

Archaeology Wales

Proposed Wind Turbine at Nant-y-fran, Cemaes, Isle of Anglesey

Cultural Heritage Impact Assessment



Adrian Hadley

Report No. 1517

Archaeology Wales Limited
The Reading Room, Town Hall,
Great Oak Street, Llanidloes,
Powys, SY18 6BN

Tel: +44 (0) 1686 440371
Email: admin@arch-wales.co.uk
Web: www.arch-wales.co.uk




Archaeology Wales

Proposed Wind Turbine at Nant-y-fran, Cemaes, Isle of Anglesey

Cultural Heritage Impact Assessment

Prepared for Engena Ltd

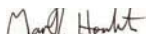
Edited by: Kate Pitt

Signed: 

Position: Project Manager

Date: 04.11.16

Authorised by: Mark Houliston

Signed: 

Position: Managing Director

Date: 04.11.16

Adrian Hadley

Report No. 1517

November 2016

Archaeology Wales Limited
The Reading Room, Town Hall,
Great Oak Street, Llanidloes,
Powys, SY18 6BN

Tel: +44 (0) 1686 440371
Email: admin@arch-wales.co.uk
Web: www.arch-wales.co.uk

NANT-Y-FRAN TURBINE: ARCHAEOLOGY AND CULTURAL HERITAGE

1 Introduction

This impact assessment has been produced following scoping in order to determine the likely significance of the effect of the proposed development upon the cultural heritage resource within the application site and the wider landscape. The work is intended to form a Cultural Heritage chapter of an Environmental Statement. The proposed scheme comprises a single wind turbine, approximately 77m high to tip of the blade, at Nant-y-fran, Cemaes, Anglesey, LL67 0LS. The impact assessment for the turbine has been commissioned by Engena Limited (The Old Stables, Bosmere Hall, Creting St Mary, Suffolk, IP6 8LL).

The local planning authority is the Isle of Anglesey County Council. The planning reference is 20C27B/SCR.

Scoping has included consultations with Natural Resources Wales, Gwynedd Archaeological Planning Service and Cadw.

The Assessment has collated details of known archaeological and historic sites and features, or 'heritage assets', and considered the potential for the presence of unknown or unrecorded heritage assets. This information has been used to produce an assessment of the historic environment of the area within which the proposed development lies.

The assessment has considered the likely significant effects of the proposed development on all heritage assets, including archaeological sites, features and finds, historic buildings and historic landscapes. Both potential 'direct' and 'indirect' effects on the historic environment have been considered. Where likely significant adverse effects have been identified, mitigation measures to prevent, reduce, or offset them are proposed, and likely residual effects remaining after mitigation have been determined.

2 Topography and Geology

The proposed development is located within an agricultural enclosure approximately 150m northwest of Nant-y-fran farm, and some 500m south of the main road between Amlwch and Cemaes (A5025). Nant-y-fran is situated some 1.6km east-southeast of the historic core of Cemaes, and roughly 2km inland from the north Anglesey coast.

The development site is located at NGR 238614 393091 (SH 3861 9309) at an approximate altitude of 30-40m above Ordnance Datum (OD).

The regional geology as mapped by the British Geological Survey (1:50,000 scale) indicates that the bedrock geology is composed of mica schist and psammite of the New Harbour Group, dating from the Ediacaran Period (circa 635 to 542 million years ago). The superficial geology consists of glacial deposits of the Devensian Glacial Stage, the last Ice Age (116,000-12,000 BP).

3 Legislative Policy and Guidance

Relevant protection, guidance and policies relating to the protection, maintenance and enhancement of archaeological sites and other aspects of archaeology and cultural heritage (the historic environment) are as follows:

- The Ancient Monuments and Archaeological Areas Act (1979).
- The Planning (Listed Buildings and Conservation Areas) Act (1990).
- The Planning (Listed Buildings and Conservation Areas) (Wales) Regulations 2012.
- Planning Policy Wales; Chapter 6: Conserving the Historic Environment (Welsh Government, Edition 7, July 2014).
- The new version of Planning Policy Wales; Chapter 6: Conserving the Historic Environment (Welsh Government, 2016) which is currently out for review (in light of the Historic Environment Wales Bill).
- Planning and the Historic Environment: Directions by the Secretary of State for Wales (Welsh Office Circular 1/98).
- Planning and the Historic Environment: Historic Buildings and Conservation Areas (Welsh Office Circular 61/96).
- Planning and the Historic Environment: Archaeology (Welsh Office Circular 60/96).
- Register of Landscapes, Parks and Gardens of Special Historic Interest in Wales, CCW, Cadw, ICOMOS UK – Part 1: Parks and Gardens (published on a county basis); Part 2.1: Landscapes of Outstanding Historic Interest; Part 2.2: Landscapes of Special Interest.
- Guide to Good Practice on Using the Register of Landscapes of Historic Interest in Wales in the Planning and Development Process, Revised Edition (Cadw, Welsh Assembly Government and CCW, 2007).
- Caring for Historic Landscapes (Cadw, Welsh Assembly Government and CCW, 2007).
- Conservation Principles for sustainable management of the historic environment in Wales (Cadw, 2011).

The Gwynedd Council and the Isle of Anglesey County Council Joint Local Development Plan (JLDP) is the current local plan for the area. The current Delivery Agreement (the first stage in the process of preparing the JLDP) was approved by Gwynedd Council on the 3 March 2016 and by the Isle of Anglesey County Council on the 10 March 2016.

4 Methodology for Archaeological Assessment

Aims

The primary objective of the study is to assess the impact of the development on the historic environment by means of desk-based research, a site visit and visual impact analysis. The aim will be to make full and effective use of existing information in establishing the archaeological significance of the site, to elucidate the presence or absence of archaeological material, its character, distribution, extent, condition and relative significance. The assessment aims to provide information of sufficient detail to allow informed planning decisions to be made which can safeguard the archaeological resource.

The assessment has been carried out in accordance with the *Standard and Guidance for Historic Environment Desk-Based Assessment* issued by the *Chartered Institute for Archaeologists (CIfA 2014)*.

Study Area

The archaeological and historic records have been considered within an intensive study area 2km in radius centred on the development site. These comprise all designated and non-designated sites, as well as ancient woodland.

A study area of 10km from the development site has been assessed for heritage assets with statutory protection (as recorded by Cadw) as well as Conservation Areas, Registered Parks and Gardens and Registered Battlefields, the setting of which may be affected by the proposed development. The study also considers the visual impact of the scheme on historic landscapes and seascapes.

Resources

Following consultations with Gwynedd Archaeological Trust – Planning Services (archaeological advisors to the Local Planning Authority), Cadw and the Local Planning Authority this assessment considers the following:

a) The nature, extent and degree of survival of archaeological sites, structures, deposits and landscapes within the study area through assessment of various readily available primary sources:

- Historic Environment Records held by Gwynedd Archaeological Trust (2km study area);
- National Monuments Records held by the Royal Commission on the Ancient and Historical Monuments of Wales (10km study area);
- Information held on the Portable Antiquities Scheme database (2km study area);
- Woodland recorded on the Ancient Woodland Inventory 2011 (2km study area)
- Information from Cadw on Designated archaeological sites (10km study area);
- Information from Anglesey County Council for Conservation Areas (10km study area)
- Historic Landscapes and Seascapes (10km study area)
- Assessment of all available and relevant excavation reports and archives including unpublished and unprocessed material;
- Assessment of aerial photographs (AP) and satellite imagery;
- Assessment of archive records held at the County Archive, Bangor, and at the National Library of Wales (NLW);
- Records held by the developer e.g. bore-hole logs, geological/geomorphological information, aerial photographs, maps and plans;
- Map regression analysis using all relevant cartographic sources e.g. all editions of the Ordnance Survey County Series, Tithe and early estate maps (as available);
- Place-name evidence;
- Historic documents (e.g. charters, registers, estate papers).

b) The significance of any remains in their context both regionally and nationally, and in light of the findings of the desk-based study.

c) The history of the site.

d) The potential visual impact of any proposed development on the setting of known sites of archaeological importance.

e) The potential for further work, with recommendations where appropriate for a suitable investigative and/or mitigation methodology.

Walkover Survey

This involved walking systematically over the proposed development area. The aims of the site survey were:

- To assess the present condition of the known heritage assets identified through the assessment;
- to identify heritage assets not included on the HER;
- to assess the proposed development area for its potential to contain buried archaeological remains;
- to assess the visual impact of the scheme upon significant heritage assets in the surrounding landscape.

5 Methodology for Visual Impact Analysis

Assessment Criteria

The visual impact analysis has been undertaken according to the *Guidance on Heritage Impact Assessments for Cultural Heritage World Heritage Properties* issued by the *International Council on Monuments and Sites (ICOMOS, 2011)*.

Archaeological remains are the materials created or modified by past human activities that contribute to the study and understanding of past human societies and behaviour. Archaeology can include the study of a wide range of artefacts, field monuments, structures and landscape features, both visible and buried. For the purposes of the guidance, archaeological remains generally excludes historic buildings and historic landscapes, always accepting there may be important archaeological aspects to these sub-topics.

Built heritage comprises architectural, designed or other structures with a significant historical value. These may include structures that have no aesthetic appeal, and the sub-topic includes, in addition to great houses, churches and vernacular buildings, some relatively modern structures, such as WWII and Cold War military structures, industrial buildings, and sometimes other structures not usually considered 'buildings', such as milestones or bridges.

Historic Landscapes are defined by perceptions that emphasise the evidence of the past and its significance in shaping the present landscape. The definition encompasses all landscapes, including the countryside, townscapes and industrial landscapes as well as designed landscapes, such as gardens and parks. As the whole of the UK's (and most of the world's) landscape has been modified by past human activities, it all has an historic character. However, just as all old materials are not necessarily archaeologically significant merely by virtue of their age, so not all landscapes are equally historically significant.

Table 1: Criteria for Defining the Value of Cultural Heritage Assets

Value / Sensitivity	Archaeological Remains	Built Heritage	Historic Landscapes
Very High	<p>Sites of international importance, inscribed as a World Heritage Site</p> <p>Individual attributes that convey Outstanding Universal Value of a World Heritage Site</p> <p>Assets that can contribute significantly to international research objectives</p>	<p>Buildings or structures of acknowledged international importance, inscribed as a World Heritage Site</p> <p>Buildings or urban landscapes of recognised international importance</p>	<p>Landscapes inscribed as a World Heritage Site</p> <p>Undesignated landscapes of international importance</p>
High	<p>Scheduled Ancient Monuments</p> <p>Assets that can contribute significantly to national research objectives</p> <p>Undesignated sites of national importance</p>	<p>Scheduled Monuments with standing remains</p> <p>Grade I and Grade II* Listed Buildings</p> <p>Grade II listed buildings of exceptional importance</p> <p>Undesignated buildings with exceptional historical associations</p> <p>Conservation Areas containing very important buildings.</p> <p>Well-preserved historic townscapes with exceptional coherence.</p>	<p>Registered Parks and Gardens</p> <p>Registered Battlefields</p> <p>Nationally designated historic landscapes</p> <p>Undesignated landscapes of outstanding interest and national value</p> <p>Well-preserved historic landscapes with exceptional coherence</p>
Medium	<p>Assets that can contribute significantly to regional research objectives</p> <p>Undesignated sites of regional importance</p> <p>Archaeologically Sensitive Areas</p>	<p>Grade II listed buildings</p> <p>Undesignated buildings with exceptional qualities or historical associations</p> <p>Undesignated structures of regional importance</p> <p>Conservation Areas that contain buildings that contribute significantly to its historic character</p> <p>Townscapes or built-up areas with good historic integrity</p>	<p>Moderately well-preserved historic landscapes with reasonable coherence</p> <p>Townscapes with moderate historic integrity</p>

Low	<p>Undesignated sites of local importance</p> <p>Assets compromised by poor preservation and/or poor survival of contextual associations</p> <p>Assets with the potential to contribute to local research objectives</p>	<p>Locally Listed buildings</p> <p>Historic buildings of modest architectural or historic quality</p> <p>Historic buildings with modest historical associations</p> <p>Undesignated structures of local importance</p> <p>Townscapes with vernacular characteristics but limited historic integrity</p>	<p>Undesignated historic landscapes</p> <p>Landscapes of local importance</p> <p>Poorly preserved historic landscapes</p>
Negligible	<p>Assets with limited surviving archaeological interest</p>	<p>Historic buildings with no significant architectural or historic merit</p> <p>Townscapes with no historic integrity</p>	<p>Landscapes with little or no historic integrity</p>
No Impact			
Unknown	<p>Importance not ascertained</p>	<p>Buildings with some hidden potential for historic significance</p>	<p>Importance not ascertained</p>

Assessment of the Significance of a Heritage Asset

In order to understand the effect of the proposed scheme upon a heritage asset, these assets have been individually assessed in relation to statutory designations and the regional research agenda. The value of the heritage assets have been defined using the following grades: Very High, High, Medium, Low, Negligible and Unknown. The criteria for defining the importance of an asset are shown in Table 1.

The Significance of the Setting of a Heritage Asset

The setting of a heritage asset relates its immediate surroundings and the extended views of the asset. Setting embraces all of the surroundings from which the heritage asset can be experienced or that can be experienced from the asset. The setting takes into account views from, towards and through the asset. It should be noted that the contribution that setting makes to the significance of an asset does not depend on ownership or public access to experience that setting.

The value of setting for a heritage asset has been assessed by considering the importance of that asset, as defined by the criteria set out in Table 1. The degree to which the setting contributes to the understanding or appreciation of the asset has been determined according to the extent the surroundings complement the location and appearance of an asset. The overall value of the setting of an asset has been assessed as a function of the importance of an asset and the significance of its setting.

Table 2: Scale of values used in assessing the magnitude of impacts

Magnitude of impact	Archaeological Remains	Historic Buildings	Historic Landscapes
Major	<p>Change to most or all key archaeological materials, such that the resource is totally altered</p> <p>Comprehensive changes to setting</p>	<p>Change to key historic building elements, such that the resource is totally altered</p> <p>Comprehensive changes to the setting</p>	<p>Change to most or all key historic landscape elements, parcels or components</p> <p>Extreme visual effects</p> <p>Gross change of noise or change to sound quality</p> <p>Fundamental changes to use or access resulting in total change to historic landscape character area</p>
Moderate	<p>Changes to many key archaeological materials, such that the resource is clearly modified</p> <p>Considerable changes to setting that affect the character of the asset</p>	<p>Change to many key historic building elements, such that the resource is significantly modified</p> <p>Changes to the setting of an historic building, such that it is significantly modified</p> <p>Considerable changes to a setting that affects the character of the asset</p>	<p>Changes to many key historic landscape elements, parcels or components</p> <p>Visual change to many key aspects of the historic landscape, noticeable differences in noise or sound quality, considerable changes to use or access resulting in moderate changes to historic landscape character</p>
Minor	<p>Changes to key archaeological materials, such that the asset is slightly altered</p> <p>Slight changes to setting</p>	<p>Change to key historic building elements, such that the asset is slightly different</p> <p>Change to setting of an historic building such that it is noticeably changed</p>	<p>Changes to few key historic landscape elements, parcels or components</p> <p>Slight visual changes to few key aspects of historic landscape, limited changes to noise levels or sound quality</p> <p>Slight changes to use or access resulting in limited changes to historic landscape character</p>
Negligible	<p>Very minor changes to archaeological materials, or setting</p>	<p>Slight changes to historic buildings elements or setting that hardly affect it</p>	<p>Very minor changes to key historic landscape elements, parcels or components</p> <p>Virtually unchanged visual effects, very slight changes in noise levels or sound quality, very slight changes to use or access resulting in a very small change to historic landscape character</p>
No Impact			

Assessment of Impact of the Proposed Development

Magnitude of effect is assessed using the guidelines set out in Table 2. The assessment will be made without regard to the value of the resource, so the total destruction of a low value site is considered as the same magnitude of effect as the destruction of a high value asset. The effect can be either ‘direct’ or ‘indirect’. A direct effect is where there is a physical impact on a heritage asset, typically during the construction phase. Indirect is when there is a visual effect on the asset or its setting. In the broadest terms, the setting of an asset comprises the conditions around it, and within which it is perceived; and in this sense all assets have settings. Not all settings, however, contribute to the value of the assets they encompass. The setting will be a combination of views, other historic features and their relationships to the asset, ambience (topography, vegetation, sound, and other sensual experiences) and context (what is known or thought about the asset, but not immediately experienced through the senses).

In order to assess the visual impact of the scheme, all heritage assets have been considered within the Zone of Theoretical Visibility (ZTV) of the development site. The ZTV has been used to define the area from which an asset may be totally or partially visible by reference to surrounding topography. In accordance with best practice guidelines, the analysis does not take into account landscape artefacts such as trees, woodland or buildings.

The scale and severity of impacts upon heritage assets have been ranked using the following grades: No Impact, Negligible Impact, Minor Impact, Moderate Impact and Major Impact.

Table 3: Matrix to Assess the Overall Impact on Cultural Heritage Assets

	VALUE OF HERITAGE ASSET				
	Very High	High	Medium	Low	Negligible
SEVERITY OF IMPACT	OVERALL IMPACT / SIGNIFICANCE OF EFFECT (AVERSE OR BENEFICIAL)				
Major Impact	Severe / Very High	Severe / Very High	Major	Moderate	Minor
Moderate Impact	Major	Major	Moderate	Minor	Negligible
Minor Impact	Moderate / Major	Moderate	Minor	Negligible	Negligible
Negligible Impact	Minor	Negligible	Negligible	Negligible	Negligible
No Impact	Neutral	Neutral	Neutral	Neutral	Neutral

Assessment of the Significance of Effect

The overall impact of the proposed development upon individual heritage assets has been assessed as a function of the importance of the asset and the scale of change to the asset or the setting of that asset. These assessments have been used to inform the professional judgement of the likely significance of the effect or overall impact of the development.

Table 2 presents the matrix that has been used as a guide to assess the significance of effect on assets and their settings. The significance of change on each asset has been ranked using an eleven-point scale: Very Highly Beneficial, Major Beneficial, Moderate Beneficial, Minor Beneficial, Negligible Beneficial, Neutral, Negligible Adverse, Minor Adverse, Moderate Adverse, Major Adverse and Severe Adverse.

6 Baseline Evidence

6.1 Anglesey Area of Outstanding Natural Beauty (AONB) and Heritage Coast (Figure 1)

The Isle of Anglesey AONB has one of the most distinctive, attractive and varied landscapes in the British Isles. Anglesey was designated as an AONB in 1966 in order to protect the aesthetic appeal and variety of the island's coastal landscape and habitats from inappropriate development. AONBs are designated under national legislation.

The AONB is predominantly a coastal designation, covering most of Anglesey's 201km long coastline but also encompasses Holyhead Mountain and Mynydd Bodafon along with substantial areas of land which form the essential backdrop to the coast. The total coverage of the AONB on Anglesey is approximately 221sq kilometres. There are four subdivisions of the Anglesey AONB recorded within the 10km study area; these comprise North Anglesey, Dulas, Trwyn Carmel and Swtan AONBs.

The landscape of the Anglesey AONB reflects the varied underlying geology and is a diverse mixture of marine and terrestrial habitats, including rugged cliffs, heathland, sand dunes, salt marshes and mud flats. Holyhead Mountain, the cliffs of North and South Stack and rocky coves are the dominant features of the island's northern coastline. The AONB is an important landscape in terms of archaeology and historical interest. Agriculture is the main land use in the AONB, and stone walls, cloddiau, hedgerows and field patterns are an integral part of the landscape. There are also significant areas of heathland, semi natural woodland, intertidal wetlands and lakes. The AONB also contains many habitats, which have statutory protection because of their nature conservation value. Peace and tranquility is a key objective of the management plan, and Anglesey AONB is also working towards Dark Skies status.

The Anglesey AONB includes three sections of undeveloped coastline, which have been designated as Heritage Coast. These non-statutory designations cover approximately 50km (31 miles) of the coastline. The sections of Heritage Coast comprise North Anglesey 28.6km (17 miles), Holyhead Mountain 12.9kms(8 miles) and Aberffraw Bay 7.7km (4.5 miles). These designations complement the AONB. Heritage Coasts are non-statutory designations. However, where Heritage Coasts coincide with a protected landscape, like an AONB, they have legal protection; as such, the Heritage Coast has been integrated into the management for Anglesey AONB.

The overall value of the Anglesey AONB and Heritage Coast has been assessed as high.

6.2 Special Landscape Areas & Registered Historic Landscapes (Figure 2)

Parys Mountain and Slopes (SLA 13; Registered Landscape HLW-GW-1)

A large part of the SLA falls within the Amlwch and Parys Mountain Landscape of Outstanding Historic Interest in Wales, (HLW-GW-1) reflecting its rich industrial legacy. Parys Mountain, a prominent ridge which rises to some 150 metres AOD, forms a visually dominant feature which is set within gradually sloping and undulating farmland landscape descending towards the north coast.

The opencast 18th to 19th century copper mine and waste tips, with extensive associated processing features and structures, results in a visually distinctive landscape.

The unique geology and industrial workings of the mountain have given rise to special environmental conditions, with nationally rare lichens, heathland and wetlands further emphasising its distinctive sense of place. Although this is essentially a man-made landscape, its unique cultural, historic and environmental characteristics combine to produce a high quality and distinctive landscape.

The landscape forms a visually prominent and unique landmark along the north coast of Anglesey, and a strong backdrop to the seascape and landscape of the AONB. Expansive views are achievable from its elevated form, both out to sea and across the island. The SLA has a strong intervisibility between the sea, coast and Parys Mountain.

The value of this landscape area has been assessed as high to very high.

Mynydd Mechell & Surrounding Area (SLA 14)

The SLA is a distinctive landscape, characterised by a craggy, strongly undulating landform with small irregular rough pasture fields bounded by stone walls, rock outcrops and patches of gorse, with numerous ponds. Although the landscape only rises to a height of 92m AOD, it possesses a 'wild' and upland quality, which is easily discernible from the smoothly rolling, drumlin-formed landscape which surrounds the SLA. The SLA includes open rocky moorland and a varied patchwork of semi-natural habitats set within pastoral farmland.

The area has a strong cultural and historic significance, including evidence of settlement from prehistoric times. Small twisting lanes follow the undulating topography and occasional houses, farms and hamlets scattered along them. It has a strong rural quality, and is largely unspoilt with a general absence of modern development. Drystone walls and stone buildings provide strong unity with the rocky landscape. This area stands out from its surroundings as a unique, varied landscape with a strong sense of place.

The value of this landscape area has been assessed as high.

6.3 Registered Parks and Gardens (Figure 2)

Cestyll Garden, Wylfa (Gd-45-ANG)

Cestyll is an unusual garden, situated in a small valley running north to the sea, on the north coast of Anglesey, to the west of Wylfa Head. It was designed, as an informal plantsman's garden, by the Hon. Violet Vivian, and maintained by her until her death in 1962.

Originally Cestyll formed part of the Carreglwyd estate, but in 1918 the estate was broken up and Cestyll was bought by the Hon. William Walter Vivian as a present for his niece, Violet. The Hon. Violet Vivian was a daughter of Lord Vivian of Bodmin and one of Queen Alexandra's maids of honour. At a short distance from the valley garden is the site of the house (demolished in 1991) and an overgrown kitchen garden.

The ornamental garden, which contains no buildings except a derelict gardener's shed and an old watermill, occupies a small valley leading down to the sea, and is laid out on either side of the stream which runs down it. Princess Victoria designed part of the garden. Being enclosed within a valley, the garden is essentially self-contained, but the view down towards the sea is an important aspect of its design.

The house and garden went, in 1962, to Violet's sister Dorothy's daughter, Lady Astor. In 1983 it was sold to the Central Electricity Generating Board, as part of the grounds of Wylfa Power Station on condition that the valley garden should be maintained as a memorial. Violet had, in her lifetime, begun to open the garden to the public twice a year, and this practice, which had lapsed after her death, was reinstated in 1985.

Cestyll Garden is Grade II listed. The value of the registered garden is considered to be high.

6.4 Scheduled Ancient Monuments (Figure 7)

General Comments

There are 22 scheduled monuments recorded within 10km of the application site. Three scheduled monuments are located within the 2km study area, and these are discussed in detail below.

All of the scheduled monuments have been assessed as being high value heritage assets, with the exception of the Parys Mountain Mining Area (AN111). There is evidence for copper mining at the latter site dating back to the Bronze Age, and in consequence, this area is considered to be of national and international importance. The scheduled monument has therefore been assessed as a high or very high value asset.

Dinas Gynfor Hillfort (Cadw AN038; NPRN 95547; PRN 3067)

This later prehistoric walled fort occupies approximately 9.7 hectares on a promontory on the north Anglesey coast. The promontory is a craggy ridge standing above the sea on three sides with its long south-western side separated from the mainland by a marshy valley. A tumbled stone block wall, backed by a broad quarry ditch, runs part way along the crest above the valley, its line continued by a run of crags at either end with a combined frontage of about 500m. There is what appears to be a walled annex below the north-western crags, although this may part of the main enclosure. There is a single entrance gap towards the eastern end. Although large parts of the interior are taken up by crags and rocks there are also more level areas suitable for settlement. The site has been much disturbed by China Stone quarries. Forts such as this are generally assigned an Iron Age date although many continued in use throughout and beyond the Roman period.

This high value monument is located between 1.9km and 2.2km to the north of the proposed turbine.

Llifad Carreglefn Earthwork Enclosure (Cadw AN079; NPRN 300840; PRN 3053)

The earthwork enclosure is positioned on the southern slope of Pen-y-Morwydd hill. The monument comprises a rampart and ditch that enclose a roughly pentagonal area, about 41m north-south by 45m, with a (downslope) west facing entrance. There are traces of an outer, counterscarp bank on the south and east side. The earthwork is best preserved on the eastern side. This has been interpreted as a second to fourth century Romano-British settlement enclosure.

This high value monument is located approximately 2km to the south of the proposed turbine.

Pen-y-Morwydd Round Barrow (Cadw AN110; NPRN 302341; PRN 3055)

The barrow is located on the summit of an isolated hill some 450m south-southeast of Tai Hen farmstead. This was originally a circular mound some 25m in diameter. The barrow stands up to

2.0m high and is crossed by a modern field wall. Barrows such as this are generally identified as Bronze Age or later funerary monuments.

This high value monument is located approximately 1.8km to the south of the proposed turbine.

6.5 Listed Buildings (Figure 8)

General Comments

There are 178 listed buildings recorded within 10km of the proposed development. These include two Grade I listed churches; located at Llanelian village (Cadw LB 5363) and Llanfairynghornwy village (Cadw LB 5380). There are 21 Grade II* listed buildings. The Grade I and II* represent high value heritage asset. The remaining Grade II listed buildings are considered to be medium to high value assets aside from another fifteen high value assets consisting of five churches (Cadw LBs 5348, 5355, 5371, 5401 & 5402), the windmill (Cadw LB 5425) and engine house (Cadw LB 24458) at Parys Mountain and also eight historic structures at Amlwch harbour which are directly or indirectly associated with copper mining (Cadw LBs 5715-22). There are three listed buildings located within 2km of the proposed turbine. These designated assets are discussed in detail below.

Church of St Peirio, Mechell (Cadw LB 5349)

The isolated Church of St Peirio (NPRNs 43640; PRNs 3056) is set back from the north side of the country road between Llanfechell and Bodewryd. This is a simple church, medieval in origin, with continuous nave and chancel. The walls are built in mortared rubble masonry with rough-hewn foundations and freestone dressings. The roof is of slate roof with slate copings. The internal roof structure has exposed timbers; collared trusses with brackets down to wall posts on plain corbels. The 12th century font is a plain circular bowl spreading at the base, standing on 17th century balusters. The church was restored in the late 19th century; the windows containing small panes of coloured glass set in geometric and floriate designs.

St Peirio's is Grade II listed as this represents a simple, rural medieval church, altered in the 19th century but retaining much of its original vernacular character. This is a high value heritage asset. The medieval church is located approximately 1.4km south-southeast of the proposed wind turbine.

Church of St Padrig, Llanbadrig (Cadw LB 5356)

Llanbadrig parish church (NPRNs 43639 & 415101; PRNs 3052, 3059 & 6941), which is dedicated to St. Patrick, is located northwest of Cemaes, along a country road leading north off the A5025. This is an early site, as indicated by the celtic dedication to Padrig (St Patrick) and the presence of a 9th to 11th century cross-incised stone (Ichthus Stone), which has inscriptions of a fish and palm tree. The isolated church is situated near the coast, and is associated with the holy well of Ffynnon Badrig (NPRN 32153; PRN 3043).

The earliest masonry is likely to date from the 12th century. The church has a separate nave and chancel, built from uncoursed local rubble with freestone dressings. It has a 14th century west bell-cote and a modern south porch. The main entrance is through an arch in the south wall, and a northern entrance, which also leads to the spring known as Ffynnon Badrig. The chancel arch dates to the late 13th or early 14th century. The nave has a 3-bay roof, the chancel a 4-bay roof, both with exposed queen post trusses with braces down to wallposts on plain corbels (largely rebuilt following fire damage). In the early 16th century new windows were inserted in the east wall of the chancel and the south wall of the nave. The chancel may have been rebuilt and lengthened at this time. Restorations in 1840 and 1884 included the insertion of a number of windows and the construction

of the south porch over a new doorway. The church was later restored again after a fire in 1985. The church has a 12th century decorated circular font and nine memorials dating from 1640 to 1792.

St Patricks is Grade II* listed as a simple rural medieval church retaining much of its early fabric and vernacular character. This is a high value heritage asset. The medieval church is located approximately 1.85km northwest of the proposed turbine.

Ty Cefn, Cemaes (Cadw LB 24339)

This early 19th century cottage is located within Cemaes Conservation Area, set at right angles to the northeast side of Glascoed Road, which leads of the High Street.

This dwelling appears to be shown on the 1844 Tithe Map of Llanbadrig. Cefn is not mentioned by name in the tithe schedule, but 'Ty Cefn' is listed in the census returns for the parish, 1841; being the home of Edward Owen, agricultural labourer, and his wife Elizabeth.

This is a lofted 2-unit plan cottage built of local rubble masonry, with front and end wall pebbledash rendered. The roof is of old small slates. There are low raking dormers to the front, rising from the eaves. The rectangular gable chimneys are rendered with dripstones and capping. A single-storey lean-to, with a corrugated iron roof, has been added to the northeast end.

This building has been Grade II listed, notwithstanding condition, as a good example of an early 19th century cottage which retains its simple vernacular character, including the use of small roofing slates and sash windows. The value of this heritage asset has been assessed as medium to high as the cottage represents a rare survival of the earlier settlement at Cemaes. Ty Cefn is situated approximately 1.65km west of the proposed turbine.

6.6 Conservation Areas (Figures 6 & 10)

Amlwch Central

The town dates from the late 1700s. The historic core centers around Dinorben Square, Market Street, Queen Street, Salem Street and the northern end of Mona Street. Many of the 18th and 19th century dwellings that form the historic core of the town are built in vernacular Anglesey style with thick masonry (or occasionally slag blocks) walls. The architectural style of residential buildings is predominantly of modest two-storey painted rendered working class terraces (Wesley Street and Mona Street). The town also incorporates large detached Georgian town houses, public buildings, chapels and retail premises.

There are eight separately listed buildings and structures recorded by Cadw within the conservation; Church of St Eleth (Grade II*; LB 5427), the lychgate at St Eleth's (Grade II; LB 54453), Dinorben Arms Hotel (Grade II; LB 5428), the English Methodist Chapel with attached schoolroom (Grade II; LB 5429), Nos. 1-4 Mona Lodge (Grade II; LB 5421-4) and the stables-coachhouse at Mona Lodge (Grade II; LB 24459), Bryntirion (Grade II; LB 5420) and the Old National School (Grade II; LB 5750). Other historically important buildings consist of the Former Police Station, No. 31 Wesley Street, The Market Tavern, Mona Street, HSBC Bank/Mona Cafe and the Scientific / Literery Institution. Amlwch was designated as a conservation area in July 1991.

Amlwch Central Conservation Area represents a medium value heritage asset.

Amlwch Port

The 18th and 19th century industrial heritage of Amlwch harbour remains largely intact; there are many stone buildings with slate pitch roofs along with well-preserved remains of the copper and shipbuilding industries. The architectural style to the south of the port is predominantly of modest early 19th century terraces. The varying height and pitch of roofs between Machine Street and Chapel Street is an important characteristic of the conservation area. The Mona Windmill forms a significant landmark feature that overlooks the conservation area.

There are eight separately listed buildings and structures recorded by Cadw within the conservation area: the harbour walls (Grade II; LB 5715), the pier at the end of the old harbour (Grade II; LB 5717), a lighthouse and watchtower (Grade II; LB 5718), a dry dock (Grade II; LB 5719), copper hoppers (Grade II; LB 5722) and a chimney (Grade II; LB 5721) near the Sail Loft (Grade II; LB 5720) as well as the Carmel Independent Chapel and Schoolroom (Grade II; LB 24454). Other important buildings include an old lime kiln, a water-driven sawmill, a former warehouse and the Liverpool Arms Public House. Amlwch Port was designated as a conservation area in May 1979.

Amlwch Port Conservation Area represents a high value heritage asset.

Cemaes

The historic core of the village is clustered to the southwest of the harbour (Athol Street and Bridge Street). This area contains a number of early 19th to mid 19th century buildings laid out on narrow streets. These dwellings are built in vernacular Anglesey style with thick masonry walls. By the mid 1800s the settlement had begun to expand to the south; the ribbon development along High Street is well structured along a relatively broad street. The village incorporates survivals of modest domestic workers cottages (Bridge Street, High Street and Sea View Terrace) and detached houses, retail premises, Public Houses and chapels. The character of the harbour and its surroundings is unusual for Anglesey being more reminiscent of the fishing villages of Cornwall or Brittany.

There is one listed building recorded by Cadw within the conservation area: Ty Cefn (Grade II; LB 24339). Other important buildings include David Hughes Village Hall, Bethel Congregational Chapel, Bethlehem Chapel (Schoolroom and Chapel House), Pioneer Stores, The Stag Inn, the pier / breakwater, the harbour walls, Afon Wygyr Bridge and detached 'fishermen's cottages' (Glantraeth, Brig Y Don, Craig Y Don and Ty Lawr). Cemaes Bay was designated as a conservation area in June 1979.

Cemaes Conservation Area represents a high value heritage asset.

Llanfechell

The historic core of the village is clustered around the church of St Mechell. The conservation area contains a number of vernacular 17th to 19th century buildings, which significantly includes short terraces of modest workers cottages (Crown Terrace and Brynddu Terrace). Buildings and structures tend to be predominantly two-storey in height, slate roofed and vernacular in style with thick masonry walls. The village expanded during the 19th century with the ribbon development to the southwest (Mountain Road). The rural character of the village, has over the years, remained relatively unchanged.

There are six listed buildings recorded by Cadw within the conservation area: the Church of St Mechell (Grade II*; LB 5383) and rectory (Grade II; LB 5384), a war memorial (Grade II; LB 25167) and Nos. 2, 3 & 4 Crown Terrace (Grade II; LB 5386 & 25168-9). Other historically

important buildings consist of Brynddu Terrace, Capel Libanus and Ty Capel, the Schoolroom and the Post Office. Llanfechell was designated as a conservation area in June 1972.

Llanfechell Conservation Area represents a medium to high value heritage asset.

6.7 Landscape Character Areas (Figure 5)

Northwest Coast (Character Area 4)

This a relatively narrow LCA following the Anglesey coast from the Alaw estuary at Valley around the coast to the Bull Bay area. From the Alaw estuary up to Carmel Head, the west-facing coast is one of sandy bays and coves interspersed with rocky cliffs and headlands, particularly from Porth Trefadog northwards. From Carmel Head eastwards is an area of coast with a more convoluted pattern; for the most part it is rocky, with Cemaes Bay providing the only sandy beach. Cemlyn Bay provides a different character, with a brackish lagoon entrapped by a crescent shaped shingle beach.

The overall value of this landscape has been assessed as high.

Northwest Anglesey (Character Area 5)

This LCA covers the north west of the island from Amlwch down to the A5/A55 corridor between Valley and Caergeiliog. The key geographical feature is the extensive drumlin field formed from deposition of boulder clay following the retreat of the last ice age. Interspersed with this landform are a number of hard rocky features such as Mynydd y Garn and Mynydd Mechell.

The majority of the landscape is characterised by improved grassland, especially in the drumlin field. However there are a number of marshy grasslands amongst the drumlins as well as small, scattered areas of scrub. There are also extensive areas of rocky outcrops associated with the Carreglefn quartzite deposits. Here dry ericaceous heath and acid grasslands are found, interspersed with low-lying marshy areas. The LCA also contains the largest water body on the island, Llyn Alaw, which is associated with the Mabinogion, a legend central to Welsh culture.

The western edge of the LCA is formed by the A5 corridor, which is a key element within the historic and cultural development of the island. The construction of this road by Telford, as a response to the need to improve links with Ireland, resulted in the the development of Holyhead as a major port. Another, more distinctive feature of the landscape is the development of wind farms, particularly to the north of Llyn Alaw.

The overall value of this landscape has been assessed as medium to high.

Amlwch and Environs (Character Area 6)

This LCA is centred around the historic town of Amlwch and includes the northern coastline between Bull Bay and Point Lynas. It essentially lies within a broad, shallow valley extending down to the coastline. The main historic town is inland, along the A5025 road. Closer to the coast is an extensive area of disused chemical works, whilst the port fronts onto the coast. The port owes its development to the extensive mineral extraction in the 18th and 19th centuries at Parys Mountain inland. Modern windfarm development has been an increasing feature and the juxtaposition of disused windmills to modern windfarms clearly reflects the importance of wind energy in this part of the island.

Bull Bay is characterised by tourist developments, hotels and bed and breakfasts, as well as other tourism facilities such as the golf course. In both instances the settlement can be said to be utilitarian rather than picturesque. An important consideration is the inclusion of part of the LCA on the CCW/Cadw/ICOMOS Register of Landscape of Outstanding Historic Interest in Wales.

The overall value of this landscape has been assessed as medium to high.

Parys Mountain (Character Area 7)

This is a unique, iconic landscape feature on Anglesey. In terms of landform, it forms a low but prominent ridge on a west-southwest to east-northeast orientation. Some 2kms long and 1km wide, and rising to some 150 metres AOD, it forms a visually dominant feature within the more undulating surrounds. At its peak Parys Mountain was the largest copper mine in Britain. The mainly opencast method of extraction has left a “moonscape” of colourful outcrops impregnated with copper, lead and sulphur. This is interspersed with derelict pit headgear, settling ponds, tips and quarry faces. Much of the area is designated as a SSSI. In conjunction with Amlwch, Parys Mountain is included in the CCW/Cadw/ICOMOS Register of Landscape of Outstanding Historic Interest in Wales, reflecting the rich industrial legacy.

The overall value of this landscape has been assessed as very high.

Dulas Bay Hinterland (Character Area 8)

The LCA is focused upon the sandy, shelving coastal landscape of Dulas Bay, where low tide exposes the extensive sandy beach of Traeth Dulas. As with much of this part of Anglesey, the landscape is gently undulating. The most prominent outcrop is Mynydd Bodafon, which rises to 178 metres AOD and forms the visual backdrop to the coastal landscape.

There are a number of woodland blocks and tree belts in the area that are closely associated with parkland developments such as Plas Lligwy, Llys Dulas and Parciau. Further inland are areas of relict landscape archaeology associated with the 19th century encroachment on common land, with a resultant clustered settlement pattern.

Inland the landscape is one of improved grassland and in places arable land. Within this hedgerows and hedgebanks are common. Other semi-natural vegetation, including woodlands, scrub and marshy grasslands, are mostly scattered and isolated.

The overall value of this landscape has been assessed as medium to high.

West Central Anglesey (Character Area 17)

This expansive LCA includes a large area of the rural heartland of Anglesey. The LCA encompasses a small section of coastal landscape at Rhosneigr including Traeth Llydan, with its associated dune system and impounded water body (Llyn Maelog). The A5 and A55 roads pass through the area, whilst the main railway passes along its southern edge. The main settlements within the LCA are Llangefni and Gwalchmai.

The topography of the LCA forms a gently undulating pattern which largely reflects the influences of the underlying geology, especially the Coedana granite. This results in the very typical small rocky outcrops that are scattered around this part of the island. These are mirrored by the complex of small areas of semi-natural habitat of mires, trees, hedgerows and hedgebanks which are found throughout the area within a larger matrix of improved agricultural grassland. These form an

important landscape resource and contribute markedly to the character of the area, breaking up areas of uniformity within the wider landscape.

The overall value of this landscape has been assessed as medium.

6.8 Landmap Landscape Character Areas (Figure 4)

Central Eastern Anglesey HL016

Most of (inland) Anglesey is still essentially rural in nature, and this large, disparate area occupies most of the island. Overall, this landscape has been evaluated as outstanding, of national value (on the whole) as a broad landscape area in which it is difficult to differentiate but which contains many disparate patterns, which illustrate and exemplify Anglesey's evolution as a primarily rural area. The integrity of this area has evaluated as outstanding, for the survival of a predominantly Victorian landscape overlying much older patterns of agriculture. It should also be noted that this is the landscape that earned Anglesey the reputation as the 'granary of Wales'.

The overall value of this landscape has been assessed as high.

Llanddeusant HL035

An early medieval chapel, now in ruins, demonstrates medieval occupation around Llanddeusant. Most of the activity here, however, is post-medieval, including two chapels, domestic buildings and a smithy. The settlement was also known for its mills, some of which still remain, such as Melin Howell, and particularly Llynnon Mill, which is now a visitor attraction.

Overall, the value of this landscape has been evaluated as high, of regional value particularly the working Llynnon windmill. For this reason the integrity and rarity of this landscape is also considered to be high.

The overall value of this landscape has been assessed as medium to high.

Llanerchymedd HL036

Llanerchymedd, originally a medieval settlement, was one of the most important market towns on Anglesey (in 1732 it comprised 50 houses). It was famous for its horse fair and clog-makers, as well as for printing and publishing. However, the importance of its market was eclipsed by that of Llangefni in the 18th century. The town is situated on Anglesey central railway.

Overall, the value of this townscape has been evaluated as high, of regional value for its historic market (visible in the wide main street) and for an attractive cluster of mainly 19th century buildings. Although small country market towns are common in Wales, Llanerchymedd is something of a rarity given the early decline of the market and predominance of Victorian architecture.

The overall value of this landscape has been assessed as medium to high.

Dulas HL046

In 1134 Owain Gwynedd reputedly defeated a combined force of Erse, Manx and Norsemen near Llangwyllog and that the Welsh fleet defeated and captured the enemy ships at and around Dulas Bay. There was probably considerable medieval occupation in this area; the church of St. Gwennllwyfo is probably medieval in origin. Ynys Dulas (also known as Seal Island) is situated about

one and a half miles off the shore of Dulas Bay; a circular tower on the island was constructed in the 19th century to provide shelter for shipwrecked seamen. Post- medieval lead and copper mines are also located within the area.

Overall, the value of this landscape has been evaluated as high, of regional value as an area of medieval occupation with later lead and copper mines and formal gardens. The integrity of the landscape is high for the visual relationship of the separate landscape elements with each other and with the sea.

The overall value of this landscape has been assessed as high.

Rhos-y-Mynach HL047

This landscape forms a separate area from Llaneilian, which also has rolling hills and an irregular field pattern, but is distinctive due to absence of historic settlement. Overall, the value of this landscape has been evaluated as moderate, given the monothematic nature of this aspect area. It is highly unusual to find an area of this size with comparatively little settlement.

The overall value of this landscape has been assessed as medium.

Llaneilian / Pengorffwysfa HL048

The history and archaeology of Llaneilian, an area of clustered settlement set on a hill slope and in a valley, is dominated by the medieval and post-medieval periods, although a Neolithic stone axe has been found in the area. Llaneilian takes its name from St Eilian's church, which was founded in the early medieval period. The name Eilian has been associated with the legendary character Eilian Ceimiad, son of Alltu Redegog, possibly from the late 5th to early 6th centuries AD. A clas community developed around the church, which was then changed to a "standard" parish church arrangement in the 13th century. The major landowners in this area from the 15th to 17th centuries included the Godfrey and Bukeley families. Post-medieval copper mining is also evident in the landscape.

Overall, the value of this landscape has been evaluated as high, of regional value as an area of clustered settlement dating from the medieval and post-medieval periods. This area has high degree of integrity arising from the visual relationship of the landscape elements of the medieval and post-medieval date.

The overall value of this landscape has been assessed as high.

Penygraigwen / Gadfa HL049

This area is characterised by dense post-medieval settlement. Overall, the value of this landscape has been evaluated as high, of county value as an area of distinctive regular fields, with high integrity as an area of distinct rural settlement.

The overall value of this landscape has been assessed as medium.

Amlwch / Parys Mountain HL050

This complex, unparalleled, internationally important and visually highly striking landscape is centred on the copper workings on Parys Mountain and extends to include the associated port of

Amlwch. The main part of the site comprises a huge, mainly hand-dug, opencast mining pit comprising an 18th to 19th century copper mine and waste tips, with an extensive attendant complex of processing features and structures superimposed on earlier workings dating from the prehistoric and possibly Roman and medieval periods. The area also includes the remains of an associated transport system, settlements, Amlwch town, port and ore processing works, as well as an axial field system and ribbon settlement.

Overall, this landscape has been evaluated as outstanding as an industrial landscape and industrial settlement area of immense historic and archaeological importance. The integrity of this landscape has been evaluated as outstanding, as the landscape both of mine and town articulates the history of this area. There is also outstanding potential for research of mining since the Bronze Age and for the understanding of settlement and migration patterns in the 18th century. This landscape is exceptionally rare nationally, and for parallels for this area one has to look at the Falun copper mines in Sweden or some of the great opencasts of southern Europe.

This area encompasses Parys Mountain, which is included on the Cadw Register of Landscapes of Outstanding Historic Interest in Wales. The character area is linked with the workers' settlement at Rhosybol HL074.

The overall value of this landscape has been assessed as high to very high.

Penrhyd Lastra HL051

This landscape comprises a disparate area of indistinct field and scattered settlement patterns. Overall, the value of this landscape has been evaluated as moderate, of local value as an area of indistinct fieldscapes.

The overall value of this landscape has been assessed as low to medium.

Rhosbeiro HL052

Prehistoric occupation of the area is illustrated by a number of archaeological remains, especially from the Bronze Age round barrows and standing stones. Occupation in the Roman period has also been demonstrated by the presence of artefacts, including coins, a brooch and copper cakes, as well as earthworks from this period. There are several medieval and post-medieval chapels and churches in the area, while other post-medieval buildings include Plas Bodewryd, which dates from the 15th to 16th centuries. This is an area of gently rolling rural fields and dispersed farms inland from the coast. Overall, the value of this landscape has been evaluated as high, of county value as an area of 19th century fieldscapes, though the historic character is significantly altered by wind turbines, which now dominates the visual impact.

The overall value of this landscape has been assessed as medium.

Anglesey North Coast HL 053

The far northern coast of Anglesey is a very distinctive area. It comprises rocky outcrops, with scattered archaeological sites and later settlement. It has an atmosphere of being remote. Overall, the value of this landscape has been evaluated as high, of regional value as having a largely unchanged sense of wildness and for the intervisibility of land and sea.

The overall value of this landscape has been assessed as medium to high.

Cemais HL054

Late prehistoric/Romano-British activity around Cemaes is suggested by the finds of a typical saddle quern and hoard of 3rd century Roman coins. Cemaes was the maerdref of the commote of Talybolion in the medieval period, with farm names indicating its original focus. Later, Cemaes developed as a fishing village and evolved into a shipbuilding centre and a harbour from which marble and limestone were exported, but the arrival of the railways in the mid 1800s led to the decline in shipbuilding and exports.

Overall, the value of this landscape has been evaluated as high, of regional value as a fishing village, a shipbuilding centre and a harbour. This area has integrity arising from the visual relationship of landscape and urban elements with each other and with the broader landscape. This represents an attractive small harbour and village landscape.

The overall value of this landscape has been assessed as medium to high.

Wylfa HL055

There is no direct evidence of prehistoric activity in this area, although early and late prehistoric occupation within the surrounding landscape has been demonstrated. The place-name Cestyll (castles) in the west of the area may represent a promontory fort, although no traces remain, and other defended areas are found in the vicinity of Wylfa. Similarly, there is no direct evidence of Roman activity here, but scatters of Roman finds indicate some presence during this period. During the Second World War, a Chain Home radar defence station was established on the promontory to detect enemy aircraft and manage shipping. In 1963 work began on the construction of the nuclear power station at Wylfa, which was commissioned in 1972. This a recent complex which has largely obscured earlier landscape contexts, but in terms of the classification of this area as industrial, there is no doubt that it must be regarded as outstanding as a striking and dominant landscape of architectural brutalism and as a location for a controversial type of power plant. Although the power station is an intrusive element in the historic landscape, it is noted here for its rarity and for its uncompromising appearance.

The overall value of this landscape has been assessed as medium to high.

Cemlyn Coastal Strip HL056

This is a disparate and large low-lying coastal area of improved fields and scattered farms on the remote northern coast, including few individual features of historic interest aside from the Grade II Cestyll Garden. Overall, the value of this landscape has been evaluated as moderate, of local value, but having a high degree of integrity.

The overall value of this landscape has been assessed as medium.

Northwest Anglesey HL057

This elongated strip of small field systems and clusters of nucleated settlement lies between the upland bloc of Mynydd y Garn and the low-lying systems to the north and east. Although characteristic of Anglesey, it is differentiated from other areas by its varied field and settlement patterns. Overall, the value of this landscape has been evaluated as high, of county value due to the integrity and survival of these distinctive field patterns and clusters of nucleated settlement.

The overall value of this landscape has been assessed as medium.

Mynydd Mechell HL058

This higher-lying, rocky area contains a very distinctive pattern of small fields and clustered settlement, along with a complex set of tracks and footpaths. Overall, the value of this landscape has been evaluated as high, of county value as an area of upland in Anglesey which preserves its distinctive character. This landscape also a high degree of integrity for the visual relationship of this area with the surrounding landscape. There is potential to study the evolution of the distinct agricultural and settlement patterns.

The overall value of this landscape has been assessed as medium.

Mynydd-y-Garn HL059

This an area of mountain with distinctive, undeveloped (later) irregular fields, and scattered settlement pattern. Overall, the value of this landscape has been evaluated as high, of county value for its scattered settlement pattern unlike lowland areas of the island. The integrity of this landscape is also high for the visual relationship of the various features, which include historic mining areas.

The overall value of this landscape has been assessed as medium.

Bull Bay Area HL071

No prehistoric remains are known from the Bull Bay area, although remains have been recorded in the vicinity, and a Roman hoard has been found here. In the 19th century, copper mining extended into this area. A lifeboat station was opened in 1868, and in 1913 a golf course, designed by Herbert Fowler was built. Most of the housing here is 19th and 20th century in date, and related to the tourist industry.

The value of this landscape has been evaluated as moderate, of local value, as a slightly formless and only marginally successful development, though traces of pre-tourist arrangements survive.

The overall value of this landscape has been assessed as low to medium.

Llanfechell HL072

Four prehistoric standing stones exist on the outskirts of Llanfechell. St. Mechell's Church, which is thought to date from the 12th century, demonstrates medieval occupation. The church is named after Mechell son of Echwys ab Gwyn Gohoew, who is reputedly buried in Llanfechell.

Overall, the value of this landscape has been evaluated as high, of county value as a mainly 19th century village, medieval original, and for the survival of early buildings and of historic character generally.

The overall value of this landscape has been assessed as medium.

Rhosybol HL074

This landscape contains an area of distinctive 19th century ribbon development along the road to the southwest of Parys Mountain. This settlement is associated with the development of the mine. The original buildings comprise single-storey cottages as well as shops several chapels, a church, a school and a public house.

Overall, the value of this landscape has been evaluated as high, of county value for its association with the Parys mines as a workers' settlement, which forms part of the broader Parys landscape. The potential for further study is considered to be outstanding in respect of workers' housing associated with the mine and also settlement and migration patterns. This landscape is rare in an Anglesey context.

The overall value of this landscape has been assessed as medium to high.

6.9 Marine Character Areas (Figure 4)

Northwest Anglesey Open Waters (MCA 5)

This Marine Character Area (MCA) comprises the outer inshore waters extending from the northern Anglesey coastline to the limits of the Wales Inshore Waters. The Skerries and the adjacent rocky north coast of Anglesey are prominent seascape features viewed from this MCA, with the Isle of Man and Holyhead Mountain also visible in clear conditions.

This is a historic shipping channel as evidenced by the many wrecks. The waters near the Skerries (MCA 7) are rough and produce a significant navigational hazard. The overriding character is this MCA is one of transit, as these waters receive a considerable amount of marine traffic. This includes large commercial shipping travelling to Liverpool and northwest England, as well as ferries travelling to and from Holyhead harbour and Liverpool.

Much of the MCA is remote open sea, with identifiable landmarks visible in clear conditions including the Skerries islands and Point Lynas on the rocky Anglesey AONB-designated coast to the south.

The overall value of this character are has been assessed as medium.

North Anglesey Coastal Waters (MCA 6)

This MCA encompasses the most northern shoreline of Anglesey and the adjacent coastal waters between Carmel Head and Point Lynas. These waters include the rocky islets of West Mouse, Middle Mouse and East Mouse. Apart from Wylfa Head and Cemaes Bay, all of the coastline lies within the Anglesey AONB and is defined as Heritage Coast.

Relatively low cliffs, comprising rocky outcrops and occasional caves, are defined by prominent headlands such as Point Lynas, Llanlleiana Head, Wylfa Head and Trwyn Cemlyn. These provide relative shelter to arc-shaped bays and coves including Bull Bay, Porth Wen, Cemaes Bay and Cemlyn Bay. The tops of the cliffs demonstrate a hummocky and irregular landform owing to complex historic earth movements and a legacy of glaciation, with small undulations and rocky protrusions. Cemlyn Bay includes a rare brackish lagoon, separated from the sea by a crescent-shaped shingle beach which is formed by longshore drift, the largest example in Wales.

The oldest visible evidence for human occupation along this sparse and wild section of coast is the nationally designated Iron Age hillfort of Dinas Gynfor – sited in a commanding coastal position on Llanlleiana Head. A legacy of later medieval and post-medieval settlement is visible in the coast's historic harbours and coastal villages with their strong fishing heritage. The strength of the tidal currents along the north coast of Anglesey allow few near shore anchorages, the exception in offshore winds being Henborth and Bull Bay.

The 18th century Grade II Listed Point Lynas lighthouse forms a symbolic historic marker to guide ships through these dangerous seas. The present lighthouse was built in 1835; a low castellated structure, painted white.

The rocky coast and seascape has a wild quality, particularly in northerly conditions, whilst expansive seaward views towards the Isle of Man create a sense of distance and remoteness. The smooth, rolling landform of the Anglesey core contrasts with the rocky, incised coastline which forms the immediate backdrop to this MCA. Its low-lying nature creates strong visual and physical connections between land and sea.

The overall value of this character has been assessed as high.

Holyhead Bay and The Skerries (MCA 7)

This Marine Character Area covers the coastal and inshore waters of Holyhead Bay in western Anglesey, extending northwards to take in the Skerries and their associated seas and submerged rocks/reefs. Apart from development at Holyhead, the entire coastline is within the Anglesey AONB. The Holyhead Mountain coast and the coastline from Church Bay to Carmel Head (including the Skerries) are also defined as Heritage Coast.

The MCA is recognised as a key historic gateway and trading route between Britain and Ireland, with ferry services retaining important links across the Irish Sea to Ireland. The Romans appreciated the strategic importance of the bay, building a fort (visible on the edge of the present harbour) to defend Anglesey from Irish Sea pirates.

The Skerries place-name possibly derives from the Scandinavian word ‘sker’, meaning ‘stretch of rocks, reef’; this may derive from the rocks importance as a landmark in the Viking period. The reputation of the Skerries as a notorious wrecking site is reflected in the concentration of sunken vessels found beneath its waters. Wrecks within the MCA include the protected wreck of the 17th century Royal Yacht Mary and the dangerous wreck of the Castilian, which sank in 1943 with live ordnance on board.

In the mid-19th century, construction began on Holyhead Harbour. The breakwater is the longest in the UK at nearly three kilometres. The distinctive black and white lighthouse on the end of the breakwater, along with the Holyhead Mail Pier Light on Salt Island, form prominent historic markers for pilotage. Numerous shipping buoys and flashing lights provide further guides to the many commercial and recreational vessels that visit the harbour, day and night.

The seascape setting is dominated by the Skerries to the north, and by Holyhead Mountain to the south. The Skerries form a strong maritime setting to the north of Holyhead Bay, the flashing light of the tall lighthouse featuring in views from across the coastline, with particularly strong intervisibility with Carmel Head.

In all weather conditions, a strong degree of tranquillity, remoteness and relative wildness pervades across the MCA (away from the port of Holyhead). The black volcanic rocks comprising much of the adjacent coastline reinforce a feeling of bleakness.

The Isle of Man is visible in distant views north from Carmel Head whilst the westerly views from elevated positions, including Holyhead Mountain, can be framed by the distance shapes of the Wicklow and Mourne Mountains in Ireland.

The overall value of this character has been assessed as high.

6.10 Seascape Character Areas (Figure 3)

Dulas Bay (SCA 7)

SCA 7 Dulas Bay is located on the eastern coast of Anglesey. It is orientated approximately north-south, and comprises the area surrounding Dulas Bay as well as the bay itself. It extends from Freshwater Bay in the north to Moelfre in the south, and includes Dulas village and estate, as well as the Traeth Dulas estuary.

This SCA is bounded by headlands at north and south of a rocky coast, with beaches at Dulas Bay and Lligwy Bay. The island of Ynys Dulas, with its tower, is midway between them and provides a focal point. The southern part of the SCA contains a variety of historic landscape features from prehistoric times onwards. In the centre of the SCA is the Traeth Dulas estuary, which is tranquil and contains a variety of habitats. The northern part of the SCA is strongly influenced by the Dulas estate: the landform has a relatively smooth profile, and has regular fields of improved, green pasture divided by well-maintained stone walls. The distinctive circular spire of Dulas Church is a landmark visible from land and sea.

This is a medium-scale landscape with a strong sense of openness due to the open farmland, long views and wide estuary landform. Views out to sea from bays are framed by surrounding headlands.

The overall value of this character are has been assessed as high.

Amlwch and Cemaes (SCA 8)

SCA 8 Amlwch and Cemaes is located on the northern coast of Anglesey between Point Lynas in the east and Wylfa Head in the west. It includes the town of Amlwch and its associated harbour, and the villages of Cemaes and Llanelian. It also contains a series of bays, including Bull Bay, Porth Wen and Cemaes Bay, along with the islands of East Mouse and Middle Mouse.

Much of this area has an industrial feel due to its long association with copper mining and associated industries and export. There are several historic harbours and settlements, including Amlwch, Cemaes and Llanelian. A continuing tradition of industrial land uses is also evident, including mining (specifically copper), mineral working and electricity production. Despite industrial features, much of coastline is natural, with a wild quality.

Coastal views are dominated by the rocky shoreline, white water and rocks, with the Islands of East Mouse and Middle Mouse lying off the coast. The seascape setting includes the lighthouse on Point Lynas, the offshore islands of Middle Mouse and East Mouse and expansive views with the Isle of Man on the horizon. Views inland are dominated by the distinctive profiles of Parys Mountain and Mynydd Eilian.

The overall value of this character are has been assessed as high.

Cemlyn Bay (SCA 9)

SCA 9 Cemlyn Bay is located on the northern coast of Anglesey, and extends from Wylfa Head in the east to Carmel Head in the west. It includes Cemlyn Bay and its associated beach and lagoon, as well as the farmland which surrounds it. It also includes the island of West Mouse.

This SCA contains a considerable variety of coastal habitats, varying from the rock pools of the east to the shingle-bar at Cemlyn Bay formed by longshore drift. The inland landscape is also distinctive with rolling drumlin fields. Off the coast are rocky islands including Harry Furlough's Rocks and

West Mouse, reflecting the rocky character of the seabed. The seascape includes views westwards towards the Skerries, and northwards towards the Isle of Man. To the east the landscape is dominated by Wylfa power station in the adjacent SCA. The low-lying coast creates strong visual and physical connection between land and seascape. Within the SCA, settlement is limited to a few scattered farms, resulting in an undeveloped character.

The overall value of this character are has been assessed as high.

Carmel Head to Penrhyn (SCA 10)

SCA 10 Carmel Head to Penrhyn is located on the northwest Anglesey coast, and is orientated north-south between the headlands of Carmel Head and Penrhyn. It also includes the islands of the Skerries. Settlement is limited to the hamlet of Swtan (Church Bay) and scattered farms. Onshore historic and cultural features include the chimney and beacons on Carmel Head, and the windmill above Church Bay, formerly a landmark for shipping.

Seaward views in the north of the SCA are framed by Carmel Head and the Skerries. Carmel Head has spectacular coastal scenery with islets, cliffs, caves, beaches and wave-cut platforms. The steep hill and ridge of Mynydd y Garn provides the landward setting. Further south, an extensive drumlin field creates a rolling topography. The port of Holyhead has an influence on views, particularly in the south of the SCA. Holyhead Mountain forms a backdrop to views of the port, which contributes a more rugged and natural element to the setting of this SCA.

This is a generally open landscape with long views over land and sea, particularly from elevated viewpoints. The Isle of Man and the Mountains of Mourne (Ireland) are visible on the horizon in clear conditions from Carmel Head. Views in the south of the SCA are framed by Holyhead Mountain. Ferries (Holyhead-Dublin) are features to seaward. Ships entering and leaving the port can be seen from the coast, especially at night when shipping lights are prominent.

The overall value of this character are has been assessed as high.

North of Anglesey (SCA 29)

The majority of the SCA comprises deep water, used for commercial and recreational fishing, and for commercial shipping lanes offshore. These are many wrecks reflecting its important use as a shipping route. From close to shore, the northern coast of Anglesey is visible as a series of headlands and bays. The Skerries are a prominent feature to the southwest of this SCA. Some higher peaks (e.g. Snowdonia) remain visible on the horizon. The Isle of Man and Cumbrian Fells are visible to the north and the northeast in clear conditions. In the south the SCA boundary comes close to the land with views of the rocky north coast of Anglesey with small bays and inlets. Evidence of both modern and historic industry is visible along the coast.

The overall value of this character are has been assessed as medium.

6.11 Archaeological Sites within a 2km Study Area (Figures 9 & 10)

General Comments

The primary records for non-designated heritage assets comprise the Historic Environment Record (HER) held by the Gwynedd Archaeological Trust (GAT) and the National Monuments Record (NMR) maintained by the Royal Commission on the Ancient and Historical Monuments of Wales (RCAHMW). Each HER and NMR record has been denoted by their Primary Reference Numbers

(PRN) and National Primary Reference Number (NPRN), respectively. Additional records for archaeological finds are held by the Portable Antiquity Scheme; these finds have been cross-referenced with the HER records where applicable. The non-designated assets have been assessed within an intensive study area of 2km from the development site. The results have been discussed by period within the context of the surrounding landscape as well as regional and national research objectives.

There are duplicate HER and NMR records for heritage assets and for designated sites, scheduled monuments and listed buildings. In addition there are duplicate HER records for Landmap historic landscape. One erroneous HER record was identified during the assessment. This relates to a Roman copper ingot (PRN 3070) discovered beyond the 2km study area, near Rhos Goch railway station.

Undated Sites

There are four cropmarks of circular features reported within the 2km study area. These are located at Tyn-y-Gors (PRN 38098), 300m southwest of Rhos-isaf (NPRN 402212; PRN 5198), approximately 200m northwest of Bryn Llewelyn (PRN 16096) and some 200m northeast of Llanlleiana (PRN 25710). These monuments are all undated, but potentially represent later prehistoric or Roman settlement enclosures.

There is a sub-rectangular enclosure at Rhyd-y-Groes, formed by the partial remains of a stone wall (PRN 38100). This undated monument is situated on the edge of the study area, some 2km east-southeast of the proposed turbine.

Palaeolithic (c.450,000 – 10,000 BC) & Mesolithic (c.10,000 – 4,400 BC)

The earliest evidence for human activity on Anglesey dates from the Mesolithic period (7000-4000 BC). Mesolithic activity usually consists of scatters of flint tools, which have been located at a number of coastal locations on the island and at Llyn Alaw reservoir (PRN 7046). Along the Anglesey coastline are a number of submerged forests dated to this period, with a large concentration on the western side by Holy Island (NPRN 524743, 524764 & 524779), that evidence a rise in sea level since the Mesolithic period and may explain the paucity of remains from both the Palaeolithic and Mesolithic periods as the encroaching water would have submerged or destroyed physical remains within the new tidal zone.

Neolithic (c.4,400 – 2,300 BC)

Neolithic chambered-tombs are found across Anglesey, along coastal edges and further inland, but typically occupy elevated topography such as ridges, promontories, and headlands. There are remains of a chambered tomb near Llanfechell (PRN 3046). Maen Chwyf Stones (SAM AN076), north of Llanerchymedd, may also mark a Neolithic burial chamber, but these stones may also be naturally occurring.

Within the intensive study area, a Neolithic site (NPRN 309535; PRN 29454) has been identified has been identified approximately 250m northwest of Carrog farm. Archaeological excavation at this location revealed evidence of activity (pre-dating a later prehistoric enclosure) that comprised a series of pits containing worked flint and chert and fragments of early Neolithic pottery. This monument is located some 1.6km southwest of the proposed turbine.

Bronze Age (c.2,300 – 800 BC)

An important group of Neolithic and Early Bronze Age ceremonial monuments are known in the area to the west and north of Llanfechell. These comprise a single standing stone and, a group of three standing stones in a triangular arrangement at Llanfechell (Cadw SAM AN030). Standing stones within the wider study area include the Llys Einion Standing Stone (SAM AN077), Llanfaethlu Standing Stone (SAM AN 083), Glan-Alaw Standing Stone (SAM AN090) and Werthyr Standing Stone (SAM AN150). There are also standing stones southeast of Bodewryd (SAM AN078), some 410m north of Llanfechell Church (SAM AN080) and southwest of Pen-yr-Orsedd (SAM AN081). Within the intensive study area a probable standing stone (PRN 16086) is recorded some 75m northeast of Bryn Llewelyn. Another stone (PRN 27070) is reported on the coast, at Cemaes Bay, west of Penrhyn Mawr, but this may well be a natural feature.

Bronze Age artefacts discovered on Anglesey significantly include stray finds of palstave axes, spearheads, flanged axes. Hoards of bronze objects also appear to have been buried for later retrieval or deposited as religious offerings, often at the edge of wetland or near the confluence of rivers or streams, such as the artefacts found near Llangwyllog (PRN 2144). The latter site is located by a stream, which indicates the hoard represents a votive offering. Two stray finds are recorded within the intensive study area: A bronze palstave (PAS NMGW-61A406), probably dating to the beginning of the Middle Bronze Age and belonging to Acton Park metalworking tradition, *circa* 1450-1350 BC; and a decorated flat axehead (PAS NMGW-6152E8), dating to the end of the Early Bronze Age, *circa* 1700-1500 BC. Both finds were discovered to the south of Cemais.

Burnt mounds are fairly common in North Wales and are typically found near or alongside watercourses. This type of monument usually consists of a mound of heat-shattered stone and charcoal, often containing pits or troughs with a hearth nearby. Although the purpose of burnt mounds is unknown, several functions have been hypothesised, such as cooking food or textile-dyeing. While burnt mounds have been dated from the Neolithic to the medieval periods, the majority of the excavated burnt mounds in Anglesey have been dated to the Middle Bronze Age. Burnt mounds have been found at Carrog (PRN 27515), to the south of Rhyd-y-groes Wind Farm (PRN 38101) and between Amlwch and Rhosgoch (PRNs 3559 & 3565).

Bronze Age burials are characterised by individual burials in cist or pit graves and occasionally in cairns or flat cemeteries. This indicates a move from communal burial of the Neolithic to individual burial. The Bronze Age sites represented on Anglesey consist of round barrows and inhumations within cist graves (stone-lined graves, usually covered by a single capstone).

Within the intensive study area, a Bronze Age round barrow is located at Pen-y-Morwydd (SAM AN110), prominently situated on top of a small hill between Rhosbeirio and Llanfechell. A probable barrow cemetery is recorded to the southwest of Carrog farmstead (NPRN 410181; PRN 34697), represented by plough-levelled remains of three ring ditches, each approximately 20m in diameter. The earthen burial mounds appear to have been positioned in a line along this ridge. Other evidence for Bronze Age burial includes the reputed find of an urn (PRN 3050) at some point during the 19th century in vicinity of Llanbadrig. Burial mounds recorded within the wider study area include Cors-y-Bol Earthwork (SAM AN091), Bedd Branwen Round Cairn (SAM AN098) and Pen-y-fynwent (SAM AN125).

Within the intensive study area, a cist burial (PRN 3061) is recorded some 100m southwest of Llanleiana. This discovery is reported to be stone-lined cist and a skeleton, found in 1841. Another cist burial (PRN 3058) was discovered in 1867 at Rhosbeirio farm. The latter comprised a contained a skeleton and beaker, probably dating from around 1500 BC.

Few Bronze Age settlements have been identified on Anglesey. It is thought that Early Bronze Age (2500–1500 BC) settlements comprised individual roundhouses. Groups of roundhouses are most typical of Middle Bronze Age settlement (1500–1000 BC). Enclosed sites on high, defensible upland

positions are found in Southern England during the Late Bronze Age (1000–700 BC) and there is evidence for this class of sites on Anglesey, with occupation extending into the Early Iron Age period (800- 400 BC).

A hill-top settlement (NPRN 309535; PRN 29454) dating to this period has been identified near Carrog farm. This consists of a circular ditched enclosure, some 30m in diameter, with an east-facing entrance. Defended prehistoric domestic enclosures can be seen exploiting the natural elevated environs elsewhere on Anglesey, such as at Llanfairpwllgwyngyll (PRN 24788). A number of other undated settlement enclosures on Anglesey may date to the same period, such as the cropmark feature (PRN 7362) situated approximately 350m northwest of Carrog. This site is located some 100m northwest of Carrog prehistoric hill-top enclosure (NPRN 309535; PRN 29454).

The enclosure at Llifad (Cadw SAM AN079) might be of similar date: this earthwork consists of a rampart and ditch enclosing a roughly pentagonal area, about 41m north-south by 45m, with a downslope west-facing entrance. Similarly, Pen-y-fynwent (SAM AN124) is set on the summit of a low hill, A bank and ditch enclosed a roughly pentagonal area about 32m north-west to south-east by 36m, with a single entrance on the northeast. Y-Werthyr Enclosure (SAM AN158) also represents a later prehistoric type settlement set on the summit of a low rounded hill. This is a roughly oval enclosure about 140m north-east to south-west by 100m. The surviving earthworks do not present a coherent pattern, but from the air a double ditched circuit is clearly visible.

Castell Crwn (SAM AN029) may represent a prehistoric settlement enclosure or a medieval castle. This monument comprises an oval earthwork enclosure set on low-lying ground. The enclosure is about 27m north-south by 22m. It is enclosed by a rampart and ditch with a counterscarp remaining on the northwest.

Iron Age (c.800 BC – AD 43)

Hillforts and related fortifications emerge during the later part of the Late Bronze Age into the Iron Age and are the dominant features of this period. One of the largest promontory forts on the island is Dinas Gynfor (Scheduled Monument AN038). The fort is situated on a prominent headland on the north coast of Anglesey (discussed above). Within the wider study area, the place-name ‘Cestyll’ (English: ‘castles’) at the western neck of the Wylfa headland may also represent the location of a former coastal promontory fort, although nothing now survives (PRN 3538, 3539).

Smaller enclosed Iron Age settlements typically include single or clustered roundhouses, hut sites, rectilinear enclosures and concentric enclosures. These are sometimes palisaded (consisting of a defensive fence or wall made from wooden stakes) and represent the precursors of the stone walled-hut groups which are a major feature of the Romano-British landscape. An irregular enclosure (NPRN 86848; PRN 61454) probably dating from this period is located north of Pen-y-Morwydd hill and south of Tai Hen farmstead. This is a generally rectilinear ditched concentric enclosure. The inner circuit defines an area some 46m across. The outer extends about 110m northeast to southwest by 100m overall. There is a possible northwest-facing entrance. This monument is some 1.55km south of the turbine. Another small circular enclosure (NPRN 402212; PRN 5198), some 20m across, was identified some 300m southwest of Rhos-isaf on an aerial photograph in 1990. This feature, which possibly dates from the Iron Age, is located some 400m north-northeast of the proposed turbine.

Roman (AD 43 – 409)

Some of the Iron Age settlement types continue into the Romano-British period. These notably comprise enclosed and unenclosed hut groups such as the walled settlement of Din Lligwy, located on the eastern side of the island, near Moelfre (NPRN 95541).

Roman activity appears to have been concentrated on the southern side of Anglesey, however a number of sites have recently been identified within the wider (10km) study area. These include a hilltop enclosure, located approximately 1km southwest of Cemlyn Bay, that has been reinterpreted as a Roman fortlet (PRN 37976). This is a rectangular enclosure, with rounded corners, measuring some 45m by 50m. There is an entrance at the centre of north side and traces of several rectangular buildings in the interior. This discovery is comparable to sites in mainland Wales, which have been interpreted as fortlets with a possible additional role as signal stations associated with shipping. Potential Roman watch-towers have also been recorded along the north-western coastline of Anglesey (Pen Bryn-yr-Eglwys, NPRN 43547) and on Holyhead (Caer-y-Twr, NPRN 308080). Excavations at Caer-y-Twr revealed the footings of a square tower, with a construction date after AD 340 and a period of use extending until the end of the fourth century. This phase of building watch-towers may have been a direct reaction to incursions by Irish pirates who were recorded as raiding and settling along the Welsh coastline at this time.

Within the 2km study area, a probable Roman enclosure is recorded to the south of Graig Wen (PRN 5220). This enclosure is formed by stone walls of massive construction, of which one course survives. There is evidence for a rectangular feature within the enclosure as well as a hut circle; the latter is 8m in diameter.

The distribution of stray finds within the intensive study area provides further evidence for Roman activity on the north Anglesey coast. A small coin hoard, comprising seven radiates dating from the third century, have been found at Cemaes (PRN 998; PAS IARCH-1544E8). The discovery of a Roman saddle quern is also reported within the village (PRN 5384). In addition, fragments of a brooch and further coins, including a second century sestertius, have been found to east of Cemaes, at Cemaes Fawr Farm (PRN 999; PAS IARCW-63DAFF31B). It is not clear whether these are indicative of Romano-British settlement in close proximity to the proposed development area, or whether these items are the result of mercantile activity.

Several copper 'cakes' (ingots) have been recovered from the vicinity of the copper mines at Parys Mountain, south of Amlwch. These are good indicators that copper was extracted from the mountain in the Roman period. However, evidence for Roman workings at Parys Mountain is mostly circumstantial and it is possible that they originate from the mines at The Great Orme or even further afield.

Early Medieval Period (AD 410 – 1066)

Known sites of early medieval date are poorly represented. Evidence of early medieval settlement is largely based on references made in documentary sources, and this indicates a pattern of disparate farming sites located in close proximity to a small number of emerging minor ecclesiastical complexes on Anglesey.

There is evidence for these early Christian sites in the form of a 6th century inscribed stone found on Llanol farm (PRN 2750) and a 9th century incised cross-slab found near Llanbadrig Church (PRN 3059, 3052). The latter suggests the foundation of an ecclesiastical site on the eastern side of Cemaes Bay prior to the existing 12th century church. Llanbadrig church is dedicated to the early Christian saint St Padrig (St Patrick), who reputedly swam ashore at this location after being shipwrecked off the Anglesey coast, founding the church in about 440 AD.

It is probable that early monastic community had been founded at Llanfechell by the 10th century AD. The present church at Llanfechell dates from the 12th century (PRN 3051) and is recorded in the Norwich Taxation of 1254. The curvilinear enclosure is however indicative of an earlier ecclesiastical site. In an extent of 1352 the lands there are described as being 'held of St Mechell' (Carr, 1972). This would imply the former existence of a quasi-monastic community of canons and

the presence of a clas church, that is a church and community headed by an abbot, with its own lands.

The remains of a series of early medieval long cist burials have been recorded (PRN 3545) approximately 1.5km southeast of the present church of St. Patrick, Llanbadrig. The use of long cist burials within northwest Anglesey appears to be consistent with wider Welsh Christian burial practise in the 8th to 9th centuries AD. Their location, remote from the site of later churches or farmsteads, may be indicative of a wider pattern of earlier medieval settlement movement which accompanied the creation of the first parochial systems in the later 8th century AD.

It is during the post-Roman period that Anglesey emerged as a power-base of the Princes of Gwynedd, possibly centred on Aberffraw on the west coast. The island appears to have been subdivided into a number of regional districts for purposes of royal administration and the collection of dues and renders. These regional units were called commotes. There were six on Anglesey and in each commote there was a royal manorial centre (Welsh 'maerdref') which provided a focus for administration and taxation within the commote. The northwest corner of Anglesey formed the commote of Talybolion. The commotal maerdref lay at Cemais, where the demesne land is documented as extending to over 400 hectares.

Medieval (AD 1066 – 1539)

There are no surviving medieval domestic or agricultural buildings within the study area. During this period there was potentially some form of settlement to east of Cemaes Bay (PRN 61148). The focus of medieval Cemaes appears to have been on the ground rising east of the sheltered bay, as indicated by field-names and the place-names 'Cemaes Fawr' and 'Neuadd Cemaes' (PRN 897). Prior to the invasions of Edward I in 1282-3, Cemaes appears to have held one of the small royal courts of Gwynedd; Dafydd ap Llywelyn, Prince of Wales, is recorded as having issued an act at Cemaes in 1238. The 12th century potential motte, Castell Crwn (PRN AN029), may indicate an alternative site for the court. The area of potential medieval settlement on the east side of the bay is located over 750m northwest of the proposed development site.

Nucleated settlements recorded in the wider landscape include the free township of Clegyrog, located to the south of Cemais; the lands are largely represented by the farms of Clegyrog Blas, Clegyrog Ganol, Pentreheulyn and Rhosbeirio.

A defining feature from the 12th century onwards is the construction or rebuilding of churches and chapels in the study area. Churches are first recorded in the Norwich Taxation of 1254, and this provides a representative account of the distribution of medieval parishes within the study area. Elements of medieval building fabric survive at parish churches such as St. Patrick's Church, Llanbadrig (PRN 5356) and others including St Mechell's (LB 5383) and St Peirio's (LB 5349). The remains of isolated medieval chapels have been identified for Capel Llanlleiana (NPRN 43599; 3044), situated on the coast near Dinas Gynfor fort (Cadw AN038): this was formerly a chapel of ease to Amlwch. The site of Capel Gwen Hir (NPRN 43563; PRN 3060) has been identified at Betws farm. Within the study area there is also an association between holy wells and isolated churches; notably, the remains of Ffynnon Badrig Holy Well (NPRN 32153; PRN 3043) is located to the northwest of the Church of St Patrick, Llanbadrig (Cadw 5356). In addition, the Church of St Patrick is associated with a potential medieval landing place at Porth Padrig (NPRN 525336).

A number of corn mills are recorded within the study area in documentary sources such as the Extents of 1284, 1306 and 1352. These include details of the tolls and revenue gained from crown-owned mills, including Melin Wen and Bodewryd (PRN 36137). The probable site of a medieval water mill has been identified to the south of Cemaes (PRN 36110), situated along Afon Wygyr. The remains have largely been destroyed by a 19th century brickworks, although leats potentially survive. It is possible that some of the mills recorded in the medieval Extents were windmills. Place-name

evidence also suggests that the distribution of mills within the study area is likely to have been higher than the number of identified sites; for example, a documentary reference in 1430, indicates that the earliest known fulling mill on Anglesey (PRN 1734) was in operation at Llanfechell.

Archaeological evidence indicates the practice of open-field farming within the wider landscape, with narrow strips of arable arranged within several large unenclosed fields in close proximity to settlements. Surviving evidence of open farming has been identified at Mynachdy in the form of ridge-and-furrow earthworks, land clearance cairns, terraces and field boundaries. Here, localised differences in the method of demarcation of cultivation strips were observed to consist of partly stone-faced turf-covered banks (clawdd) and orthostatic walls.

By the 16th century the enclosure of the open fields with banks and ditches had begun and the dispersed holdings were amalgamated into parcels and closes. Adjacent open field strips were later amalgamated and enclosed. Enclosure appear to have been underway in north Anglesey during the later medieval period, but as the chronology of enclosure varied from parish to parish, and is not documented, so this process cannot be dated or field boundaries dated other than on typological grounds.

Post-Medieval (AD 1540 -1899)

During the 17th and 18th centuries, Cemaes Bay was the most important landing place on Anglesey's north coast and was the centre for fishing, shipbuilding and salting of herrings (PRN 525327). Here, a new pier was completed in 1835 (NPRN 525343) that uses a rocky outcrop that extends in a dogleg for some 95m. Historic charts note that the town also had a coastguard station. Development at Cemaes (NPRN 268040) in the late 19th century was concentrated along the western side of the Afon Wygyr, near the harbour, with additional settlement along the coast, at Penrhyn, west of Cemaes. There was a small harbour (NPRN 525345) at Penrhyn, and the abandoned quay and harbour arm shown on modern aerial photography (NPRN 525344).

A defining feature in the post medieval landscape is the introduction of non-conformist chapels as part of nucleated settlement patterns. Such chapels are particularly numerous in the coastal settlements. At Cemaes, Capel Bethel had been built by 1827 (NPRN 8693; PRN 7693) and Capel Bethlehem by 1856 (NPRN 8694; PRN 7969). There was another chapel at Penrhyn (PRN 7698). A new parish church, St Padrick's New Church (NPRN 43638), had also been built on southern side of Cemaes in 1865; this was intended to replace the ancient church of St Padrig, some 1.7km to the northeast. Other significant 19th century buildings at Cemaes include the former woollen mill (PRN 59791) and former British School (NPRN 419111).

The town of Amlwch was established in the 18th century and expanded considerably in the period immediately following "The Great Discovery" of copper ore at Parys Mountain in 1768. Acts of Parliament were passed in 1793 and 1812 to enlarge the harbour and by 1790 a rolling mill and two smelting houses had been built as both the Parys and the Mona Company took to smelting ores at Amlwch. At the beginning of the 19th century there were twenty furnaces in blast. The 150 feet long pier and small lighthouse meant were completed in 1816.

Within the rural hinterland of Cemaes and Amlwch, the enclosure of medieval open-field systems as well as wastes and commons continued in this period. The sale of Crown lands during the 17th century resulted in the fragmentation of older land patterns and the formation of large estates. Changes in proprietorial patterns also resulted in a number of new houses and farmsteads; examples include: Plas Bodewryd (PRN 5334), built in the early 16th century. A series of 'smallholdings' were also created from newly enclosed land, for example at Tan-yr-Allt (PRN 36600) and Pen-y-Groes (PRN 36581).

The post-medieval farm buildings and cottages associated with smallholdings tend to be of modest construction and built in accordance with local vernacular building traditions. They typically comprised one or two-storey farmhouses with rubble-built walls, slate roofs with slate gable coping and square chimney stacks. Many of these farm buildings have been extensively remodelled at various stages throughout the post-medieval period, but especially in the 19th century. In the 1800s a number of larger farmhouses were constructed or extensively remodelled as part of the small-scale gentrification of the Anglesey countryside, and historic 19th century gardens are recorded at Bryn Llewelyn (PRN 16087 & 16089) and at Carrog, Lanfechell (NPRN 86527).

There are five historic farmsteads located within 1km of the proposed turbine. Nant-y-fran Farm is positioned some 150m southeast of the development. There are three farmsteads to the north of the proposed turbine; Cemaes Fawr Farm, Neuadd and Betws, positioned approximately 850m west-northwest, 800m northwest and 900m east-northeast of the turbine site, respectively. There is one farmstead within the southern 1km study area; Tyn-y-Gors, located some 800m southeast of the proposed turbine. The 20th century farmstead Rhos-isaf, is also positioned some 600m northeast of the development site.

Fifteen additional historic farmsteads have been identified within the northern half of the 2km intensive study; Bryn Llewelyn (PRNs 16088, 16090-1 & 27676), Llanlleiana (PRNs 25700-2), Penrhyn Mawr (PRN 27065), Isallt, Cae Owen, Ty'n-llan, Tyddyn Rhydderch, Llanbadrig, Glan-yr-afon, Cae Adda, Ty-du, Rhyd-y-clafdy, Buarth-y-foel, Tregynrig and Peibron.

Nine additional historic farmsteads have been identified within the southern half of the 2km intensive study; Rhosbeirio (NPRN 15857; PRN 61451), Pen-y-bryn, Gors, Carrog, Carrog Isa, Criw, Tai Hen, Shop-y-goeden and Rhyd-y-groes.

Two rural nonconformist chapels are recorded within the intensive study. Chapel Moriah (NPRN 8697; PRN 7697), located south of Bryn Llewelyn, had been built by 1826. Chapel Hephisibah (NPRN 8839; PRN 7839), which was built in 1850, is located some 150m east of Rhosbeirio. Both chapels were rebuilt in 1902.

Within the 2km study area post-medieval rural dwellings or agricultural buildings have been identified at Llanbadrig (PRN 55946), Ty'n-llan (PRN 27069), northeast of Porth Cynfor (PRN 25713), some 150m west of Bryn Llewelyn (PRN 16093 & 16095) and approximately 300m northeast of Bryn Llewelyn (PRN 16121), where there is an associated pond and stone boundary wall (PRNs 16115 & 16118). Additional buildings are reported some 300m west (PRN 25711) and 150m northeast (PRNs 25707-8) of Llanlleiana.

Two wells are recorded within the intensive study area; some 300m north-northeast (PRN 3199) and 250m south-southeast (PRN 25704) of Llanlleiana farm. These are undated, but are likely to be associated with the post-medieval landscape of enclosure.

The present landscape predominantly retains the pattern of post-medieval enclosure. The recorded features within the intensive study area significantly include stone cairns (PRN 16098) located some 300m north of Bryn Llewelyn, which are indicative of field clearance. There are earthen banks (PRN 38097) north of Rhyd-y-Groes. A holloway (PRN 16120) is also recorded to the west of Bryn Llewelyn and a probable post-medieval track (PRN 16119) and rectangular enclosure (PRN 16092) are situated directly northwest of the same farmstead. This field pattern additionally contains a number of sheepfolds, located some 200m northeast (PRN 25709), 350m east (PRN 25716) and 150m southwest (PRN 25703) of Llanlleiana farm. Further sheepfold are to be found to the south of Ty'n-llan (PRN 27068) and west of Penrhyn Mawr (PRN 27071). In addition to features associated with field boundaries, the remains of five certain and two probable pillow mounds (NPRN 24374; PRN 3071) are recorded to the south of Pen-y-Morwydd Round Barrow (SAM AN110). The pillow mounds are estimated to average 13m long by 4.2m wide. These are likely to post-medieval rather than medieval features.

The later 18th century marked a period of increasing mining activity and the development of several prospecting copper and ironstone mines along the north Anglesey coast, notably at Porth Llanlleiana (PRN 400751), Porth Padrig (PRN 34026) and Carmel Head (PRN 21920). Within the intensive study area there were ironstone mines some 200m northeast of Bryn Llewelyn (PRN 21924) and some 250m west of Llanlleiana (PRN 21928). Copper mine are recorded north of Llanbadrig (PRN 21930) and at Porth Llanlleiana (NPRN 400751; PRN 25715) at Porth Llanlleiana, with a potentially associated reservoir pond and leat (NPRN 400752; PRN 25714) to the southwest of the works. There are mine shafts reported approximately 150m (PRN 27674) and 350m (PRN 27672) north of Bryn Llewelyn. Former quarries were located at Penrhyn Mawr (NPRN 525340; PRN 27066), 100-200m north of Bryn Llewelyn (PRN 16097 & 27675), as well as some 200m south of Graig Wen (PRNs 16113-4), 50m southeast of Llanlleiana (PRN 25706) and 100m north of Rhosbeirio (PRN 61453). The remains of limekilns have been identified on the coast at Porth Padrig (NPRN 33754; PRN 7185), at Penrhyn Mawr quarry (PRN 7188), northwest of Penrhyn Mawr Farm (PRN 27072) and east of Llanlleiana (PRN 25705). There is archaeological evidence for smelting at Porth Padrig (NPRN 34026) probably dating from the post-medieval period, but this could be earlier.

In the late 19th century large brickworks were constructed at Porth Wen (AN109), which operated throughout the first half of the 20th century. The mineral railway (PRN 16107), southwest of Graig Wen, formed part of the brickworks. The Llanlleiana Brick & Tile Works (NPRN 40312; PRN 7183-4) was formerly located within the intensive study area as well as the nearby landing place, Porth Llanlleiana (NPRN 525335). The works extracted china clay found at the nearby Dinas Gynfor fort (Cadw AN038). Production ceased on this site in around 1920. There was also a 19th century brickworks at Cemaes (PRN 36110). Key to the success of these sites was the availability of local clay deposits, access to lime and their position on the coast, as bricks could be shipped directly to Liverpool.

There are two post-medieval finds recorded on the Portable Antiquities database. These comprise a fragment of a large bell (PAS WMID-A3AE06), found on Cemaes beach, and a lead alloy musket ball (PAS WMID-FAD235), found on the headland west of Glan-yr-afon.

Modern (1900 – Present)

On the eastern side of Cemaes Bay a new hotel (now Gladlys Hotel) had been built around turn of 20th century (PRN 409440). The grounds of what is now the Cemaes Bay Hotel are recorded as historic gardens (NPRN 86523). Another feature evident on the old OS maps is a raffle range situated to the west of Penrhyn Mawr (NPRN 252342). A butt (firing target) and post (PRNs 27063-4) are located on the eastern side of a small headland at Pig-y-Barcud, and here a small square building has been interpreted as a signal station (NPRN 525341; PRN 27067).

Within the intensive study area, the most significant landscape change during this period is expansion of Cemaes village to the west of the High Street, east of the harbour and south of the A5025, with the addition of a police station and a new school. In contrast, the rural settlement pattern of dispersed farmsteads is almost unchanged throughout this period; the only notable modern building is a pumphouse (PRN 16094) located some 150m west of Bryn Llewelyn. However, many of the historic farmsteads appear to have been extended, and may have been rebuilt, during this period. It is also likely that some rural properties were rebuilt during this period.

The most significant change within the wider study area is the construction of the Wylfa Power Station. In 1960 the Central Electricity Generating Board (CEGB) applied for consent to build a power station on Wylfa Headland. Work began on the construction of two Magnox reactors in 1963. Wylfa was the last and largest of this design of reactor. The power station was officially commissioned in 1972.

The most recent change to the north Anglesey landscape is the construction of wind turbines. These are evident across the intensive study area, the largest being the Rhyd-y-Groes wind farm (NPRN 91566), first commissioned in 1992.

6.12 Previous Archaeological Work

In 2011 a small hill-top enclosure was evaluated by Gwynedd Archaeological Trust approximately 250m northwest of Carrog farm (NPRN 309535; PRN 29454). Cropmarks at this location show a circular ditched enclosure some 30m in diameter. Upon excavation, the site was determined to be a Later Bronze Age or Early Iron Age defended settlement, with underlying features and artefacts showing use during the Neolithic period.

A gradiometer survey and trenched evaluation was undertaken in 2015 for six proposed turbines near Rhyd-y-Groes (Wessex Archaeology Report Ref 102823.01 & 102824.03). The results indicate a high potential for significant prehistoric and/or Romano-British archaeology. The areas of particularly high archaeological potential are positioned between 500m and 1km west, and 1-2km east of Nant-y-fran farm.

A gradiometer survey has recently been carried out by Stratascan in the general vicinity of Nant-y-fran (pers comm, Jenny Emmet, GAT). The results suggest a high potential for prehistoric and Roman activity across the landscape within which the proposed development is located.

6.13 Ancient Woodland (Figure 10)

There are five areas of ancient woodland recorded on the Ancient Woodland Inventory by the Forestry Commission (Wales). The woodlands are generally situated between Cemaes and Llanfechell. Two tracts of woodland are located 50-200m southwest (26076) and 450-750m south (AW 26058) of Cemaes Fawr Farm; these are over 1km west to southwest of the proposed turbine. Three areas of woodland are located 100-200m south (AW 26073), 300-400m northeast (AW 26074) and directly east (AW 26057) of Carrog farm; these are between 1.1km and 1.65km south-southwest of the proposed turbine.

6.14 Map Regression (Figures 11-15)

The development area is first shown on the 2 inch Ordnance Survey (OS) Drawing of 1818 located to the northwest of Nant-y-fran. The farm is annotated on this map and the subsequent 1 inch First Series of 1840. No other farmsteads, smallholdings, dwellings or outbuildings appear to be shown within the scheme area. It is noteworthy that the earliest map depicts the site within small irregular enclosures. Whilst the field patterns are normally illustrative on the OS Drawing, this nonetheless may be indicative of medieval enclosures prior to rationalisation and enlargement of this field pattern. A stream is shown to the east of Nant-y-fran farm on both the 1818 and 1840 maps.

A limited number of field boundaries are depicted on the 1840 map, although the curvilinear boundary that defines the present northern and western enclosure is clearly depicted, as is the current north-south lane to the west of Nant-y-fran. The farm itself is either not marked or has been marked inaccurately to the southeast of the development site. In general, it appears as though the land surrounding Nant-y-fran has not been surveyed in detail for the tithe map, and in particular the stream that runs north-east to south-west near the farm has been omitted from this map. This is perhaps because the land here is under the same ownership. The apportionment gives the landowner of this large parcel of land (262 acres, 3 roods, 9 perches) as Thomas Rice Esquire. The occupier is recorded as Thomas Jones, and the field name is described simply as 'Nant-y-fran'.

The field pattern within the scheme area is largely unchanged on the OS First Edition (25 inch) map of 1889. Some possibly additional linear boundaries are nonetheless shown subdividing the large field surrounding Nant-y-fran on the 1841 title map. The farmhouse and outbuildings are first shown accurately on this map. A possible disused quarry pit is also noted to the south of the development site. The stream flowing to the east of Nant-y-fran is noted as comparatively unchanged from the 1818 and 1840 maps. There is no significant change to the layout of fields surrounding Nant-y-fran on subsequent map editions, and the site of the proposed turbine is clearly depicted on the 1974 survey at 1:2,500.

6.15 Walkover Survey (Plate 1)

The site visit was undertaken on 20th September 2016. No earthwork features or structures of historical significance were identified within the application area during the survey.

The visual impact of the scheme was assessed on 20th and 27th September 2016. Conditions were overcast and cloudy but visibility was sufficient to assess mid and longer distance views from the development site towards heritage assets in the surrounding landscape.

6.16 Aerial Photographs (Figure 16)

The aerial photographs of the scheme area show no clear cropmarks within the development site. There is no evidence for cropmarks on the black & white RAF verticals of 1945 and 1948. There are large, possibly linear, cropmarks evident on a vertical shot of 1969, similar to the aerial photograph on Google maps. These photographs potentially show the underlying bedrock or may define former extraction activity. Nothing similar is apparent within surrounding fields. It is possible that the cropmarks denote archaeological, however no clear features can be discerned. There is no lidar coverage for the site at an appropriate scale.

7 Assessment of Physical Impacts

7.1 Designated Assets

The development will have no direct (physical) impacts (construction or operational) on any designated assets; there are no Scheduled Ancient Monuments or Listed Buildings located within 500m of the proposed wind turbine.

7.2 Archaeological Resource

The value of the archaeological resource within the development area is unknown. The research assessment has nonetheless identified a high potential for archaeological remains in the vicinity of Nant-y-fran farm. Previous archaeological work associated with existing windfarms in the locality (and related planning applications for additional turbines) has identified significant prehistoric and/or Romano-British features within the surrounding landscape. A small circular enclosure (NPRN 402212; PRN 5198), some 20m across, has also been identified as a possible Iron Age enclosure, approximately 400m north-northeast of the proposed development site. In addition to occupation sites, there is a high potential for buried field patterns in this landscape dating from the prehistoric, Roman and medieval periods. There is minor potential for archaeological deposits related to medieval settlement: the focus of medieval activity is concentrated some 750m further east, near Cemaes Bay, and early medieval ecclesiastical sites have been identified at Llanbadrig (PRN 3059, 3052) and Llanfechell (PRN 3051).

The severity of physical impact of the development proposals has been assessed as major in terms of ground disturbance for the turbine foundations, associated access track and service trenches. The value of the potential archaeological resource has not been determined, so the potential significance of effect of the development could range from neutral to severe.

8 Assessment of Visual Impacts (Plates 2-11)

8.1 Registered Historic Landscapes

Amlwch and Parys Mountain Registered Landscape (HLW-GW-1) is located approximately 5.5km east-southeast of the proposed turbine. The landscape encompasses former 18th to 19th century copper mines. Copper extraction potentially dates back to the Bronze Age, and was probably mined during the Roman period. This area is of high archaeological and historical significance. The landscape represents a high or very high heritage asset. Parys Mountain rises to some 150m OD; there are extensive views from this location across the countryside and out to sea. The ZTV of almost the entire turbine extends across the upper northwest side of Parys Mountain, whilst the ZTV of the upper section of the turbine and the full rotor sweep encompasses areas to the north of the mountain and between Parys Farm and Cerrig-man. There would also be a potential view of the turbine hub and upper sweep of the blade within Amlwch, to the north of the mountain. The distance of the proposed turbine from this landscape indicates that the visual impact will be negligible, resulting in a minor significance of effect. The visual impact of the (existing) wind farm surrounding Nant-y-fran has been assessed as minor, the resulting significance of effect being moderate to major.

8.2 Special Landscape Areas

The Parys Mountain landscape (SLA 13) is located over 4km east-southeast of the proposed turbine. Parys Mountain forms a visually prominent and unique landmark along the north coast of Anglesey. There is a high degree of intervisibility between the sea, coast and Parys Mountain. This area is roughly coterminous with Amlwch and Parys Mountain Registered Landscape, the value of the Special Landscape Area is considered to be high. As previously noted, the ZTV of almost the entire turbine extends across the upper northwest side of Parys Mountain. In addition, the ZTV of the upper section of the turbine and the full rotor sweep encompasses the lower northwest slopes of Parys Mountain as well as areas around Penrhyd Lastra, between Nebo and Pengorffwysfa as well as around Cerrig-man. There would also be a potential view of the turbine hub and upper sweep of the blade within and to the south of Amlwch.

Overall, the visual impact of the proposed turbine has been assessed as negligible, resulting in a minor significance of effect. The visual impact of the (existing) wind farm surrounding Nant-y-fran has been assessed as minor, the resulting significance of effect being moderate to major.

Mynydd Mechell landscape area (SLA 14) is located over 3km southwest of the proposed turbine. This is a distinctive landscape, characterised by a craggy, strongly undulating landform with small irregular rough pasture fields bounded by stone walls. The value of this landscape area has been assessed as high. The ZTV of almost the entire turbine extends across Mynydd Mechell (Coeden, Creigiau-mawr) as well as areas around Bodelwyn, Tyddyn-Prys, Clegyrog Ganol and Pentreheulyn. The ZTV of the upper section of the turbine and the full rotor sweep encompasses areas to the north of Tyddyn-Prys and north of Clegyrog Ganol. There would also be a potential view of the turbine hub and upper sweep of the blade across numerous additional areas of the Special Landscape Area. The proposed scheme will result in a minor visual change to key landscape elements (particularly Mynydd Mechell) and many other parcels of the historic landscape. However, only long-distance views will be affected and not views towards or across this special landscape area. e SLA. Views from the SLA altered. In consequence, the visual impact of the proposed turbine has been assessed as negligible, resulting in a minor significance of effect. The visual impact of the (existing) wind

farm surrounding Nant-y-fran has been assessed as moderate, with the significance of effect being major.

8.3 Registered Parks and Gardens

Cestyll Garden (Cadw Gd45ANG) is located approximately 4km to the west of the proposed turbine. The ornamental garden occupies a small valley leading down to the sea, and is laid out on either side of the stream which runs down it. Cestyll Garden is Grade II listed. The value of the registered garden is considered to be high. The ZTV of the upper section of the turbine and the full rotor sweep extends across part of the inland component of the registered garden. There is potentially a view of the upper sweep of the turbine blade in part of valley gardens and near the coast.

The principal views from the garden are towards sea, encompassing Seascape Character Area 8 (Amlwch & Cemaes) and Marine Character Area 6 (North Anglesey Coastal Waters). The long-distance views eastwards do not represent significant sightlines from the registered garden, and there are no interrupted views in this direction due to field boundaries and trees. Also, there is no clear view of the turbine (or surrounding wind farm) from within the valley gardens, where vegetation, screens long-distance views. The severity of impact has been assessed as negligible at worst; the scheme is more likely to have no impact. The significance of effect will be neutral or negligible.

8.4 Historic Landscapes

Central Study Area

The area surrounding the proposed turbine is located within the Rhosbeirio Historic Landscape (HL052), with Northwest Anglesey (HL057) and Llanfechell (HL072) Historic Landscapes further to the west. There are two Historic Landscape Character Areas to the north of the A5025; Anglesey North Coast (HL053) and Bull Bay (HL071). These areas also form part of the land components for Amlwch and Cemaes Seascape Character Area (SCA8) and the two Landscape Character Areas Northwest Coast (LCA4) and Northwest Anglesey (LCA5). The area north of A5025 is also generally coterminous with North Anglesey AONB.

The entire turbine can potentially be viewed at a number of locations within a few kilometres of the proposed turbine. Within the Rhosbeirio Character Area (HL052), these significantly include a wide corridor extending north of the turbine site southwards by approximately 2.5km, including Criw, Carrog and Tai Hen historic farmsteads. The entire turbine is potentially visible within Penrhhyd Lastra Character Area (HL051) around Four Crosses. Within landscape HL057 the ZTV of the entire turbine covers an area around Bodelwyn, southeast of Llanfechell village.

The full rotor sweep can potentially be viewed at various points within HL052, including Werthyr, Rhyd-y-groes, Rhosberio and Bodewryd historic farmsteads. Within landscape HL057 the ZTV for the motor sweep covers Tregele, Bwlch, Foel fawr and generally southwest of Llanfechell village. This area is located some 2-5km southwest of the turbine. The ZTV for the rotor sweep also encompasses various points along the coast (HL 053), including Dinas Gynfor Iron Age hillfort and Graig Wen, Gaerwen and between Betws and Peibron farms near the A5025.

The turbine hub and upper sweep of the rotor is potentially visible within landscape HL053 around Bodhunod, Gaerwen, Llanbadrig, Bryn Llewelyn, as well as Neuadd and Betws farms. There are also potential views of the upper rotor sweep within landscape HL052 to the south of Cemaes as well as in the vicinity of Neuadd, Betws, Tregynrig and Werthyr, Trogog and Hafodllin historic farmsteads. The ZTV for the upper sweep of the rotor also extends across a wide area within landscape HL051 to the west of Parys Farm. The ZTV also covers a large area around Llanfechell

village, within landscape HL057. There is a general view of the upper sweep of the turbine blades at numerous other locations within landscapes HL051, HL052 and HL057.

Within these landscapes the ZTV map is generally representative of conditions on the ground. The potential visual impact on the Rhosberio (HL052) landscape has been assessed as minor, with the significance of effect also minor. Within this landscape the visual impact of the surrounding wind turbines have an overall moderate to major impact; this represents existing conditions. The potential visual impact on the Anglesey North Coast (HL053) landscape has been assessed as negligible, resulting in a minor significance of effect on this high value asset. The impact of the existing wind turbines is minor, resulting in a moderate significance of effect. The potential visual impact on the Northwest Anglesey (HL057) and Llanfechell (HL072) landscapes has been assessed as negligible, with the overall impacts also negligible; the impact of the existing turbines across these landscapes is minor and the significance of effect also minor.

Southern Study Area

This area encompasses three (Landmap) Historic Landscape Character Areas; Central Eastern Anglesey (HL016), Llanddeusant (HL035) and Llanerchymedd (HL036). Three Landscape Character Areas also extend across this area; these being part of Dulas Bay Hinterland (LCA8), West Central Anglesey (LCA17) and Northwest Anglesey (LCA5).

The ZTV for the upper sweep of the rotor extends across two main areas; these are along a 3km corridor north of Llanerchymedd village (HL036) as well as to the southeast of the Llyn Alaw Reservoir, across a 4km corridor between Gwredog and Glan-y-Gors (HL036). Both areas are over 7km south and south-southeast of the proposed development. The potential visual impact of the proposed turbine on these landscapes has been assessed as negligible, with the significance of effect also negligible.

Eastern Study Area

This area covers five (Landmap) Historic Landscape Character Areas; Central Eastern Anglesey (HL016), Dulas (HL046), Llaneilian / Pengorffwysfa (HL048), Rhos-y-Mynach (HL047) and Penygraigwen / Gadfa (HL049). The study area also includes the land component for Dulas Bay Seascape Character Area (SCA7) and two Landscape Character Areas; namely, part of Amlwch & Environs (LCA6) and part of Dulas Bay Hinterland (LCA8). Part of this area encompasses the Dulas AONB which is largely coterminous with HL 046, HL 048 and HL047.

The full rotor sweep can potentially be seen around Pengorffwysfa (HL048) and Nebo (HL046 & HL047). The turbine hub and upper sweep of blade is potentially visible between Pengorffwysfa (HL048) and Balog (HL048) and also between Amlwch Port and Llaneilian (HL048) as well as at Point Lynas (HL048). The potential visual impact of the proposed turbine on these landscapes has been assessed as negligible, with the significance of effect also negligible.

Western Study Area

This area covers four (Landmap) Historic Landscape Character Areas; Wylfa (HL055), Cemlyn Coastal Strip (HL056), Northwest Anglesey (HL057) and Mynydd-y-Garn (HL059). The study area also includes the land components of two Seascape Character Areas, Cemlyn Bay SCA9 and Carmel Head to Penrhyn SCA10, and two Landscape Character Areas; namely, part of Northwest Coast (LCA4) and Northwest Anglesey (LCA5). The westernmost part of this area encompasses Trwyn Carmel AONB (west of Wylfa and Rhydwynd) and Swatan AONB (to the west of Rhydwynd and Llanfaethlu).

The full rotor sweep can potentially be seen along the headlands east of Carmel Head, near Penbrynyreglwys (HL059), Pant-yr-eglwys (HL059), Mynachy (HL056), Tyn Llan (HL056) and Cestyll (HL055 & HL056). The ZTV also encompasses the high ground inland between Carmel Head (HL059) and Llanrhyddlad (HL057) and includes an extensive area around Llanfairynghornwy (HL059) and Mynydd-y-Garn (HL059). There is also a potential view of the rotor sweep on high ground Pen-y-foel, northwest of Rhydwyn (HL057). The turbine hub and upper sweep of the rotor can potentially be seen between Cemlyn Bay to Llanfairynghornwy (HL056) as well as in one area of Swatan AONB, at Llanfaethlu village (HL057). The potential visual impact of the proposed turbine on these landscapes has been assessed as negligible, with the significance of effect also negligible.

8.5 Seascapes

The Dulas Seascape Character Area (SCA7) encompasses part of the eastern Anglesey coastal zone south of Point Lynas. This also forms part of Marine Character Areas 3 & 4 (mostly beyond the 10km study area). This character area is on the edge of the 10km study area. The proposed turbine has no visual impact on this area. The significance of effect is therefore neutral.

Amlwch & Cemaes Seascape Area (SCA8) includes the north Anglesey coastal zone between Wylfa Head and Point Lynas. This also forms part of Marine Character Area 6. The development site is located over 1.5km inland from SCA 8. The visual impact analysis significantly concerns mid-distance views from the sea, looking inland towards the bays and headlands. The turbine and entire sweep of rotor are potentially visible around Wylfa Head. The ZTV of at least the turbine hub and upper sweep of the blade covers the area north of Cemaes Bay. In addition, the upper sweep of turbine blade is potentially visible between East Mouse (island) and Point Lynas. There is no view of turbine between Middle Mouse and East Mouse islands; this area is also coterminous with the North Anglesey AONB Heritage Coastline. Overall, the visual impact of the proposed turbine on this area has been assessed as negligible, with the significance of effect also negligible. The impact of the (existing) wind farm surrounding Nant-y-fran has been assessed as minor, the resulting significance of effect being moderate.

Cemlyn Bay Seascape Character Area (SCA9) includes the north Anglesey coastal zone between Carmel Head and Wylfa Head. This also forms part of Marine Character Area 6. The development site is located over 4km from SCA 8. As with SCA7, the visual impact analysis significantly concerns mid-distance views from the sea, looking inland towards the bays and headlands. Most of the character area is within the ZTV of the upper section of the turbine and the full rotor sweep. The ZTV of the turbine hub and upper sweep of the blade covers much of the area along the coast; this area is within the Trwyn Carmel AONB Heritage Coastline. Overall, the visual impact of the proposed turbine on this area has been assessed as negligible, with the significance of effect also negligible. The impact of the (existing) wind farm surrounding Nant-y-fran has been assessed as minor, the resulting significance of effect being moderate.

Carmel Head to Penrhyn Seascape Character Area (SCA10) encompasses the part of the western Anglesey coast south of Carmel Head. This also forms part of Marine Character Area 7 (mostly beyond the 10km study area). This character area is on the edge of the 10km study area. The proposed turbine has no visual impact on this area. The significance of effect is therefore neutral.

North of Anglesey Seascape Character Area (SCA29) covers open seas ocean some 1.5km or less beyond the coast from Wylfa Head to Point Lynas (this area does not encompass any coastline). This is roughly coterminous with Marine Character Area 5. The full rotor sweep is visible across SCA29 in the western part of the 10km study area. The central and eastern part of the 10km study area is within the ZTV of the upper rotor sweep. Overall, the visual impact of the proposed turbine on this area has been assessed as negligible, with the significance of effect also negligible. The impact of the (existing) wind farm surrounding Nant-y-fran has been assessed as minor, the resulting significance of effect being minor.

8.6 Conservation Areas

Cemaes Conservation Area is located over 1.5km generally west of the development site; the harbour is approximately 1.35km west-northwest of the proposed turbine. The southern part of the conservation area is within the ZTV of the upper section of the turbine and the full rotor sweep. This area encompasses the High Street as well as Victoria Road (extending northwards up to Athol Square). The ZTV of the turbine hub and upper sweep of the blade covers the northern part of the conservation area, including the High Street, Athol Street, Bridge Street and the harbour near the mouth of the Afon Wygyr.

The magnitude of impact of the proposed development has been assessed as negligible, as mid- and long-distance views will most probably be screened by existing development on the eastern side of the Afon Wygyr. The significant views within the conservation area are short- and mid-distance which will not be affected by the development. The principal long-distance views are from the harbour, looking out to sea and along coastline, encompassing Seascape Character Area 8 (Amlwch & Cemaes) and Marine Character Area 6 (North Anglesey Coastal Waters).

Llanfechell Conservation Area is located over 2.4km southwest of the proposed turbine. The ZTV of the upper section of the turbine and the full rotor sweep extends across the central part of the conservation area, which encompasses the parish church and the rectory as well as buildings along Mountain Road. The ZTV of the turbine hub and upper sweep of the blade covers the area north of the church.

The magnitude of impact of the proposed development has been assessed as negligible. The significant views within the conservation area are short- and mid-distance which will not be affected by the development. Long-distance views may possibly be affected in one direction, to the northeast, although this view may be screened or obscured by vegetation and isolated buildings in the surrounding countryside. The significance of effect will be negligible, at worst, but is more likely to be neutral.

Amlwch Central Conservation Area is located over 5.3km east of the proposed turbine. The ZTV of the upper section of the turbine blade encompasses the eastern (south of Parys Road), western (Mona Street B5111 and Bull Bay Road A5025) and southern (Queen Street) parts of the conservation area.

The distance of this heritage asset from the proposed turbine as well as the screening provided by development west of Amlwch and by vegetation in the surrounding countryside, indicate that the scheme will have no impact on the conservation area. The significance of effect is likely to be neutral.

Amlwch Port Conservation Area is located over 6.3km east of the proposed turbine. The ZTV of the upper section of the turbine blade covers two small areas, on the southern side of Chapel Street and near the harbour along Upper Quay Street.

The distance from the development site indicates that there would be no impact on the long-distance views from the conservation area. The significant views within the conservation area are short- and mid-distance which will not be affected by the development. The principal long-distance views are from the harbour, looking out to sea and along coastline, encompassing Seascape Character Area 8 (Amlwch & Cemaes) and Marine Character Area 6 (North Anglesey Coastal Waters). The significance of effect of the proposed development would be neutral.

8.7 Scheduled Ancient Monuments

Two monuments are recorded within the ZTV of the upper sweep of the rotor. These designated assets are both located a considerable distance, 5km to 10km, from the development site. The

proposed scheme will have no impact or, at worst, a negligible impact on these heritage assets. The monuments consist of the possible Neolithic burial chamber known as the ‘Maen Chwyf Stones’ (SAM AN076) and the Dyffryn Adda Copper Furnace and Precipitation Ponds at Parys Mountain (SAM AN135); these sites are located approximately 8.7km south-southeast and 5.4km east-southeast of the proposed turbine, respectively.

The turbine hub and upper sweep of rotor will potentially be visible from five scheduled monuments. Four of these assets are located over 5km from the development site, which comprise the medieval motte Castell Crwn (SAM AN029), a prehistoric standing stone Llys Einion (SAM AN077), the Bronze Age barrow Pen-y-fynwent (SAM AN125) and a prehistoric earthwork enclosure Pen-y-fynwent (SAM AN124). The proposed scheme is considered to have a negligible or neutral visual impact on these monuments. There is in addition a standing stone at Werthyr (SAM AN150) located some 2.9km east of the proposed turbine. The potential visual impact on this monument is also considered to be negligible. However, the impact of the (existing) wind farm surrounding Nant-y-fran has been assessed as minor, the resulting significance of effect being moderate.

The ZTV of the upper section of the turbine and the entire rotor sweep encompasses five scheduled monuments. Two of these designated assets are located some distance from the development site; the monuments comprise a standing stone southwest of Pen-yr-Orsedd (SAM AN081) and the Mona Mine Kilns and Sublimation Chambers at Parys Mountain (SAM AN136), situated some 6km southwest and 6.4km east-southeast of the proposed turbine, respectively. The visual impact of the scheme from these monuments has been assessed as negligible. Three scheduled monuments are located within 3km of the development site within the ZTV of the full rotor sweep:

- The Llanfechell Triangle Standing Stones (SAM AN030)
- Dinas Gynfor promontory fort (SAM AN038)
- Baron Hill Maenhir (SAM AN080)

The three standing stones northwest of Llanfechell village (SAM AN030) are located approximately 2.7km southwest of the proposed turbine. There is another standing stone, Baron Hill Maenhir (SAM AN080), situated approximately 410m north of Llanfechell Church; this monument is some 2.1km southwest of the turbine. The potential visual of the scheme on the two prehistoric monuments is negligible, with the significance of effect also negligible. The impact of the (existing) wind farm surrounding Nant-y-fran has been assessed as minor or moderate, the resulting significance of effect being moderate to major. The turbine hub will be seen from much of Dinas Gynfor (SAM AN038) and the full motor sweep will be evident from a number of locations within the promontory fort. This large Iron Age monument is located some 1.8km to the north and north-northeast of the proposed turbine. The potential visual impact on this designated asset will be minor, resulting in a moderate significance of effect. The impact of the (existing) wind farm surrounding Nant-y-fran has been assessed as moderate, the resulting significance of effect being major.

Three scheduled monuments are located within the ZTV of almost the entire turbine. These designated assets are situated over 3km from the development site.

- Standing Stone Southeast of Bodewryd (SAM AN078)
- Pen-y-Morwydd Round Barrow (SAM AN110)
- Great Opencast, Parys Mountain (SAM AN111)

The scheduled area for the multi-period Great Opencast Pits at Parys Mountain (SAM AN111) has been assessed as a high or very high heritage asset. The full rotor sweep of the proposed turbine will potentially be seen along the northwest slopes of this mountain. However, the development site is located some distance, some 6km east-southeast, from the designated asset. The visual impact has therefore been assessed as negligible. However, the impact of the (existing) wind farm surrounding Nant-y-fran has been assessed as minor, the resulting significance of effect being moderate to major.

The prehistoric standing stone, southeast of Bodewryd (SAM AN078) is located approximately 3.5km south-southeast of the proposed turbine. The potential visual of the development on this designated asset is negligible. The impact of the (existing) wind farm surrounding Nant-y-fran has been assessed as minor, the resulting significance of effect being moderate. The Bronze Age burial mound at Pen-y-Morwydd (SAM AN110) is situated some 1.9km south of the proposed turbine, respectively. The potential visual of the development on this monument is minor, and the significance of effect as moderate. The impact of the (existing) wind farm surrounding Nant-y-fran has been assessed as moderate, the resulting significance of effect being major.

8.8 Listed Buildings

Thirty listed buildings are located within the ZTV of the upper sweep of the rotor. These assets are all located a considerable distance, 4.5km to 10km, from the development site. The proposed scheme will have no impact or, at worst, a negligible impact on these heritage assets.

The turbine hub and upper sweep of rotor will potentially be visible from thirty-three listed buildings. Twenty-eight buildings are located between 4km and 10km from the development site; the visual impact on these assets has been assessed as negligible or neutral. Three listed buildings are situated between 1.5km and 2.5km from the development site:

- Church of St Padrig (LB 5356)
- Cemaes Mill (LB 5344)
- Ty Cefn (LB 24339)

The Grade II* listed Church of St Padrig (LB 5356) is located approximately 1.85km northwest of the proposed turbine. The medieval church dates from the 12th century, but may be built on an early ecclesiastical site. The visual impact on this high value asset has been assessed as negligible or minor, resulting in a negligible to moderate significance of effect. The Grade II listed Cemaes Mill (LB 5344) is located approximately 2.1km west-southwest of the proposed turbine. This early 19th windmill tower has been as a medium to high value asset. The visual impact on this building is considered to be negligible due to partial screening of buildings in its immediate setting and the wider landscape; this results in a negligible significance of effect. The early 19th century cottage known as ‘Ty Cefn’ (LB 24339) is located within Cemaes, some 1.55km west-northwest of the proposed turbine. The sightline between this asset and the turbine are obscured or blocked by the surrounding building within Cemaes as well as housing on the eastern side of the Afon Wygyr. The visual impact on this Grade II building has been assessed as negligible, resulting in a negligible significance of effect.

The ZTV of the upper section of the turbine and the entire rotor sweep encompasses thirty-seven listed buildings. Eleven of these designated assets are located within 4km of the development site:

- Plas Bodewryd, Bodewryd (LB 5334)
- Church of St Peirio (LB 5349)
- Church of St Mechell, Llanfechell (LB 5383)
- Church of St Mary, Bodewryd (LB 5348 & 25172)
- Bryn Ddu, Llanfechell (LB 25171)
- Rectory, Llanfechell (LB 5384)
- Nos. 2-4 Crown Terrace, Llanfechell (LB 5386 & 25168-9)
- War Memorial, Llanfechell (LB 25167)

The isolated Church of St Peirio (LB 5349) is located 1.4km south-southeast of proposed turbine. The Grade II medieval church has been assessed as a high value asset. The visual impact of the scheme is considered to be minor, with a resulting moderate significance of effect.

The Grade II* listed Plas Bodewryd (LB 5334) is located approximately 2.9km south-southeast of the turbine. This multi-period gentry house retains substantial surviving fabric of a sub-medieval 17th century house. The medieval Church of St Mechell (LB 5383) at the centre of Llanfechell village is listed at Grade II*. The parish church is located approximately 2.5km southwest of turbine. The II Church of St Mary (LB 5348 & 25172) is located at Bodewryd, approximately 3.15km south-southeast of turbine. The medieval church and 19th century lychgate are individually Grade II listed. These designated assets have been assessed to be high value. The visual impact of the proposed turbine on these buildings has been assessed as negligible. The significance of effect of the development would therefore be negligible.

The Grade II listed Bryn Ddu (LB 25171) is situated at Llanfechell, some 2.3km southwest of the proposed turbine. This gentry house dates from the late 17th or early 18th century. There are five additional Grade II listed buildings located within the ZTV at Llanfechell, some 2.5km southwest of the turbine site; these comprise a 17th century Rectory (LB 5384), early 19th century workers' cottages at Nos. 2-4 Crown Terrace, (LB 5386 & 25168-9) and a war memorial (LB 25167). These are all medium to high value assets. The visual impact of the scheme on these buildings has been assessed as negligible, with the significance of effect also negligible.

Three Grade II listed buildings are located within the ZTV of almost the entire turbine. These designated assets are situated over 3km from the development site.

- Parys Mountain Windmill (LB 5425)
- Pant-y-Gist (LB 25176)
- Pant-y-cryntach (LB 56166)

There are two late 18th or early 19th century cottages located some 3.5km to the south of the proposed turbine; Pant-y-cryntach (LB 56166) and Pant-y-Gist (LB 25176). These are medium to high value designated assets. The 19th century Parys Mountain Windmill (LB 5425) is located approximately 6.3km south-southeast of the turbine site. This structure is closely associated with the copper mines at the mountain and is considered to be a high value asset. The visual impact on all three listed is considered to be negligible, with the significance of effect also negligible.

9 Conclusions

9.1 Physical Impacts

The development will have no direct (physical) impacts (construction or operational) on any designated or upstanding non-designated heritage assets. However, the value of the (buried) archaeological resource within the development area is unknown, and the overall impact on the archaeological resource could range from neutral to severe. The research assessment has identified a high potential for archaeological remains in the vicinity of Nant-y-fran farm. Previous archaeological work indicates a high potential for prehistoric and Romano-British occupation sites and other features. There is also a moderate potential for multi-period field boundaries and a minor potential for medieval remains.

The negative physical impact during the construction phase for the proposed turbine could be mitigated by a programme of archaeological work. A geophysical survey and trenched evaluation is recommended prior to groundworks commencing. This would be followed by any subsequent archaeological investigation required by Gwynedd Archaeological Trust, such as excavation and/or a watching brief.

9.2 Visual Impacts

Registered Landscapes

Amlwch and Parys Mountain Registered Landscape (HLW-GW-1) is located approximately 5.5km east-southeast of the proposed turbine. The distance of the proposed turbine from this landscape indicates that the overall visual impact of the scheme will be minor.

Special Landscape Areas

There are two Special Landscape Areas recorded within the study area; Parys Mountain (SLA13) and Mynydd Mechell (SLA14) are located over 4km east-southeast and 3km southwest of the proposed turbine, respectively. The visual impact of the proposed scheme on these landscapes has been assessed as minor.

Registered Parks and Gardens

There is one registered garden recorded in the study area. Cestyll Garden (Cadw Gd45ANG) is located approximately 4km to the west of the proposed turbine. The Grade II listed ornamental garden occupies a small valley leading down to the sea. There is no clear view of the turbine from within the valley gardens, where vegetation, screens long-distance views. The overall visual impact on the registered garden has been assessed as neutral or negligible.

Historic Landscapes

The area surrounding the proposed turbine is located within the Rhosbeirio Historic Landscape (HL052), with Northwest Anglesey (HL057) and Llanfechell (HL072) Historic Landscapes further to the west. There are two Historic Landscape Character Areas to the north of the A5025; Anglesey North Coast (HL053) and Bull Bay (HL071); this area is roughly coterminous with North Anglesey AONB. Within the Rhosbeirio Character Area (HL052), the entire turbine can potentially be seen along a wide corridor extending north of the development site southwards by approximately 2.5km, across an area that encompasses Criw, Carrog and Tai Hen historic farmsteads. Within landscape HL057 the ZTV of the entire turbine covers an area around Bodelwyn, southeast of Llanfechell village. The full rotor sweep can potentially be viewed at various points within HL052, including Werthyr, Rhyd-y-groes, Rhosberio and Bodewryd historic farmsteads. Within landscape HL057 the ZTV for the motor sweep covers Tregele, Bwlch, Foel fawr and generally southwest of Llanfechell village. The ZTV for the rotor sweep also encompasses various points along the coast (HL 053), including Dinas Gynfor Iron Age hillfort and Graig Wen, Gaerwen and between Betws and Peibron farms near the A5025. The turbine hub and upper sweep of the rotor is potentially visible within landscape HL053 around Bodhunod, Gaerwen, Llanbadrig, Bryn Llewelyn, as well as Neuadd and Betws farms. There are also potential views of the upper rotor sweep within landscape HL052 to the south of Cemaes as well as in the vicinity of Neuadd, Betws, Tregynrig and Werthyr, Trogog and Hafodllin historic farmsteads. The ZTV also covers a large area around Llanfechell village, within landscape HL057.

The potential visual impact of the proposed turbine and existing wind farm/s on the Anglesey North Coast (HL053) landscape has been assessed as minor. The potential visual impact of the proposed turbine on the Northwest Anglesey (HL057) and Llanfechell (HL072) landscapes has been assessed as negligible. The overall impact of the existing turbines is minor. The cumulative impact would remain as minor by the proposed development at Nant-y-fran. The potential visual impact of the proposed new turbine on the Rhosberio (HL052) landscape has been assessed as minor. Within this landscape the visual impact of the surrounding wind turbines have an overall moderate to major

impact; this represents existing conditions, and the cumulative impact will remain unchanged by the additional turbine at Nant-y-fran.

Seascapes

There are five main Seascape Character Areas recorded within the 10km study area. The proposed scheme has no significant visual impact on the Dulas (SCA7) and Carmel Head to Penrhyn (SCA10) seascapes, and negligible impact on the North of Anglesey (SCA29), Cemlyn Bay (SCA9) and Amlwch & Cemaes (SCA8) seascapes.

Conservation Areas

There are four conservation areas recorded within the study area. Cemaes Conservation Area is located over 1.5km generally west of the development site. The visual impact of the proposed development has been assessed as negligible, as mid- and long-distance views will most probably be screened by existing development on the eastern side of the Afon Wygyr. Llanfechell Conservation Area is located over 2.4km southwest of the proposed turbine. Long-distance views may possibly be affected in one direction, to the northeast, although this view appears to be screened or obscured by vegetation and isolated buildings in the surrounding countryside. The visual impact is likely to be neutral. Amlwch Central Conservation Area is located over 5.3km east of the proposed turbine. The screening provided by existing development to the west of Amlwch, and by vegetation in the surrounding countryside, indicate the proposed scheme will have no impact on the conservation area. Amlwch Port Conservation Area is located over 6.3km east of the proposed turbine. The distance from the development site indicates that there would be no impact on the long-distance views from the conservation area. The visual impact would be neutral.

Scheduled Ancient Monuments

Three scheduled monuments are located within 3km of the development site within the ZTV of the full rotor sweep: The Llanfechell Triangle Standing Stones (SAM AN030), Dinas Gynfor promontory fort (SAM AN038) and Baron Hill Maenhir (SAM AN080). The potential visual impact of the scheme on standing stones southwest (SAM AN030) and north (SAM AN080) of Llanfechell village is negligible. However, the turbine hub will be seen from much of Dinas Gynfor (SAM AN038) and the full motor sweep will be evident from a number of locations within the promontory fort. This large Iron Age monument is located some 1.8km to the north and north-northeast of the proposed scheme. The potential visual impact on this designated asset will be moderate. The impact of the (existing) wind farm surrounding Nant-y-fran has been assessed as major, and this cumulative impact will remain unaltered by the proposed development.

Three scheduled monuments are located within the ZTV of almost the entire turbine; Bodewryd Standing Stone (SAM AN078), Pen-y-Morwydd Round Barrow (SAM AN110) and the Great Opencast, Parys Mountain (SAM AN111). The visual impact of the scheme on Parys Mountain and Bodewryd Standing Stone has been assessed as negligible. The Bronze Age burial mound at Pen-y-Morwydd (SAM AN110) is situated some 1.9km south of the proposed turbine. The potential visual of the development on this monument is moderate. The impact of the (existing) wind farm surrounding Nant-y-fran has been assessed as major. The cumulative impact will remain unaltered, as major, with the addition of another turbine to the west of Nant-y-fran.

Listed Buildings

The turbine hub and upper sweep of rotor will potentially be visible from the Grade II* listed Church of St Padrig (LB 5356), which is located approximately 1.85km northwest of the development site. The medieval church dates from the 12th century, but may be built on an early ecclesiastical site. The visual impact on this asset has been assessed as negligible to moderate, but is most probably negligible due to screening by vegetation and Llanbadrig farm. The view of the proposed turbine from the church will also be obscured by the existing wind turbines situated to the northwest of Nant-y-fran farm.

The ZTV of the upper section of the turbine and the entire rotor sweep encompasses the isolated Church of St Peirio (LB 5349), which is located 1.4km south-southeast of the development site. The visual impact of the scheme on the Grade II medieval church is considered to be moderate. The impact of the existing turbines to the northwest of Nant-y-fran is similarly considered to be moderate. The cumulative impact will remain unaltered as the new turbine will be positioned along the same sightline from the church towards the existing turbines, which are also located 300m to 400m of the proposed development site.

10 References

Published sources

Baynes, E.N. 1920, 'Old Monasteries, Abbeys and Chapels of Anglesey', *Transactions of the Anglesey Antiquarian Society*.

Cadw and Icomos UK, 1998 *Register of Landscapes, Parks and Gardens in Wales: Conwy, Gwynedd and Isle of Anglesey, Part 1 Parks and Gardens*

Cadw, CCW and Icomos UK, 1998 *Register of Landscapes, Parks and Gardens in Wales: Part 2.1 Landscapes of Outstanding Historic Interest*.

Cadw, CCW and Icomos UK, 2001 *Register of Landscapes, Parks and Gardens in Wales: Part 2.2 Landscapes of Special Historic Interest*.

Cadw, CCW and WAG, 2007 *Guide to Good Practice on using the Register of Landscapes of Historic Interest in Wales in the Planning and Development Process*. 2nd edition.

Cadw and WAG, 2007 *Register of Landscapes, Parks and Gardens of Special Historic Interest in Wales: Part 1: Parks and Gardens; Additional and Revised Entries Vol. 1*.

Carr, A. D. 1972, 'The extent of Anglesey 1352', *Transactions of the Anglesey Antiquarian Society*, 150-72.

Clarke, M.L. 1961, 'Anglesey Churches in the Nineteenth Century', *Antiquarian Society*, 58-59.

Cuttler, R., Davidson, A and Hughes, G. 2012. *A Corridor Through Time: the Archaeology of the A55 Anglesey Road Scheme*.

Highways Agency. 2007, *Design Manual for Roads and Bridges, Vol.II*

Johnstone, N. 2000, 'Llys and Maerdref, The Royal Courts of the Princes of Gwynedd: A Study of their Location and Selective Trial Excavation', *Studia Celtica*, Vol. 34, 167-210.

Johnstone, N. & Riley, H.F. 1995, *Llys and Maerdref: An Investigation into the Location of the Royal Courts of the Princes of Gwynedd*. GAT Report 167.

Jones, F. 1954, *The Holy Wells of Wales*.

Jones, H.L. 1862, 'Mona Medieva', *Archaeologia Cambrensis*, 43-44.

Jones Pierce, T. 1951. 'Medieval settlements in Anglesey', *Transactions of the Anglesey Antiquarian Society*.

Nash Williams, V.E. 1950, *Early Christian Monuments in Wales*.

Phillimore, E. 1920, 'Homo Planus and Leprosy in Wales', *Archaeologia Cambrensis*.

Royal Commission on the Ancient and Historical Monuments of Wales. 1937 (rev. 1968), *Inventory of the Ancient Monuments in Anglesey*.

Salter, M. *The Old Parish Churches of North Wales*.

Smith, G. 2011, *Evaluation Excavation at a Prehistoric Hilltop Enclosure at Carrog, Llanbadrig, Anglesey*. GAT Report 946.

Smith, G. 2013, *Early Neolithic Settlement and an Iron Age Hill-top Enclosure at Carrog, Llanbadrig, Anglesey*. GAT Report 1148.

Waddington, K. 2010, *Early Celtic Societies in North Wales*.

Waddington, K. 2013, *The Settlements of Northwest Wales from the Late Bronze Age to the Early Medieval Period*.

Unpublished

Anglesey & Gwynedd Joint Planning Policy Unit / LUC. 2012, *Review of Special Landscape Areas in Gwynedd and Anglesey*.

Gwynedd Archaeological Trust (GAT). 2009, *Proposed Nuclear Power Station at Wylfa, Anglesey: Archaeological Assessment*. GAT Report No. 842.

Gwynedd Archaeological Trust (GAT). 2011, *Proposed Nuclear Power Station at Wylfa, Anglesey: Archaeological Assessment*. GAT Report Nos. 966 & 967.

Gwynedd Archaeological Trust (GAT). 2012, *Proposed Nuclear Power Station Wylfa, Ynys Môn: Archaeological Baseline Assessment*. GAT Report No. 999.

Gwynedd Archaeological Trust (GAT). 2015, *Wylfa Newydd Proposed New Nuclear Power Station: Assessment of the Significance of Cestyll Registered Historic Park and Garden (G2096), Interim Report*. GAT Report 1262.

ICOMOS. 2011, *Guidance on Heritage Impact Assessments for Cultural Heritage World Heritage Properties*, International Council on Monuments and Sites.

Isle Anglesey County Council. 2009, *Amlwch Conservation Area Character Appraisal, Supplementary Planning Guidance, Adopted 15th September 2009*.

Isle of Anglesey County Council. 2009, *Amlwch Port Conservation Area Character Appraisal*, Supplementary Planning Guidance, Adopted 5th March 2009.

Isle of Anglesey County Council. 2010, *Cemaes Conservation Area Character Appraisal*, Supplementary Planning Guidance, Adopted 11th May 2010.

Isle of Anglesey County Council. 2011, *Amlwch Conservation Area Character Appraisal*, Supplementary Planning Guidance, Adopted 12th May 2011.

Isle of Anglesey County Council / TACP. 2011, *Anglesey Landscape Strategy*.

Isle of Anglesey County Council / Natural Resources Wales. 2013, *Anglesey Seascape Character Assessment*.

Isle of Anglesey County Council / Natural Resources Wales. 2015, *Isle of Anglesey Area of Outstanding Natural Beauty (AONB): Management Plan Review 2015-2020*.

JACOBS UK LTD. 2016, *Wylfa Newydd Proposed New Nuclear Power Station; Cultural Heritage Desk-Based Survey*.

Natural Resources Wales. 2015. National Seascape Assessment for Wales.

Web Sites

British Library

<http://www.bl.uk/reshelp/> (Accessed 1/8/16 – 7/10/16)

Forestry Commission Wales / Natural Resources Wales (Ancient Woodland Inventory):

<http://maps.forestry.gov.uk/> (Accessed 1/8/16 – 7/10/16)

Geology of Britain Viewer (British Geological Survey)

<http://mapapps.bgs.ac.uk/geologyofbritain/> (Accessed 1/8/16 – 7/10/16)

Gwynedd Archaeological Trust Historic Environment Record (Archwilio):

<http://www.cofiadurcahcymru.org.uk/arch/gat/> (Accessed 15/09/16 – 07/10/16)

Landmap (Historic Landscapes):

<http://landmap-maps.naturalresources.wales/> (Accessed 1/8/16 – 7/10/16)

Museum of Wales:

<http://www.museumwales.ac.uk/> (Accessed 15/09/16 – 07/10/16)

National Library of Wales:

<https://www.llgc.org.uk/> (Accessed 15/09/16 – 07/10/16)

Portable Antiquities Database:

<http://finds.org.uk/> (Accessed 1/8/16 – 7/10/16)

Promap / Landmark Information Group: Historic OS Maps

<http://www.promap.co.uk/> (Accessed 1/8/16 – 7/10/16)

Royal Commission on the Ancient and Historical Monuments of Wales (Coflein):

<http://www.coflein.gov.uk/> (Accessed 1/8/16 – 7/10/16)

Vision of Britain Through Time: Historic Maps
<http://www.visionofbritain.org.uk/> (Accessed 1/8/16 – 7/10/16)

Tithe Maps

Tithe Map & Apportionment of Llanbadrig, Anglesey 1841 *National Library of Wales*

Ordnance Survey Maps

Ordnance Survey 1818 Surveyors Drawing of Holyhead (by Robert Dawson)
Scale: 2 inches to 1 mile (1:31,680). *British Library: OSD 317*

Ordnance Survey 1840 First Series Map, Sheet 78
Scale: 1 inch to 1 mile (1:63,360). *A Vision of Britain Through Time*

Ordnance Survey 1889 Scale: 1:2,500 (25 inches to 1 mile). *Promap*

Ordnance Survey 1891 Scale: 1:10,560 (6 inches to 1 mile). *Promap*

Ordnance Survey 1900 Scale: 1:2,500 (25 inches to 1 mile). *Promap*

Ordnance Survey 1901 Scale: 1:10,560 (6 inches to 1 mile). *Promap*

Ordnance Survey 1924 Scale: 1:2,500 (25 inches to 1 mile). *Promap*

Ordnance Survey 1926 Scale: 1:10,560 (6 inches to 1 mile). *Promap*

Ordnance Survey 1953 Scale: 1:10,560 (6 inches to 1 mile). *Promap*

Ordnance Survey 1963 Scale: 1:10,560 (6 inches to 1 mile). *Promap*

Ordnance Survey 1974 Scale: 1:2,500. *Promap*

Ordnance Survey 1978 Scale: 1:10,000. *Promap*

Aerial Photographs (Film)

Welsh Government Aerial Photography Unit Online:
<http://aerialphotos.wales.gov.uk/>

Aerial Photographs (Digital Imagery)

Bing Maps © Microsoft Corporation, 2016
<http://www.bing.com/maps/> (Accessed 8/8/16)

Google Maps © Bluesky, Infoterra Ltd, COWI A/S, DigitalGlobe, Getmapping Plc, 2016
<https://maps.google.co.uk/maps/> (Accessed 8/8/16)

Archaeology Wales

Appendix I

Scheduled Ancient Monuments

Summary of Scheduled Ancient Monuments within the 10km study area

Cadw SAM No.	Name	Grid Reference	Monument Type	Period	Value
AN029	Castell Crwn	2331 3908	Ringwork	Medieval	High
AN030	Llanfechell Triangle (Standing Stones)	2363 3916	Standing stone	Prehistoric	High
AN038	Dinas Gynfor Hillfort	2390 3950	Hillfort	Prehistoric	High
AN076	Maen Chwyf	2432 3857	Chambered tomb	Prehistoric	High
AN077	Llys Einion Standing Stone	2430 3858	Standing stone	Prehistoric	High
AN078	Bodewryd Standing Stone	2406 3902	Standing stone	Prehistoric	High
AN079	Llifad, Carreglefn	2384 3910	Enclosure	Prehistoric	High
AN080	Standing Stone 410m North of Church	2369 3916	Standing stone	Prehistoric	High
AN081	Pen-yr-Orsedd Standing Stones	2333 3903	Standing stone	Prehistoric	High
AN083	Llanfaethlu Standing Stone	2319 3863	Standing Stone	Prehistoric	High
AN090	Glan-Alaw Standing Stone	2368 3857	Standing stone	Prehistoric	High
AN091	Cors-y-Bol Round Barrow	2375 3843	Round barrow	Prehistoric	High
AN098	Bedd Branwen Round Cairn	2361 3849	Round barrow	Prehistoric	High
AN109	Porth Wen Brickworks	2401 3946	Brickworks	Post-Medieval/Modern	High
AN110	Pen-y-Morwyd Round Barrow	2384 3912	Round barrow	Prehistoric	High
AN111	Parys Mountain: Windmill, Engine House, Precipitation Pits and Great Opencast	2441 3903	Tower	Bronze Age / Post-Medieval	High / Very High
AN124	Pen-y-Fynwent Enclosure	2433 3888	Enclosure	Medieval	High
AN125	Pen-y-Fynwent Barrow	2434 3889	Round barrow	Prehistoric	High
AN135	Dyffryn Adda Copper Furnace and Precipitation Ponds	2438 3913	Copper mine	Post-Medieval/Modern	High

AN136	Mona Mine Kilns and Sublimation Chambers, Mynydd Parys	2446 3903	Copper mine	Post-Medieval/Modern	High
AN150	Werthyr standing stone	2415 3928	Standing stone	Prehistoric	High
AN158	Y Werthyr Hillfort	2363 3843	Hillfort	Prehistoric	High

Archaeology Wales

Appendix II

Listed Buildings

Summary of Listed Buildings within the 10km study area

Cadw LB No.	Name	Grid Reference	Grade	Value
5265	Melin Llynnon	234052 385229	II*	High
5267	Carreglwyd	230858 387774	II*	High
5288	Llynnon Hall	233386 384820	II	Medium / High
5289	Pont Hafren	234760 384459	II	Medium / High
5290	Pont Henbont	235513 384646	II	Medium / High
5301	Church of St Maethlu	231260 387084	II*	High
5302	The Rectory (also known as Tanyffynnon)	231114 386770	II	Medium / High
5311	Ty Newydd (including garden wall & agricultural range)	230210 389058	II	Medium / High
5312	Caerau (including garden wall to front)	230169 388926	II	Medium / High
5313	Melin Drylliau	230540 388710	II	Medium / High
5314	Church of St Afran, St Ieuan and St Sannan	234951 384062	II*	High
5315	Glan Hafren	234796 384471	II	Medium / High
5316	Former smithy at Glan Hafren	234827 384470	II	Medium / High
5317	Melyn Hywel	235077 384476	II*	High
5334	Plas Bodewryd	240013 390822	II*	High
5341	Cylch-y-Garn	230945 392377	II	Medium / High
5342	Stable with servants quarters at Caerau	232095 391828	II	Medium / High
5343	Cefn Coch	234247 390719	II	Medium / High
5344	Cemaes Mill	236630 392637	II	Medium / High
5348	Church of St Mary	240019 390587	II	High
5349	Church of St Peirio	239112 391738	II	High
5354	Church of St Pabo	237805 386773	II*	High
5355	Church of St Fflewyn	234956 389049	II	High
5356	Church of St Padrig	237610 394640	II*	High
5360	Church of St Tyfrydog	244354 385355	II*	High
5361	National School (former)	244330 385333	II	Medium / High
5362	Ty Mawr	244399 385375	II	Medium / High

5363	Church of St Eilian	246978 392897	I	High
5364	Tan y Fynwent	247023 392889	II	Medium / High
5365	Llanfoi No. 1	246796 392858	II	Medium / High
5366	Point Lynas Lighthouse and Telegraph Station with accommodation blocks and enclosure walls	247952 393485	II	Medium / High
5367	The Olde Telegraph	247834 392184	II	Medium / High
5370	Church of St Gwenllwyfo	247717 389330	II*	High
5371	Church of St Mary	241772 384093	II	High
5380	Church of St Mary	232722 390847	I	High
5381	Caerau	232042 391753	II*	High
5382	Church of St Rhwydrys	232210 393224	II*	High
5383	Church of St Mechell	236942 391273	II*	High
5384	Rectory	236982 391285	II	Medium / High
5386	No.2 Crown Terrace, Llanfechell	236956 391234	II	Medium / High
5388	Melin Cefn Coch	234237 391424	II	Medium / High
5401	Church of St Ceidio	241145 385476	II	High
5402	Church of St Mary (disused)	239900 385569	II	High
5419	Madyn Dysw	244624 392801	II	Medium / High
5420	Bryntirion	243977 392893	II	Medium / High
5421	No.1 Mona Lodge	243887 392825	II	Medium / High
5422	No.2 Mona Lodge	243894 392831	II	Medium / High
5423	No.3 Mona Lodge	243898 392834	II	Medium / High
5424	No.4 Mona Lodge	243903 392837	II	Medium / High
5425	Parys Mountain Windmill	244316 390513	II	High
5426	Melin Adda	243984 392142	II	Medium / High
5427	Church of St Eleth	244224 392950	II*	High
5428	Dinorben Arms Hotel	244174 392901	II	Medium / High
5429	English Methodist Chapel with attached schoolroom, including railings to front	244350 393045	II	Medium / High
5715	Harbour Walls of old harbour	244984 393340	II	High
5716	Mona Windmill	244850 393462	II	High

5717	Pier at the entrance of the old harbour	245042 393492	II	High
5718	Lighthouse and watchtower, with attached building at the entrance of the old harbour	245048 393482	II	High
5719	Dry dock	245106 393508	II	High
5720	Sail Loft	245120 393486	II	High
5721	Chimney nearest to the Sail Loft	245188 393492	II	High
5722	Copper Hoppers	245023 393392	II	High
5725	Henblas and attached outbuildings	246695 392335	II	Medium / High
5740	Capel Mwd (Capel Newydd) and attached cottage	243905 388366	II	Medium / High
5750	Old National School	244040 393017	II	Medium / High
16575	Dovecote at Plas Bodewryd	239891 390775	II	Medium / High
18903	Eglwys Bresbyteraidd Cymru	245191 393123	II	Medium / High
24339	Ty Cefn	237088 393365	II	Medium / High
24409	Granary & stable range, Melin Drylliau	230527 388742	II	Medium / High
24410	Gatepiers to south courtyard at Caerau	232053 391739	II	Medium / High
24411	Lychgate at Church of St Rhwydrys	232213 393203	II	Medium / High
24412	Farmhouse at Plas Cemlyn with curved walling to north and wall incorporating goose pens to south	233116 392799	II	Medium / High
24413	Agricultural range at Plas Cemlyn	233091 392814	II	Medium / High
24414	Hammels at Plas Cemlyn	233066 392845	II	Medium / High
24415	Old farmhouse at Plas Cemlyn	233081 392867	II	Medium / High
24416	Corn Mill at Felin Gafnan	234476 393354	II*	High
24417	Corn drying house at Felin Gafnan	234383 393300	II	Medium / High
24418	Mill house at Felin Gafnan	234343 393296	II	Medium / High
24419	Boiling house & privy at Caerau	230181 388915	II	Medium / High
24420	Pigsty-henhouse range & yard at Caerau	230172 388903	II	Medium / High
24421	Cottage at Orsedd Goch	230490 390490	II	Medium / High
24422	Lychgate at Church of St Mary	232689 390844	II	Medium / High
24423	Old Rectory	232660 390903	II	Medium / High
24424	Ty Wian with attached servants quarters	232941 391519	II	Medium / High

24425	Cartshed-granary with attached agricultural range at Ty Wian	232900 391510	II	Medium / High
24426	Bethel Hen Methodist Chapel, chapel house and schoolroom	233223 389126	II	Medium / High
24427	Tyddyn Waen	233073 388876	II	Medium / High
24428	Agricultural range at Tyddyn Waen	233096 388867	II	Medium / High
24429	Courtyard stable block at Mynachdy	230951 392331	II	Medium / High
24430	Pen Bont	231540 388942	II	Medium / High
24431	Menai	231546 388933	II	Medium / High
24432	Menai Bach	231550 388927	II	Medium / High
24433	Cae Hen	231614 388527	II	Medium / High
24434	Southern pilot beacon on Carmel Head	229749 392695	II	Medium / High
24435	Northern pilot beacon on Carmel Head	229802 392836	II	Medium / High
24436	Pilot beacon on West Mouse	230331 394229	II	Medium / High
24437	Stable-cartshed range at Mynachdy	230948 392262	II	Medium / High
24438	Barn-cowhouse range at Mynachdy	230853 392328	II	Medium / High
24453	Lychgate at Church of St Eleth	244195 392941	II	Medium / High
24454	Carmel Independent Chapel and schoolroom	245082 393068	II	Medium / High
24455	Church of Our Lady Star of the Sea, St Winifred	243804 393101	II*	High
24456	Parc Mawr	244894 391652	II	Medium / High
24457	Ty-newydd	244437 392323	II	Medium / High
24458	Pearl Engine House	244760 390774	II	High
24459	Former stables-coachhouse at Mona Lodge	243907 392860	II	Medium / High
24468	Gronant	232708 385173	II*	High
24477	Wellhouse, Gronant	232601 385225	II	Medium / High
24542	Capel Bozrah	245917 390669	II	Medium / High
24543	Ty Capel Bozrah	245932 390668	II	Medium / High
24544	School Room and Store at Capel Bozrah	245921 390684	II	Medium / High
24545	Railings to yard at Capel Bozrah	245930 390679	II	Medium / High
24546	Llanfoi No. 2	246803 392859	II	Medium / High

24547	Llanfoi No. 3	246811 392860	II	Medium / High
24548	Rectory	247278 392425	II	Medium / High
24549	Lychgate at W entrance to Church of St Eilian	246941 392884	II	Medium / High
24550	Lychgate to S entrance of Church of St Eilian	246975 392882	II	Medium / High
24551	Cross in churchyard of Church of St Eilian	246970 392884	II	Medium / High
24552	Courtyard walls and outbuilding to rear of Rectory	247264 392421	II	Medium / High
24553	Garden wall, railings and gates at Rectory	247282 392409	II	Medium / High
24554	Privy block at Rectory	247268 392437	II	Medium / High
24556	Grand Lodge	247870 389162	II	Medium / High
24557	Walls and railings at entrance by Grand Lodge	247859 389162	II	Medium / High
24558	Walls and railings at entrance opposite Grand Lodge	247842 389153	II	Medium / High
24559	End Cottage adjoining Mynydd Adda	246717 390423	II	Medium / High
24560	Shiloh Chapel and schoolroom	246684 392049	II	Medium / High
24785	The Laundry, Carreglwyd	230846 387796	II	Medium / High
24786	The Stables, Carreglwyd	230914 387832	II	Medium / High
24787	Folly, Carreglwyd	230738 387855	II	Medium / High
24788	Dovecote, Carreglwyd	230942 387787	II	Medium / High
24789	Gateway & walls to northeast of Carreglwyd	230910 387806	II	Medium / High
24790	Bridge, walling & gateposts at entrance to Carreglwyd	230761 387619	II	Medium / High
24791	Sundial, Carreglwyd	230840 387760	II	Medium / High
24792	Limekiln, Carreglwyd	231503 387348	II	Medium / High
24793	Ebenezer Chapel (including hall & house)	231343 386875	II	Medium / High
24794	Black Lion Inn	231978 386434	II	Medium / High
24798	Dafarn-newydd, including outbuilding range to north	230945 386707	II	Medium / High
24802	Garden wall & gateway, Dafarn-newydd	230964 386705	II	Medium / High
24803	Outbuilding, Ebenezer Chapel	231328 386883	II	Medium / High

24804	Gate, gateposts, wall & railing, Ebenezer Chapel	231358 386902	II	Medium / High
24810	Watermill, Gronant	232615 385252	II	Medium / High
24811	Hammels (& yard walls) at Gronant	232672 385242	II	Medium / High
24812	Cartshed at Gronant	232636 385248	II	Medium / High
24813	Barn Range at Gronant	232669 385269	II	Medium / High
24814	Siop Soar	231971 386419	II	Medium / High
24827	Sundial at Church of St Tyfrydog	244350 385340	II	Medium / High
24828	Churchyard wall at Church of St Tyfrydog	244366 385337	II	Medium / High
24829	Rectory	244606 385328	II	Medium / High
24832	Tyn y Pwll	244764 386933	II	Medium / High
24833	Llwydiarth Esgob Farmhouse	243549 384405	II	Medium / High
24834	Melin Esgob	245135 386128	II	Medium / High
24835	Gwredog	241769 390117	II	Medium / High
24836	Range including cornbarn, granary, threshing room and lofted cowhouse at Llwydiarth Esgob Farm	243520 384394	II*	High
24837	Range including cowhouse, stables, coach house, smithy and poultry house at Llwydiarth Esgob Farm	243523 384424	II*	High
24838	Range including pigsties, laundry, slaughter house, cartsheds and coalshed at Llwydiarth Esgob Farm	243563 384441	II*	High
24839	Hammels at Llwydiarth Esgob Farm	243637 384391	II*	High
24840	Agricultural range at Rectory	244578 385316	II	Medium / High
24963	Fferam-gyd	237844 387040	II	Medium / High
24964	Ty'r Felin	234068 385292	II	Medium / High
24965	Tyn Cae Elim	235481 384890	II	Medium / High
24966	Schoolroom and stable range at Elim Chapel	235494 384656	II	Medium / High
24967	Bodwigan & attached agricultural range	233099 385044	II	Medium / High
24968	Lodge at Llynon Hall	233559 384955	II	Medium / High
24970	Lychgate to Church of St Mary	241778 384121	II	Medium / High
24971	Brynkir	242388 383873	II	Medium / High

25164	Y Stryd	238319 389090	II	Medium / High
25165	Ty Newydd	238322 389101	II	Medium / High
25166	Pant-y-cryntach	238721 389693	II	Medium / High
25167	War Memorial	236937 391227	II	Medium / High
25168	3 Crown Terrace, Llanfechell	236950 391226	II	Medium / High
25169	4 Crown Terrace, Llanfechell	236945 391216	II	Medium / High
25171	Bryn Ddu	237317 391188	II	Medium / High
25172	Lychgate at Church of St Mary	240032 390600	II	Medium / High
25173	Cae Mawr	234918 390880	II	Medium / High
25174	Llanddygfael-groes	235058 390610	II	Medium / High
25175	Twll-y-clawdd	235556 388631	II	Medium / High
25176	Cottage at Pant-y-Gist	239266 389696	II	Medium / High
25177	Hen Bont	238320 389096	II	Medium / High
25852	Ysgol Syr Thomas Jones	243746 392096	II*	High

Archaeology Wales

Appendix III

Non-designated Heritage Assets

Summary of Historic Environment Records and National Monuments Records within the 2km study area

HER (PRN)	RCAHMW (NPRN)	Description	Grid Reference	Period
897	-	Place-Name Evidence – Neuadd Cemaes	2380 3937	Medieval
998	-	Findspot – Coins (Cemaes)	23740 39349	Roman
999	-	Findspot - Brooch & Coins (Cemaes Fawr Farm)	23755 39338	Roman
3043	32153	Holy Well (Ffynnon Badrig) (Ty'n-Illan)	23754 39468	Medieval / Post Medieval
3044	43599	Remains of Chapel (Llanlleiana)	23878 39493	Medieval
3050	-	Urn Burial (Reputed)	238 393 (Uncertain Location)	Prehistoric
3058	-	Cist Burial (Rhosbeirio)	23919 39127	Prehistoric
3060	43563	Site of Capel Gwen Hir (Betws)	23943 39355	Medieval
3061	-	Cist Burial (Llanlleiana)	23860 39460	Prehistoric
3065	15862	Probable Leper House (Rhd-y-Clafdy)	23900 39410	Medieval
3071	24374	Earthen Mounds (Pen-y-Morwydd)	23845 39124	Medieval
5198	402212	Enclosure (Rhos-isaf)	23874 39348	Prehistoric
3199	-	Well (north of Llanlleiana)	23879 39503	Medieval / Post Medieval
5220	-	Enclosure (Graig Wen)	23989 39460	Roman
5384	-	Findspot -Saddle Quern (Cynfor House, Cemaes)	23742 39343	Roman
7183	404312	Remains of Building & Chimney (Llanlleiana Porcelain Works)	23886 39502	Post-Medieval
7184	404312	Remains of Building (Llanlleiana Porcelain Works)	23883 39502	Post-Medieval
7185	33754	Limekiln (Ty'n-Illan)	23749 39465	Post-Medieval
7188	-	Limekiln (Penrhyn Mawr)	23728 39410	Post Medieval
7362	-	Cropmark of Feature (northwest of Carrog)	23720 39220	Undated
7693	8693	Capel Bethel (Cemaes)	23712 39334	Post-Medieval
7694	8694	Capel Bethlehem (Cemaes)	23732 39349	Post-Medieval
7697	8697	Capel Moriah (Bryn Llewelyn)	23925 39439	Post-Medieval
7698	-	Capel Penrhyn (Penrhyn)	23684 39374	Post-Medieval
7839	8839	Capel Hephshibah (Rhosbeirio)	23942 39133	Post-Medieval
16086	-	Possible Standing Stones (Bryn Llewelyn)	23944 39447	Undated / Prehistoric
16087	-	Gardens (Bryn Llewelyn)	23936 39445	Post-Medieval
16088	-	Outbuilding (Bryn Llewelyn)	23934 39447	Modern
16089	-	Walled Gardens (Bryn Llewelyn)	23933 39443	Post-Medieval

16090	-	Brick & Concrete Structure (Bryn Llewelyn)	23929 39445	Modern / Post-Medieval
16091	-	Farmyard & Outbuildings (Bryn Llewelyn)	23930 39448	Medieval / Post- Medieval
16092	-	Rectangular Field Enclosure (Bryn Llewelyn)	23931 39450	Post-Medieval
16093	-	Wall (west of Bryn Llewelyn)	23919 39455	Modern / Post-Medieval
16094	-	Pumphouse (west of Bryn Llewelyn)	23911 39451	Modern
16095	-	Stone Structure (west of Bryn Llewelyn)	23914 39458	Post-Medieval
16096	-	Enclosure (northwest of Bryn Llewelyn)	23922 39466	Undated
16097	-	Shallow Quarry Pit (north of Bryn Llewelyn)	23930 39469	Post-Medieval
16098	-	Stone Cairn - Evidence for Field Clearance (north of Bryn Llewelyn)	23937 39476	Post-Medieval
16107	-	Railway (southwest of Graig Wen)	23965 39464	Post-Medieval
16113	-	Probable Shallow Quarry Pit (south of Graig Wen)	23987 39453	Post-Medieval
16114	-	Shallow Quarry Pit (south of Graig Wen)	23987 39454	Post-Medieval
16115	-	Wall (northeast of Bryn Llewelyn)	23956 39472	Post-Medieval
16118	-	Pond (northeast of Bryn Llewelyn)	23956 39471	Post-Medieval
16119	-	Track Defined by Stone Walls (Bryn Llewelyn)	23928 39451	Post-Medieval
16120	-	Holloway (west of Bryn Llewelyn)	23918 39456	Medieval / Post-Medieval
16121	-	Rectangular Stone Structure (northeast of Bryn Llewelyn)	23958 39468	Post-Medieval
21924	-	Bryn Llewelyn Mine (northeast of Bryn Llewelyn)	23950 39460	Post Medieval
21928	-	Cemais Quarry (west of Llanlleiana)	23840 39470	Post Medieval
21930	-	Dinorben Mine (north of Llanbadrig)	23780 39430	Post Medieval
25700	-	Possible Outbuildings (Llanlleiana)	23863 39477	Post-Medieval
25701	-	Well at Llanlleiana	23865 39478	Post-Medieval
25702	-	House & Outbuildings (Llanlleiana)	23867 39471	Medieval / Post-Medieval
25703	-	Sheepfold (southwest of Llanlleiana)	23851 39466	Medieval / Post-Medieval
25704	-	Well (south of Llanlleiana)	23877 39443	Post-Medieval
25705	-	Limekiln (east of Llanlleiana)	23883 39469	Post-Medieval
25706	-	Quarry (southeast of Llanlleiana)	23888 39464	Post-Medieval
25707	-	Possible Building (northeast of Llanlleiana)	23881 39477	Post-Medieval
25708	-	Possible Building (northeast of Llanlleiana)	23881 39477	Post-Medieval
25709	-	Sheepfold (northeast of Llanlleiana)	23880 39492	Medieval / Post-Medieval
25710	-	Circular Feature (northeast of Llanlleiana)	23880 39487	Undated
25711	-	Possible Building (west of Llanlleiana)	23832 39477	Post-Medieval

25713	-	Building (northeast of Porth Cynfor)	23913 39496	Medieval / Post-Medieval
25714	400752	Pond & Leat (northeast of Llanlleiana)	23919 39481	Post-Medieval
25715	400751	Copper Mine & Works (Porth Llanlleiana)	23878 39501	Post-Medieval
25716	-	Sheepfold (east of Llanlleiana)	23906 39471	Medieval / Post-Medieval
27063	252342	Butts at Pig-y-Barcud	23737 39385	Modern
27064	252342	Post/s at Pig-y-Barcud	23733 39384	Modern
27065	-	Farmhouse & Outbuilding (Penrhyn Mawr)	23743 39397	Medieval / Post-Medieval
27066	525340	Quarry (Penrhyn Mawr)	23734 39404	Post-Medieval
27067	525341	Signal Station (west of Penrhyn Mawr)	23727 39395	Modern
27068	-	Sheepfold (south of Ty'n-Ilan)	23761 39456	Medieval / Post-Medieval
27069	-	Building (Ty'n-Ilan)	23759 39461	Medieval / Post-Medieval
27070	-	Possible Standing Stone (west of Penrhyn Mawr)	23729 39394	Undated / Prehistoric
27071	-	Sheepfold (west of Penrhyn Mawr)	23733 39396	Medieval / Post-Medieval
27072	-	Limekiln (northwest of Penrhyn Mawr)	23737 39403	Post-Medieval
27672	-	Quarry Shaft (north of Bryn Llewelyn)	23935 39480	Post-Medieval
27674	-	Quarry Shaft (north of Bryn Llewelyn)	23943 39461	Post-Medieval
27675	-	Quarry (north of Bryn Llewelyn)	23945 39461	Post-Medieval
27676	-	Well at Bryn Llewelyn	23931 39449	Post-Medieval
29454	309535	Ring Ditch & Enclosures (northwest of Carrog Farm)	23727 39215	Prehistoric
34697	410181	Barrows (Carrog)	23747 39185	Bronze Age
36110	-	Site of Mill (Cemaes)	23734 39309	Medieval
38097	-	Earthen Banks (north of Rhyd-y-Groes)	23973 39286	Undated / Post-Medieval
38098	-	Cropmark of Feature (northwest of Rhyd-y-Groes)	23936 39251	Undated
38100	-	Walled Rectangular Enclosure (northeast of Rhyd-y-Groes)	24055 39265	Undated
55946	-	Building (Llanbadrig)	23786 39408	Post-Medieval
59791	-	Site of Woollen Mill (Cemaes)	23714 39329	Post-Medieval
61148	-	Possible Site of Cemaes Township	2375 3930	Medieval
61451	15857	Rhosbeirio Farm	23921 39133	Post-Medieval
61453	-	Quarry (north of Rhosbeirio)	23922 39150	Post-Medieval
61454	86848	Enclosure (north of Pen-y-Morwydd)	23836 39152	Post-Medieval
-	34026	Evidence for Smelting (Porth Padrig)	237 394	Medieval / Post-Medieval
-	43638	St Patrick's New Church (Cemaes)	23693 39310	Post-Medieval

-	86519	Cemaes Allotments (Cemaes)	23677 39300	Modern
-	86523	Garden at Gadlys Hotel (Llanbadrig)	23782 39383	Post-Medieval
-	86527	Garden at Carrog (Llanfechell)	23753 39196	Post-Medieval
-	268040	Cemaes Village	2372 3934	Medieval / Post-Medieval
-	409440	Gadlys / Cemaes Bay Hotel (Llanbadrig)	23785 39386	Post-Medieval
-	419111	Former British School (Cemaes)	23732 39344	Post-Medieval
-	525327	Shipyard (Cemaes)	23728 39350	Post-Medieval
-	525335	Landing Place, Porth Llanlleiana	23878 39508	Post-Medieval
-	525336	Landing Place, Porth Padrig	23753 39442	Medieval / Post-Medieval
-	525343	Cemaes Harbour	23724 39361	Post-Medieval
-	525344	Harbour Arm, Penrhyn (Cemaes)	23702 39378	Post-Medieval / Modern
-	525345	Landing Place, Penrhyn	23697 39369	Post-Medieval

Duplicate Historic Environment Records and National Monuments Records for Designated Sites

HER (PRN)	RCAHMW (NPRN)	Description	Status	Cadw Reference	Period
3052 3059 6941	415101 43639	Church of St Patrick, Llanbadrig	Grade II* Listed	LB 5356	Medieval
3056	43640	Church of St Peirios	Grade II Listed	LB 5349	Medieval
3055	302341	Pen-y-Morwydd Round Barrow	Scheduled	AN110	Bronze Age
3053	300840	Lifad Enclosure	Scheduled	AN079	Roman
3067	95547	Dinas Gynfor Promontory Fort	Scheduled	AN038	Iron Age

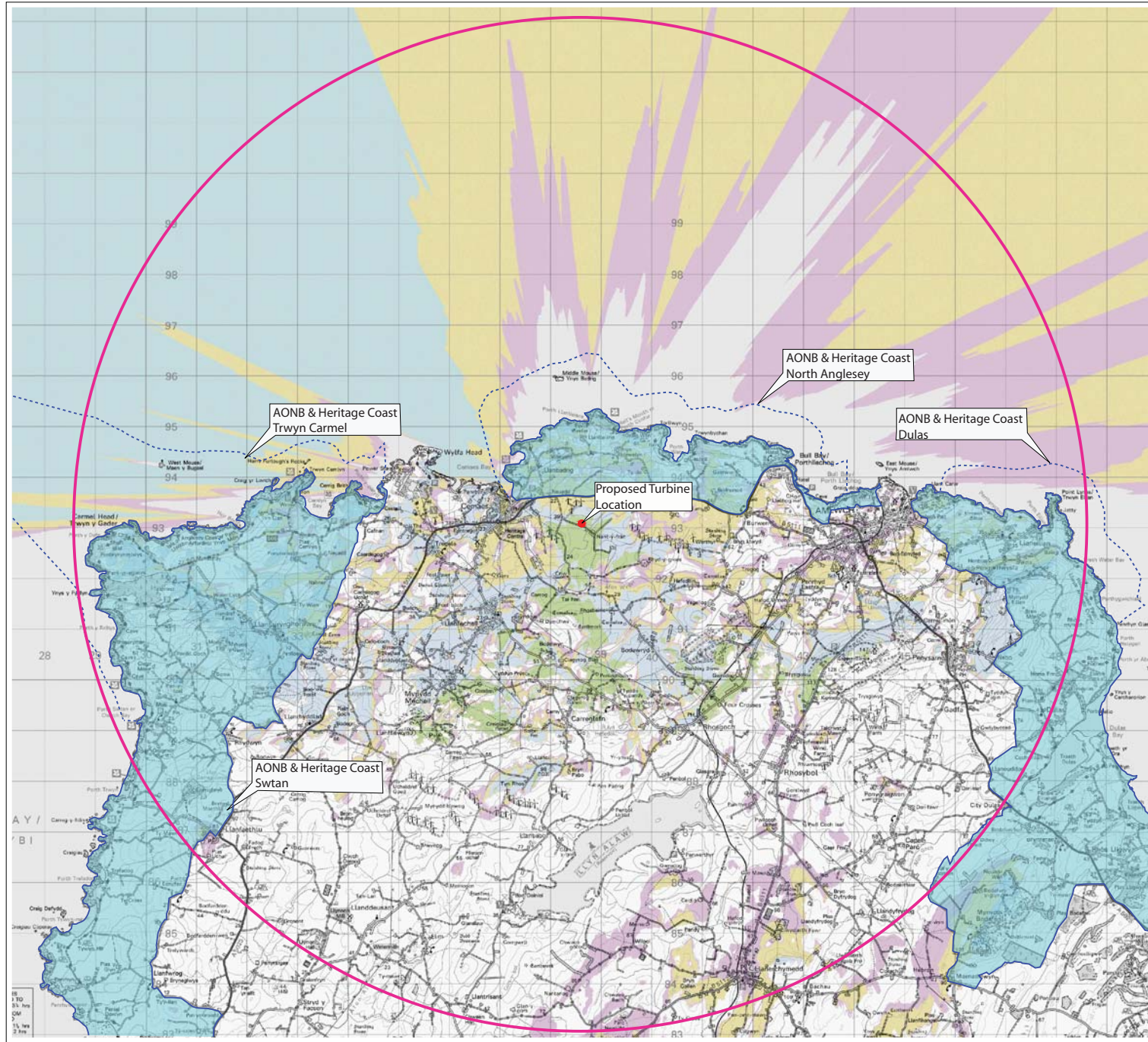
Duplicate Historic Environment Records for Landscapes

HER (PRN)	RCAHMW (NPRN)	Description	Landmap Historic Landscape Reference
17147	-	Cemaes Character Area	HL 054
17148	-	Anglesey North Coast Character Area	HL 053
17149	-	Rhosbeirio Character Area	HL 052

Archaeology Wales

Appendix IV

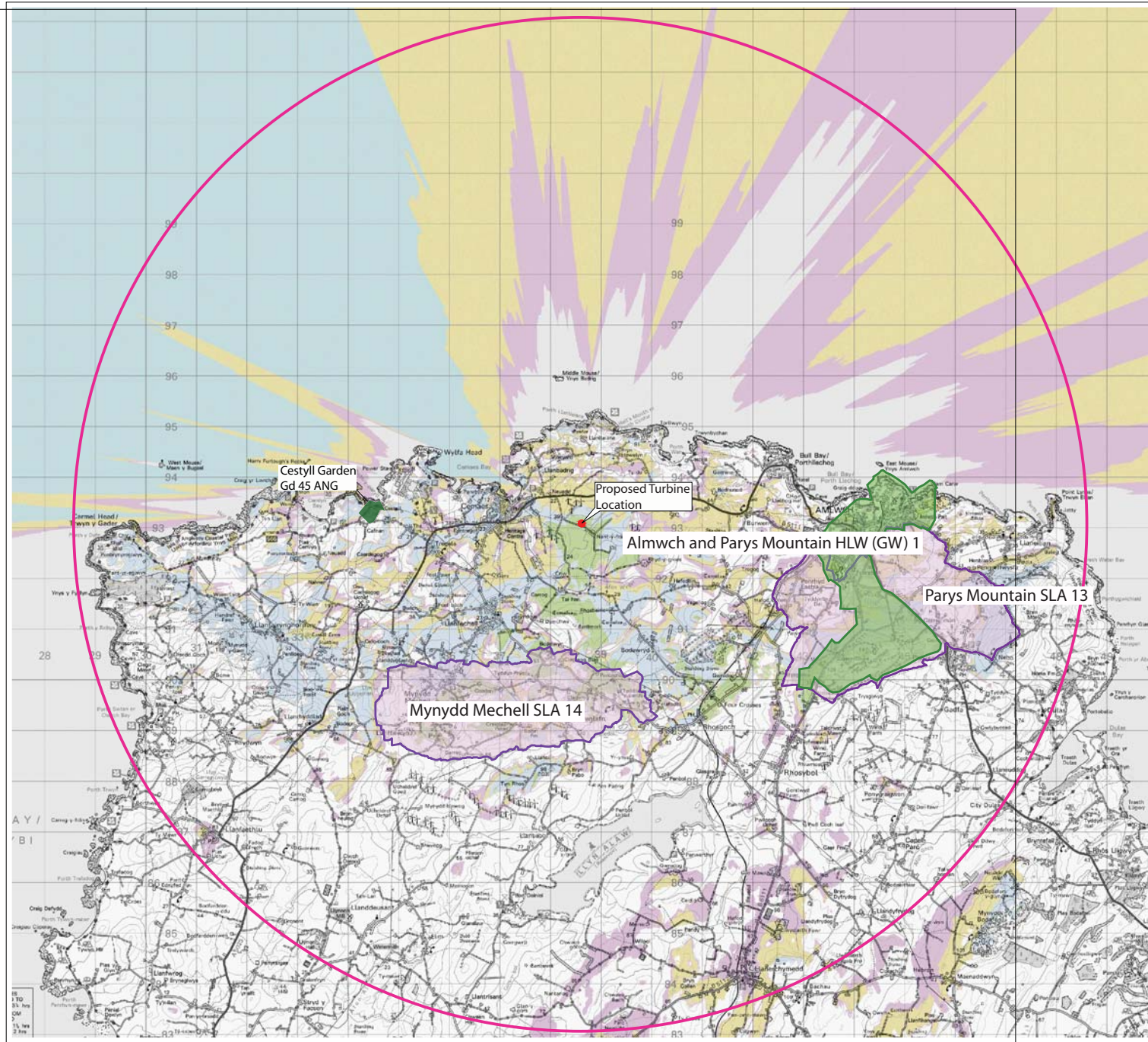
Figures



Key

- 10 km buffer zone
- Areas of Outstanding Natural Beauty
- Heritage Coast

Figure 1
Areas of Outstanding Natural
Beauty and Heritage Coast



Key






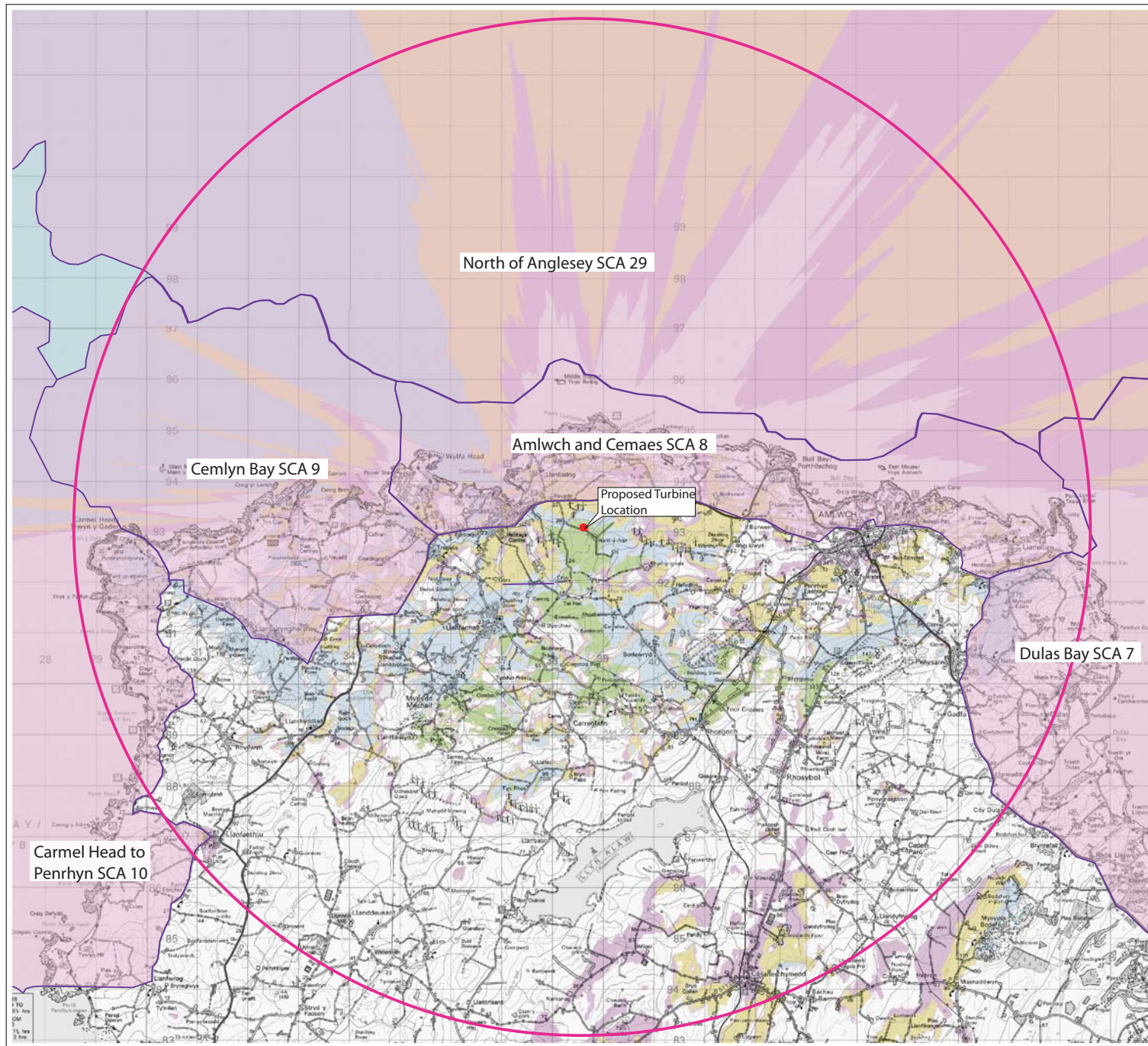
-  Proposed Turbine Location
-  10 km buffer zone
-  Special Landscape Areas
-  Registered Historic Landscape
-  Registered Parks & Gardens

Figure 2
Registered Historic Landscapes,
Special Landscape Areas and
Registered Parks & Gardens within a
10km Study Area

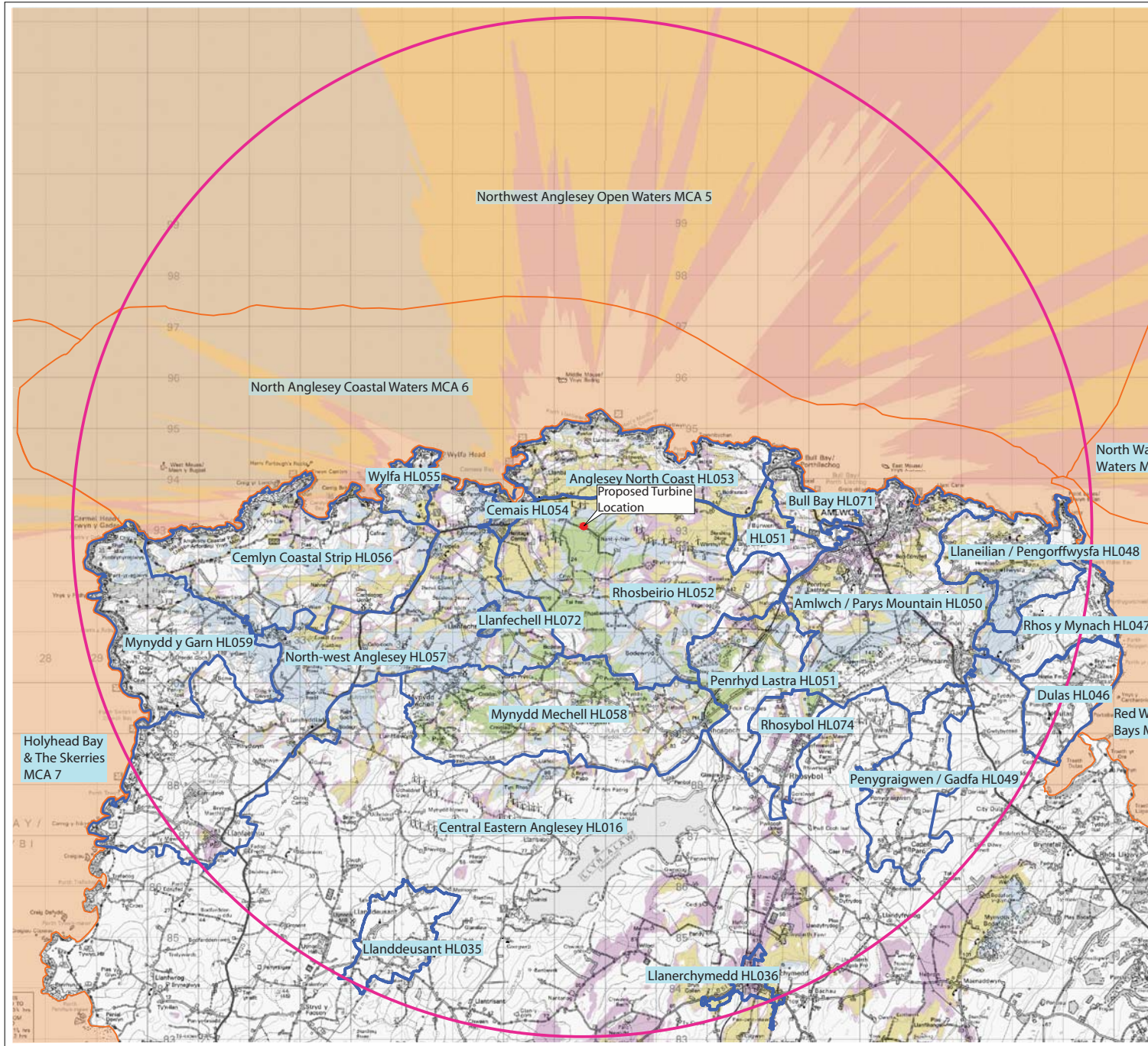
0 1 2km



Key

- Proposed Turbine Location
- 10 km buffer zone
- Seascape Character Areas

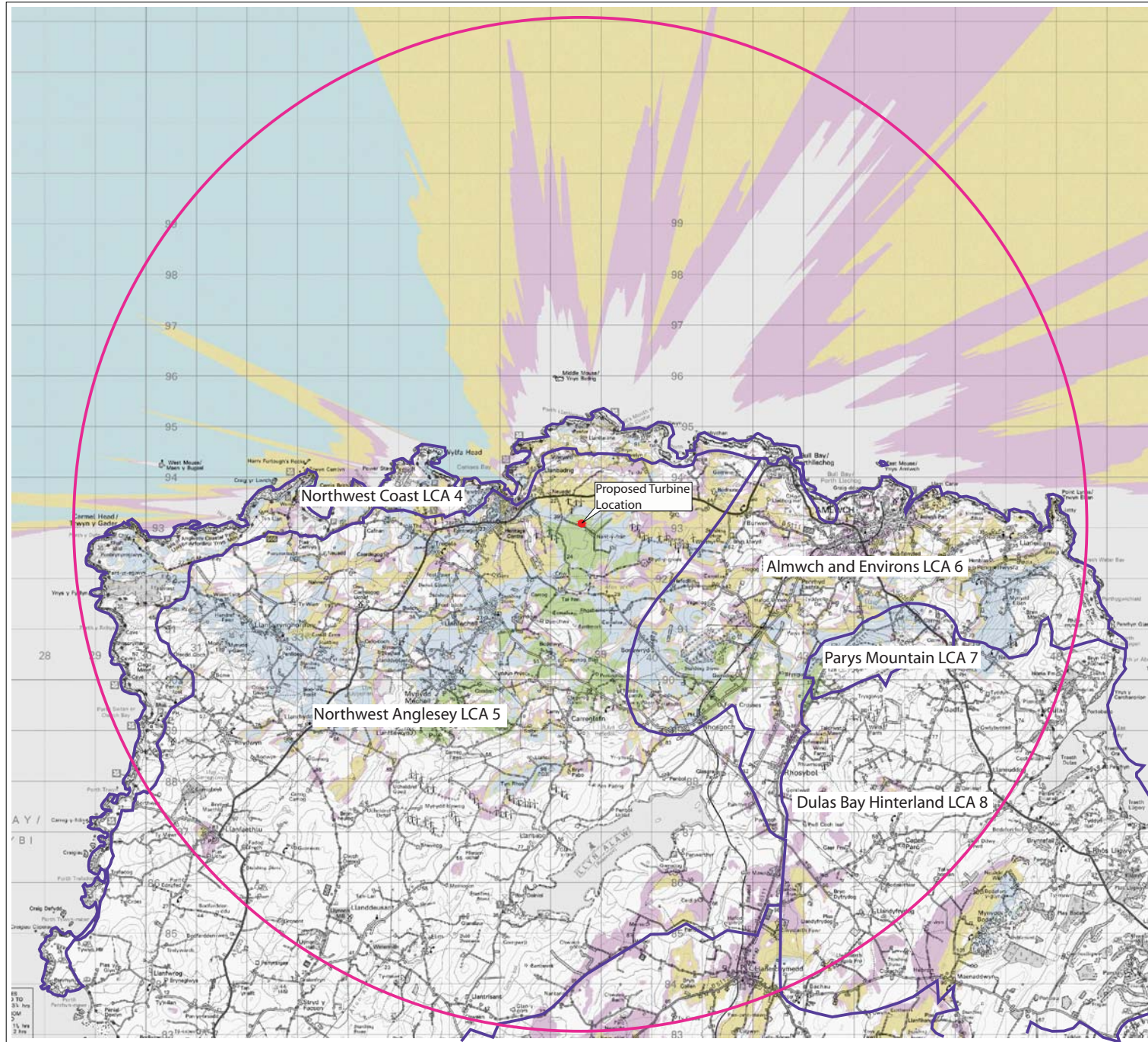
Figure 3
Seascape Character Areas within
a 10km Study Area



Key

- Proposed Turbine Location
- 10 km buffer zone
- Historic Landscape Character Areas
- Marine Character Areas

Figure 4
Historic Landscape Character Areas
and Marine Character Areas within a
10km Study Area



- Key
- 10 km buffer zone
 - Landscape Character Areas

Figure 5
Landscape Character Areas within a 10km Study Area

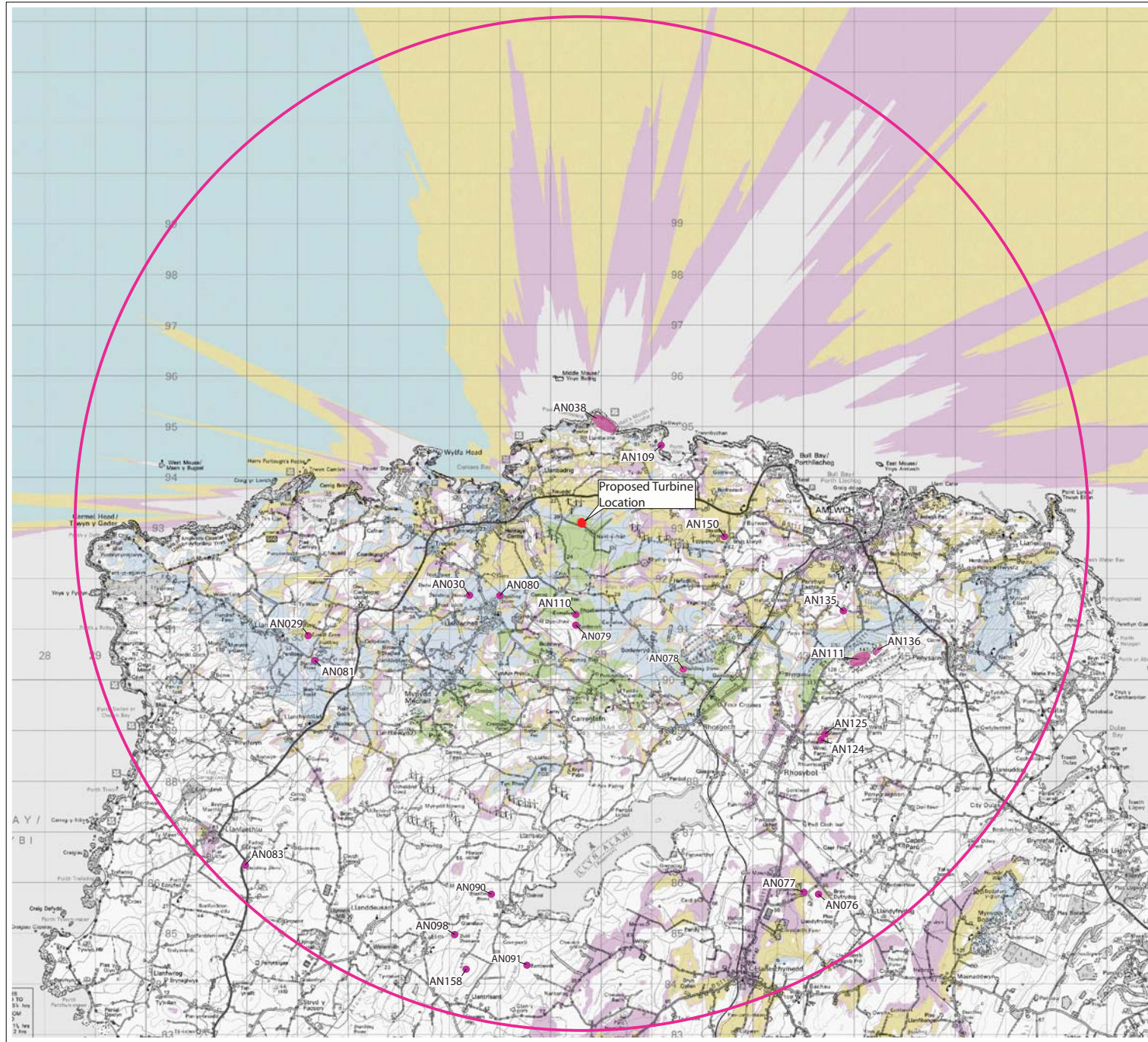


Key

- Proposed Turbine Location
- 10km buffer zone
- Conservation Areas

Figure 6
Conservation Areas within a
10km Study Area

0 1 2km



Key

- Proposed Turbine Location
- 10 km buffer zone
- Scheduled Ancient Monument

Figure 7
Scheduled Ancient Monuments
within a 10km Study Area

0 1 2km



Key

- Proposed Turbine Location
- 2km buffer zone
- Conservation Area boundary
- Ancient Woodland

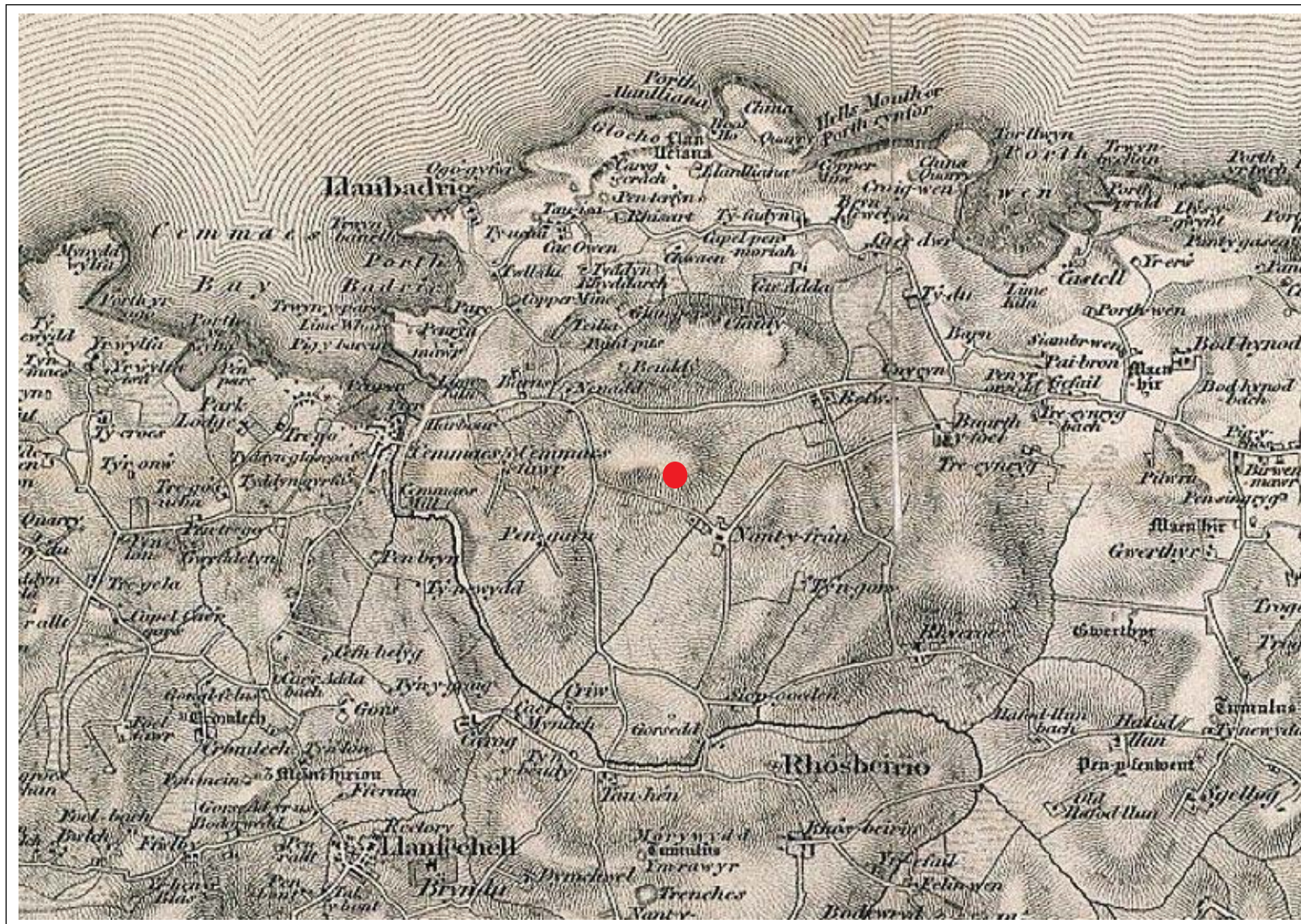
Figure 10
Map showing Conservation Area and Ancient Woodlands within a 2km Study Area



● Approximate location of Proposed Turbine

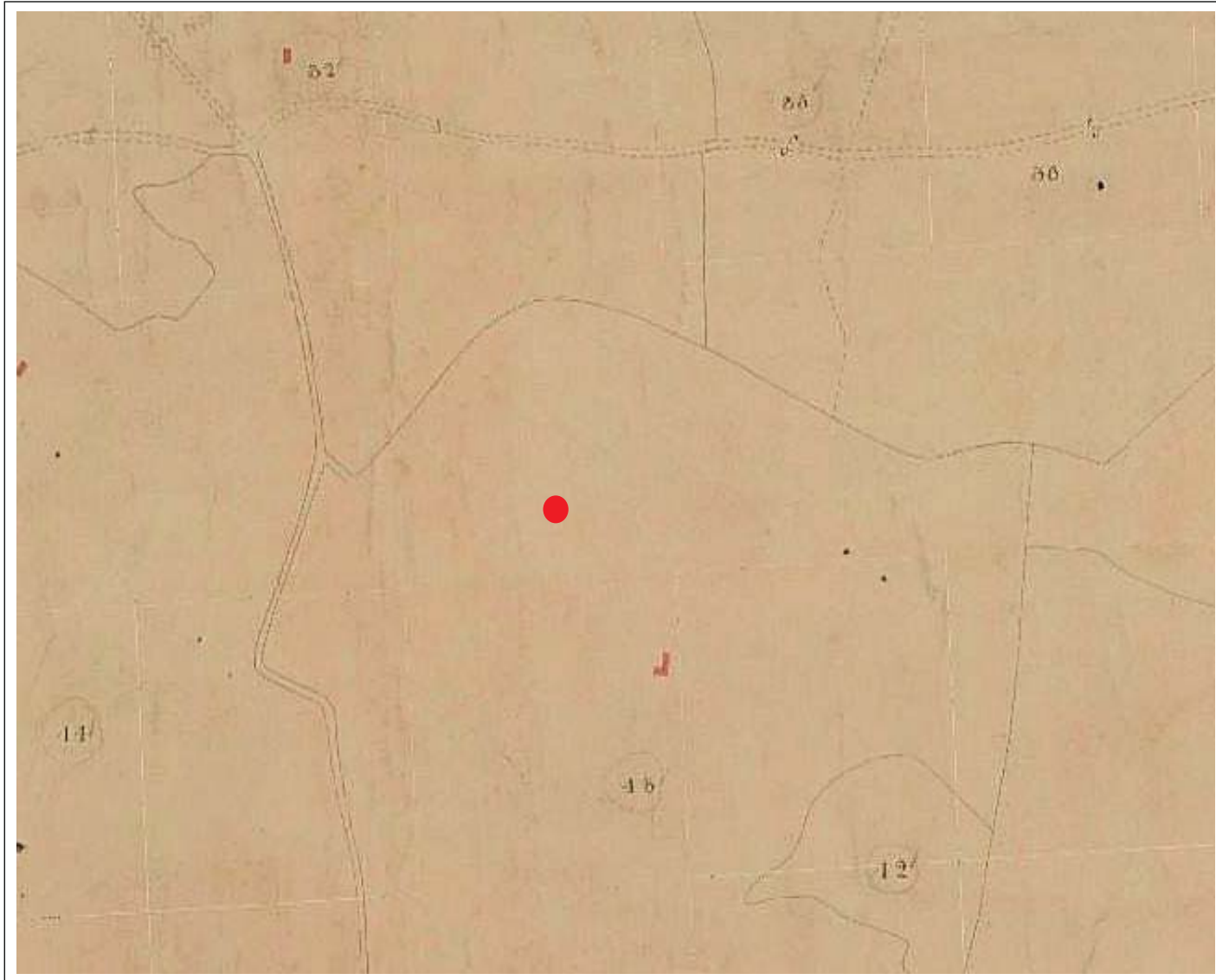


Figure 11
Extract of Ordnance Survey
Drawing of 1818, at 2 inches to
1 mile (1:31,680)



● Approximate location of Proposed Turbine

Figure 12
Extract of Ordnance Survey
First Series of 1840, at 1 inch to
1 mile (1:63,360)



● Approximate location of Proposed Turbine

0 500m

Figure 13
Extract of 1841 Tithe Map



● Location of Proposed Turbine

Figure 14
Extract of Ordnance Survey
25 inch map of 1889 (1:2,500)



● Location of Proposed Turbine



Figure 16
Aerial photograph (Google Imagery 2016)

Archaeology Wales

Appendix V

Plates



Plate 1. General view of the proposed development site. Looking north-northwest.



Plate 2. View towards the site from Cemaes AONB (north side of A5025). Looking southwest.



Plate 3. General view of the scheduled remains of Parys Mountain Copper Mine, SAM AN111. Looking northwest.



Plate 4. Looking west-northwest towards the site from Parys Mountain Special Landscape Area and Registered Landscape (view from the scheduled area of Parys Mountain Copper Mine, SAM AN111).



Plate 5. Looking west-northwest towards the site from Parys Mountain Special Landscape Area and Registered Landscape (view from the scheduled area of Mona Mine Kilns, SAM AN136, and Grade II Parys Mountain Windmill, LB 5425).



Plate 6. Looking north towards the site from Mynydd Mechell Special Landscape Area (view from Grade II Pant-y-cryntach, LB 25166).



Plate 7. View towards the site from the Grade II Registered Cestyll Garden, Gd45ANG. Looking east.



Plate 8. View towards the site from Cemaes Harbour (within the Cemaes Conservation Area). Looking southeast.



Plate 9. View towards the site from the scheduled Dinas Gynfor Iron Age promontory fort, SAM AN038. Looking south.



Plate 10. View towards the site the from the scheduled Pen-y-Morwydd Bronze Age round barrow, SAM AN110. Looking north.



Plate 11. View towards the site from the Grade II Church of Peirio, LB 5349.
Looking north-northwest.

Archaeology Wales

Archaeology Wales Limited
The Reading Room, Town Hall,
Great Oak Street, Llanidloes,
Powys, SY18 6BN

Tel: +44 (0) 1686 440371
Email: admin@arch-wales.co.uk
Web: www.arch-wales.co.uk