction or decommissioning stage (see Paragraphs 8.4.35 to 8.4.57);
- **Cumulative:** where potential incremental effects arise in combination with other aspects of the Proposed Development or cumulatively with other relevant developments (see Paragraphs 8.4.58 to 8.4.61), and
- **Uncertain:** this may arise, for example, when it is unclear where the location or boundaries of a site lie, or where the baseline condition of a site cannot be established satisfactorily. In the case of the Proposed Development, 'uncertain' effects have not been identified.

### Direct Effects

8.4.35 Direct effects are most likely to impact on earthworks, buried archaeological sites and palaeo-environmental sites, and possibly also on conservation areas, historic landscapes, historic parks and gardens and battlefields. Indirect effects may additionally impact on above-ground archaeology and listed buildings.

### Indirect Effects: Views

8.4.36 Views and setting were important considerations in determining indirect effects.

8.4.37 Visual intrusion can occur both by looking out from an asset, and looking towards it from a different location. While all assets can be affected visually, this assessment has adopted a proportionate approach, and one whereby the main focus has been designated assets, non-designated registered assets and other significant non-designated assets (generally, those of at least medium value) and specifically those assets which are close enough to the Proposed Development to experience some degree of visual intrusion.

8.4.38 In describing indirect effects relating to views, the following terms are used:

- Near distance views - typically less than 250m;
- Middle distance views - typically between 250m and 1km; and
- Distant views - typically over 1km.

Indirect Effects: Settings

8.4.39 The risk of harm to setting is a material consideration (see sections 8.2.7 to 8.2.12, 8.2.14).

8.4.40 The PPW 2014 and Circulars 60/96 and 61/96 all stress the importance of the consideration of setting of heritage assets when assessing the effects of any proposed development. However, none of these documents attempt any substantial discussion as to what defines a setting.

8.4.41 In relation to Listed Buildings, setting is briefly discussed in Welsh Circular 60/96 and the Planning (Listed Buildings and Conservation Areas) Act 1990.

8.4.42 A Cadw guidance document entitled “Guide to Good Practice on Using the Register of Landscapes of Historic Interest in Wales in the Planning and Development Process” (Revised 2nd edition 2007) also contains a useful (albeit brief) discussion on the nature of setting.

*“There is no statutory definition of setting, but it could be considered as having two principal dimensions. Firstly, there is the immediate or essential setting which, in the case of a building, would be the ancillary land used with it or the curtilage. Secondly, there is the wider setting that, in the case of a building, may or may not be legally attached to it, may or may not be used with it, and is often part of the built environment or part of the countryside. Settings may not be as easily defined for field monuments, but it may be possible to make reasonable inferences based on archaeological, or historical, information. Setting should not be interpreted too narrowly, and for the purposes of this process, impacts on settings will be categorised as ‘indirect’ impacts.”*

8.4.43 Guidance relating to visual effects and the assessment of setting has been published by Historic Scotland and by English Heritage for use in their respective countries, but neither has been expressly endorsed by Cadw on behalf of Welsh Government for use in Wales. These documents have important and useful points to make and have been consulted during the preparation of this assessment.

8.4.44 Whilst Planning Policy Statement 5: Planning for the Historic Environment (PPS 5) has been superseded by the National Planning Policy Framework (NPPF) 2012, the PPS5 Practice Guide remains a valid and Government endorsed document, which is noted as remaining “almost entirely relevant and useful in the application of the NPPF” (EH 2013).

- 8.4.45 Within this Practice Guide, section HE10, paragraphs 113 - 117 provide a useful discussion on the nature and definition of the setting of a heritage asset:

*“Setting is the surroundings in which an asset is experienced. All heritage assets have a setting, irrespective of the form in which they survive and whether they are designated or not. 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.”* (113)

*“The extent and importance of setting is often expressed by reference to visual considerations. Although views of or from an asset will play an important part, the way in which we experience an asset in its setting is also influenced by other environmental factors such as noise, dust and vibration; by spatial associations; and by our understanding of the historic relationship between places. For example, buildings that are in close proximity but not visible from each other may have a historic or aesthetic connection that amplifies the experience of the significance of each. They would be considered to be within one another’s setting.”* (114)

*“Setting will, therefore, generally be more extensive than curtilage, and its perceived extent may change as an asset and its surroundings evolve or as understanding of the asset improves.”* (115)

*“The setting of a heritage asset can enhance its significance whether or not it was designed to do so. The formal parkland around a country house and the fortuitously developed multi-period townscape around a medieval church may both contribute to the significance.”* (116)

*“The contribution that setting makes to the significance does not depend on there being public rights or an ability to access or experience that setting. This will vary over time and according to circumstance. Nevertheless, proper evaluation of the effect of change within the setting of a heritage asset will usually need to consider the implications, if any, for public appreciation of its significance.”* (117)

- 8.4.46 Additionally, England’s National Planning Policy Framework (2012) defines the setting of a heritage asset 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”.*

- 8.4.47 Furthermore, both Historic Scotland and English Heritage have issued detailed guidance documents in relation to setting which offer further discussion and guidance on the topic: 'Managing Change in the Historic Environment: Setting' (Historic Scotland, 2010), 'The Settings of Heritage Assets' (English Heritage 2011) and 'Seeing the History in the View, a Method of Assessing Heritage Significance within View' (English Heritage, 2011).
- 8.4.48 Setting embraces all of the surroundings (land, sea, structures, features and skyline) from which the heritage asset can be experienced or that can be experienced from or with the asset. Setting does not have a fixed boundary and cannot be definitively and permanently described as a spatially bounded area or as lying within a set distance of a heritage asset.
- 8.4.49 In short, setting cannot be defined in any empirical way, i.e. as a certain area around a certain type of asset, setting is the landscape in which an asset sits and with which it directly interacts – and as such will be subjective.
- 8.4.50 Informally, a distinction can sometimes be made between the 'immediate' setting and the 'landscape' or 'extended' setting. 'Immediate' setting can be viewed as the piece of land within which the asset very directly sits and very directly relates to and interacts with'. The 'landscape' or 'extended' setting can be seen as the wider landscape which is influenced by the asset, and which in turn influences it.
- 8.4.51 Setting is not a heritage asset, nor a heritage designation. Its importance lies in what it contributes to the significance of the heritage asset (The Settings of Heritage Assets, English Heritage 2011).
- 8.4.52 The assessment of effects on setting is closely linked to the visual experience and the way we experience heritage assets and an area's character and sense of place. The setting of any heritage asset is likely to include a variety of views of, across, or including that asset, and views of the surroundings from or through the asset. The assessment of the possible effects of the Proposed Development on views can therefore directly assist in the assessment of the indirect effects on setting of the heritage asset.
- 8.4.53 Historic Scotland state that, '*Setting should be thought of as the way in which the surroundings of a historic asset or place contribute to how it is experienced, understood and appreciated*', and they note too that *defining that setting will ultimately rely on professional judgement based on a range of considerations*' (Managing Change in the Historic Environment: Setting' (Historic Scotland, 2010, Para. 3.2).
- 8.4.54 In conclusion, it is therefore the responsibility of the individual assessor to determine the most appropriate mechanism for describing and defining 'setting' in relation to assets in a particular Welsh context.

### Indirect Effects – ZTVs, Photomontages and Wireframes

- 8.4.55 In the absence of specific guidance in Wales for assessing the visual effects of development on setting, the assessment in this chapter drew in part on the approach presented in the landscape and visual assessment (LVIA) presented in Chapter 7: 'Landscape and Visual', including the Zone of Theoretical Visibility (ZTV), photomontages and wireframes.
- 8.4.56 As explained above in Section 8.4.8, the Study Area for the LVIA extends to approximately 2 km either side of the Final Route Alignment. Experience on similar projects, suggests that significant landscape and visual effects may occur within a distance of 2 km. At this distance a 12.5m high wood pole would appear less than 7mm high in the landscape. Beyond this distance effects may occur but are unlikely to be significant in terms of the EIA Regulations.
- 8.4.57 In consideration of potential effects of the Proposed Development on the Lower Elwy Valley and Denbigh Moors registered Historic Landscapes, ZTV plans were reviewed and it was concluded that any effects on the Lower Elwy and Denbigh Moors registered Historic Landscapes are unlikely to be more than local, and that there are unlikely to be any effects on the Vale of Clwyd registered Historic Landscape. In consultation with the guidance document (Cadw/NRW 2007), as per the consultation responses, potential effects do not meet the criteria for an ASIDOHL2, and this assessment has not therefore been undertaken.

### *Combined and Cumulative Effects*

- 8.4.58 The combined effect of similar developments concentrated in one area may be greater than the sum of the effects from the same developments when considered individually.
- 8.4.59 This cumulative effects assessment considers the effects of the Proposed Development interacting with the effects of other components of the North Wales Connection Project and other proposed and consented, related developments.
- 8.4.60 Two stages have been defined (see Chapter 4 'EIA Methodology' (DCO Document Ref 6.4)):
- **Stage 1** - Combined assessment of the North Wales Connection Project: including the Proposed Development, the Collector Substation, the works at St Asaph substation the underground cable route, the diversions of the lower voltage overhead lines and four consented wind farms (Clocaenog Forest, Brenig, Nant Bach and Derwydd Bach). N.B. Two of the consented wind farms (Nant Bach and Derwydd Bach) have been scoped out of this historic environment assessment due to remoteness from the Proposed Development.
  - **Stage 2** - Cumulative assessment: including Stage 1 developments as defined above, and all other relevant proposed developments.

8.4.61 In this assessment, combined and cumulative effects have been considered primarily in relation to designated assets, non-designated registered assets and other significant non-designated assets (generally those of at least medium value) and specifically those assets which are close enough to the Proposed Development to see some degree of visual intrusion.

*Nature of Effect (Beneficial, Adverse, Neutral)*

8.4.62 Effects have been assessed in terms of their nature, longevity and reversibility:

- **Adverse effects** are those that detract from the value of an historic environment asset through a reduction in or disruption of valuable components, or through the introduction of new inappropriate characteristics.
- **Neutral effects** occur where a development neither contributes to nor detracts from the value of an historic environment asset.
- **Beneficial effects** occur where effects contribute to the value of an historic environment asset or its setting,

In practice, developments of the type proposed more commonly give rise to adverse effects as opposed to beneficial effects. Effects described in this chapter are adverse unless otherwise stated, as these represent the vast majority of effects generated by the Proposed Development. Some beneficial effects have been recorded by this assessment in relation to the undergrounding of existing overhead lines.

*Reversibility*

8.4.63 Reversibility, the judgement as to whether a particular effect can be reversed in the long term, has been factored into this assessment. Potential indirect visual and noise effects during operation of the infrastructure itself are considered reversible following decommissioning. Potential direct effects and potential indirect effects such as physical landscape changes or dewatering, resulting from construction are not considered reversible as both may continue after decommissioning.

*Duration of effects*

8.4.64 The duration of time over which effects on heritage assets last has been factored into this assessment. The following terms are used:

- **Short-term:** Lasting up to 5 years – *temporary, reversible, indirect effects normally associated with the construction and decommissioning phases;*
- **Medium-term:** Lasting from 5 years up to 15 years – *temporary, reversible, indirect effects normally associated with the operational life of the development;*
- **Long-term:** Lasting more than 15 years - *temporary, reversible, indirect effects normally associated with the operational life of the development, and*

- **Permanent:** *Not reversible, occurring during the construction, operation or decommissioning phases.*

#### *Sources of Potential Effects*

#### Direct Effects Arising During Construction and Decommissioning

8.4.65 The working practices during construction and decommissioning that have the potential to generate direct effects on heritage assets, and which have been considered in this assessment include:

- Clearance of trees and hedgerows;
- Excavation of foundations for the double wood poles;
- Excavation of temporary winch pits;
- Excavation of overburden within the 'footprint' of the construction compound, working areas and access tracks;
- Ground investigations for geotechnical and other purposes;
- Handling and storage of build components;
- Handling and storage of soil, and
- Reinstatement works.

8.4.66 Direct effects from these working practices would be permanent and irreversible.

#### Direct effects arising during operation

8.4.67 The working practices during operation that have the potential to generate direct effects on heritage assets, and which have been considered in this assessment include:

- Ongoing access, inspection and maintenance visits to the Proposed Development.

8.4.68 The direct effects of these working practices would be permanent and irreversible.

#### Indirect Effects Arising During Construction and Decommissioning

8.4.69 The working practices during construction and decommissioning that have the potential to generate indirect effects on heritage assets, and which have been considered in this assessment include:

- Short-term/temporary visual intrusion from construction equipment during the erection of poles and the stringing of conductors; and
- Dewatering of permanently/seasonally-waterlogged deposits, resulting from changes to groundwater hydrology, following the excavation of winch pits.

8.4.70 The visual effects from these working practices would be short-term and temporary.

### Indirect Effects Arising During Operation

8.4.71 Operational effects that have the potential to generate indirect effects on heritage assets, and which have been considered in this assessment include:

- Long-term visual intrusion into the landscape from the overhead line;
- Alteration to the visual setting or tranquillity of heritage assets, and
- Alteration to the visual setting or tranquillity of the wider 'historic landscape'.

8.4.72 The visual effects of these working practices would be long-term and temporary.

### **Stage 3: Standard Mitigation Measures and Residual Effects**

8.4.73 The final stage in the assessment process is the establishment of measures envisaged to prevent, reduce and where possible offset any significant adverse effects on the historic environment by the Proposed Development.

8.4.74 Residual effects are those likely significant effects, which remain after the implementation of standard and detailed mitigation.

#### *Standard Mitigation*

8.4.75 Following the outcome of an assessment the following measures could be implemented as embedded mitigation or, alternatively, to provide information that allows for a more nuanced approach to mitigation.

- Preservation in situ (i.e. avoidance): A guiding principle in all developments is that heritage assets constitute a finite and non-renewable resource that should be preserved, unless there are convincing and overriding reasons for their damage or destruction. In accordance with Paragraph 5.8.14 of NPS EN1, the more significant the asset, the greater consideration should be given to preserving it in its present form, condition and location. Designated assets carry the highest weighting in terms of preservation in situ. Avoidance mitigation would also be recommended where assets of lesser importance can be readily avoided.
- Flexibility in the design of the Proposed Development allows for the positions of identified heritage assets to be taken into account. The tolerances inherent within the Limits of Deviation, for instance, allow for a degree of flexibility in relation to the siting of the poles, and there is further flexibility in defining working areas, lay-down areas and access routes in the Order Limits. Assets identified for preservation in situ would require demarcation (see below) to prevent accidental damage during construction work. With complete avoidance, any direct effect can be totally negated.

- **Demarcation:** Heritage assets which are inside or extend into the Order Limits should be demarcated on the ground using unique and readily visible materials and appropriate signage erected prior to the commencement of construction. They should be marked on plans within the CEMP and their condition regularly monitored throughout construction. The size of the protection zone and precise nature of demarcation should be proportionate to the importance, size and form of the asset. Demarcation should apply to any asset, whether or not it has already benefited from avoidance mitigation.
- **Preservation by record:** In cases where preservation in situ is not achievable, and where proposals would inevitably lead to the loss of an asset, sufficient recording should be undertaken to provide a full, accurate and permanent record of its nature, form, significance and dating. Preservation by record can take a number of forms, depending on the nature of the site in question, and may be achieved with or without excavation and could include any or all of the following: written record; drawn record; photographic record; artefactual record; detailed measured field survey and, environmental sampling. The level of detail required for preservation by record is normally a decision for the local authority's archaeological advisor.
- **Excavation:** Where an asset of low value is to be wholly or partly removed as a result of the Proposed Development, archaeological excavation may be required in advance of any construction works. This work would be subsumed under the more general heading of Preservation by Record.
- **Evaluation:** Where insufficient information exists regarding an asset for a decision to be made regarding its future management, a programme of investigative work may be proposed. Such investigation may include geophysical survey, topographical survey and trial trenching.
- **Observation, Investigation & Recording:** Archaeological observation may be recommended to include any construction activities with the potential to affect archaeology, in order to identify and record any previously unknown remains which do not form part of more formal mitigation, such as excavation. Such work is likely to focus on excavations for the installation of poles and stays and the stripping of any access tracks, working areas, lay-down areas and storage areas. Sufficient time should be allowed for adequate recording of any archaeological remains that are encountered, and in the case of significant assets, their continuing preservation will be considered by the appointed monitor in conjunction with SP Manweb, CPAT and the regional archaeological curator for Denbighshire.

### Construction Method Statement

8.4.76 A Draft Construction Method Statement, included in the Construction Environmental Management Plan (CEMP) (Appendix 2.1 (DCO Document Ref 6.18)), details best practice procedures to be followed for construction and decommissioning works (including reinstatement). This would include procedures for defining site access to avoid heritage assets and protect them from disturbance:

- The positions of heritage assets would be taken into account when defining access routes, working areas and temporary storage areas and, as necessary when micro-siting wood pole positions.
- Heritage assets identified along the course of the route may represent only a part of the total historic environment resource. In terms of on-site construction, the most practical and effective mitigation for undesignated assets, which may survive only as sub-surface deposits, involves carrying out a watching brief in potentially sensitive areas during the excavations for the installation of poles and stays. In the event that something of significance is identified, sufficient time would be allowed to ensure that an adequate record of the remains is made.

### Potential Limitations in Undertaking this Assessment

8.4.77 In terms of the main assessment, the main limitation identified relates to the field reconnaissance survey. This experienced impenetrable vegetation within most of the dingles, woodland and plantations crossed by the Proposed Development, thereby raising a small degree of uncertainty over the identification of previously unrecorded assets and the corroboration of some known assets (e.g. Llechryd cave (HERS 79456)). In addition, there was a degree of uncertainty over the interpretation of some of the newly discovered field survey remains.

8.4.78 In terms of the cumulative assessment, reliable and consistent information was available to undertake Stage 1 (combined assessment). In the case of Stage 2 (cumulative assessment), inconsistent information about the *proposed* developments and a general lack of pre-existing assessment has required a larger degree of professional judgement than normal, and the conclusions in Section 8.9 are accordingly conservative.

### Professional Guidance

8.4.79 The Chartered Institute for Archaeologists (CIfA) is the sole regulatory body for the archaeological profession. The baseline survey of the assessment was undertaken with reference to the CIfA:

- Code of Conduct, December 2014;
- Standards and Guidance for Historic Environment Desk-based Assessment, December 2014, and
- Standard and Guidance for Archaeological Field Evaluation, December 2014.

- 8.4.80 The key personnel in the compilation of this historic environment assessment are long-standing members of the ClfA and are employed by Network Archaeology, a Registered Organisation of the ClfA.

## 8.5 Baseline Context

- 8.5.1 This section presents the historic environment baseline, beginning first with a description of the natural environment of the Study Area, followed by the archaeological context and finally an assessment of the value of importance of heritage assets.
- 8.5.2 Throughout this section, the term 'Study Area' means the combined area of the above three Study Areas, unless otherwise stated. Where one of the narrower areas is discussed, this is explicitly stated (see Section 8.4.8).

### Description of the Study Area

- 8.5.3 The Proposed Development begins on the elevated upland moorlands and managed forestry of Clocaenog Forest, on the eastern portion of the Denbigh Moors, also known as Mynydd Hiraethog. It passes northwards through the lower, undulating hills that lie to the west of the Vale of Clwyd, over pasture lands interspersed with occasional wooded valleys. The Proposed Development continues northwards, passing to the west of the Meirchion Valley and then cuts across the Elwy Valley, both part of a deeply dissected landscape. The Proposed Development's terminal is on land sloping downwards towards the flatter landscape of the Vale of Clwyd, on the western edge of St Asaph.

### Archaeological Context of the Study Area

#### *Previous Landscape Studies*

- 8.5.4 The southern and north-eastern extremities of the Study Area border on areas that have seen extensive multi-period landscape studies. Prior to the construction of the Llyn Brenig reservoir from 1974 to 1976, large scale archaeological surveys were undertaken, leading to the investigation and excavation of over fifty sites. The Vale of Clwyd and the Clwydian Hills to the east have also been relatively well studied, with landscape characterisation studies and, for the Clwydian Hills, investigations in advance of quarry developments. Interpolating from these studies, it is possible to construct a broad narrative of the history of the development of the landscape extending back deep into the last ice age.
- 8.5.5 By contrast with these neighbouring areas, much of the Study Area has seen little recent development or research focus, and the Study Area as a whole must be considered to have some potential for the survival of as yet undiscovered archaeological remains.

*Palaeolithic and Mesolithic*

- 8.5.6 A series of caves in the sides of the Elwy Valley, within the eastern limit of the Study Area, are of great importance for the study of the Palaeolithic era. The most celebrated, the Pontnewydd cave, has a long and continuing history of excavation and research. Stone tools and Neanderthal remains have been recovered here, demonstrating the presence of hunter-gatherer communities in the region around 225,000 years ago. Stone tools were knapped for many purposes, including hunting, fishing and food preparation, and, along with the remains of prey animals, generally provide the bulk of the evidence for this Palaeolithic period, when north west Britain lay at the furthest northern limits of the settlement of Europe and successive periods of glaciation presented extreme environmental challenges for human occupation. Three other cave sites lower down the Elwy Valley, but still within the Study Area have produced evidence of possible activity: Cae Cronw, Cefn Caves and Matt's Cave. Palaeolithic deposits have been found at each location. A late Upper Palaeolithic Creswellian point, found in the nineteenth century, is the only recorded artefact from Cefn, despite more recent investigations having been carried out. Evidence from Matt's Cave is limited to flake and knapping debitage of chert
- 8.5.7 Mesolithic finds are much rarer, but there is some evidence for occupation in the Elwy Valley, including a flint blade from Plas Heaton Cave. A small cave in the Nant y Graig valley, excavated in the nineteenth century, may have included Mesolithic deposits, although the surviving collection of artefacts, in the National Museum of Wales, is more likely to be of Neolithic date.

*Neolithic and earlier Bronze Age*

- 8.5.8 The transition to settled agriculture, gaining from hunting and gathering as the principal subsistence method, marked the transition from Mesolithic to Neolithic and continued into the earlier Bronze Age. As in other areas of upland Britain, monumental earthworks dominate the archaeological record for this period, along with flint scatters. A major ceremonial landscape was investigated at the Llyn Brenig reservoir site and there are isolated burial monuments elsewhere to the south of the study area. A Neolithic chambered tomb at Tyddyn Bleiddyn, explored in the nineteenth century, contained human crouched burials along with other scattered bones, and a row of large stones at Tan-y-Graig may be the remains of an arrangement of standing stones. The cave sites of the Elwy Valley continued to be utilised into the Neolithic period.

8.5.9 A number of burial mounds are recorded in the Study Area. One member of a group of barrows at Plas Heaton excavated in 1850, contained a human burials accompanied by early Bronze Age Beaker pottery. Other round barrows near Henllan and near the south end of the Study Area survive as low mounds. It is likely that other barrows once present have been ploughed flat and now only survive, if at all, as sub-surface sites. Long established place names including elements such as 'garn' or 'carreg' may indicate the former presence of cairns or standing stones from this period.

8.5.10 Stray finds from the Study Area include three bronze axes, now in the National Museum of Wales, and a palstave axe in St Asaph Cathedral Library Museum.

#### *Later Prehistoric*

8.5.11 Although the introduction of metalworking in the middle of the third millennium BC has traditionally defined a new 'Age' within prehistory, there was at first much continuity in way of life. At this time, nationally, settlement remains begin to increase in number. Hillforts form the most visually spectacular site-type related to the Iron Age, and have dominated studies of the period just as they dominate the valleys which they were positioned to overlook.

8.5.12 The promontory hillfort of Bedd y Cawr (SM DE037) is strategically-located at the end of the Cefn Meiriadog ridge, on the east side of the Study Area. Other possible Iron Age enclosures are less well-preserved, but include examples at Segrwyd, and Pen-y-Gerddi and Bodeiliog Isaf Farms.

#### *The Roman Period*

8.5.13 Classical sources, from the first century BC and through the period of Imperial administration depict the native British organised into tribes and tribal confederations, the Study Area occupying part of the territory of the Deceangli, of which the Roman military had assumed control by around AD 60.

8.5.14 Despite the presence of a Roman road running through the north part of the Study Area, there is very little evidence that Roman material culture penetrated into the area. For most of the rural population, this period is perhaps better considered as a continuation of the pre-Roman Iron Age. Day-to-day life for people at pre-existing settlement sites may have continued very much as before. There is evidence, for instance, of ongoing occupation at some of the Nant-y-Craig cave sites.

8.5.15 The Roman road was part of the route from Chester (deva) to segontium, near Caernarfon, and connected two military installations: varae, probably just south of St Asaph, and canovium, at Caerhun by the River Conwy. Much of its line is followed by the present B5381, running west of St Asaph, and isolated earthwork banks and terraces, as well as patches of possible road metalling survive.

*Early Medieval*

- 8.5.16 The period following the breakdown of Roman authority in the province of Britain in the fifth century, was seminal in the formation of Wales and its distinct cultural identity and language. It was a time when Christianity became firmly established, spread by itinerant priests ministering to small dispersed settlements, many still recalled as saints, in the dedications of churches and in place names. For most of this period, the Study Area lay within the kingdom of Gwynedd, but from the eighth century, the increasingly powerful English kingdom of Mercia took control of the land east of the Clwydian Hills and much of the coastal region.
- 8.5.17 Tangible evidence from the period is very scarce, though a number of inscribed stones are known in the region, including one from Clocaenog, beyond the southern limit of the Study Area. The present-day ecclesiastical sites in the Study Area possibly have their origin in the early medieval period, probably initially as consecrated burial grounds. Church dedications to figures from the 'age of saints', such as St Nefydd at Llanefydd, St Tyrnog at Llandyrnog and St. Sadwrn at Henllan suggest instances where this is the case.

*Medieval*

- 8.5.18 The period following the Norman Conquest saw the consolidation of the feudal system of land holding and administration. In the Welsh Marches, extensive holdings were granted to feudal lords, allowing them to establish powerful fiefdoms and form a defensive Norman buffer against the kingdoms of the Welsh heartlands. The most characteristic monuments of this period are the motte-and-bailey castles, of earthworks reinforced with timber. The remains of many of these are known in eastern Denbighshire and Flintshire, and whilst some are known further west, none are recorded in the Study Area. That changed following the conquest of Wales by Edward I in 1282, when a new marcher lordship based on Denbigh was created.
- 8.5.19 The legal position of the Marches was anomalous, their being outside the jurisdiction of English law and beyond the reach of the Welsh legal system. This gave the Marcher lords almost complete power, moderated only by their subservience to the English monarch. Eventually, a law code for the Marches was established, but the position was not resolved until a series of acts of Parliament between 1536 and 1543 saw the English legal system applied to Wales, effectively implementing an act of union.
- 8.5.20 It seems likely that much of the template of the present-day patterns of rural settlement and land division was established during the medieval period. In the hill country, seasonal pastoral farming based on a hafod (summer dwelling) would have been normal practice, and sites of old hafodydd are known from Mynydd Hiraethog.

- 8.5.21 Structural remains survive, especially from the later part of the period, in the parish churches and in the fabric of a number of the farmhouses and larger country houses within the Study Area. Cefn Meiriadog, Llandyrnog and Henllan churches all contain fifteenth-century masonry, as do Foxhall, Foxhall Newydd, Eriviat Hall and Tan Llan farmhouse, Llanefydd.
- 8.5.22 Possible earthwork sites from the period include the remains of banked enclosures at Foxhall and at Bodelwyddan, and the remains of ridge-and-furrow cultivation, probably of medieval or early post-medieval date, noted from air photographs in the Cefn Meiriadog area
- Post-medieval*
- 8.5.23 Of the heritage assets identified within the Study Area, by far the majority are post-medieval in date. The current pattern of the rural landscape was largely consolidated between the later sixteenth and eighteenth centuries, and almost all the present-day farms are built around a nucleus of buildings from this date. Many of the farmhouses in the Study Area are Grade II listed structures, listing also extending in some cases to ancillary agricultural buildings, such as barns, granaries, cow sheds, pigsties and cart sheds.
- 8.5.24 Of particular note is the sixteenth-century home of Katheryn of Berain. Katheryn inherited, at a young age, the Berain estate from her father, but also inherited estates in Anglesey, settled on her maternal grandfather by Henry VII, generally thought to have been his natural father. Through her four marriages and numerous descendents, Katheryn became a pivotal figure in Welsh genealogical history, an ancestor of many prominent families.
- 8.5.25 Large country houses, set in landscaped grounds, and largely of post-medieval date include Garn, Plas Heaton and Gwynynog, as well as Bodelwyddan Castle, a sixteenth- and seventeenth-century mansion remodelled as a medieval castle in the nineteenth century.
- 8.5.26 There are a number of watermills, generally converted for residential use where they survive. Most were related to the woollen cloth industry, though there are examples that were used to power production of usable ores from the lead mines. The remains of mines are particularly concentrated in the Cefn Meiriadog and Bodelwyddan areas, though one is recorded in Pandy, Llansannan. The remains of the lime industry are represented by a series of kiln sites, with their associated quarry pits, on the Carboniferous Limestone areas towards the northern end of the Study Area. Quarries for building stone and road hoggins are also recorded.
- The Modern Period*
- 8.5.27 The twentieth century saw considerable changes to the landscape, with the construction of reservoirs and widespread afforestation at the southern end of the Study Area, to the growth of the leisure and tourism industries, but the area retains much of its rural, agricultural character.

- 8.5.28 Of heritage assets dating to this period, the most significant is the system of World War I practice trenches in the grounds of Bodelwyddan Castle.
- 8.5.29 A group of structures from the 1960s, in their landscape setting at Brynbach, constitute a well-preserved example of a scout camp of the period. Other assets include listed telephone call boxes, of K6-type dating back to 1936, at Bontnewydd and Peniel.

### **LANDMAP**

- 8.5.30 The Proposed Development crosses five Historic Landscape Aspect Areas of which the overall evaluation score of two are High, two are Moderate and one is Low.
- 8.5.31 In addition, the 2km-wide Study Area crosses a further nine Historic Landscape Aspect Areas of which the overall evaluation score of one is Outstanding, four are High, three are Moderate and two is Low (Appendix D).

### **TAN 8 Strategic Search Areas**

- 8.5.32 Clocaenog Forest (A) SSA is characterised as elevated upland moorlands and coniferous plantation, mostly over 350m AOD, covering over 100 km<sup>2</sup>, on the eastern portion of the Denbigh Moors.

### **Assessment of Value of Heritage Assets**

- 8.5.33 The following section considers the value of heritage assets within each of the three defined Study Areas.
- 8.5.34 The value attributed to each asset was assigned through professional judgement based on the criteria set out in Table 8.1.
- 8.5.35 A gazetteer of heritage assets, which identifies, describes and assesses the value of heritage assets can be found in Appendix 8.1 (Historic Environment Technical Report<sup>3</sup>, Appendix F (DCO Document Ref 6.21)). This table includes all assets in the 100m-wide Study Area, 200m-wide Study Area, and the 4km-wide Study Area. The table is ordered by the source type and the asset's primary reference number. Where relevant, cross-reference is made to related assets.
- 8.5.36 Each heritage asset is shown as point, line or polygon data in Figures 2-32, at Appendix 8.2 (DCO Document Ref 6.21)
- 8.5.37** Values of assets, identified within the three defined Study Areas, are summarised below in Table 8.7.

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<sup>3</sup> Note: Appendix 8.1 'Historic Environment Technical Report' (DCO Document Ref 6.21) includes information on the Proposed Development and other elements of the Wider Scheme

**Table 8.7: Quantification of the Values of Heritage Assets in the Three Defined Study Areas**

<b>Heritage Asset Value</b>	<b>Assets within the 100m-wide Study Area</b>	<b>Assets within the 200m-wide Study Area</b>	<b>Assets within the 4km-wide Study Area</b>
Very High	0	0	0
High	0	0	120
Medium	2 (2)	0	26
Low	43 (30)	16 (2)	434
Negligible	57 (46)	32 (2)	59
Unknown	5 (4)	1	8
<b>Totals</b>	<b>107 (82)</b>	<b>49 (4)</b>	<b>647</b>

Notes: 1) Numbers in brackets are the count of assets within the Study Area which are also in the Order Limits; 2) The counts in each Study Area are exclusive to one another

8.5.38 Table 8.8 provides a breakdown of medium and high value heritage assets by type of asset in each of the three defined Study Areas.

**Table 8.8: Summary of Designated, Registered And Significant Undesignated Assets Within The Three Defined Study Areas**

Heritage Asset Type	Heritage Asset Value	Assets within the 100m-wide Study Area	Assets in the 200m-wide Study Area	Assets within the 4km-wide Study Area
Listed Buildings (Grade I and II*)	High	0	0	12
Listed Buildings (Grade II)	High	0	0	90
Historic Parks and Gardens	High	0	0	5
Registered Historic Landscapes	High	0	0	2
Scheduled (Ancient) Monuments	High	0	0	11
Conservation Areas	Medium	0	0	1
Significant Undesignated Assets	Medium	2	0	20

### Historic Boundaries and Important Hedgerows

- 8.5.39 The field boundaries oversailed by the Proposed Development have been assessed in Appendix 8.1 (the Historic Environment Technical Assessment Report (DCO Document Ref 6.21)). Appendix F of that Report identifies, describes and assesses each boundary against the archaeological criteria of the Hedgerow Regulations and determines an overall value of each boundary (see Sections 8.2.13 and 8.4.22 of this chapter above),
- 8.5.40 The Proposed Development oversails 145 field boundaries. No man-made features relating to parish boundaries are oversailed, as these all follow natural watercourses within the Order Limits.
- 8.5.41 Of the field boundaries oversailed, 60 are potentially 'historic' (i.e. pre-enclosure), as they meet the archaeological criteria of the Hedgerow Regulations. Of these potentially 'historic' boundaries, 40 include an 'Important Hedge'.
- 8.5.42 In reality, some of the boundaries identified as being 'historic' may in fact be pre-enclosure or later, and some of those identified as not being 'historic' may prove to be so.
- 8.5.43 The 60 'historic' field boundaries, whether with or without Important Hedges, are considered to be of Low value.

### **Below-ground archaeology**

- 8.5.44 There is potential for below-ground archaeology, as yet undiscovered along the route of the Proposed Development.
- 8.5.45 Peat deposits of palaeo-environmental importance potentially exist within the upland moorland, within the floodplain of the River Elwy and potentially also within the Afon Ystrad, Afon Asa and Bryn Isaf dingles.

## **8.6 Embedded Mitigation**

- 8.6.1 The design process for the Proposed Development has sought to avoid heritage assets, at all stages - from the initial routeing study, which led to the identification of the Broad Route Corridors, to the development of the Order Limits, the Limits of Deviation and the 132 kV Overhead Line which are the focus of this assessment. Throughout this process, particular attention has been paid to designated assets, non-designated registered assets and also to other significant non-designated assets.
- 8.6.2 The selection of double wood poles, was also an important contributor in this process of embedding mitigation through design.

## **8.7 Assessment of Effects**

- 8.7.1 This section identifies, describes and assesses potential effects generated by the Proposed Development throughout its life-cycle.
- 8.7.2 Likely sources of effect and the approach adopted in determining environmental effects are presented in Paragraphs 8.4.23 to 8.4.80 above.
- 8.7.3 The assessed effects are considered under the headings 'Construction and Decommissioning', and 'Operation'.

### **Construction and Decommissioning: Assessment of Direct Effects in the Order Limits**

- 8.7.4 A description and summary assessment of the potential direct effects of the Proposed Development on heritage assets within the Order Limits is provided below in Table 8.9. The table identifies the reference number, name and type of each asset, its value or importance, the predicted magnitude of any direct effect before mitigation and the significance of the effect. The table is populated in alpha-numeric order by reference number.

**Table 8.9: Potential Direct Effects on Heritage Assets within the Order Limits**

Reference	Description	Period	NGR	Distance (m) from Final Route Alignment	Distance (m) from Order Limits	Value	Magnitude Of Effect (Before Mitigation)	Significance Of Effect	Figures <sup>4</sup>
AW 28541	Ancient woodland, Coed Buckley	Early Modern	300538 370815	0	0	Low	D-Negligible	Neutral/Slight	27, 28
AW 28544	Ancient woodland: Nant y Graig dingle	Early Modern	300170 371374	12	0	Low	D-Minor	Neutral/Slight	29
AW 28546	Ancient woodland: south side Elwy valley	Early Modern	299462 371921	0	0	Low	D-Minor	Neutral/Slight	30, 31
AW 28679	Ancient woodland, Coed Salusbury south	Early Modern	301317 367328	0	0	Low	D-Minor	Neutral/Slight	22
AW 30155	Ancient woodland: Hafod Dingle	Early Modern	300675 368435	0	0	Low	D-Minor	Neutral/Slight	24
AW 35052	Ancient woodland: west of Berain	Early Modern	300520 369710	30	13	Low	D-Minor	Neutral/Slight	26
AW 37253	Ancient woodland: Coed y Foel, Peniel	Early Modern	303216 362697	40	30	Low	D-Negligible	Neutral/Slight	13
AW 46530	Plantation, Coed Salusbury north	Early Modern	301374 367435	0	0	Negligible	D-Moderate	Neutral/Slight	22
AW 46744	Plantation, Pandy Wood	Early Modern	302496 364246	0	0	Negligible	D-Moderate	Neutral/Slight	15, 16
DBA:AE	Former field boundary, Erriviat-bach-isaf	Early Modern	301617 367220	72	62	Negligible	D-Negligible	Neutral	21, 22

<sup>4</sup> See Appendix 8.2 'Figures' DCO Document Ref 6.21

Reference	Description	Period	NGR	Distance (m) from Final Route Alignment	Distance (m) from Order Limits	Value	Magnitude Of Effect (Before Mitigation)	Significance Of Effect	Figures <sup>4</sup>
DBA:AF	Former field boundary, Eriviat	Early Modern	301627 366915	37	27	Negligible	D-Negligible	Neutral	21
DBA:AG	Former field boundary, Eriviat	Early Modern	301659 366802	26	16	Negligible	D-Minor	Neutral	21
DBA:AH	Former field boundary, Erriviat	Early Modern	301891 366679	0	0	Negligible	D-Minor	Neutral	20, 21
DBA:AI	Former field boundary, Erriviat	Early Modern	301878 366209	0	0	Negligible	D-Minor	Neutral	19, 20
DBA:AJ	Former field boundary, N side A543	Early Modern	301723 365425	0	0	Negligible	D-Major	Slight	18, 19
DBA:AK	Farm building (site of), north of A543	Early Modern	301701 365343	5	0	Low	D-Major	Slight/Moderate	18
DBA:AL	Former field boundary, Goppa Farm	Early Modern	301822 365285	52	42	Negligible	D-Minor	Neutral	18
DBA:AN	Former field boundary, S side A543	Early Modern	301751 365212	0	0	Negligible	D-Moderate	Neutral/Slight	18
DBA:AP	Former field boundary, Goppa Farm	Early Modern	301567 364994	0	0	Negligible	D-Moderate	Neutral/Slight	18
DBA:AT	Former field boundary, Bodeiliog-uchaf	Early Modern	301817 364419	0	0	Negligible	D-Moderate	Neutral/Slight	16, 17
DBA:AU	Former field boundaries, Bryn-amlwg	Early Modern	302009 364268	0	0	Negligible	D-Minor	Neutral	16, 17
DBA:AW	Former field boundary, Pandy	Early Modern	302278 364171	16	6	Negligible	D-Minor	Neutral	16

Reference	Description	Period	NGR	Distance (m) from Final Route Alignment	Distance (m) from Order Limits	Value	Magnitude Of Effect (Before Mitigation)	Significance Of Effect	Figures <sup>4</sup>
DBA:AY	Former buildings, Bod-ysgawen-isaf	Early Modern	299859 372067	31	13	Low	D-Moderate	Neutral/Slight	30
DBA:AZ	Former track, Bod-ysgawen-isaf	Early Modern	299719 371997	0	0	Low	D-Minor	Neutral/Slight	30
DBA:BB	Former field boundary, Bod-ysgawen-isaf	Early Modern	299938 371738	0	0	Negligible	D-Minor	Neutral	29, 30
DBA:BE	Former field boundary, Bryniau-bychain	Early Modern	299873 371333	0	0	Negligible	D-Moderate	Neutral/Slight	29
DBA:BG	Former field boundary, Bryniau-bychain	Early Modern	299936 371071	0	0	Negligible	D-Minor	Neutral	28, 29
DBA:BH	Former field boundary, Bryniau-bychain	Early Modern	300134 371080	44	25	Negligible	D-Minor	Neutral	28, 29
DBA:BJ	Former building, Tyddyn Bartley	Early Modern	300500 370177	46	36	Low	D-Moderate	Slight	27
DBA:BL	Former field boundary, Berain	Early Modern	300628 369960	0	0	Negligible	D-Moderate	Neutral/Slight	26, 27
DBA:BM	Former field boundaries, Berain	Early Modern	300607 369652	0	0	Negligible	D-Moderate	Neutral/Slight	26
DBA:BO	Former field boundary, Llechryd	Early Modern	300663 368698	0	0	Negligible	D-Major	Slight	24, 25
DBA:BP	Former field boundary, Pen Parc Llwyd	Early Modern	300768 367918	0	0	Negligible	D-Moderate	Neutral/Slight	23
DBA:BS	Former field boundary, Plas Hafod	Early Modern	300080 372384	10	0	Negligible	D-Minor	Neutral	31

Reference	Description	Period	NGR	Distance (m) from Final Route Alignment	Distance (m) from Order Limits	Value	Magnitude Of Effect (Before Mitigation)	Significance Of Effect	Figures <sup>4</sup>
DBA:BT	Former field boundary, Plas Hafod	Early Modern	299912 372280	0	0	Low	D-Moderate	Slight	30, 31
DBA:BV	Former field boundary, Plas Newydd	Early Modern	300397 372997	0	0	Negligible	D-Major	Slight	32
DBA:BY	Former field boundary and possible flood/drainage feature, Plas Hafod	Early Modern	299947 372337	0	0	Low	D-Minor	Neutral/Slight	31
DBA:BZ	Lime kiln (site of), Bod-ysgawen-isaf	Early Modern	299954 371523	31	11	Low	D-Major	Slight	29
DBA:CA	Former field boundary, Bryniau-bychain	Early Modern	300001 371048	73	63	Negligible	D-Minor	Neutral	28, 29
DBA:CC	Former building, Croen-llwm-mawr	Early Modern	300552 370193	3	0	Low	D-Major	Slight/Moderate	27
DBA:CD	Former pond, Berain	Early Modern	300640 370064	12	0	Negligible	D-Major	Slight	27
DBA:CF	Former field boundary, Hafod	Early Modern	300603 368485	0	0	Negligible	D-Major	Slight	24
DBA:CG	Former drain, Hafod	Early Modern	300679 368343	0	0	Negligible	D-Moderate	Neutral/Slight	24
DBA:CI	Former field boundary, S side A543	Early Modern	301623 365166	0	0	Negligible	D-Moderate	Neutral/Slight	18
DBA:CJ	Former field boundary, Ty-coch: Field boundary	Early Modern	302722 363824	0	0	Low	D-Moderate	Slight	15
DBA:CK	Former field boundary, Plas Captain	Early Modern	303157 363477	0	0	Negligible	D-Minor	Neutral	14, 15

Reference	Description	Period	NGR	Distance (m) from Final Route Alignment	Distance (m) from Order Limits	Value	Magnitude Of Effect (Before Mitigation)	Significance Of Effect	Figures <sup>4</sup>
DBA:CM	Former field boundary, Hendy	Early Modern	303329 363185	9	0	Negligible	D-Minor	Neutral	14
DBA:CO	Former field boundary, Tan-y-garth	Early Modern	303313 362656	2	0	Negligible	D-Moderate	Neutral/Slight	13
DBA:CP	Former field boundary, Tan-y-garth	Early Modern	303363 362608	0	0	Negligible	D-Major	Slight	13
DBA:CQ	Former field boundary, Bryn Foel	Early Modern	303021 361477	0	0	Negligible	D-Minor	Neutral	11
DBA:CT	Former drains, Bryn Golau	Early Modern	302328 360857	0	0	Negligible	D-Moderate	Neutral/Slight	9, 10
DBA:CV	Former field boundary, Brynbach: Field boundary	Early Modern	301211 358893	38	18	Negligible	D-Minor	Neutral	6
DBA:CW	Former field boundary, Brynbach	Early Modern	301311 358941	21	5	Negligible	D-Major	Slight	6
DBA:CX	Former drain, Brynbach	Early Modern	301297 358961	0	0	Negligible	D-Major	Slight	6
DBA:DA	Former field boundary, Hafod Ty Ddu	Early Modern	301376 359646	0	0	Low	D-Minor	Neutral/Slight	7, 8
DBA:DE	Former field boundary, Plas Hafod	Undetermined	299931 372568	17	7	Low	D-Minor	Neutral/Slight	31
DBA:DG	Former drain, Bryniau-bychain	Modern	300090 371297	35	25	Negligible	D-Minor	Neutral	29
DBA:DI	Former field boundary, Bryniau-bychain	Undetermined	300057 370888	74	64	Negligible	D-Minor	Neutral	28

Reference	Description	Period	NGR	Distance (m) from Final Route Alignment	Distance (m) from Order Limits	Value	Magnitude Of Effect (Before Mitigation)	Significance Of Effect	Figures <sup>4</sup>
DBA:DJ	Former ditch, Croen-Ilwm-mawr	Modern	300393 370686	6	0	Negligible	D-Minor	Neutral	28
DBA:DK	Ridge and furrow, Croen-Ilwm-mawr	Medieval	300367 370343	0	0	Low	D-Major	Neutral/Slight	27
DBA:DL	Former field boundary, Croen-Ilwm-mawr	Modern	300621 370169	32	10	Negligible	D-Moderate	Neutral/Slight	27
DBA:DN	Possible settlement	Undetermined	300699 369026	41	31	Low	D-Minor	Neutral/Slight	25
DBA:DR	Former field boundary, Bryn-amlwg	Modern	302029 364321	0	0	Negligible	D-Moderate	Neutral/Slight	16, 17
DBA:DS	Former field boundary, Pandy	Modern	302518 364058	10	0	Negligible	D-Major	Slight	15, 16
DBA:DT	Former field boundary, Bron Heulag	Modern	303163 362046	0	0	Negligible	D-Moderate	Neutral/Slight	12
DBA:DX	Possible cairn, Hafod Ty Ddu	Undetermined	301292 359339	24	14	Negligible	D-Major	Neutral	7
FSU:006	Former field boundary	Post-medieval, Early Modern	301606 359958	0	14	Low	D-Minor	Neutral/Slight	8
FSU:008	Ridge & furrow	Medieval	301646 360042	0	0	Low	D-Moderate	Neutral/Slight	8
FSU:009	?Natural mound (non-antiquity), ?building platform	Undetermined	301935 360345	0	3	Low	D-Major	Slight/Moderate	8, 9

Reference	Description	Period	NGR	Distance (m) from Final Route Alignment	Distance (m) from Order Limits	Value	Magnitude Of Effect (Before Mitigation)	Significance Of Effect	Figures <sup>4</sup>
FSU:011	?Buried remains	Undetermined	302786 361256	0	9	Low	D-Major	Slight	10, 11
FSU:012	?Buried remains	Undetermined	302827 361281	0	0	Low	D-Major	Slight/Moderate	10, 11
FSU:018	Stone quarrying	Post-medieval, Early Modern	303168 362033	0	0	Negligible	D-Major	Slight	12
FSU:023	Palaeochannel	Undetermined	303363 362779	0	0	Unknown	D-Major	Slight/Moderate	13
FSU:024	Palaeochannel	Undetermined	303333 362829	0	0	Unknown	D-Major	Slight/Moderate	13
FSU:026	Palaeochannel	Undetermined	302767 363871	0	0	Unknown	D-Minor	Neutral/Slight	15
FSU:031	Ridge & furrow (extant)	Medieval	301639 364758	0	0	Low	D-Moderate	Neutral/Slight	17
FSU:033	?Natural mound (non-antiquity), ?building platform	Post-medieval, Early Modern	301173 367535	0	9	Low	D-Major	Slight	22
FSU:034	?Boundary bank	Post-medieval, Early Modern	301573 367125	0	9	Low	D-Major	Slight	21, 22
FSU:040	?Non-antiquity, ?cairn	Undetermined	300711 368748	0	30	Low	D-Major	Slight/Moderate	24, 25

Reference	Description	Period	NGR	Distance (m) from Final Route Alignment	Distance (m) from Order Limits	Value	Magnitude Of Effect (Before Mitigation)	Significance Of Effect	Figures <sup>4</sup>
FSU:041	?Non-antiquity, ?cairn	Undetermined	300685 368811	0	0	Low	D-Major	Slight/Moderate	25
FSU:042	Construction platform	Modern	300667 368901	0	0	Negligible	D-Major	Slight	25
FSU:045	?Natural hollow (non-antiquity), ?drainage	Post-medieval, Early Modern	300555 370148	0	24	Low	D-Major	Slight/Moderate	27
FSU:046	Stone quarry	Modern	300316 370529	0	0	Negligible	D-Major	Slight	27, 28
FSU:048	Former tree-throw (non-antiquity), ?borrow pit	Undetermined	299925 371519	0	0	Negligible	D-Major	Slight	29
FSU:050	Rumbler drain or buried wall	Undetermined	299874 371888	0	0	Negligible	D-Major	Slight	30
FSU:052	Former field boundary or flood/drainage feature	Undetermined	299922 372356	0	1	Low	D-Minor	Neutral/Slight	31
FSU:055	Building platform	Post-medieval, Early Modern	300187 372859	0	63	Low	D-Major	Slight	32
HERS 48103	Eriviat Hall country house parkland estate	Post-medieval	301461 366051	0	0	Medium	D-Minor	Slight	5
HERS 72413	Peniel, boundary stone	Post-medieval	302690 364090	160	150	Low	D-Major	Slight/Moderate	2
HERS 79456	Llechryd cave, Hafod Dingle	Undetermined	300640 368430	9	0	Unknown	D-Minor	Slight/ Moderate	4
NMR 32266	Ffynnon Asa, Hafod Dingle spring	?Medieval	300630 368450	3	0	Low	D-Major	Slight/Moderate	5

- 8.7.5 Full assessment of the assets, summarised below in Table 8.9 has been undertaken and is presented within Appendix 8.1 'Historic Environment Technical Assessment Report' (DCO Document Ref 6.21). For assets entirely within and extending into the Order Limits the worst-case for the potential impact on the identified assets in the Order Limits is assumed. For this particular development, worst-case does not mean total loss on account of the small-scale nature of the construction activities.
- 8.7.6 Direct impacts on designated or registered assets by the Proposed Development have not been identified. No Significant effects have been identified.
- 8.7.7 All but one of the assets within or extending into the Order Limits is of low or negligible value. They are represented by extant and below ground remains of agriculture or local industry, many of which are linear (e.g. former field boundaries and tracks, visible on aerial photographs and historic maps). There is potential for direct impact from pole locations, working areas, construction traffic and general construction activities, affecting a proportion/cross-section of these assets, but they are not of sufficient importance for indirect effects to be of significance. In most cases, only a small part of the asset is crossed by the project boundary and the effects are of Minor or Moderate magnitude and, therefore of Slight, Neutral/Slight or Neutral significance.
- 8.7.8 Several areas of Ancient Woodland are crossed by the Proposed Development. Areas containing Ancient Semi-Natural Woodland have been assessed as being of Low value, whilst those where Plantations now exist on areas previously comprising Ancient Woodland have been assessed as being of Negligible value. In most, only a small part of the asset is crossed by the project boundary and the direct effects are of Minor or Moderate magnitude and, therefore of Slight, Neutral/Slight or Neutral significance. Where the Proposed Development bisected areas of Ancient Woodland, the assessed magnitude of direct effect was considered to be higher than where it crossed the side of the woodland.
- 8.7.9 Some of the assets, within or extending into the Order Limits, are represented by defined areas of extant remains, such as mounds and structures. There is potential for direct impact from pole locations, working areas, construction traffic and general construction activities, affecting a proportion of these assets, but they are not of sufficient importance for indirect effects to be of significance. Unlike the linear assets, similar direct impacts on the assets with discrete areas were judged as being likely to have greater adverse effect, and so the impacts were weighted accordingly. As a consequence, the assessed effects included some of Minor magnitude but many were judged to be of Moderate and Major magnitude of effect, and, therefore of Moderate/Slight, Slight, Neutral/Slight or Neutral significance.

8.7.10 Nine of the more significant (medium value and upper end low value), undesignated assets in Table 8.9 merit individual discussion, on account of their form or location giving them greater potential for adverse effects resulting from design change within the Order Limits:

- Eriviat Hall country house parkland estate (HERS 48103) is crossed by the Proposed Development. Potential direct effects have been assessed as being 'minor' on the basis that the Order Limits cross a very small part of the east side of the parkland and, therefore, effects are most likely to be limited to this area..
- Llechryd cave, Hafod Dingle (HERS 79456) is recorded within the Order Limits. This could not be corroborated by recent survey, however, which failed to locate the cave due to dense undergrowth. For the purposes of this assessment, the cave has been assessed as being of low value. Its true value is unknown on account of a lack of information regarding the nature of any deposits it might contain, and an absence of scientific assessment. Direct effects might occur at the cave's entrance but potential deposits within the cave are unlikely to be directly affected. Direct effects are likely to be negligible but could potentially be minor. Potential indirect effects on the cave are discussed below. The overall significance of the direct and indirect effects have been cautiously assessed as slight/moderate and, therefore, not Significant.
- Peniel boundary marker (HERS 72413) is located within an access track and therefore potentially subject to a direct 'major' effect.
- Six mounds (DBA:DX, FSU:009, FSU:033, FSU:040, FSU:041, FSU:056), which may be archaeological or non-antiquities, are located within the Order Limits. Potential direct effects have been assessed as being 'minor' or 'moderate', depending on their form and the amount of each asset within the Order Limits and Limits of Deviation.

### **Historic Hedgerows and Important Hedgerows**

8.7.11 The Proposed Development oversails 145 field boundaries of which 62 meet the archaeological criteria of the Hedgerow Regulations (see Section 2.3.3). Of these, 40 incorporate a hedge. These hedges count as 'Important Hedges' under the Regulations. The field boundaries oversailed by the Proposed Development have been assessed in Appendix 8.1 'Historic Environment Technical Assessment Report' (DCO Document Ref 6.21) and are shown on Figures 6-32 at Appendix 8.2' Figures (DCO Document Ref 6.21).

8.7.12 The historic boundaries are numbers 001-002, 003-005, 003-006, 006-008, 009-011, 014-015, 017-018, 018-019, 023-025, 025-026, 035-037, 038-041, 041-042, 086-088, 100-101, 101-102, 102-103, 104-105, 105-108, 109-110, 111-112, 115-116, 116-117, 117-118, 118-120, 120-121, 121-123, 123-125, 126-127, 130-131, 131-132, 134-135, 135-137, 137-138, 138-140, 140-141, 142-143, 143-144, 145-147, 147-148, 148-149, 149-151, 151-152, 152-153, 154-156, 156-157, 157-158, 159-162, 162-163, 166-167, 167-168, 169-171, 171-174, 175-176, 176-178, 179-181, 182-184, 184-185, 185-186, 186-188, 188-189.

- 8.7.13 The boundary number is derived from the plot numbers to either side. Boundaries can be located by these plot numbers, which are shown on the figures.
- 8.7.14 The 'historic' boundaries, whether incorporating an Important Hedgerow or not, are considered of low value. Potential direct impacts on the 'historic' boundaries may arise from the pole/stay locations and from clearance of trees and hedgerows for the creation of construction access. Potential effects are judged as minor, on account of the linear form of the boundaries and the small section of each boundary potentially affected. The assessed effects are Neutral/Slight and, therefore, not Significant.

#### **Below-ground Archaeology; As Yet Undiscovered**

- 8.7.15 There is potential for direct impacts during construction on below-ground archaeology and peat deposits, as yet undiscovered, in areas which are apparently blank (see Section 8.5.44). Given the small-scale nature of the main construction activity, the excavation of pole foundations, potential direct impacts are unlikely to be greater than minor and, therefore, not Significant.

#### **Construction and Decommissioning: Assessment of Indirect Effects on Setting**

- 8.7.16 The most likely indirect effect during the construction and decommissioning phases of the Proposed Development would be visual intrusion during the erection of poles, and the stringing of cables, and from the movement of construction traffic. The effect is judged to be not Significant, on account of it being both short-term and temporary, and of Negligible magnitude.

#### **Operation: Assessment of Direct Effects Within the Order Limits**

- 8.7.17 The Proposed Development would require only occasional inspection and maintenance visits, during which significant direct effects on heritage assets will not arise as within the remit of the DCO. Direct operational effects will not therefore be considered further in this assessment.

#### **Operation: Assessment of Indirect Effects**

- 8.7.18 The following sections first summarise and then present the detail of the predicted long-term but temporary indirect effects of the Proposed Development.
- 8.7.19 A total of 1 beneficial indirect minor effect and 68 adverse indirect effects have been identified by this assessment. The predicted magnitude of indirect adverse effects are summarised by asset *value* in Table 8.10 below.

**Table 8.10: Count of Magnitude of Indirect Effects by Value of Asset**

Value of Asset	Major	Moderate	Minor	Negligible	None	Total Count
Very High	0	0	0	0	0	0
High	0	4	14	46	69	133
Medium	0	0	2	1	25	28
Low	0	0	0	0	493	493
Negligible	0	0	0	0	148	148
Unknown	0	1	0	0	13	14
<b>Totals</b>	<b>0</b>	<b>5</b>	<b>16</b>	<b>47</b>	<b>748</b>	<b>816</b>

8.7.20 The predicted magnitude of indirect adverse effects are summarised by asset type in Table 8.11 below.

**Table 8.11: Summary Of Predicted Indirect Effects On Designated and Registered And Their Settings**

Asset Type	Large/ Very Large (Significant)	Large (Significant)	Moderate/ Large (Significant)	Moderate/ Slight	Neutral/ Slight	Slight	Neutral
Scheduled (Ancient) Monuments	0	0	0	1	0	6	6
Listed Buildings (I/II*)	0	0	2	0	0	6	4
Listed Buildings (II)	0	0	2	10	0	29	59
Registered Parks and Gardens	0	0	0	2	0	2	1
Historic Landscape Areas	0	0	0	0	0	3	0
Conservation Areas	0	0	0	0	1	0	0
<b>Totals</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>13</b>	<b>1</b>	<b>46</b>	<b>70</b>

8.7.21 A description and assessment of the potential indirect effects of the Proposed Development on heritage assets and their settings is provided below in Table 8.12. The table identifies the reference number, name and type of each asset, its value or importance, the predicted magnitude of any indirect effect before mitigation and the significance of the effect. The table is populated in alpha-numeric order by reference number.

**Table 8.12: Indirect Effects On Designated And Registered Assets And Their Settings in the 4km, Study Area**

Reference	Name/Site Type	Period	NGR	Distance from centre-line	Distance from limits of deviation	Value	Worst-case Magnitude of Effect (Before Mitigation)	Significance of Effect	Figure Numbers <sup>5</sup>
DBA:AA	Henllan Conservation Area	Multi-period	302348 368144	1079	1059	Medium	I-Negligible	Neutral/ Slight	4
HLA (C) 1	Vale of Clwyd Historic Landscape	Multi-period	310536 362459	2199	2177	High	I-Negligible	Slight	3, 4
HLA (C) 4	Lower Elwy Valley Historic Landscape	Multi-period	302079 370874	232	210	High	I-Negligible	Slight	27, 29, 30
HLA (C) 5	Denbigh Moors (Mynydd Hiraethog) Historic Landscape	Multi-period	292786 356976	1646	1627	High	I-Negligible	Slight	2
LB 153	Plas Newydd, house, grade II*	Post-medieval	300001 373038	321	301	High	Adverse I-Minor and Beneficial I-Minor	Neutral	32
LB 154	Plas-yn-Cefn, house, grade II	Post-medieval	301993 371119	1699	1677	High	None	Neutral	5
LB 155	Bont Newydd, bridge, grade II	Post-medieval	301287 370884	1000	978	High	None	Neutral	4, 5
LB 156	Pont y Ddol, bridge, grade II	Post-medieval	298614 372568	1247	1216	High	None	Neutral	5
LB 161	Llechryd, house, grade II	Post-medieval	301014 368815	328	306	High	I-Minor	Moderate/ Slight	25
LB 163	Berain, house, grade II*	Medieval	300726 369728	134	122	High	<b>I-Moderate</b>	<b>Moderate/ Large (Significant)</b>	26

<sup>5</sup> Appendix 8.2 (DCO Document Ref 6.21)

Reference	Name/Site Type	Period	NGR	Distance from centre-line	Distance from limits of deviation	Value	Worst-case Magnitude of Effect (Before Mitigation)	Significance of Effect	Figure Numbers <sup>5</sup>
LB 173	Egryn, house and barn, grade II	Post-medieval	301655 363904	587	577	High	I-Minor	Moderate/Slight	3
LB 174	Plas-yn-Cefn, laundry block, grade II	Post-medieval	301965 371133	1684	1662	High	None	Neutral	5
LB 199	Llanefydd Church, grade I	Medieval	298210 370599	1846	1824	High	None	Neutral	4, 5
LB 208	Ty Ucha, house, grade II	Medieval	298567 371997	1241	1209	High	None	Neutral	5
LB 209	Llechryd, domestic range, grade II	Medieval	301024 368802	338	316	High	I-Minor	Moderate/Slight	24, 25
LB 210	Llechryd, barn, grade II	Post-medieval	300975 368742	296	274	High	I-Minor	Moderate/Slight	24, 25
LB 211	Llechryd, stables, grade II	Post-medieval	300955 368737	278	256	High	I-Minor	Moderate/Slight	24, 25
LB 228	Galltfaenan Hall, LS II house	Early Modern	302692 369716	2089	2061	High	None	Neutral	4
LB 814	Segrwyd Mill, house and mill, grade II	Post-medieval	301731 363851	597	587	High	I-Minor	Moderate/Slight	3
LB 1054	Foxhall, house, garden and walls, grade II*	Medieval	303335 367483	1612	1590	High	None	Neutral	4
LB 1057	Garn, house, grade II*	Post-medieval	302493 368709	1710	1688	High	None	Neutral	4
LB 1058	Gwaenynog, house, grade II*	Medieval	303498 365391	1646	1616	High	I-Negligible	Slight	3
LB 1059	Dr Johnson's Monument, Gwaenynog, grade II	Post-medieval	303094 364895	1008	978	High	None	Neutral	3
LB 1062	Lodge Farm, grade II house	Post-	303971 366458	1966	1944	High	None	Neutral	4

Reference	Name/Site Type	Period	NGR	Distance from centre-line	Distance from limits of deviation	Value	Worst-case Magnitude of Effect (Before Mitigation)	Significance of Effect	Figure Numbers <sup>5</sup>
		medieval							
LB 1065	Plas Heaton, LS II* house	Post-medieval	303106 369166	2446	2425	High	None	Neutral	4
LB 1066	Plas Heaton, LS II agricultural complex	Post-medieval	303164 369121	2482	2460	High	None	Neutral	4
LB 1069	Plas Meifod, grade II house	Medieval	302844 368382	1781	1761	High	None	Neutral	4
LB 1071	Henllan Church and Cross Shaft, grade II*	Early Modern	302234 368181	1167	1145	High	I-Negligible	Slight	4
LB 1072	Henllan Churchyard, mausolea, grade II	Early Modern	302258 368181	1186	1164	High	I-Negligible	Slight	4
LB 1073	Henllan Church, belfry grade II*	Medieval	302269 368189	1199	1177	High	I-Negligible	Slight	4
LB 1074	Llindir, Henllan, inn, grade II	Medieval	302302 368060	1152	1132	High	I-Negligible	Slight	4
LB 1075	Bryn-y-Ffynon, house, grade II	Post-medieval	302234 368098	1118	1097	High	I-Negligible	Slight	4
LB 1076	9 and 11 School Lane, Henllan, cottages, grade II	Post-medieval	302379 368186	1288	1267	High	None	Neutral	4
LB 1078	Plas Captain, farmhouse, grade II	Post-medieval	303262 363739	334	324	High	I-Minor	Moderate/Slight	15
LB 1079	Segrwyd, house, grade II	Post-medieval	304192 364680	1656	1637	High	None	Neutral	3
LB 1340	Peniel, telephone box, grade II	Modern	302950 363016	359	341	High	I-Negligible	Slight	14
LB 1378	Faenol-broper, barn, grade II	Early Modern	301253 374818	1763	1751	High	None	Neutral	5
LB 1383	Bodelwyddan Castle, grade II*	Post-	299923 374830	1767	1755	High	I-Negligible	Slight	5

Reference	Name/Site Type	Period	NGR	Distance from centre-line	Distance from limits of deviation	Value	Worst-case Magnitude of Effect (Before Mitigation)	Significance of Effect	Figure Numbers <sup>5</sup>
		medieval, Early Modern							
LB 1384	Bodelwyddan ice house, grade II*	Early Modern	299806 375027	1994	1981	High	I-Negligible	Slight	5
LB 1385	Pen-isa'r-Glascoed, house, garden wall and gate, grade II*	Post-medieval	299295 374506	1839	1830	High	I-Negligible	Slight	5
LB 1442	Southcroft including North Cottage, Cefn Meiriadog, house, grade II	Post-medieval	302341 373904	1902	1888	High	None	Neutral	35
LB 1443	Staverton, Cefn Meiriadog, house, grade II	Post-medieval	302327 373911	1891	1878	High	None	Neutral	35
LB 1444	Staverton, Cefnmeiriadog, coach house, stables & outbuildings, grade II	Post-medieval	302314 373914	1881	1867	High	None	Neutral	35
LB 1495	Felin-y-gors, Bodelwyddan. LS II mill	Early Modern	300839 375000	1830	1816	High	I-Negligible	Slight	5
LB 19205	Galltfaenan Hall, LS II stables	Early Modern	302706 369743	2100	2070	High	None	Neutral	4
LB 19206	Galltfaenan Hall, LS II garden walls	Early Modern	302711 369688	2111	2085	High	None	Neutral	4
LB 19851	Llanefydd Church, sundial, grade II	Post-medieval	298190 370600	1864	1842	High	None	Neutral	4, 5
LB 19852	Llanefydd Church, bier-house, grade II	Post-medieval	298190 370606	1862	1840	High	None	Neutral	4, 5
LB 19855	Berain, agricultural range, grade II*	Post-medieval	300714 369767	117	100	High	<b>I-Moderate</b>	<b>Moderate/ Large (Significant)</b>	26
LB 19856	Berain, carthouse, grade II	Post-	300718 369804	117	97	High	<b>I-Moderate</b>	<b>Moderate/ Large</b>	26

Reference	Name/Site Type	Period	NGR	Distance from centre-line	Distance from limits of deviation	Value	Worst-case Magnitude of Effect (Before Mitigation)	Significance of Effect	Figure Numbers <sup>5</sup>
		medieval						(Significant)	
LB 19857	Berain, brewhouse and pigsty, grade II	Early Modern	300746 369747	151	136	High	I-Moderate	Moderate/ Large (Significant)	26
LB 19858	Bod-Ysgawen-Isaf, house, grade II	Post-medieval	299701 371500	211	182	High	I-Minor	Moderate/ Slight	29
LB 19859	Plas Buckley, barn and cart bays, grade II	Medieval	300185 370282	208	196	High	I-Negligible	Slight	27
LB 19860	Tal-y-Bryn, house, grade II	Post-medieval	299801 370686	412	402	High	I-Minor	Moderate/ Slight	28
LB 19861	Plas Coch, house, grade II	Medieval, Postmedieval	299158 368428	1456	1434	High	None	Neutral	4
LB 19862	Plas Coch, agricultural range, grade II	Post-medieval	299178 368442	1435	1413	High	None	Neutral	4
LB 19863	Bryn Deunydd, house, grade II	Post-medieval	299108 369604	1470	1448	High	None	Neutral	4
LB 19864	Bryn Deunydd, agricultural range, grade II	Post-medieval	299118 369645	1442	1420	High	None	Neutral	4
LB 19865	Bryn Deunydd, chapel, grade II	Early Modern	299274 369531	1309	1289	High	None	Neutral	4
LB 19869	Pont-y-ddol, bridge, grade II	Post-medieval	298608 372557	1250	1218	High	None	Neutral	5
LB 19924	Cefn Meiriadog Church, grade II	Early Modern	301789 371566	1761	1750	High	None	Neutral	5
LB 19927	Bont Newydd, bridge, grade II	Post-medieval	301285 370878	995	973	High	None	Neutral	4, 5

Reference	Name/Site Type	Period	NGR	Distance from centre-line	Distance from limits of deviation	Value	Worst-case Magnitude of Effect (Before Mitigation)	Significance of Effect	Figure Numbers <sup>5</sup>
LB 19928	Bont Newydd, telephone box, grade II	Modern	301289 370909	1019	997	High	None	Neutral	5
LB 19929	Pentre Meredydd, house, grade II	Medieval	301115 373001	568	555	High	None	Neutral	5
LB 19932	Ddol, house, grade II	Post-medieval	299240 372750	716	694	High	I-Negligible	Slight	5
LB 19934	Plas-yn-Cefn, stable block, grade II	Post-medieval	301966 371144	1691	1669	High	None	Neutral	5
LB 19935	Plas-yn-Cefn, stable and coachhouse range, grade II	Early Modern	301958 371173	1701	1679	High	None	Neutral	5
LB 19936	Plas-yn-Cefn, carthouse, grade II	Early Modern	301935 371154	1671	1649	High	None	Neutral	5
LB 19937	Plas-yn-Cefn, agricultural range and garden walls grade II	Early Modern	301945 371129	1665	1643	High	None	Neutral	5
LB 19938	Plas-yn-Cefn, barn, grade II	Post-medieval	301925 371136	1653	1631	High	None	Neutral	5
LB 19939	Plas-yn-Cefn, smithy, grade II	Early Modern	301914 371137	1644	1622	High	None	Neutral	5
LB 19941	Groesffordd Marli Chapel, grade II	Early Modern	300268 373424	387	377	High	I-Negligible	Slight	5
LB 20897	Glascoed (Top) Lodge, park lodge, grade II	Early Modern	299438 374010	1393	1383	High	I-Negligible	Slight	5
LB 20990	Plas Nantglyn, house, grade II	Post-medieval	300349 361276	1784	1774	High	I-Negligible	Slight	2, 3
LB 20991	Pont Nantglyn, bridge, grade II	Post-medieval	300310 361351	1864	1854	High	I-Negligible	Slight	2, 3
LB 22068	Egryn, stable, brewhouse and	Post-	301635 363905	595	585	High	None	Neutral	3

Reference	Name/Site Type	Period	NGR	Distance from centre-line	Distance from limits of deviation	Value	Worst-case Magnitude of Effect (Before Mitigation)	Significance of Effect	Figure Numbers <sup>5</sup>
	pigsty, grade II	medieval							
LB 22069	Egryn, granary, grade II	Early Modern	301653 363928	566	556	High	I-Minor	Moderate/Slight	3
LB 22071	Groes Hall, house, grade II	Post-medieval	300898 364855	758	736	High	None	Neutral	3
LB 22072	Groes Hall, cottages, grade II	Early Modern	300850 364821	812	790	High	None	Neutral	3
LB 22073	Groes Hall, granary, brewhouse and kennels, grade II	Post-medieval	300861 364846	796	774	High	None	Neutral	3
LB 22074	Groes Hall, cottage, grade II	Early Modern	300881 364833	779	757	High	None	Neutral	3
LB 22075	Groes Hall, greenhouse, grade II	Early Modern	300860 364814	804	782	High	None	Neutral	3
LB 22076	Groes Hall, gates and walls, grade II	Early Modern	301049 364892	603	581	High	I-Negligible	Slight	3
LB 22701	Peniel Chapel and Manse, grade II	Early Modern	302949 363004	362	343	High	I-Negligible	Slight	14
LB 23504	Henllan Churchyard, walls and lychgate, grade II	Post-medieval	302273 368184	1200	1178	High	I-Negligible	Slight	4
LB 23505	Bryn Tirion, house, grade II	Post-medieval	302470 368123	1326	1306	High	None	Neutral	4
LB 23506	3 School Lane, Henllan, cottage, grade II	Early Modern	302367 368171	1269	1248	High	None	Neutral	4
LB 23507	5 School Lane, Henllan, cottage, grade II	Early Modern	302370 368175	1274	1253	High	None	Neutral	4
LB 23508	7 School Lane, Henllan, cottage, grade II	Early Modern	302373 368180	1279	1258	High	None	Neutral	4

Reference	Name/Site Type	Period	NGR	Distance from centre-line	Distance from limits of deviation	Value	Worst-case Magnitude of Effect (Before Mitigation)	Significance of Effect	Figure Numbers <sup>5</sup>
LB 23509	13 School Lane, Henllan, cottages, grade II	Early Modern	302381 368190	1292	1270	High	None	Neutral	4
LB 23510	Foxhall, brewhouse, grade II	Post-medieval	303362 367479	1633	1611	High	None	Neutral	4
LB 23511	Foxhall, stable, grade II	Early Modern	303353 367518	1645	1623	High	None	Neutral	4
LB 23512	Foxhall Newydd, domestic range, grade II	Post-medieval	302966 367497	1315	1293	High	I-Negligible	Slight	4
LB 23513	Garn, agricultural complex, grade II	Post-medieval	302460 368712	1690	1668	High	None	Neutral	4
LB 23514	Plas Heaton, LS II sundial	Post-medieval	303091 369139	2428	2406	High	None	Neutral	4
LB 23515	Plas Heaton, LS II carthouse range	Post-medieval	303163 369181	2505	2483	High	None	Neutral	4
LB 23516	Plas Heaton, LS II stable range	Early Modern	303146 369139	2480	2458	High	None	Neutral	4
LB 23517	Plas Heaton, LS II ice house	Early Modern	303141 369110	2457	2435	High	None	Neutral	4
LB 23518	Plas Heaton, LS II walls, sheds and melon house	Early Modern	303125 369080	2425	2403	High	None	Neutral	4
LB 23519	Henllan Churchyard, tombs, grade II	Post-medieval	302250 368181	1179	1157	High	I-Negligible	Slight	4
LB 23520	Garn, screen walls and lean-to outbuildings, grade II	Early Modern	302473 368684	1679	1657	High	None	Neutral	4
LB 23640	Pont Lawnt, bridge, grade II	Early Modern	304275 365078	1990	1970	High	None	Neutral	3
LB 23643	Gwaenynog, garden walls and Mr	Early Modern	303440 365460	1661	1631	High	I-Negligible	Slight	3

Reference	Name/Site Type	Period	NGR	Distance from centre-line	Distance from limits of deviation	Value	Worst-case Magnitude of Effect (Before Mitigation)	Significance of Effect	Figure Numbers <sup>5</sup>
	Macgregor's Potting Shed, grade II								
LB 23644	Efail-Gwaenynog, house, grade II	Early Modern	303175 365938	1277	1259	High	I-Negligible	Slight	3, 4
LB 23648	Segrwyd, barn, grade II	Post-medieval	304179 364648	1625	1606	High	None	Neutral	3
LB 80736	Bodelwyddan, LS II park wall and cottages	Early Modern	300823 375015	1842	1829	High	I-Negligible	Slight	5
LB 80738	Bodelwyddan Park, Bryn Celyn Lodge, grade II	Early Modern	300522 373931	744	731	High	I-Negligible	Slight	5
LB 80747	Bodelwyddan, garden shelter, grade II	Modern	299806 374737	1730	1718	High	I-Negligible	Slight	5
LB 80750	Bodelwyddan Park, Gors Mill Cottage, grade II	Early Modern	300843 375017	1847	1834	High	I-Negligible	Slight	5
LB 80751	Kinmel Park, gates and railings, grade II	Early Modern	299135 374113	1683	1667	High	I-Negligible	Slight	5
LB 80752	Bodelwyddan Castle, obelisk, grade II	Early Modern	299810 374645	1647	1635	High	I-Negligible	Slight	5
LB 80753	Pen-isa'r-Glascoed, outbuilding, grade II	Early Modern	299300 374470	1810	1800	High	I-Negligible	Slight	5
LB 80754	Bodelwyddan Castle, play house, grade II	Early Modern	299792 374731	1731	1719	High	I-Negligible	Slight	5
LB 80756	Bodelwyddan Castle, sundial, grade II	Early Modern	299720 374594	1647	1635	High	I-Negligible	Slight	5
LB 80757	Bodelwyddan Castle, terrace wall, grade II	Early Modern	300000 374820	1731	1718	High	I-Negligible	Slight	5

Reference	Name/Site Type	Period	NGR	Distance from centre-line	Distance from limits of deviation	Value	Worst-case Magnitude of Effect (Before Mitigation)	Significance of Effect	Figure Numbers <sup>5</sup>
LB 80759	Bodelwyddan Castle, wall with bothy and gateway, grade II	Early Modern	299731 374678	1714	1702	High	I-Negligible	Slight	5
RLPG C2	Bodelwyddan Castle, grade II park and gardens	Post-medieval	300071 374668	732	719	High	I-Negligible	Slight	5
RLPG C28	Plas Heaton, grade II	Post-medieval	303274 369089	1982	1960	High	None	Neutral	4
RLPG C32	Foxhall Newydd, grade II	Post-medieval	302976 367625	1249	1227	High	I-Minor	Moderate/Slight	4
RLPG C58	Gwaynynog, grade II	Post-medieval	303331 365384	1005	975	High	I-Minor	Moderate/Slight	3, 4
RLPG GD54	Kinmel Park, grade II*	Post-medieval	298154 375041	1539	1519	High	I-Negligible	Slight	5
SAM DE007	Tyddyn Bleiddyn chambered tomb	Neolithic, Bronze Age	300732 372456	572	562	High	I-Minor	Moderate/Slight	5
SAM DE037	Bedd-y-Cawr Hillfort	?Iron Age	301325 372063	1227	1213	High	I-Negligible	Slight	5
SAM DE049	Plas Heaton Round Barrow SAM	Bronze Age	303276 368583	2238	2219	High	None	Neutral	4
SAM DE050	Coed Plas Round Barrow SAM	Bronze Age	303264 368722	2312	2292	High	I-Negligible	Slight	4
SAM DE051	Plas-Meifod Round Barrow	?Bronze Age	302752 368192	1579	1561	High	I-Negligible	Slight	4
SAM DE052	Old Foxhall Round Barrow	?Bronze Age	303353 367395	1574	1552	High	I-Negligible	Slight	4

Reference	Name/Site Type	Period	NGR	Distance from centre-line	Distance from limits of deviation	Value	Worst-case Magnitude of Effect (Before Mitigation)	Significance of Effect	Figure Numbers <sup>5</sup>
SAM DE053	Old Foxhall Earth Circle	Medieval	303460 367406	1647	1625	High	None	Neutral	4
SAM DE054	Foxhall Newydd house	Post-medieval	302981 367510	1315	1293	High	None	Neutral	4
SAM DE055	Foxhall Newydd Dovecot	Post-medieval	303020 367482	1342	1320	High	None	Neutral	4
SAM DE088	Twr yr Hill Round Barrow	Prehistoric	301094 358186	619	606	High	I-Negligible	Slight	2
SAM DE115	Cefn Cave	Palaeolithic	302048 370532	1442	1410	High	None	Neutral	4, 5
SAM DE116	Bont Newydd Cave	Palaeolithic	301543 371025	1257	1235	High	None	Neutral	5
SAM FL186	First World War Practice Trenches at Bodelwyddan Park	Early modern	300049 374490	1295	1282	High	I-Negligible	Slight	5

Entries in bold identify assets with potentially Significant effects

8.7.22 The following sub-sections present the assessment of potential indirect effects of the Proposed Development on heritage assets and their settings. The sub-sections are ordered by type, considering first designated and registered assets and their settings, and then significant undesignated assets and their settings. In each sub-section, assets are discussed from south to north. Figures references are included in Table 8.12.

#### *Historic Landscape Areas*

##### Denbigh Moors (Mynydd Hiraethog):

8.7.23 The Study Area includes the east and north-eastern extents of Denbigh Moors, classified as a historic landscape as it represents a large surviving uninterrupted extent of heather moorland. The landscape, like many other upland areas of Wales, has its origins in the upland economies of the Neolithic and Bronze Age, and there is significant archaeological evidence of periods of land use from the prehistoric, medieval and later. Parts of the moorland were deliberately managed and maintained as a grouse moor and a shooting estate in the nineteenth and early part of the twentieth century.

8.7.24 The Registered Landscape includes the central and western parts of the larger Denbigh Moors, which extend between the valleys of the Clwyd and Conwy. It takes in ground generally lying between 380m and 500m AOD. At its closest point to the 132 kV Overhead Line (1.7km) the landscape is enclosed by plantation woodland. There may be distant views of the 132 kV Overhead Line, above the plantations, from the most elevated parts of Tir Mostyn. The extended setting of the historic landscape potentially includes enclosed land extending for several kilometres to the north-east, and the Proposed Development falls within this area. There may be slight indirect (visual) effect on the extended setting of the landscape, resulting from distant views of parts of poles along several sections of the Proposed Development. Overall, the effects are considered negligible.

##### The Lower Elwy Valley:

8.7.25 This steep-sided gorge and narrow river valley, to the west of the Vale of Clwyd was probably formed by the glacial diversion of the Afon Elwy, during the Middle Pleistocene period. Several sheer limestone cliffs occur along the north-east side of the valley include one of the most important groups of Palaeolithic and later caves and rock shelters in Britain, containing Quaternary geological and archaeological deposits of international significance. The valley is therefore a small but remarkably complete landscape of historic interest. In addition, the landforms provide an important cross-section of the long sedimentary history of the area, offering insights into the environment of the earliest known inhabitants of Wales.

Vale of Clwyd:

- 8.7.26 The north-western extent of the Vale is classified as an outstanding historic landscape owing to the historic evidence of late prehistoric and medieval land use. The Vale is a broad, lowland river valley forming one of the most distinctive landscapes of the region. Medieval estate enclosures and the defended towns of Ruthin and Denbigh lie within the Registered Historic Landscape, in addition to impressive Iron Age hillforts, which form a defensive chain along the summit of the Clwydian Hills. The 5km ZTV suggests that there may be distant views (over 2km) of the 132 kV Overhead Line from around Denbigh on the western edge of the Vale of Clwyd. The overall magnitude of visual effect of the Proposed Development, however, would be negligible on account of distance and intervening landform and woodland.

*Scheduled (Ancient) Monuments (SAM)*

- 8.7.27 Twr yr Hill Round Barrow (SM DE088; NGR: 301090 358180) to the south west of the 132 kV Overhead Line, is 24-27m in diameter and 2.0m high. The summit of the barrow has been disturbed by a wooden shooting box. The SAM lies within the Clocaenog Forest and is surrounded by plantation woodland. There will be no direct effects on the SAM. Its setting would include the slopes down to the tributary streams of the Afon Concwast. Approximately 200m of the Proposed Development would fall within this area. There will be no indirect (visual) effects as the SAM is locally screened by existing woodland. Any indirect effects on its setting will be negligible.
- 8.7.28 Two barrows and an enclosure lie to the east of Henllan. Old Foxhall Earth Circle (NGR: 303460 367400; SM DE053) is an oval enclosure, c.62m by 48m, defined by a single bank, or degraded wall. At the western entrance the bank terminals extend to define an approach way, aligned tangentially to the entrance. The barrows are Old Foxhall Round Barrow (NGR: 303300 367400; SM DE052) and Plas Meifod Round Barrow (NGR: 302752 368192; SM DE051).
- 8.7.29 Old Foxhall Round Barrow and the enclosure share a broadly common setting, on the west facing slope of the Merchion valley. The 132 kV Overhead Line crosses the slopes on the far side of the valley, outside of the immediate setting but arguably within the broader landscape. Views would be largely blocked by landform and woodland. The overall magnitude of indirect (visual) effect for the barrow and enclosure is considered negligible. In the case of Plas Meifod Round Barrow, although it was positioned to be viewed up and down the valley, its landscape setting and views are largely compromised by Henllan townscape, and locally by modern housing and associated modern infrastructure including street lamps and a play park. The overall magnitude of effect for the barrow is considered no change.

- 8.7.30 Foxhall Newydd House (NGR: 302980 367510; SM DE054) and its Dovecote (NGR: 303020 367480; SM DE055). The three-storey stone, with attic and basement, is now a ruinous shell, with walling to almost full height, but without roofs or floors. House and dovecote occupy a woodland setting within the Foxhall Newydd RP&G. Whilst the 132 kV Overhead Line would potentially cross the former estate landholding, neither of the assets is likely to have views of the 132 kV Overhead Line, on account of the rolling countryside and heavy tree cover. In addition, local views are presently affected by lower voltage poles, telegraph poles, and agricultural sheds and silos and there are middle distance/distant views of a turbine and Tir Mostyn wind farm respectively. As a consequence the overall magnitude of indirect (visual) effect is considered negligible for the house and no change for the dovecote.
- 8.7.31 Bont Newydd Cave (NGR: 301520 371020; SM DE116) and the Cefn Caves group (NGR: 302030 370510; SM DE115) are located close to the floor of the Afon Elwy valley. While their setting would include the valley as a whole, the magnitude of effect is considered to be no change on account of the distance from, and absence of views to, the 132 kV Overhead Line.
- 8.7.32 Bedd-y-Cawr Hillfort (NGR: 301350 372050, SM DE037) and Mynydd y Gaer Hillfort (NGR: 297278 371787) both occupy elevated ground, and command wide views across the Afon Elwy valley. The latter is located almost 400m outside the 4km Study Area and has been included in this assessment, due to its association with the former. The broader landscape setting of the Bedd-y-Cawr Hillfort would include the 132 kV Overhead Line. However, because of the wide views from this site, the 132 kV Overhead Line would form only a minor element of its setting and nor does it interrupt the line of sight between the two hillforts. Views of the 132 kV Overhead Line would be largely shielded from the hillfort by landform and woodland and any views that exist would be back-dropped against the valley bottom. Existing modern infrastructure in view from the hillfort includes distant steel towers skylined to the north west and a lower voltage overhead line immediately to the south. The magnitude of effect for Bedd-y-Cawr Hillfort and Mynydd y Gaer is considered negligible.
- 8.7.33 Tyddyn Bleiddyn Burial Chamber (NGR: 300720 372460; SM DE007), a chambered cairn, excavated in 1869 and 1871, is located high on the east valley side and was intended to be visible from along and across the Elwy valley. The asset benefits from far-reaching views to the south and west, but less so to the north. Its setting includes the valley sides and floor which would be crossed by the 132 kV Overhead Line. Intervening landform and woodland would views of the 132 kV Overhead Line to the west, southwest and north. The asset would have a narrow range of view of the 132 kV Overhead Line to the northwest on account of limited intervening screening from mature trees and vegetation. The surrounding landscape includes some modern components including telegraph poles locally and steel barns further afield to the north. Overall, the magnitude of effect from the 132 kV Overhead Line is considered minor, on account of the distant and limited views and the presence of modern infrastructure.

- 8.7.34 The First World War Practice trenches at Bodelwyddan Park (NGR: 300030 374470) consist of two firing trenches connected by zig-zag communication trenches. Numerous shell holes indicate that live ammunition training was carried out. Views to the 132 kV Overhead Line would be partially screened by intervening landform and woodland and all views are already severely compromised by existing overhead line infrastructure. The overall magnitude of indirect (visual) effect is considered negligible.

*Listed Buildings*

- 8.7.35 Peniel has two listed buildings, a chapel (LB 22701) and a telephone box (LB 1340). They are located adjacent to one another at a road junction in the centre of the village with land descending to the north towards the 132 kV Overhead Line. The immediate setting of the chapel includes the road junction and adjacent farms and the low ridge they occupy. Views of the 132 kV Overhead Line would be blocked by landform to the east and north east. Existing lower voltage overhead lines, telegraph poles, a turbine, metal agricultural sheds and a modern bungalow are within the same field of view and the overall magnitude of indirect (visual) effect is considered minor. In the case of the listed telephone box, the effect is considered negligible.
- 8.7.36 The listed farmhouse at Plas Captain (LB 1078) is located in a dip but, nevertheless, has far-reaching views to the north, east and south. As a working farm, the pasture fields which would be crossed by the 132 kV Overhead Line several hundred metres to the west are an integral part of its extended setting. The farmhouse will have middle-distance views of the 132 kV Overhead Line to the west and this may include sky-lined poles. The farmhouse may also have distant views of the 132 kV Overhead Line to the north and south. The immediate setting of the farmhouse, however, is already compromised by large, metal agricultural sheds, telegraph poles and LV overhead lines. Consequently, the overall magnitude of indirect (visual) effect is considered minor.
- 8.7.37 The listed buildings at Egryn (LB 173), including the granary (LB 22069) stable, brewhouse and pigsty (LB 22068), and the nearby Segrwyd Mill (LB 814), would have views of the 132 kV Overhead Line to the east and the north east, where it may appear on the skyline. There are multiple sets of existing overhead lines in middle-distance views to the east and north east. The overall magnitude of indirect (visual) effect is considered minor.
- 8.7.38 Groes Hall (LB 22071) and its associated cottages (LB 22072), smithy (LB 22074) and outbuildings (LB 22073, 22075, would have wide views to the west but their views of the 132 kV Overhead Line to the east would be blocked by intervening landform and vegetation. The only exception is the listed entrance gate and walls (LB 22076) which potentially would have a middle-distance view of the top of the 132 kV Overhead Line to the north east. There are multiple sets of existing lower voltage overhead lines to the east and north east and the overall magnitude of indirect (visual) effect is considered negligible.

- 8.7.39 Foxhall, house, garden and walls, brewhouse and stable (LB 1054, 23510 and 23511) occupy a slight eminence surrounded by the remains of mature parkland on the rolling wooded valley side to the south east of Henllan. Views west towards the 132 kV Overhead Line from the house and gardens would be blocked by intervening landform and woodland. Potential effects are considered no change.
- 8.7.40 The listed buildings in Henllan and immediately outside at Garn and Meifod individually have limited settings which do not extend beyond the village and would all be sufficiently distant from the 132 kV Overhead Line for the magnitude of effect to be considered no change or negligible, on account of the intervening landform and woodland, narrow fields of view and existing modern infrastructure. These include: Llyndir Inn (LB 1074); School Lane cottages (LB 1076, 23506, 23507, 23508 and 23509); Bryn Tirion (LB 23505); Plas Meifod (LB 1069); and Garn, house and outbuildings (LB 1057, 23513 and 23520). In the case of Bryn-y-Ffynon house (LB 1075), whilst the western view is largely open and unspoilt, the overall magnitude of effect of the 132 kV Overhead Line is considered negligible on account of the view being long distant..
- 8.7.41 Henllan Church, belfry and churchyard features (LB 1071, 1072, 1073, 23504 and 23519) occupy an elevated position on the west side of the village with distant views west to the Denbighshire hills. The setting of the church, unlike all the other listed buildings, extends beyond the village to include the valley sides and floor and arguably beyond. Locally, there are telegraph poles crossing fields to the west and also alongside the church, and modern barns are visible at outlying farms. The church would have potential distant views of the 132 kV Overhead Line to the southwest. Overall, the effect of the 132 kV Overhead Line is considered negligible.
- 8.7.42 Llechryd, and its barn and stables, (LB 161, 209, 210, 211) are located on a rolling hillside immediately to the north of the Hafod Dingle. The buildings have historical significance. Documentary references to Llechryd date back to 1334, and it is traditionally taken to be the birthplace of the fourteenth-century poet Iolo Goch. The present house dates to the sixteenth century but incorporates various later additions. As a working farm, the pasture fields which would be crossed by the 132 kV Overhead Line, several hundred metres to the west, are an integral part of its extended setting. The immediate setting and views to/from the buildings are compromised by a modern steel barn locally, by a turbine to the north and also by telegraph poles to the south, east and west. The effect of the Proposed Development is, therefore, considered adverse minor.

- 8.7.43 Berain and its agricultural range (LB 163, 19855, 19856, 19857) occupy an area of flat ground set within a small plateau on the south side of the Elwy valley, with rising ground to the west which would be crossed by the 132 kV Overhead Line. The buildings have historical significance. Berain is an important fifteenth-century gentry house and the birthplace of Katheryn of Berain. As with Llechryd, the surrounding pasture fields are part of its extended setting as a working farm. Potential near-distance views of the 132 kV Overhead Line would be filtered by intervening trees to the south west, whilst middle-distance views to the west and north west are either open and potentially sky-lined or blocked locally by large, modern steel agricultural barns. The magnitude of indirect (visual) effect for Berain is likely to be Minor, but taking a conservative approach, it has been assessed as Moderate, due to the close proximity to the Proposed Development. As a grade II\* listed building, its value is towards the upper end of High. Taking both of these into consideration, the overall effect on the group of listed buildings at Berain is moderate/large, and therefore potentially Significant.
- 8.7.44 To the east of Llanefydd, three listed buildings - the listed medieval barn at Plas Buckley (LB 19859), the sixteenth-century farmhouse of Bod Ysgawen Isaf (LB 19858) and the seventeenth-century Tal-y-Bryn (LB 19860) – are located on the immediate west side of the 132 kV Overhead Line. Plas Buckley occupies a low lying, sheltered location on an east-facing slope to the immediate north of the dingle occupied by Coed Buckley Ancient woodland (AW 28540). The farm's immediate setting is limited. Views of the 132 kV Overhead Line would be blocked by trees. The immediate landscape surrounding the farm is compromised by modern steel sheds and telegraph poles. The effect of the Proposed Development on the farm and its setting is considered adverse negligible.
- 8.7.45 Tal-y-Bryn farmhouse and outbuildings occupy a hillslope, benefiting from far-reaching views to the west, north and east, and most notably to the north east. Given that the land associated with the farm is primarily located to the west and south, the 132 kV Overhead Line to the east would not affect the farm's immediate setting or its broader farmscape. The immediate setting is compromised in part by modern farm buildings including a steel dairy shed, and telegraph poles. The farm would have middle-distance views of the 132 kV Overhead Line to the east, but this section of the line would be backdropped against the valley floor and woodland. The overall magnitude of effect is considered minor. Bod Ysgawen Isaf occupies a south east facing slope on the north side of a dingle occupied by Nant Ysagawn Ancient woodland (AW 35074). The immediate setting of the farmhouse is compromised by several substantial, modern, steel farm buildings. Associated farmland would be crossed by the 132 kV Overhead Line. An existing lower voltage overhead line crosses the fields to the north. Views of the 132 kV Overhead Line from the farmhouse would be blocked to the southeast and east by farm buildings and woodland. There is a potential narrow field of view of the Proposed Development to the north-northeast. Overall, effects on its setting are considered minor.
- 8.7.46 In the Elwy valley, the eighteenth-century Ddol (LB 19932) is located on the north bank of the river around 600m up the valley to the west of the 132 kV Overhead Line. The house would have very limited visibility of the 132 kV Overhead Line and any effects are considered negligible.

- 8.7.47 Towards the northern end of the Proposed Development, two listed buildings are located in relatively close proximity to the 132 kV Overhead Line, including Groesffordd Marli Chapel (LB 19941) and Plas Newydd hall (LB 153).
- 8.7.48 Groesffordd Marli Chapel occupies a road junction in the village where it benefits from far-reaching distant views to east and west. The chapel is listed for its socio-historic interest as a nineteenth-century rural chapel retaining good external and internal architectural character. Its immediate setting is the small group of farms around the crossroads, which would be unaffected by the 132 kV Overhead Line. Views to the south would be blocked by higher ground, existing buildings and vegetation, though there would be a narrow field of view of the 132 kV Overhead Line to the east. An existing 400kV overhead line passes within 200m to the north and a lower voltage line appears in views to the south. Its immediate setting is also compromised by a steel barn, roadside furniture and noise from the A55. Overall, effects on its setting will be negligible.
- 8.7.49 Plas Newydd is listed as an exceptionally well-preserved example of an Elizabethan regional gentry house. It occupies a high point on the Cefn Meiriadog ridge, with commanding distant views of the Denbighshire hills to the south. A shelter belt of trees encircling the southern end of its garden restricts, to some extent, the view cross the Elwy valley and beyond. More extensive woodland to the east will block closer views. Its setting extends south along the road to include Plas Hafod, and this would be crossed by the 132 kV Overhead Line. The surrounding landscape is far from pristine; two sets of lower voltage lines rise out of the Elwy valley and cross one another at Plas Hafod. White aggregate access tracks, modern barns/kennels and roadside furniture are prominent features in middle-distance views to the south east of the 132 kV Overhead Line. Overall, effects on its setting will be minor.
- 8.7.50 The remaining listed buildings would all be distant to the 132 kV Overhead Line. Despite being located towards the western edge of the 4km Study Area, Plas Nantglyn and Pont Nanglyn listed structures (LB 20990 and LB 20991), may have distant views. Efail-Gwaenynog house (LB 23644) to the west of Denbigh may also have distant views. Any such indirect effects on their settings are considered negligible on account of the intervening distance.
- 8.7.51 Views of the 132 kV Overhead Line from Cefn Meiriadog Church (LB 19924), Plas yn Cefn with its laundry block, stables and coach-house range, carthouse, agricultural range and, barn and smithy (LB 154, 174. 19934, 19935, 19936, 19937, 19938, 19939) and Pentre Meredydd hall house (LB 19929) would be shielded by the Cefn Meiriadog ridge and in the case of the former two, also by woodland. Likewise Bont Newydd bridge (LB 155, 19927), with its listed telephone box at the northern end of the bridge (LB 19928) would be shielded by the steep sides of the Elwy valley and the wooded landscape. Consequently, these listed buildings would experience no change.
- 8.7.52 Indirect effects on the Grade I listed Kinmel Hall and Golden Lodge (Llwyni Lodge), and Grade II\* Coach House and Stables (LB 80751), and Morfa Lodge are assessed collectively as part of Kinmel Park (see para 8.5.57 below).

- 8.7.53 Indirect effects on the Grade II\* listed Bodelwyddan Castle (LB 1383), and the associated buildings and garden features (LB 1384, 1495, 20897, 80736, 80738, 80747, 80750, 80752, 80754, 80756, 80757, 80759), along with the adjacent Pen-isa'r-Glascoed house and coach-house (LB 1385, 80753), have been assessed collectively as part of Bodelwyddan Castle Park (see Paragraph 8.5.58 below).
- 8.7.54 The indirect (visual) effect on the remaining listed buildings within the 4km Study Area are considered likely to be no change as views of the 132 kV Overhead Line would be blocked by intervening landform and vegetation. This includes Segrwyd house (LB 1079) and Segrwyd barn (LB 23648), Lodge Farm, west of Denbigh (LB 1062), the Pont Lawnt bridge over the Afon Ystrad (LB 23640), Plas Coch house and agricultural range (LB 19861, 19862), Bryn Deunydd house, agricultural range and chapel (LB 19863, 19864, 19865), Llanefydd Church (LB 199, 19851, 19852), the sixteenth- or seventeenth-century Ty Ucha house (LB 208), Pont-y-ddol bridge (LB 156, 19869), Southcroft (LB 1442), Staverton and its outbuildings (LB 1443, 1444) and the eighteenth-century barn at Faenol-broper farm (LB 1378),

*Registered Parks and Gardens*

- 8.7.55 Gwaynynog (RLPG C58 – Grade II) park and gardens provide the setting for a Grade II eighteenth- and nineteenth-century mansion house (LB 1058), associated with Samuel Johnson and with Beatrix Potter, who used the walled kitchen garden and potting shed (LB 23643) as the setting in some of her children's books. The garden is in an elevated location offering distant views to the east beyond Denbigh to the Clwydian Range, and south-west along the Afon Ystrad valley. The 132 kV Overhead Line would be visible in distant views along the valley. The effect on the setting of the park is considered minor, whilst for the house and shed it is negligible on account of distance and intervening landform. The listed monument commemorating Samuel Johnson's visit to the estate, on the bank of the Afon Ystrad (LB 1059) will be shielded by the valley sides.
- 8.7.56 Foxhall Newydd (RLPG C32 – Grade II) includes possible terracing of a seventeenth-century formal walled garden, to the south-east side of the Grade I listed and scheduled remains of New Foxhall House and its listed domestic range (LB 23512). The garden is surrounded by ancient and semi-natural woodland. The site also includes the scheduled New Foxhall Dovecote. The broader landscape setting includes the valley slopes down to the Afon Meirchion with interrupted views of the slopes on the west side of the valley, which would include a 1km stretch of the 132 kV Overhead Line. The overall magnitude of indirect (visual) effect is considered minor for the park and negligible for the listed house on account of intervening trees.

- 8.7.57 Kinmel Park (RLPG GD54 – Grade II\*) includes well-preserved, late nineteenth-century formal gardens and provides the setting for many listed structures, including the Grade I Kinmel Hall and Golden Lodge (Llwyni Lodge), and Grade II\* Coach House and Stables (LB 80751), and Morfa Lodge. The estate is used for activities including shooting, fishing, horse riding, paintballing, and golf. The immediate setting of the park includes the valley slopes down to the Afon Elwy and might arguably include the slopes on the south side of the valley. Its broader landscape setting is crossed by the Proposed Development, but there would be limited views of it from Kinmel Park. Views would be partially screened by intervening landform and woodland and the setting is already severely compromised by existing overhead line infrastructure. The overall magnitude of indirect (visual) effect for Kinmel Park is considered to be negligible.
- 8.7.58 Bodelwyddan Castle (RPLG C2 – Grade II), a well-preserved eighteenth- to nineteenth-century landscape park with several nineteenth-century picturesque additions adjoins the east grounds of Kinmel Park. The Grade II\* listed castle (LB 1383), a partner of the National Portrait Gallery and open to the public, and the associated buildings and garden features (LB 1384, 1495, 20897, 80736, 80738, 80747, 80750, 80752, 80754, 80756, 80757, 80759), along with the adjacent Pen-isa'r-Glascoed house and coach-house (LB 1385, 80753) would be largely shielded from the 132 kV Overhead Line by landform and intervening belts of woodland
- 8.7.59 Bodelwyddan Castle Park also incorporates World War I Practice Trenches, a designated Scheduled Monument. The broader landscape setting of both RLPGs includes the valley slopes down to the Afon Elwy. There would be limited views across and along the valley towards the 132 kV Overhead Line from the south side of Kinmel Park and from the very south east corner of Bodelwyddan Castle only. Views would be partially screened by intervening landform and woodland and views are already severely compromised by existing overhead infrastructure. Overall, the effects on park settings and their associated listed buildings, including Bodelwyddan Castle, are considered negligible.
- 8.7.60 Plas Heaton (RLPG C28 – grade II) is an early 18th century house set within landscape park and informal woodland garden with circuit walk. The west periphery of the park is crossed by the 4km Study Area, although the house and associated listed buildings fall outside. The 132 kV Overhead Line would have no change on the setting of the park on account of intervening landform, built form and woodland.

#### *Conservation Areas*

- 8.7.61 Henllan Conservation Area (DBA:AA) occupies an elevated position on the valley side on the south west side of the town of Henllan. It contains twelve listed buildings including the church and cross shaft, and belfry which are listed Grade II\*. Potential effects on individual listed buildings are considered above and fall in the range negligible to no change. Potential effects of the 132 kV Overhead Line on the conservation area are considered negligible, on account of distant views, intervening landform and vegetation, and modern infrastructure.

*Undesignated Assets*

- 8.7.62 Full assessment of potential indirect effects on undesignated heritage assets has also been undertaken and is presented within Appendix 8.1 'Historic Environment Technical Assessment Report' (see DCO Document Ref 6.21).
- 8.7.63 Table 8.13 below summarises predicted indirect effects for 13 undesignated heritage assets, which have been classified as being of medium value and for which potential effects have been identified.
- 8.7.64 Undesignated assets of low and negligible value are not summarised in the table as these are not capable of generating Significant effects, regardless of the magnitude of effect of the Proposed Development (see Table 8.6).

**Table 8.13: Indirect Effects On Significant Undesignated Assets And Their Settings Within The 4Km Study Area**

Reference	Description	Period	NGR	Distance from centre-line	Distance from limits of deviation	Value	Worst-case Magnitude of Effect (Before Mitigation)	Significance of Effect	Figures <sup>6</sup>
HERS 101814	Tywysog enclosure	Prehistoric	299940 366800	1365	1345	Medium	I-Negligible	Neutral/ Slight	4
HERS 101868	Segrwyd, enclosure	Prehistoric	304640 364330	1748	1726	Medium	I-Negligible	Neutral/ Slight	3
HERS 105497	Groesffordd Marli, settlement	Multiperiod (?post-medieval, Early Modern and Modern)	300500 373500	0	0	Medium	I-Minor	Slight	32
HERS 118495	Tan-yr-eglwys barrow	Bronze Age	302130 368380	1222	1200	Medium	I-Negligible	Neutral/ Slight	4
HERS 17012	Tir Mostyn stone settings	Bronze Age	299350 358750	1870	1854	Medium	I-Negligible	Neutral/ Slight	2
HERS 19309	Nant-y-Graig/Brysgill, occupied caves	Neolithic	300555 371290	514	494	Medium	I-Negligible	Neutral/ Slight	5
HERS 19412	Cae Gronw, occupied cave	Palaeolithic	301550 371150	1304	1282	Medium	I-Negligible	Neutral/ Slight	5
HERS 48103	Eriviat Hall country house parkland estate	Post-medieval	301461 366051	0	0	Medium	I-Minor (D-Minor)	Slight	18, 19, 20, 21
HERS 79456	Llechryd cave, Hafod Dingle	Undetermined	300640 368430	9	0	Unknown	I-Moderate (D-Minor)	Slight/ Moderate	24
HERS 81469	Matt's, occupied cave	Palaeolithic	302350 370480	1767	1735	Medium	I-Negligible	Neutral/ Slight	4, 5

<sup>6</sup> See Appendix 8.2 (DCO Document Ref 6.21)

Reference	Description	Period	NGR	Distance from centre-line	Distance from limits of deviation	Value	Worst-case Magnitude of Effect (Before Mitigation)	Significance of Effect	Figures <sup>6</sup>
HERS 84602	Pen-y-gerddi, defended enclosure	Undetermined	303970 362930	631	601	Medium	I-Negligible	Neutral/ Slight	3
HERS 84603	Bodeiliog-isaf, defended enclosure	Undetermined	302390 364650	420	410	Medium	I-Minor	Slight	3
NMR 415828	Pencraig Wood, hillfort	Iron Age	302480 370090	1850	1818	Medium	I-Negligible	Neutral/ Slight	4

- 8.7.65 Tir Mostyn stone settings (HER PRN 17012) comprises multiple alignments of edge-set mudstones in lines leading up to and around the Tir Mostyn kerb cairns (HER PRN 101706, 101707), and collectively represent a Bronze Age funerary landscape. Their immediate setting includes Nant yr Efri and the slopes up to Tir Mostyn. This setting is compromised locally by Tir Mostyn Wind Farm turbines and extensive tracts of plantation woodland, forming part of Clacaenog Forest. The Proposed Development is located over 1.8km (at its nearest) to the east and north-east of the funerary landscape. Potential long-distant views of the Proposed Development from within the extended setting would be limited due to intervening landform and woodland. Consequently, the effect on views and setting of the asset is considered 'negligible' and the overall significance of this effect is neutral/slight and, therefore, not Significant.
- 8.7.66 Pen-y-gerddi Iron Age defended enclosure (HERS 84602) is recorded as a low earthwork over 600m to the east of the Proposed Development. There would be middle-distance views of the 132 kV Overhead Line to/from the undesignated enclosure but these would be restricted by landform and vegetation and therefore negligible and not Significant.
- 8.7.67 Segrwyd enclosure (HERS 101868) is located to the east of Pen-y-gerddi and may have distant views of the 132 kV Overhead Line where it would cross the high ground at Peniel. At such distance, the 132 kV Overhead Line would probably be imperceptible the effect is considered negligible and therefore not Significant.
- 8.7.68 Bodeiliog-isaf enclosure (HERS 84603) is an undesignated low earthwork site interpreted as a possible prehistoric enclosure. It is located on the western slopes of the Ystrad Valley, with middle-distance views southward to the 132 kV Overhead Line. The effects are likely to be negligible but have been cautiously assessed as minor on account of proximity. The effect is slight and, therefore, not Significant.
- 8.7.69 Eriviat Hall (HERS 101466) occupies a large non-registered park (HERS 48103), the west side of which is defined by the A543. The Order Limits skirt around the east side of the park where topography and woodland would both serve to provide a backcloth for the line and also to restrict views into and out of the park. This small change to the park and its setting is therefore considered minor. Potential direct effects have been assessed above (see Paragraph 8.7.10). Overall, the indirect and direct effects on the undesignated park and its setting are considered slight/moderate and, therefore, not Significant.
- 8.7.70 Tywysog enclosure (HERS 101814) is an undesignated oval cropmark, interpreted as a prehistoric enclosure. It is located on high ground above the upper Meirchion valley and the 132 kV Overhead Line would impinge on distant views only to the north-east. In such distant views, the Proposed Development would be barely perceptible. The potential effect is therefore considered negligible and not Significant.

- 8.7.71 Tan-yr-glwrs barrow (HERS 118495), located on the edge of the limestone escarpment on the eastern side of the Meirchion valley is partly shielded by woodland. It is likely that the 132 kV Overhead Line would be visible in some views but overall the effect is considered negligible on account of distance from the Proposed Development and the context of the barrow on the northern edge of Henllan.
- 8.7.72 Llechryd cave, Hafod Dingle (HERS 79456) is recorded within the Order Limits. This could not be corroborated by recent survey, however, which failed to locate the cave due to dense undergrowth. For the purposes of this assessment, the cave has been assessed as being of low value. Its true value is unknown on account of a lack of information regarding the nature of any deposits it might contain, and an absence of scientific assessment. Ordinarily, the setting of low value, undesignated assets is not a significant consideration. In this instance, however, the cave's setting, within the dingle, has been taken into account. In terms of effects, the removal of vegetation and construction of the 132kV overhead line would potentially significantly alter the immediate setting of this cave resulting in a moderate indirect effect on the asset. Potential direct effects have been assessed above (see Paragraph 8.7.10). The overall significance of these indirect and direct effects on the undesignated cave have been cautiously assessed as slight/moderate and, therefore, not Significant.
- 8.7.73 Pencraig Wood Iron Age hillfort (NMR 415828) was found by lidar survey in 2010 in woodland above the confluence of the Elwy and Meirchion. There would be potential distant views of the 132 kV Overhead Line as it crosses the Elwy to the north-east from within the hillfort's setting. The 132 kV Overhead Line would probably be imperceptible at such distance and the effect is considered negligible and therefore not Significant.
- 8.7.74 Of the potentially more important undesignated medium value assets, the cave sites, Matt's Cave (HERS 814689) has a similar wooded valley setting to the scheduled cave sites, though it is further from the 132 kV Overhead Line. The immediate setting of the Brysgyll cave (HERS 19309) and Cae Gronw cave (HERS 19412), within the deep Nant-y-Graig dingle, is similarly restricted, although the wider setting includes potential views of the 132 kV Overhead Line to the west and along the Elwy Valley. Effects of the Proposed Development on the above caves are considered negligible on account of the contained settings and restricted views.
- 8.7.75 The historic settlement of Groesffordd Marli (HERS 105497) is a linear settlement, consisting of a small number of farms, cottages and a chapel strung out at intervals along a minor road. The setting includes the road through the village, the built remains and the immediate surrounding landscape. There would be views to the south of the northern end of the 132 kV Overhead Line from the historic village. Indirect visual effects, however, are predicted to be minor on account of the short section of the 132 kV Overhead Line that would be in view and the deleterious effects of existing modern infrastructure in the vicinity. The effect is slight/moderate and, therefore, not Significant.

## 8.8 Specific Mitigation Measures

8.8.1 This section provides a description of the proposed measures for mitigating the adverse effects of the Proposed Development on heritage assets, identified in Section 8.7 of this chapter above. Mitigation measures for addressing direct impacts are considered first, followed by those for indirect effects.

### **Mitigation Measures Addressing Direct Effects during Construction and Decommissioning**

8.8.2 The assessment has identified 94 heritage assets and 62 'historic' boundaries, of which 40 incorporate an Important Hedge, and which lie fully within or extend into the Order Limits, and which would be potentially subject to direct impact by the Proposed Development.

8.8.3 Over much of the route, the direct impacts will be at and around the pole sites, access tracks and compounds where installation of the poles and concomitant traffic movement could cause partial or complete disruption to archaeological contexts.

8.8.4 Embedded mitigation measures, which could be applied, are outline above in Section 8.4.74, and those which are relevant are discussed below.

8.8.5 Flexibility in the design of the Proposed Development allows for the positions of the identified heritage assets to be taken into account, and thereby achieve a considerable reduction in the assessed impact on the assets (see Paragraphs 8.4.74-81 above). The tolerances inherent within the Limits of Deviation, for instance, allow for a degree of flexibility in relation to the siting of the poles, and there is further flexibility in defining working areas, lay-down areas and access routes in the Order Limits.

8.8.6 It would therefore be premature, in general, to recommend archaeological mitigation by intrusive investigation at this stage. Only in instances where the impact of the project on an identified asset proves to be unavoidable, would site-specific archaeological investigations be considered appropriate. This should be kept under active consideration throughout the final design process.

8.8.7 The primary mitigation response, where feasible and desirable, will be preservation in situ. The positions of all heritage assets will be taken into account when defining working areas and lay-down areas within the Order Limits and, as necessary when micro-siting wood pole positions, and all in compliance with the CEMP (see Appendix 2.1 (DCO Document Ref 6.18).

8.8.8 The scope of detailed mitigation work is outlined below:

- Preservation in situ and demarcation is considered desirable for 9 assets, which are spatially defined, above-ground landscape earthwork or built remains. These include Eriviat Hall country house parkland estate (HERS 48103), Llechryd cave (HERS 79456), Peniel boundary marker (HERS 72413) and mounds DBA:DX, FSU:009, FSU:033, FSU:040, FSU:041, FSU:056;

- Archaeological observation, investigation and recording (i.e. a watching brief) is proposed for the remaining 86 assets and the 62 'historic' boundaries, where preservation in situ cannot be achieved, and
- Archaeological observation, investigation and recording is also recommended for pole locations and winch pits within areas of potential peat deposits (see Paragraph 8.5.44).

8.8.9 Archaeological observation, investigation and recording, as outlined above, is considered to be a proportionate mitigation response to offset the identified adverse direct effects, taking account of the value of the assets, the predicted magnitude of effect and, in particular, the absence of Significant effects.

#### **Mitigation Measures Addressing Indirect Effects during Operation**

8.8.10 Potential indirect visual effects are predicted for designated, registered and undesignated assets. The vast majority of these predicted effects are not Significant in EIA terms and no mitigation measures are required.

8.8.11 Indirect visual effects of the Proposed Development on the listed buildings at Berain are potentially Significant (see Paragraph 8.7.44 and Table.8.12). As noted above however, potential near-distance views of the 132 kV Overhead Line would be filtered by intervening trees to the south west, whilst middle-distance views to the west and north west would be either open and potentially sky-lined or blocked locally by large, modern steel agricultural barns. On-site screen planting or off-site enhancement screening might help mitigate the adverse effects on the settings and views of the heritage receptors at Berain during the operational life but is unlikely to reduce the significance of those effects.

## **8.9 Cumulative Effects**

### **Stage 1 Assessment**

8.9.1 Table 8.14 below summarises potential effects of the Proposed Development alongside those of other components of the North Wales Connection Project and provides the overall predicted level of combined effects.

**Table 8.14: Summary of Potential Combined Effects (Stage 1 Assessment)**

Reference	Name/Site Type	Proposed Development: Significance of Effect	Other Stage 1 components: Significance of Effect	Overall Stage 1 Significance of Effect
HLA (C) 5	Mynydd Hiraethog (Denbigh Moors) Historic Landscape	Slight	Moderate/slight (BWF)	Moderate/slight
			Moderate/slight (CFWF)	
			Slight (CS)	
SAM DE088	Twr yr Hill Round Barrow	Slight	n/a	Slight
HER PRN 17012	Tir Mostyn stone settings	Slight/neutral	n/a	Slight/neutral

BM = before mitigation, BWF = Brenig Wind Farm, CFWF = Clocaenog Forest Wind Farm, CS = Collector Substation.

8.9.2 The Collector Substation will have an indirect visual affect on one high-value designated asset, one high-value registered asset and one medium-value, undesignated asset, in the defined Study Areas of the Proposed Development. The Brenig and Cloganeog Forest wind farms are predicted to have indirect visual affect on one high-value registered asset, in the defined Study Areas of the Proposed Development. In summary:

- (HLA (C) 5): Mynydd Hiraethog (Denbigh Moors) Historic Landscape: The Proposed Development is considered to have a 'slight' visual effect (see Table 8.12), as too is the Collector Substation, resulting from distant views, whilst the Brenig wind farm and Clocaenog Forest wind farm are both predicted to have a 'moderate/slight' effect, on account of a greater level of visual effect on the setting of the asset. The combined effects would likely be 'moderate/slight' and therefore not Significant. The combined effects do not pass the threshold into a higher level of significance because views of the Proposed Development would be distant and barely recognisable and so it is not an important contributor to this combined effect.
- SAM DE088: Twr yr Hill Round Barrow: The Proposed Development is considered to have a 'slight' visual effect, resulting from distant views (see Table 8.12). No other components of the Stage 1 Assessment are predicted to have effect. The combined effects would remain 'slight' and therefore not Significant.
- HER PRN 17012 Tir Mostyn stone settings: The Proposed Development is considered to have a 'slight' visual effect (see Table 8.12). No other components of the Stage 1 Assessment are predicted to have effect, resulting from distant views. The combined effects would remain 'slight' and therefore not Significant.

- 8.9.3 The underground cable and works at St Asaph Substation will have no indirect visual affect on heritage assets, in the defined Study Areas of the Proposed Development and therefore they do not contribute to combined effects.
- 8.9.4 Undergrounding of approximately 80m of LV overhead line to the northwest of Llechryd, and its barn and stables, (LB 161, 209, 210, 211) would have no change on middle-distance views to/from the assets on account of all of the poles being retained. The reduction in wires would not be perceivable. The overall magnitude of indirect (visual) effect of the Proposed Development (including the LV Diversions) on the listed buildings at Llechryd would remain adverse minor.
- 8.9.5 Undergrounding of approximately 80m of LV overhead line to the northeast of the three listed buildings at Llanefydd (the listed medieval barn at Plas Buckley (LB 19859), the sixteenth-century farmhouse of Bod Ysgawen Isaf (LB 19858) and the seventeenth-century Tal-y-Bryn (LB 19860)) would have no change on near-distance views to/from the asset on account of all of the poles and wires in view being retained. The overall magnitude of indirect (visual) effect of the Proposed Development (including the LV Diversions) on the listed building at Plas Buckley would remain adverse negligible.
- 8.9.6 Undergrounding of approximately 520m of LV overhead line would remove 5 stacked poles from views to southeast of Plas Newydd. Undergrounding of approximately 930m of LV overhead line would remove a further 3 poles from views to the southeast. The beneficial effects of the proposed LV Diversions on the setting of Plas Newydd would be Beneficial Minor. The overall effect of the Proposed Development, including the effects of LV Diversions, is therefore considered Neutral.

### Stage 2 Assessment

- 8.9.7 Table 8.15 below summarises potential effects of the North Wales Connection Project alongside those of other relevant developments and provides the overall predicted level of cumulative effect.

**Table 8.15: Summary of Potential Cumulative Effects (Stage 2 Assessment)**

Reference	Name/Site Type	Stage 1 Significance of Effect	Other Relevant Developments Significance of Effect	Cumulative Significance of Effect
HLA (C) 4	Lower Elwy Valley Historic Landscape	Slight	Slight (BBE)	Slight
			Slight (BPDIWT)	
			Slight (GRC)	
HLA (C) 5	Mynydd Hiraethog (Denbigh Moors) Historic Landscape	Slight	Slight (PyMWF)	Slight
			Slight (HTDWF)	
			Slight (TYFWT)	

Reference	Name/Site Type	Stage 1 Significance of Effect	Other Relevant Developments Significance of Effect	Cumulative Significance of Effect
LB 1383	Bodelwyddan Castle, grade II*	Slight	Moderate/slight (BKSSA)	Moderate/ slight
			Slight (GRC)	
			Slight (BBE)	
LB 80736	Bodelwyddan, LS II park wall and cottages	Slight	Slight (PPFD)	Moderate/ slight
			Slight (BBE)	
			Moderate/slight (BKSSA)	
			Slight (GRC)	
LB 80738	Bodelwyddan Park, Bryn Celyn Lodge, grade II	Slight	Moderate/slight (GRC)	Moderate/ slight
			Slight (PPFD)	
LB 80750	Bodelwyddan Park, Gors Mill Cottage, grade II	Slight	Slight (PPFD)	Moderate/ slight
			Slight (BBE)	
			Moderate/slight (BKSSA)	
			Slight (GRC)	
LB 80751	Kinmel Park, gates and railings, grade II	Slight	Slight (BKSSA)	Slight
			Slight (BBE)	
LB 80752	Bodelwyddan Castle, obelisk, grade II	Slight	Slight (BKSSA)	Slight
			Slight (BBE)	
RLPG C2	Bodelwyddan Castle, grade II park and gardens	Slight	Slight (PPFD)	Moderate/ slight
			Moderate/slight (BKSSA)	
			Slight (BBE)	
			Moderate/slight (GRC)	
SAM FL186	First World War Practice Trenches at Bodelwyddan Park	Slight	Slight (PPFD)	Slight
			Slight (BKSSA)	
			Slight (BBE)	

BBE = Burbo Bank Extension; BKSSA = Bodelwyddan Key Strategic Area A; GRC = Glascoed Road Crematorium; HTDWF = Hafod Ty Ddu Wind Farm; PDIWT = Pentre Du Isaf Wind Turbine; PPFD = Pilkington Playing Field Development; PyMWF = Pany y Maen Wind Farm; TYTWT = Tyn y ffynnon Wind Turbine

- 8.9.8 The Burbo Bank Extension, Bodelwyddan Key Strategic Area A, Glascoed Road crematorium, Hafod Ty Ddu wind farm, Pentre Du Isaf wind turbine, Pilkington Playing Field Development, Pany y Maen wind farm, and Tyn y ffynnon wind turbine are likely to give rise to cumulative effects.
- 8.9.9 For six assets, for which the assessed combined effects of the Stage 1 Assessment are 'slight' (see Tables 8.12, 8.14), cumulative effects with other proposed developments, in particular the Bodelwyddan Key Strategic Area A, the Glascoed Road crematorium and the Pilkington Playing Field Development, is likely to give rise to an increase to 'moderate/slight', and therefore not Significant. This increase in overall effect is on account of the assessed level of visual effect of these developments on the settings of assets. These six assets are:
- HLA (C) 5: Mynydd Hiraethog (Denbigh Moors) Historic Landscape
  - LB 1383: Bodelwyddan Castle, grade II\*
  - LB 80736: Bodelwyddan, LS II park wall and cottages
  - LB 80738: Bodelwyddan Park, Bryn Celyn Lodge, grade II
  - LB 80750: Bodelwyddan Park, Gors Mill Cottage, grade II
  - RLPG C2: Bodelwyddan Castle, grade II park and gardens
- 8.9.10 The assessed combined effects of the Stage 1 Assessment on a further five assets is 'slight' (see Tables 8.12 and 8.14). Cumulative effects with other relevant developments would not increase the magnitude of cumulative effect or the level of significance further and the overall effect would remain 'slight' and not Significant. The cumulative effects do not pass the threshold into a higher level of significance because the assessed combined effects of the Proposed Development are felt to be towards lower end of slight and, therefore, they are not an important contributor to this cumulative effect. These assets are:
- HLA (C) 4: Lower Elwy Valley Historic Landscape
  - HLA (C) 5: Mynydd Hiraethog (Denbigh Moors) Historic Landscape
  - LB 80751: Kinmel Park, gates and railings, grade II
  - LB 80752: Bodelwyddan Castle, obelisk, grade II
  - SAM FL186: First World War Practice Trenches at Bodelwyddan Park
- 8.9.11 The proposed Llys Dympner wind farm, Mynydd Bach wind farm, North Wales Connection (400kV reinforcements), Bryn Cocyn wind turbine, Meifod, Saron wind turbine and residential development at H.M.Stanley Hospital Site, St Asaph are considered unlikely to result in indirect visual effects on heritage assets, in the defined Study Areas of the Proposed Development on account of intervening landform and vegetation.

## 8.10 Residual Effects

- 8.10.1 The mitigation outlined above, if implemented, would lessen the predicted direct effects of the Proposed Development on the 94 heritage assets, 62 historic boundaries and potential peat deposits within the Order Limits.
- 8.10.2 Residual effects of the Proposed Development primarily relate to the 68 predicted indirect visual effects upon heritage assets and/or their settings, discussed above in Sections 8.7.63 to 8.7.74
- 8.10.3 Berain and its agricultural range (LB 163, 19855, 19856, 19857 would potentially experience Moderate/Large residual effects and these would potentially be Significant.
- 8.10.4 A summary of residual effects for the Proposed Development is presented in Table 8.16 below.

**Table 8.16: Summary Of Residual Effects**

Significance of Effect	Count of Direct Effects	Count of Indirect Effects
Large/Very Large (Significant)	0	0
Large (Significant)	0	0
Moderate/Large (Significant)	0	4
Moderate (Significant)	0	0
Slight/Moderate	0	15
Slight	0	48
Neutral/Slight	0	1
Neutral	94	0
<b>Totals</b>	<b>94</b>	<b>68</b>

## 8.11 Conclusion

- 8.11.1 The collection and collation of information on the known heritage assets of the Study Area, together with the field survey, has allowed a comprehensive understanding of the present state of archaeological knowledge of the area crossed by the Proposed Development. The methods used are considered to have been appropriate, proportionate and successful.
- 8.11.2 A degree of uncertainty persists, especially with regard to buried archaeological remains. The residual risk of damage and disturbance to heritage assets can be managed and minimised by the implementation of an appropriate programme of archaeological mitigation during construction and operation of the overhead line. This should ensure that any deleterious direct effects from the proposed overhead line are unlikely to be significant.
- 8.11.3 Indirect visual effects are predicted to arise during operation (and decommissioning) of the Proposed Development, but these, though relatively long-term, would be temporary, lasting for the operational life but being completely removed once the Proposed Development had been decommissioned.
- 8.11.4 In the case of four listed buildings, forming an agricultural range at Berain (LB 163, 19855, 19856, 19857), the predicted effects are Moderate/Large and, therefore, potentially Significant.

## 8.12 Assessment of Effects on Historic Features (APFP Regulations 2009)

- 8.12.1 In addition to the assessment of the likely significant environmental effects presented in this ES it is also necessary to consider all potential effects on historic features not just those effects which are significant in EIA terms. This accords with the requirements of Regulation 5(2)(l) of the Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009.
- 8.12.2 Chapter 8 of the ES, which undertakes an environmental impact assessment on the historic environment, has determined that there will be a moderate / large residual indirect effect on four heritage assets (or their settings) within the Study Area resulting from the construction or operation of the Proposed Development. The assessment also concludes that there will be a moderate / large indirect effect on 4 heritage assets, moderate / slight indirect effects on 15 heritage assets, slight indirect effects on 48 heritage assets (and one indirect neutral /slight effect), and a neutral effect on 94 assets. The assets relating to the assessment are presented in full in Appendix 8.1.
- 8.12.3 There is the potential for residual effects on the buried historic assets within the Order Limits. Following a programme of archaeological mitigation prior to construction, there will be no residual effects on any potential buried historic assets within the Order Limits. The proposed mitigation includes archaeological observation and recording (i.e. a watching brief) for up to 75 assets. Preservation in-situ and demarcation for 12 assets is proposed.