Heads of the Valleys
Smaller Scale Wind Turbine Development

Landscape Sensitivity and Capacity Study Final Report

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Contents

SECTION 1: BACKGROUND

This study was commissioned by Blaenau Gwent Council on behalf of the five local authorities that cover the Heads of the Valleys study area. The Heads of the Valleys study area extends across the northern parts of Rhondda Cynon Taff, Merthyr Tydfil, Caerphilly, Blaenau Gwent and Torfaen local authorities and includes part of the Beacon Beacons National Park (see Figure 01). The commissioning group is described in this report as the 'client group'. All figures can be found in Section Six of this study.

There has been a significant number of applications to local authorities in Wales recently for single or multiple wind turbines that are not large enough to be considered a 'wind farm' but together or individually could potentially have a significant impact on the landscape. This study is concerned with smaller community based wind farm schemes (generally less than 5 MW) identified in Planning Policy Wales Technical Advice Note (TAN) 8 Planning for Renewable Energy (2005) as being suitable for areas outside Strategic Search Areas (SSA). Such schemes are described in this study as smaller scale wind turbine development. There is insufficient guidance available for local authorities or developers to allow consistent assessment of the potential impacts of these smaller scale developments.

The purpose of this study is to provide guidance in the assessment of the landscape and visual impacts of smaller scale wind turbine development. The study provides guidance for developers when making planning applications and for Planning Authority Planning Policy and Development Management Officers (Local Planning Officers) when considering applications. It is intended to help achieve greater consistency across the local authorities when considering applications. The study area includes a SSA. TAN 8[1] states that not all land within the SSAs may be technically, economically and/or environmentally suitable for major wind power proposals. Local planning authorities were advised to undertake local refinement studies in order to guide development. A refinement study was undertaken for SSA F[2], *TAN 8 Annex D Study of Strategic Search Areas E and F: South Wales Valleys Final report* 2006, and the current study does not supersede that assessment when making decisions within SSA F.

The South Wales Landscape Liaison Group (comprising representatives of 13 local authorities, 2 National Parks and representatives of Natural Resources Wales (NRW) and the Welsh Government) identified the need to develop consistent guidelines and clarity for local authorities and applicants in the consideration of proposals for single and groups of wind turbines. This is being published as *Planning Guidance for Wind Turbine Development: Landscape and Visual Impact Assessment Requirements*. In tandem with the development of the guidance this pilot sensitivity study has been prepared for the Heads of the Valleys study area in South Wales. It is intended that the approach to assessing sensitivity adopted here can be applied within other local authorities.

The assessment approach was developed with the client group and with representatives from the South Wales Landscape Liaison. **This is a strategic study and is not prescriptive at an individual site level. It does not replace the need for the local authorities to assess individual planning applications or for developers to prepare specific local landscape and visual impact assessment as part of a planning application.**

A list of abbreviations and glossary of key terms is included in Appendix 1.

[1] TAN 8 Paragraph 2.4

[2] TAN 8 Annex D Study of Strategic Search Areas E and F: South Wales Valleys Final report 2006

National Policy Context

Planning Policy Wales (PPW) (2014) Edition 7

Land use planning policies for the Welsh Government, set out in PPW, establish the Government's objectives for conservation and improvement of natural heritage, in particular the protection of native habitats, trees and woodlands and landscapes with statutory designations. The LANDMAP[3] information system is endorsed as an important resource to use for landscape assessment. All forms of renewable energy are promoted where they are environmentally and socially acceptable.

PPW confirms the Welsh Government's commitment to energy efficiency and sustainable renewable energy. The Welsh Government's Energy Policy Statement (2010) has the target of all local energy needs being met by low carbon electricity production by 2050 at the latest.

PPW states that *'Planning policy at all levels should facilitate delivery of both the Welsh Government's overall Energy Policy Statement, and UK and European targets on renewable energy. The Renewable Energy Directive contains specific obligations to provide guidance to facilitate effective consideration of renewable energy sources. In this context both local planning authorities and developers should have regard in particular to the guidance contained in Technical Advice Note 8: Planning for Renewable Energy, Technical Advice Note 22: Sustainable Buildings and Planning for Renewable Energy - A Toolkit for Planners.'*[4]

Technical Advice Notes

PPW is supported by a series of TANs. **TAN 8: Renewable Energy** identifies seven SSAs where the Welsh Government decided that for efficiency and environmental reasons, amongst others, large scale (over 25MW) onshore wind turbine development should be concentrated. TAN 8 states that most areas outside SSAs should remain free of large scale wind turbine development although there may be some potential for wind farm schemes up to 25MW capacity on urban brownfield sites and for smaller community based and domestic wind farm schemes less than 5MW elsewhere.

There is an implicit objective in TAN 8 to accept landscape change within and immediately adjacent to SSAs, for there to be no significant change outside SSAs and no change in landscape character from wind turbine development within National Parks and Areas of Outstanding Natural Beauty (AONBs).[5] Despite the implicit objective for landscape change in SSAs TAN 8 states that the SSA boundaries are 'broad brush' and not all areas within SSAs may be suitable for major wind turbine development.

TAN 12: Design, requires Local Planning Authorities to appraise the character of the landscape, including its visual and sensory qualities and emphasises that landscape character needs to be considered when developing a robust and coherent planning framework. This is intended to ensure that adverse landscape impacts are limited by locating development, including wind turbine development, in areas where the landscape is able to accommodate it without significant harm. TAN 12 advocates the use of LANDMAP to help inform and identify where development is preferable in landscape terms.

[3] LANDMAP is the Welsh approach to landscape assessment.

[4] Planning Policy Wales (Edition 7, July 2014)

[5] TAN 8 Annex D Paragraph 8.4

Local Policy Context

Each of the five local authorities in the study area have planning policies relevant to this study. They are listed below and relate to renewable energy development and landscape policy. Given the number of policies and the differences in approach between each of the authorities a description of the policies and their supporting documents is not included in this study and current, relevant local plan should be consulted.

Blaenau Gwent County Borough Local Development Plan adopted 22nd November 2012.

- DM1 New Development
- ENV 2 Special Landscape Areas
- SP7 Climate Change
- SP10 Protection and Enhancement of the Natural Environment
- SP11 Protection and Enhancement of the Historic Environment
- DM15 Protection and Enhancement of Green Infrastructure
- DM4 Low and Zero Carbon Energy
- DM16 Trees, Woodlands and Hedgerow Protection

Torfaen County Borough Local Development Plan to 2021 adopted December 2013

- HE2 Blaenavon Industrial Landscape World Heritage Site (BILWHS)
- C1 Green Wedges
- C2 Special Landscape Areas (SLAs)
- S3 Climate Change
- S7 Conservation of the Natural and Historic Environment

Caerphilly County Borough Local Development Plan (2010) adopted November 2010

- NH1 Special Landscape Areas
- NH2 Visually Importance Landscapes
- CW4 Natural Heritage Protection
- CW6 Trees woodland and hedgerow protection
- CW15 General Locational Constraints
- CW22 Locational Constraints - minerals
- SI1 Green wedges
- SP10 Conservation of Natural Heritage

Merthyr Tydfil County Borough Local Development Plan (2006-2021) adopted May 2011

- AS4 Historic Landscape
- AS5 Green Wedges
- BW5 Natural Heritage
- BW6 Townscape and Built Heritage
- TB7 Renewable Energy
- BW7 Sustainable Design and Place Making
- BW4 Settlement Boundaries/Locational Constraints

Rhondda Cynon Taff Borough Local Development Plan up to 2021 adopted March 2011

- AW 5 New Development
- AW 6 Design & Placemaking
- AW 7 Protection and Enhancement of the Built Environment
- AW 8 Protection And Enhancement of the Natural Environment
- AW 12 Renewable & Non-Renewable Energy
- AW 13 Large Wind Farm Development
- NSA 25 Special Landscape Areas
- SSA 23 Special Landscape Areas
- NSA 26 Cynon Valley River Park

In addition to the local authority specific planning policies there are a number of strategies specific to the Heads of the Valleys Area that apply to all local authorities in the area. In particular **Turning Heads – A Strategy for the Heads of the Valleys 2020** outlines a strategy for regenerating the Northern Valley areas of South East Wales

The objectives of the programme reflect those of the Wales Spatial Plan in seeking to ensure:

- An attractive and well used natural, historic and built environment;
- A vibrant economic landscape offering new opportunities;
- A well-educated, skilled and healthier population;
- An appealing and coherent tourism and leisure experience; and
- Public confidence in a shared bright future.

SECTION 2: METHODOLOGY

Overview of Methodology

Wales is unique within the UK in having implemented LANDMAP a consistent approach to the assessment of the landscape across the whole country, recorded in a publicly accessible database. This sensitivity study is based on LANDMAP data supplemented by other sources of information and field survey.

The methodology identifies a number of landscape characteristics, captured as answers within the LANDMAP data, which are indicators of the susceptibility of the landscape to wind turbine development.

Table 1 Typologies sets out the typologies used as developed for the Planning Guidance for Wind Turbine Development Landscape and Visual Impact Assessment Requirements.

Table 2: Definition of Sensitivity sets out the definitions of sensitivity.

Table 3 Criteria for Assessing Landscape and Visual Sensitivity to Wind Turbine Development sets out in detail:

- which LANDMAP questions have been used in the study;
- why they have been chosen as indicators of landscape susceptibility to wind turbine development; and
- how the answers have been interpreted to indicate higher or low susceptibility.

Table 3 also sets out in where other sources of information have been used to inform the assessment and where field survey work has been particularly important.

Table 4: Criteria for Establishing Landscape Value sets out the relevant criteria for establishing landscape value

As there are no landscape character areas defined for the majority of the study area landscape units have been defined for this wind turbine sensitivity study using LANDMAP aspect areas boundaries where possible.

Landscape value has been identified using both the LANDMAP data, in particular overall evaluations of high or outstanding, and international, national and local designations.

For each landscape unit an overall evaluation of sensitivity for each of the wind turbine typologies has been given. The sensitivity assessments take account of:

- the identified landscape susceptibilities;
- the value placed on the landscape; and
- existing presence of wind turbine development within or visible from the landscape unit.

An indicative capacity for wind turbine development has been given for each landscape unit. This is based on the sensitivity of the unit, the size of the unit and the presence of existing turbines within the unit or visible from the unit.

Section five of this study provides generic guidelines for the location of wind turbine development. Specific guidance for each unit is also provided. Unit specific guidelines consider in particular landscape or cultural designations within the unit, the characteristics of the landscape types within the unit, and inter visibility with neighbouring units.

The methodology for the study is illustrated in the flowchart below and is described in detail in the following text.

Table 1: Typologies

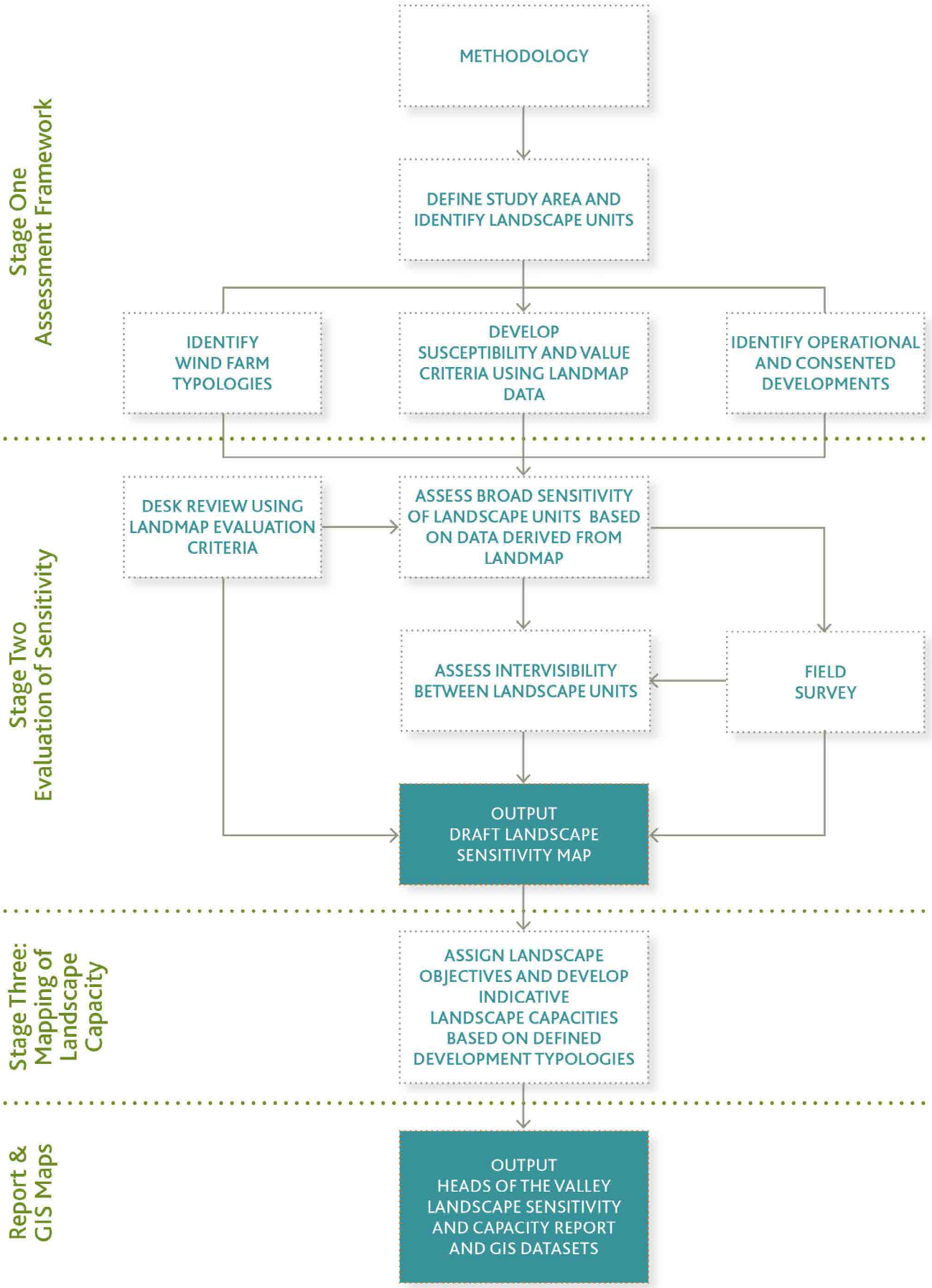
	Turbines development in this typology will have a blade tip height of:	and will consist of:
MICRO (Mi)	Less than 25m or roof mounted	Only one turbine
SMALL (S)	Less than 50m	Three turbines or fewer
MEDIUM (M)	Less than 80m	Four turbines or fewer
LARGE (L)	Less than 109m	Five turbines or fewer
VERY LARGE (L)	109m or greater	Any number of turbines

Note: Any group of six or more turbines will belong to the very large typology irrespective of the height of the turbines.

HEIGHT TO BLADE TIP	1	2	3	4	5	6 to more
< 25m	MICRO	SMALL (S)	SMALL (S)	MEDIUM (M)	LARGE (L)	VERY LARGE[2] (VL)
< 50m	SMALL (S)	SMALL (S)	SMALL (S)	MEDIUM (M)	LARGE (L)	VERY LARGE[3] (VL)
< 80m	MEDIUM (M)	MEDIUM (M)	MEDIUM (M)	MEDIUM (M)	LARGE (L)	VERY LARGE[4] (VL)
< 109	LARGE (L)	LARGE (L)	LARGE (L)	Turbines of this height and number are likely to exceed 5MW and therefore be appropriate only within SSAs		
≥ 109m	VERY LARGE (VL)	VERY LARGE (VL)				

NUMBER OF TURBINES

Notes:
1. Or roof mounted
2. To exceed 5MW about 250 turbines would be required
3. To exceed 5MW about 22 turbines would be required
4. To exceed 5MW about 10 turbines would be required


Stage One
Assessment Framework
METHODOLOGY
DEFINE STUDY AREA AND IDENTIFY LANDSCAPE UNITS
IDENTIFY WIND FARM TYPOLOGIES
DEVELOP SUSCEPTIBILITY AND VALUE CRITERIA USING LANDMAP DATA
IDENTIFY OPERATIONAL AND CONSENTED DEVELOPMENTS
Stage Two
Evaluation of Sensitivity
DESK REVIEW USING LANDMAP EVALUATION CRITERIA
ASSESS BROAD SENSITIVITY OF LANDSCAPE UNITS BASED ON DATA DERIVED FROM LANDMAP
ASSESS INTERVISIBILITY BETWEEN LANDSCAPE UNITS
FIELD SURVEY
OUTPUT
DRAFT LANDSCAPE SENSITIVITY MAP
Stage Three:
Mapping of Landscape Capacity
ASSIGN LANDSCAPE OBJECTIVES AND DEVELOP INDICATIVE LANDSCAPE CAPACITIES BASED ON DEFINED DEVELOPMENT TYPOLOGIES
Report &
GIS Maps
OUTPUT
HEADS OF THE VALLEY LANDSCAPE SENSITIVITY AND CAPACITY REPORT AND GIS DATASETS

Stage One: Assessment Framework

Guidance

The methodology was informed by the documents listed in Appendix 2, including guidance developed in Scotland which is specific to wind turbine development and widely accepted in England and Wales. The following good practice documents were particularly informative:

- Guidelines for Landscape and Visual Impact Assessment (GLVIA3). The Landscape Institute and the Institute for Environmental Management and Assessment Third edition April 2013. This is the industry standard for landscape and visual assessment.
- LANDMAP Guidance Note 3: Using LANDMAP for Landscape and Visual Impact Assessment of Onshore Wind Turbines (Guidance Note 3)

Both GLVIA3 and Guidance Note 3 advocate the use of professional judgement and an understanding of landscape character to assess what makes one landscape more or less susceptible than another to particular forms of development. Key to this is an understanding of which aspects of the landscape, physical and perceptual, are particularly susceptible to the type of development proposed.

Data Sources

The assessment was informed by data gathered from baseline information sources listed in Appendix 3. LANDMAP was the primary source supplemented by maps, relevant landscape and historic character assessments, field work and consultations with the client group.

LANDMAP is the Welsh approach to landscape assessment and has been extensively used to inform this study in accordance with GLVIA3 recommendations. LANDMAP is an all-Wales GIS based landscape resource where landscape characteristics, qualities and influences on the landscape are recorded and evaluated into a nationally consistent dataset. LANDMAP comprises five spatially related datasets (layers) - Cultural Landscape, Geological Landscape, Historic Landscape Landscape Habitats, and Visual and Sensory. Information on each is detailed in the LANDMAP Overview: Guidance for Wales (CCW 2008).

Each of the five spatial layers are subdivided into discrete geographical units (GIS polygons) referred to as **aspect areas**. Each mapped aspect area is defined by its recognisable landscape characteristics and qualities. Accompanying each aspect area is a description (Collector Survey record) which describes and documents the landscape character, qualities and features. Management recommendations are also provided, together with an overall evaluation score, contextualised from a local to international scale of importance. Each Collector Survey records information from the unique perspective of the LANDMAP layer concerned, with each LANDMAP layer being produced independently for each of the five layers. Therefore when key characteristics are referred to across several layers for the same geographic area, the value of their importance is typically emphasised.

Although Guidance Note 3 recommends that data from all five LANDMAP layers should be used in any assessment, the Cultural Landscape information within the study area was not sufficiently detailed to be useful for this study.

Study Area

Figure 02 shows the Heads of the Valleys study area which comprises parts of five local authorities. They are Rhondda Cynon Taff, Merthyr Tydfil, Caerphilly, Blaenau Gwent and Torfaen. The study area is located south of the Brecon Beacons National Park (BBNP) and includes part of the BBNP.

In addition to the BBNP, areas of particular landscape interest shown on Figure 2 are the Blaenavon World Heritage Site (WHS), Cyfarthfa Castle Registered Historic Park in Merthyr Tydfil and six Registered Landscapes of Historic Interest: The Rhondda; Forest Fawr; Gelli-Gaer Common; Merthyr Tydfil; Clydach Gorge; and Blaenavon.

The study area includes the eastern end of TAN 8 SSA F Coed Morgannwg.

Figure 03 shows the very distinctive topography within the study area.

Landscape Units

Landscape sensitivity and capacity studies are typically based on existing local landscape character assessments. The only identified landscape character areas within the study area are for land within the BBNP and it was therefore necessary for the purpose of this study to define landscape units for all the land outside the BBNP.

Thirty separate landscape units have been identified and used in the sensitivity study. Underlying the landscape units are broad landscape types, based on the LANDMAP Visual and Sensory Aspect Area Classification level 3 and informed by the Historic Landscape and Geological Landscape layers.

All of the study area is covered by LANDMAP data and LANDMAP was used as the basis for defining the landscape units. The landscape unit boundaries were determined taking account of place, landform/topography, intervisibility and receptors.

The three landscape character areas identified within the BBNP Landscape Character Assessment (2012) have also been used as landscape units.

The landscape units are shown on Figure 04 and the broad landscape types on which they are based are shown on Figure 05. The boundaries between the units are indicative and areas close to the boundaries are likely to share characteristics. When considering development that is close to the boundary of a landscape unit the guidance for the neighbouring unit should also be considered.

Wind Turbine Typologies

Definitions for wind turbine typologies, based on past wind turbine development applications and anticipated future trends, have been developed for the Planning Guidance for Wind Turbine Development: Landscape and Visual Impact Assessment Requirements. It was considered that both the height of the turbine to blade tip and the number of turbines proposed was relevant to the overall definition of the typology. The five typologies **(micro, small, medium, large,** and **very large)** which were identified and agreed with the client group are presented in Table 1.

Operational and Consented Wind Turbine Development

An Online Wind Turbine Database for South Wales (Online Database) has been developed for the 13 local authorities who make up the South Wales Landscape Liaison Group. The Online Database contains information on the size and location of all operational and consented turbines and turbines for which a planning application has been submitted.

The Online Database was used to inform this sensitivity study which has mapped and considered all wind turbine development operational or consented by March 2014, within the study area and within 10km of the study area boundary where the development has a high degree of invisibility with the study area. Figures 06 and 07 have been updated in April 2015 with information from the online database.

With regard to the online database the typologies relate to the heights of the turbines only.

Landscape and Visual Sensitivity Criteria
LANDMAP data was used to provide a consistent, independently verified description of the characteristics of the landscape, physical and perceptual, which may potentially be affected by wind turbine development.

Table 3 sets out:

- the characteristics that have been identified as indicators of susceptibility to wind turbine development and an explanation of how they affect landscape and/or visual susceptibility;
- the LANDMAP answers and other sources of information that have been used to establish the characteristics present in each landscape unit;
- the LANDMAP evaluations and other sources of information that have been used to establish to determine the value of each landscape unit

Appendix 4 Using LANDMAP data to inform sensitivity assessments, explains how the dataset of LANDMAP answers for each landscape unit is interrogated to provide percentages for each question.

A landscape that is highly valued by society may still be able to accommodate some wind turbine development in the right location if it fits with the characteristics of the landscape. In designated landscapes wind turbine development is acceptable if it does not compromise the purpose of designation. In undesignated landscapes wind turbine development is acceptable if it does not compromise the qualities and values attached to the landscape. Conversely a landscape that isn't designated may be highly sensitive to wind turbine development if it has particular landscape or visual characteristics that are very susceptible to wind turbine development.

The susceptibility of each landscape unit within the study area was assessed against each of the susceptibility criteria as described in Table 3 below and graded using a three point susceptibility scale, high, medium or low. Table 3 shows how LANDMAP answers or evaluations have been used to indicate susceptibility to wind turbine development. The Sensitivity and Capacity Tables for each landscape Unit form **Section Four** of this Study.

In accordance with GLVIA3, judgements regarding landscape and visual sensitivity are derived from combining judgements about the susceptibility to change arising from the specific proposals with judgements about the value attached to the landscape and visual receptors.

In common with most wind turbine landscape sensitivity studies the final assessment of sensitivity combines:

- judgements relating to landscape susceptibility;
- judgements relating to visual susceptibility;
- the value attached to the landscape; and
- the presence and nature of visual receptors.

Table 2: Definition of Sensitivity

	Definition
Low	Areas where the key characteristics are not very vulnerable to change and could accommodate some wind turbine development if sensitively sited and designed without significant adverse effects on the character of the landscape or the value placed on it.
Medium	Areas where wind turbine development may cause some adverse effects on key landscape characteristics by introducing new inappropriate characteristics or result in a change in character or the value placed on the landscape. However, the landscape may be able to absorb some development if sensitively sited and designed.
High	Areas where the key landscape characteristics are vulnerable and likely to be adversely affected by wind turbine development. The landscape would not be able to accommodate wind turbine development without significant effects on its character or on the value placed on the landscape.

Table 3: Criteria for Assessing Landscape and Visual Susceptibility to Wind Turbine Development

Landscape Criteria			
LANDMAP and other data sources	Susceptibility to wind turbine development		
	Low	Medium	High

Scale			
A large scale expansive landscape is typically less susceptible to large wind turbine developments than a small scale intimate landscape. A large height differential between valley floors and hill tops may help reduce susceptibility by lessening the perceived size of the turbines but care has to be taken to ensure that the apparent scale of the landform is not diminished by the height of the turbines. Single and narrow ridges are more susceptible to wind turbine development than plateau or broad ridges especially where the slopes of the ridge are well defined/steep and/or with rock outcrops.			
VS8: Scale	vast or large scale landscapes	medium scale landscapes	small scale landscapes

Landform			
Landforms that are smooth, regular and convex, or flat and uniform are likely to be less susceptible to wind turbine development than complex varied landforms with distinctive landmarks where visible wind turbines may have a detrimental effect on the appearance and experience of the landform. Complex landforms may provide some screening opportunities for turbines but care has to be taken not to dominate intricate landforms.			
VS4: Topographic Form	levels, plateau, disturbed	high hills/mountains	hills/valleys, rolling land undulating

Landcover Pattern			
This criterion is not concerned with the particular material sensitivity of a type of landcover (which is considered in ecological assessments) but with the character of the landscape created through the landcover pattern. Simple uncluttered landscapes with sweeping lines and a consistent groundcover are likely to be less susceptible to wind turbine development. Areas of commercial forestry and intensive farming may also indicate lower susceptibility. Complex landscapes comprising a variety or mosaic of characteristic or susceptible landscape features such as trees and woodlands, irregular field patterns and hedgerows are typically more vulnerable to change arising from wind turbine development. Tree and woodland cover offers the potential to screen small scale turbines in certain situations (particularly in combination with undulating landform) although care must be taken not to allow turbines to detract from or dominate locally distinctive features such as tree knolls, ancient specimen trees or avenue trees. Where landscape complexity is due to past or current commercial / industrial influences this indicates lower rather than higher sensitivity.			
VS Classification level 3	excavation, urban, upland moorland, upland grazing	wooded upland and plateau, hillside and scarp slopes, village, mosaic upland and plateau	open upland valleys, open/wooded mosaic, upland valleys, amenity land, informal open space
VS5: Land cover pattern	development, open land, forestry	mixture, woodland	field pattern/mosaic
VS16: Pattern	formal	regular	random
HL Classification level 3	reclaimed land, extractive, processing manufacturing, communications, military, settlement	marginal, woodland, recreational	various fieldscapes, woodland, settlements, recreation, designed

Landscape Criteria cont.			
LANDMAP Data Source and other data sources	Susceptibility to wind turbine development		
	Low	Medium	High

Built Environment			
This criterion is concerned with the presence of built structures and human intervention present in the landscape. The presence of modern structures such as wind turbines, transport, utility or communications infrastructure or industrial development may reduce landscape susceptibility to wind turbine development, as may the visible influences of quarrying or landfill. The frequency of built form and human intervention in more contemporary densely settled areas may also indicate a reduced susceptibility to the introduction of wind turbines. However, in all of these cases, care must be taken to avoid further visual conflict or significant cumulative change through the introduction of additional vertical structures. Areas which are more sparsely settled and/or characterised by a more established, traditional or historic built character, including historic structures are likely to be more susceptible to wind turbine development.			
VS6: settlement pattern	urban, linear	village, mixture, clustered	none, scattered rural/ farm,
VS20: use of construction materials	inappropriate	generally inappropriate	appropriate, generally appropriate
VS25: sense of place	weak, none	moderate	strong
Built Form (observation and mapping)	presence of large scale buildings and infrastructure	medium scale buildings and infrastructure	presence of small scale/ human scale built form e.g. residential
Presence of large scale development/ infrastructure (observation and mapping)	pylons, masts, large sheds, trunk roads, railways	residential and smaller scale commercial development	none

Visual Criteria			
LANDMAP Data Source and other data sources	Susceptibility to wind turbine development		
	Low	Medium	High

Skylines and Settings			
Landscapes with distinctive ridges or skylines are likely to be more susceptible to wind turbine development than skylines that are less prominent or have been affected by existing contemporary structures such as electricity or communications infrastructure. The presence of distinctive or historic landscape features such as hilltop monuments, church towers or vernacular villages, increases susceptibility.			
Topographic data and observation.	smooth, flat landscapes.	undulating landscapes	distinctive ridge lines and focal points
Local knowledge - information provided by the client group	monotonous uniform skyline	rolling/gently undulating skyline	presence of distinctive or historic skyline features

Movement			
Turbines can draw the eye by introducing movement into the landscape. Landscapes that are already affected by movement are therefore likely to be less susceptible, whilst landscapes which are valued for their tranquillity will be more susceptible.			
VS18: Level of Human access	constant, frequent	infrequent	rare, occasional,
Observation during survey	busy, presence of industrial scale movement (e.g. open cast mining)	human presence noticeable but not busy, gentle movement	quiet, calm

Visibility, key views, vistas			
The likelihood of turbines being highly visible in the landscape depends on the scale of the development, the landform in which the development is sited and the screening opportunities of landcover, especially buildings, trees and woodlands. Landscapes which are visually contained with limited inward and outward views are likely to be less susceptible than open landscapes with extensive inward and outward views. The availability of views of these landscapes from neighbouring areas will also influence susceptibility. Landscapes which are experienced from tourist routes, national or regional trails and other recognised visitor locations are more susceptible to wind turbine development. Similarly, close proximity to settlement which increases the chance of adverse effects on visual amenity may increase an area's susceptibility.			
VS9: Enclosure	enclosed	open	exposed
Presence of views into the area (observation and mapping)	limited or no views into the area	some views, framed views into the area	extensive views of the area from the surrounding countryside
Presence of views out of the area (making it more visually susceptible to development outside the area)(observation and mapping)	limited views out of the area	some views, framed views out of the area	extensive views out of the area to the surrounding countryside

Visiual Criteria cont.			
LANDMAP Data Source and other data sources	Susceptibility to wind turbine development		
	Low	Medium	High

Intervisibility, Associations with Adjacent Landscapes			
Landscape units which have limited intervisibility (inward and outward views to and from adjoining landscapes) are likely to be less susceptible than units which have extensive views. Where adjoining landscapes are intervisible and are of higher susceptibility this increases the susceptibility of the landscape unit. The setting of designated landscapes may be more susceptible where the setting contributes to the overall scenic quality of the designated landscape.			
VS22: There are attractive views	neither in or out	out	both in and out, within, into or out
VS23: There are detractive views	both in and out, within, into or out	out	neither in or out
Observation during survey	limited or no views into or out of the unit.	framed views and intermittent views into and out of the unit.	extensive views into and out of the unit

Typical Receptors			
The most susceptible receptors are likely to be residents, communities, people engaged in outdoor recreation where landscape is part of the experience, visitors to landscape whose interest is focused on natural and built heritage assets, users of scenic routes. Each location brings with it certain expectations. Transport routes are generally considered less susceptible receptors, however single and sequential views from strategic road and rail routes are important to the perception of the landscape.			
Types of receptors (desk study)	commercial, transport routes	places of work, etc	residential, leisure, tourists

Views to / from Important Landscape and Cultural Heritage Features			
Landscapes which are important to the views within or the setting of key designated landscape and cultural heritage areas / focal features (such as AONBs, National Parks, World Heritage Sites (WHS), Historic Landscapes, Registered Parks and Gardens, Areas of Outstanding Beauty, National Trails, Cycle Networks and promoted routes and key/focal designated visitor attractions such as historic hill forts/castles/church towers) are likely to be more susceptible.			
Views to/ from landscape and cultural heritage features (survey and mapping and local knowledge)	none or few, little inter visibility between sites	intermittent intervisibility from designated areas/ national trails	National Park, WHS, inter visibility between sites presence of and close views from National Trails

Aesthetic, Perceptual and Experiential Criteria			
LANDMAP Data Source and other data sources	Susceptibility to wind turbine development		
	Low	Medium	High

Scenic Quality and Character			
Areas of attractive scenery, character, quality, integrity, strong sense of place and local distinctiveness will typically be more susceptible to wind turbine development than less scenic areas. This includes landscapes designated for their natural beauty (see below) but also areas of undesignated landscape, including areas which are locally distinctive or have strong character. LANDMAP data should be supported by observation during study.			
VS46: Scenic Quality	Low	Moderate	Outstanding ,High
VS47: Integrity	Low	Moderate	Outstanding ,High
VS48: Character	Low	Moderate	Outstanding ,High

Remoteness Tranquillity			
Areas which are relatively remote and have a wild and/or tranquil character and lack built development have increased susceptibility to wind turbine development. Adjacent turbine development can undermine the special qualities and setting of such areas. Where the development is associated with and in scale with other forms of development, such as farms, the effects may be lessened.			
VS24: Perceptual and other Sensory Qualities	noisy, unattractive, threatening	sheltered, settled, safe	attractive, remote, tranquil, wild
Observation during survey	accessible/frequented/busy	secluded	inaccessible/remote

Table 4: Criteria for Assessing Landscape Value

Value Criteria			
LANDMAP Data Source and other data sources	Landscape value		
	Low	Medium	High

Landscape Value			
Landscapes that are formally designated for their scenic, designed or recreational value are likely to be more sensitive to wind turbine development than undesignated areas. The degree of sensitivity depends on the nature of the proposal and the landscape qualities which are valued by the designation. The hierarchy of the designation has a bearing on sensitivity of a landscape. Internationally and nationally designated landscapes such as National Parks, WHS and AONBs are considered to be very sensitive, followed by regional and local designations such as Special Landscape Areas (SLAs). Landscape value is formally recognised by designation, but value can also be informed by published documentation such as tourist leaflets; art and literature. Areas which are predominantly recognised by Outstanding or High LANDMAP evaluations on the visual and Sensory, Landscape Habitat or Geological Layer are also likely to be more sensitive to wind turbine development.			
Designation	none	local designations (SLA etc.), local parks and gardens	National Park, WHS, Registered Landscape of Historic Importance.
VS50: Overall evaluation	low	moderate	high to outstanding
VS49: Rarity	low	moderate	high to outstanding
LH45: Overall evaluation (habitats)	low	moderate	high to outstanding
GL31: Rarity	low	moderate	high to outstanding
GL33: Overall evaluation	low	moderate	high to outstanding

Historic Value			
Areas designated for their international, national or regional historic or cultural heritage value such as WHS are likely to be more sensitive to wind turbine development especially if the character or perception of the landscape in which they are located is likely to be significantly altered. Registered Landscapes of Historic Interest and Registered Parks and Gardens are not protected by designation but are considered to be of national value. Areas which are predominantly recognised by Outstanding or High LANDMAP evaluations in the Historic layer are likely to be more highly sensitive to wind turbine development.			
Designated sites	none	local designations (SLA etc.)	WHS, Registered Historic Landscapes. Frequent listed buildings or scheduled ancient monuments
HL38: Rarity	Low	Moderate	Outstanding ,High
HL35: Integrity	Low	Moderate	Outstanding ,High
HL40: Overall Evaluation	Low	Moderate	Outstanding ,High
In addition to the above the Aesthetic, Perceptual and Experiential susceptibility criteria may also be indicators of the value placed on a landscape.			

Stage Two
Assessing Landscape and Visual Sensitivity

Baseline Assessment

The first step in the process was to:

- Identify and evaluate the existing landscape of the study area, including its distinctive characteristics, existing landscape designations and effects of existing wind turbine developments; and
- Identify and evaluate the existing views and visual amenity of the study area.

The following information was reviewed as a desk exercise:

- Ordnance Survey maps and aerial photography;
- Designated and nationally/regionally valued landscapes, including the BBNP, Blaenavon WHS, SLAs, Registered Historic Landscapes, Registered Parks and Gardens;
- Information from LANDMAP datasets;
- Natural and Built Heritage GIS mapping data;
- Existing landscape character assessment for the BBNP; and
- Existing wind turbine developments within the study area.

The findings of the desk surveys, which were subsequently refined following field survey work, are presented in Section Four They include an overview of the key landscape characteristics of the study area, a description of existing and consented wind turbine developments and their effect on the landscape, and comments on any issues of existing and potential cumulative effects.

Assessing the Sensitivity of Landscape Units

Sensitivity assessment sheets for each landscape unit were prepared, as presented in **Section four.**

The key features of each landscape unit are described and evaluated against the susceptibility criteria described in Tables 3 using a three point grading: high, medium or low. Those characteristics which are considered particularly susceptible to wind turbine development are highlighted. The value of the landscape is established according to the criteria set out in Table 4.

A judgement on the overall sensitivity to change of each landscape unit is made in association with each wind turbine development typology identified in Table 1, based on a five point sensitivity scale: **low; low-medium medium; medium-high; and high.** This process involved a balanced approach, considering all the assessed criteria.

These evaluations represent the judgement of two qualified and experienced landscape architects, based on desk top studies and field surveys. The evaluations of sensitivity are not based on a mathematical formula. Sensitivity can vary locally within the landscape units and the overall evaluation represents the general sensitivity across the landscape unit to reflect the strategic nature of this study. The guidance notes provide some additional information regarding variations within landscape units.

Field Survey

On completion of the draft assessment, field surveys were undertaken to help test and refine the findings and provide the following information:

- Better understanding of the general characteristics of the landscape including the effects of existing wind turbine developments and any forces for change which it may be experiencing.
- Analysis of the landscape, in terms of the characteristics and qualities which affect its susceptibility to wind turbine development, including the special qualities of any designations which apply.
- Appreciation of the variations within individual landscape units and more detailed understanding of scenic quality and landscape condition.
- Appreciation of the nature of any visual amenity issues.
- Understanding of the degree of intervisibility, both between landscape units within the study area and with landscapes outside the study area most notably the BBNP.
- Important views to and from each landscape unit, identifying distinctive features such as iconic viewpoints, views to and from designated landscapes, skylines or uninterrupted horizons. It is important to understand how the landscape is experienced both from fixed viewpoints

and sequentially as people travel through an area.

- Understanding of how individual characteristics either alone or in combination make one landscape more susceptible than another. This helped identify any specific strategic sensitivity / capacity constraints which may reduce the potential of particular landscape areas to accommodate wind turbine development.

The fieldwork also briefly considered the likely implications of the different wind turbine development typologies in relation to different aspects of the landscape. The acceptability of the different wind turbine development typologies varies across all landscape units. In small scale sheltered valleys for example, there are clear technical constraints to large and very large developments. Similarly, areas with significant landscape sensitivities to large scale development, may only be suitable for small or micro developments.

Based on the results of the field surveys, the draft evaluations of landscape unit sensitivity were refined and the final sensitivity assessment and accompanying summary tables for each landscape unit prepared.

Stage There
Assessing Landscape Objectives and Capacity

This stage in the study applied professional judgement to determine the most appropriate landscape objective(s) and the relative capacity of each of the identified landscape units. The sensitivity to each wind turbine typology was derived from the landscape and visual susceptibility criteria (including issues of intervisibility), the value of the landscape and the potential for cumulative effects.

Landscape Objectives

There is an implicit objective in TAN 8 to accept landscape change within and immediately adjacent to SSAs, for there to be no significant change outside SSAs and no change in landscape character from wind turbine development within National Parks and Areas of Outstanding Natural Beauty (AONBs).[4] This has been expressed as the following three landscape objectives:

Table 5 Landscape Objectives

Objective 1	
Landscape Protection	No change to the integrity and quality of landscape character within nationally designated landscapes. *Typically no wind turbine development or very infrequent smaller scale wind turbine development.*
Landscape protection is applicable to landscapes where the conservation of the landscape resource and the visual experience of the landscape has been assessed to be of very high importance. It aims to retain or reinforce the present character, quality and integrity of the landscape. It is likely to be difficult to accommodate anything more than 'micro scale' wind turbine development in such areas. Micro scale development may be acceptable where this relates well to the existing built environment. Whilst smaller scale wind turbine development may be appropriate in certain circumstances within areas where landscape protection is the primary objective, such opportunities are likely to be very limited due to the landscape and visual sensitivities of these areas and would be dependent on how well the scale and design of development relates to the existing landscape and visual constraints.	

Objective 1 cont.	
Landscape Protection	No change to the integrity and quality of landscape character within nationally designated landscapes. *Typically no wind turbine development or very infrequent smaller scale wind turbine development.*

With tall structures such as turbines, intervisibility must be carefully considered to avoid adverse landscape and visual effects arising from multiple developments.

Where a landscape designation is in place, it is important to understand how wind turbine development could affect the special qualities for which it is designated.

PPW (Edition 6, 2014) aims to maintain the integrity and quality of the landscape within the National Parks, AONB, Natura 2000 Habitat Directive Sites, National Nature Reserves and WHS. In these areas, 'landscape protection' will be the most appropriate landscape objective, reflecting the high degree of protection afforded these designated areas

Objective 2	
Landscape Accommodation	In other landscapes, outside the strategic search areas (SSAs), to maintain the landscape character. *Typically a landscape with occasional wind turbine developments*

Landscape accommodation is applicable to landscapes where the conservation of landscape character and visual amenity has been assessed to be of moderate to high importance.

This objective aims to retain the overall character, quality and integrity of the landscape, whilst accepting that occasional smaller scale developments may be allowed. Such development may have an effect on the local landscape but should not bring about significant adverse changes in character. Wind turbines should not become either the dominant or the key characteristic of a landscape.

Objective 3	
Landscape Change	Within the strategic search area, to accept landscape change. *Typically a landscape with a notable number of wind farms.*

Within (and immediately adjacent) to the SSAs, the implicit objective is to accept a significant change in landscape character resulting from wind turbine development located within the SSA. Whilst it is accepted that the area is one whose landscape character may be allowed to change, not all locations in a SSA are suitable in terms of landscape or visual impact. Within SSAs good landscape design principles need to be followed to ensure that the development is appropriate to the scale and character of the landscape.
TAN 8 requies that local planning authorities will undertake local refinement of their SSAs which has been undertaken with SSA F. The current study, which is concerned with smaller scale wind turbine development, does not not replace the detailed work that was undertaken by the Consortium of South Wales Valleys Authorities in the *TAN 8 Annex D Study of Strategic Search Areas E and F: South Wales Valleys Final report* (2006)

Each landscape unit is assigned a landscape objective, or in some cases two landscape objectives (i.e. where there is a national designation in part of the unit), to assist the local authorities' decision making on new applications. These landscape objectives then form the basis for recommendations on the wind turbine development typologies which may be appropriate in each of landscape units.

The relationship or thresholds of landscape change that may arise from development varies depending on the landscape and the nature of the potential development. It is assumed however that there is typically greater capacity for wind turbine development in areas of lower sensitivity where landscape change is considered more acceptable. Conversely areas of higher sensitivity, particularly those which are designated are likely to have very limited capacity.

Indicative Landscape Capacity

An overall indicative landscape capacity has been derived for each landscape unit by considering the following:

- Overall sensitivity to wind turbine development, reflecting landscape and visual susceptibility and landscape value; the range of visual experiences; how the landscapes of the area are seen and their contribution to strategic and local issues;
- Landscape objective for the area;
- Operational and consented wind turbine developments within and adjacent to each landscape unit; and
- The size of each landscape unit. There may be scope for a greater number of developments within larger landscape units before a capacity threshold is reached.

The indicative landscape capacity helps to identify the type of developments which could be potentially accommodated. However, this does not in itself suggest that all planning applications for wind turbine development of the typology identified will be appropriate in these areas. Site specific landscape and visual issues and other variables such as ecological designations, are beyond the scope of this strategic assessment and will need to be considered on a case by case basis.

Siting and Design Guidance in Relation to Potential Landscape and Visual Impacts of Wind Turbine Development

Guidance has been formulated for each landscape unit to help direct development to the most appropriate locations in landscape and visual terms. This guidance broadly indicates which typologies (if any) may be considered appropriate and highlights specific design and siting issues. Any specific constraints which may reduce the potential of a particular landscape unit to accommodate wind turbine development are noted, as are any potential cumulative and cross boundary effects of existing wind turbine development.

A number of more general guidance notes have also been developed to be read alongside this specific guidance; these are found in **Section Five**.

SECTION 3: LANDSCAPE CONTEXT

Landscape Character Baseline

The Heads of the Valleys study area, which forms part of the South Wales coalfield, has distinct geology and topography. Figure 03 shows the topography of the study area. The red sandstone massif of the BBNP to the north makes way for limestone ridge slopes on its southern fringes just north of the Heads of the Valleys road. To the south, the Pennant Sandstone South Wales coalfield plateau exhibits a strongly glaciated pattern, with north/south parallel ridges dissected by U-shaped valleys with dramatic glacial features such as crags and cwms in places. The plateau landform is relatively consistent in height allowing views for long distances with the intervening valleys and associated settlements only apparent when close to the valley edge. .

Prior to the exploitation of the coalfield and the industrialisation of the area in the 19th century it was a rural landscape with sparsely settled well wooded valleys. The steep sided, glaciated valleys, set into the pennant sandstone plateau that extends south from the Brecon Beacons, became densely settled in the 19th and early 20th centuries when industrial development relating to coal and iron ore mining was at its height. These settlements are generally restricted to the valley floor and lower slopes due to topography and the resulting distinctive linear settlement pattern extends, in some cases, the full length of the valley.

The Heads of the Valleys Road (A645) runs through the northern part of the study area west to east from Hirwaun to Brynmawr. The immediately surrounding landscape is known as the Heads of the Valleys Road corridor. The topography in the northern part of the study area along the Heads of the Valley Road corridor is elevated and undulating but less dramatic than that of the valleys. As a result, development has extended along the Heads of the Valleys Road corridor whereas elsewhere in the study area development is generally restricted to the valleys which run roughly north to south.

The plateaus and ridges that overlook the valleys are predominantly open grassland and moorland at higher elevations. In places and at lower elevations the open upland gives way to small-medium scale grazed fields that are traditionally bounded by stone walls and hedges.

Protected Landscapes

PPW (2014) sets out the targets for renewable energy development whilst also establishing the Government's objectives for conservation and improvement of natural heritage. Parts of the Heads of the Valleys study area are protected by both statutory and non-statutory landscape designations. These landscape designations are illustrated on Figures 8 and 10 and the key designations related to landscape character and value are outlined below. Figure 9 illustrates cultural heritage features within the study area.

National Parks

The BBNP bounds the study area to the north and east and the north western most part of the study area, north of the Heads of the Valleys Road (A465), is within the National Park along with a small area in the north east corner of the study area (a part of Clydach Gorge).

World Heritage Sites

Blaenavon World Heritage Site is located on the east side of the Heads of the Valleys study area adjacent to the BBNP. Part of the WHS is within the BBNP. Blaenavon Industrial Landscape achieved World Heritage status in 2000. During the nineteenth century the area became an important worldwide producer of iron coal and steel and this led to its transformation into an a industrial landscape of significant historic importance.

Open Access Land

In May 2005 the Countryside and Rights of Way Act (CROW) came into force, clearly identifying Open Access Land (open country and/or common land) in Wales. One fifth of Wales is mapped as 'access land' where the public have a right of access on foot. A significant proportion of land within the study area is mapped as Open Access Land where the public have a right to access and enjoy the countryside.

It is recognised that wind turbine development may occur in open country and on common land. However each wind turbine would be regarded as a building, therefore the turbine and the developed land immediately around it would be excepted land under Schedule 1 of the CRoW Act. Any application for wind turbine development on common land would be subject to the Commons Act 2006.

TAN8 and Strategic Search Area (SSA) F

An Annex D refinement study has been carried out for SSA F including an assessment of landscape sensitivity for technically feasible areas and the definition of a refined SSA boundary. As noted above this study is for smaller scale wind turbine development and the Annex D refinement study should take precedence within SSA F.

Registered Historic Landscapes (Wales)

The Historic Landscapes Register aims to help planners and developers introduce changes and new developments in ways that will cause the least harm to the historic character of the land. Inclusion in the Register does not confer statutory protection but it does help highlight the cultural heritage importance of some parts of the landscape.

There are six Registered Historic Landscapes in the study area:

- **The Rhondda** Landscape of Special Historic Interest comprises two narrow, steep sided valleys in the heart of the Glamorgan coalfield on the south west side of the study area.
- **Fforest Fawr** Landscape of Special Historic Interest is located in the BBNP in the north west part of the study area.
- **Merthyr Tydfil** Landscape of Outstanding Historic Interest has an industrial landscape character and is located at the head of the Taff Valley.
- **Gelli-gaer Common** Landscape of Special Historic Interest is an area of upland moor rich in archaeology that demonstrates the long history of human activity in the area
- **Clydach Gorge** Landscape of Special Historic Interest is a short but spectacular gorge that cuts through the north east corner of the South Wales Coalfield.
- **Blaenavon,** Landscape of Outstanding Historic Interest includes the World Heritage Site. The Registered Historic Landscape extends to include Blorenge in the BBNP.

Registered Parks and Gardens

There are 5 Registered Parks and Gardens of Special Historic Interest in the study area. Although not protected by statutory designation they are nationally valued as they form an important and integral part of the historic and cultural fabric of Wales.

- **Aberdare Park**, **Trecynon, Aberdare** is a well-preserved Victorian public park partly laid out by the eminent park and garden designer William Barron. As well as retaining most of its Victorian built features, such as a bandstand and fountain, it has an attractive lake and many of the original trees are now fine mature specimens.
- **Cyfarthfa Castle, Merthyr Tydfil** grounds were laid out between 1825 and 1870s
- **Bedwellty Park, Tredegar** is an early-19th-century urban landscape park, with particularly interesting rockwork, a well-preserved icehouse, and clumps of trees on artificial mounds.
- **Cefn Coed Cemetery** 19th century cemetery
- **Aberfan Cemetery, Garden of Remembrance and Former Tips and Slide Area**

Special Landscape Areas

SLAs are a local landscape designation and four of the five local authorities in the study area have chosen to use local landscape designations. Merthyr Tydfil chose not to apply any SLA designations.

Between March and July 2007 the South East Wales Local Authority consortium engaged consultants TACP to develop criteria for the designation of SLAs. These report has been used by the four local authorities when determining the criteria for their Special Landscape Designations. Figure 08 shows the extent of SLAs in the Heads of the Valleys study area.

Landscape Types

The thirty three landscape units include ten landscape character types that have been determined using LANDMAP data at Classification Level 3 for the Visual and Sensory, Historic Landscape and Geological Landscape layers. Below is a description of each of the landscape types identified. The descriptions give an indication of the diversity and complexity of the landscape character of the Heads of the Valleys area, within a relatively small geographic area. The distinctive settled valley landscapes with upland moorland ridges separating them are unique as a result of geology, topography, rural land use and industrialisation. Figure 05 shows the landscape types for the Heads of the Valleys study area.

Upland Moorland/Grassland

This landscape type covers both upland moorland and areas of upland grazing land cover identified at Classification Level 3. The main difference in the definition of these two types of land cover in LANDMAP is the perceived percentage of grazing. Generally there are very few field boundaries in this landscape type and grazing is for sheep at low stocking densities. However, there are several smaller areas of this landscape type to the southern end of Blaenau Gwent that have field patterns and may be more closely related to a hillside and scarp slope grassland. This is reflected in the landscape character units.

There is very little built development in this landscape type and it is generally restricted to scattered farmsteads. There are some communications masts which are prominent in skyline views on clear days. The generally exposed character of this landscape type allows good inter visibility between the different occurrences of this landscape type and extensive views across the upland parts of the study area.

Footpaths criss-cross the upland areas but there are few roads.

Upland Mosaic

This landscape type covers upland and plateau areas that consist of a patchwork of small pockets of trees amongst grassland and moorland. The type is located around the settlements of Ebbw Vale, Tredegar and Brynmawr. Native woodland, is generally sparse in upland areas of the Heads of the Valleys and this landscape type is influenced by recent planting.

In the north eastern part of the study area this landscape type is elevated above and surrounded by built development which influences views into and out of this landscape type.

This landscape is also characterised by man-made water features and high levels of public access for informal recreation. Intervisibility within and out of this type is restricted by land form, woodland and built development. This landscape type is important in breaking up the built form along the A645 road corridor particularly when viewed from the National Park to the north.

Forested Upland and Plateau

This landscape type covers upland areas with more than 20% tree cover and is particularly dominant to the west of the study area where there are large areas of forestry. Topography in the landscape type generally comprises upland plateau but also includes steep upland scarp slopes at the edge of the plateau which are very pronounced and result in distinct forested skylines.

The Historic Landscape layer classification of *Marginal Land* has been used to help define boundaries.

There is very little built development in this type and it is concentrated in the upland part of Rhondda Cynon Taff. A significant proportion of this landscape type is in TAN 8 Area F and contains large scale wind turbine development.

Open upland valley

This landscape type is characterised by upland valleys that are predominantly unwooded and generally comprise grazed fields, although to the west the areas of this type in Rhondda are marginal and unfenced. This landscape type tends to be located at the heads of valleys in the area.

There is little built form within this landscape type and it is enclosed by the steep sides of the valley. As a result there is limited intervisibility in and out of this landscape type. However, there are locations where there are views into the landscape type from elevated locations on the valley sides or on the upland plateau that surrounds this landscape type. This landscape type covers only a small proportion of the study area.

Mosaic Upland Valley

This landscape type is characterised by high valley areas that have a patchwork of small pockets of woodland amongst grazed grass fields. This farmed landscape type tends to be smaller scale that its surroundings and provides the setting for a number of settlements throughout the study area. As a result it is influenced by human activity and is often a landscape with informal recreation activity. The type includes country parks at Aberdare, Merthyr Tydfil and Bargoed.

Settlement and built form is sparse in this landscape type. However, the valleys are major transport routes and there are footpaths criss-crossing the valley landscape. As a result this is a relatively busy rural landscape type.

Wooded upland valley

This landscape type is characterised by upland valleys with more than 20% woodland cover with grass fields where the topography is less steep. The extent of the landscape type in the study are is limited. As a general rule there is little built form in this smaller scale landscape type. Inter visibility is limited due to landform and woodland cover.

Hillside and Scarp Slope grass

This landscape type is characterised by grazing areas of land cover and comprises areas that have a greater the 10% slope and are predominantly grass fields. This landscape type is often located on broad valley sides and can be seen as an area of transition between the valleys and uplands.

Hillside and Scarp Slope Mosaic

This landscape type is characterised by slopes greater than 10% and a patchwork of woodland cover among grass fields. Settlement is sparse and scattered with clusters forming small hamlets in places. The landform is sloping and steep in places. Fields are small to medium in size and bounded by a combination of hedges, fences and stone walls. Generally this landscape type is quite open particularly on the upper slopes becoming more enclosed on the lower slopes and where woodland and tree cover is more frequent.

Settlement

This landscape type combines several types of land cover at Classification Level 3 including village, urban, amenity land, and informal open space. The combination of these land cover types covers the larger settlement boundaries and the amenity spaces associated with them. The settlement landscape type is located on the valley bottoms and lower slopes of the valley sides throughout. The built form of settlement and associated commercial areas has been influenced by landform resulting in long linear ribbons of built development along the valleys that is a particularly distinctive characteristic of the study area.

Earthworks/Excavation/landfill

This type has been distinguished because of the impact on landform as a result of industrial activities and includes areas of mining, landfill and past industry. In many instances work is ongoing and there is evidence of large scale reclaiming of the land. In particular south of Hirwaun and south east of Merthyr Tydfil. The impact of such large scale land reclamation is seen at some distances and impacts on views from landscapes beyond the boundaries of this landscape type.

This landscape type includes areas around Blaenavon which is in the World Heritage Site where the transformation of the landscape by human industrial activity has been preserved.

Landscape Units

It should be noted that the landscape units have not been identified as part of a landscape character assessment but for the purposes of this study. Thirty three landscape units have been identified and they are shown on Figure 04 and described briefly below. The boundaries between units are indicative and neighbouring units may share characteristics. As a result any proposals close to a unit boundary should consider both units when carrying out detailed assessment and following guidelines. Section Four contains a detailed sensitivity and capacity assessment for each unit.

1. Forested upland and plateau at Treherbert

This landscape unit closely follows the boundary of the Wooded Upland and Plateau landscape type in the area and is distinguished by extensive coverage of forestry plantation. The area also has a number of wind turbines constructed/consented.

2. Hillside landscape south and west of Hirwaun

This landscape unit comprises a combination of landscape types but is unified by its location on the hillside to the south of the Afon Cynon valley in the northern part of the study area south of the BBNP boundary. In terms of its historic associations it is a farmed landscape with a combination of regular and irregular fieldscapes and a large area of extraction east of the village of Rhigos.

3. Afon Rhondda Fawr settled valley

The river valley floor and lower slopes are densely settled and contrast with the valley slopes of the glaciated U-shaped valley that provide the setting for the valley settlement. The landscape unit includes the lower slopes of the valley side that contribute to the setting of the built development. The settlement boundary is stark with little transition between the built development and the grazed valley sides.

4. Afon Rhondda Fach settled valley

This landscape unit is the next valley east of Afon Rhonda Fawr and is smaller than its neighbour. The character type of the valley is largely hillside and scarp slope mosaic and the steep valley sides define the boundaries of this small character unit that also comprises the settled valley floor.

5. Cwmaman upper valley slopes and upland

Upland valley slopes around Cwmaman west of Afon Cynon Valley. The hillside and upland provides the setting for settlement in the valleys below and comprised forested upland and hillside and scarp slope grassland.

6. Afon Cynon settled valley landscape.

This landscape unit is largely defined using the settlement LANDMAP definition along with the Historic Level 3 LANDMAP information where the majority of the area is defined as nucleated settlement.

7. South west facing Afon Cynon valley side

Hillside east of Afon Cynon provides the setting for settlement in the valley bottom. Largely hillside and scarp slope landscape type with good tree cover.

8. Cynon Taff Ridge

Upland wooded landscape on the ridge between the Taff and Cynon valleys comprise marginal upland that incorporates mosaic and wooded upland landscapes.

9. Merthyr Tydfil west valley side

The east and west facing valley sides of the Taff that provide the setting for Merthyr Tydfil. Area includes extensive areas of extraction and landfill that have resulted in man-made landform on the valley sides.

10. Merthyr Tydfil

This landscape unit comprises the settlement of Merthyr Tydfil and associated open space. It includes the Cyfarthfa Castle Registered Historic Park and Garden. The town is located in a natural basin at the head of the Taff Valley and is surrounded by high hills and ridges. Industrialisation in the 18th and 19th centuries has shaped the town and its immediate surroundings.

11. Taff Valley southern reach

The Taff Valley from the southern end of Merthyr Tydfil to Edwardsville taking in the wooded and mosaic valley sides and grazed upland fields to the north of Edwardsville. The upland landscape is incorporated as it is closely associated with the valley side.

12. Merthyr Tydfil east valley side

The valley side east of Merthyr Tydfil is particularly distinctive due to the large area of earthworks.

13. Upland moorland between Taff and Rhymney Valleys

Marginal upland landscape. The boundary has been determined by combining the historic marginal area (Level 3) with upland moorland/grassland type. Upland landscape outside the boundary here has grazed fields.

14. Bedlinog Valley and farmed upland landscape

Valley landscape and associated upland grassland with grazed fields that encloses the valley.

15. Darran Valley and hillsides

Nant Bargoed Rhymney valley and hillsides. Mosaic valley landscape type has good tree cover. Hillsides are grazed fields.

16. Rhymney Valley from Rhymney to Bargoed

This long linear landscape unit is the valley and hillside landscapes that are associated with the Afon Rhymney and include the areas of settlement in the valley bottom as well as the slopes of the hillside above. The unit boundary incorporates some of the top of the slope into the narrow Afon Sirhowy Valley to the east.

17. Upland north of the Heads of the Valleys corridor

This unit incorporates the upland landscape north of the Heads of the Valleys Road (A465) and incorporates the heads of two upland valleys (Rhymney and Sirhowy) which have field systems around them in contrast to the surrounding open moorland. To the east the unit includes a small portion of the BBNP north of the Clydach Gorge. The unit is a buffer between the BBNP to the north and development in the Heads of the Valleys road corridor to the south.

18. Mynydd Bedwellte and associated upland

Upland landscape type located west of Tredegar overlooking the town. Generally open grazed landscape with few field boundaries and scattered built form. The unit provides the upland setting for Tredegar and Rhymney.

19. Heads of the Valleys corridor

This landscape unit incorporates the settlements of Tredegar, Ebbw Vale and Brynmawr and the intervening upland landscape most of which has been identified as upland mosaic landscape type.

20. Sirhowy Valley northern reach from Tredegar to Pochin Houses

Valley landscape unit running north south through the centre of the study area.

21. Southern Sirhowy valley incorporating hillsides above

Valley and associated hillside landscape south of Tredegar comprising mosaic upland valley and hillside and scarp slope mosaic landscape types. Steep sided valley is confined and development is restricted. Hillsides have scattered settlement, tree cover on steeper ground and grazed fields.

22. Northern Manmoel Ridge

Upland moorland/grassland between the Sirhowy and Ebbw valleys. The unit is largely marginal moorland.

23. Ebbw Vale valley landscape

This unit incorporates the valley sides and settled valley bottom south of Ebbw Vale. Also included is a small area of upland to the south that is closely associated with the valley landscape in particular due to land use and field pattern. Includes areas of extraction and commercial development.

24. Mynydd Carn-y-cefn & Cefn yr Arail

This is an upland moorland/grassland landscape to the west of Blaenau and the Ebbw Fach valley and provides the upland setting for the valley below. (Note: LANDMAP data for this area is incorrect as the Visual and Sensory classification level 3 identifies the area as a valley landscape. Therefore the LANDMAP data for this landscape unit has been ignored).

25. Upper Ebbw Fach Valley

This landscape unit is the settled valley and valley sides incorporating large areas of amenity ground and some woodland.

26. Abertillery settled valley and associated valley and upland slopes.

Settled valley bottom with farmed valley slopes comprising a large proportion of regular fieldscapes. Valley also quite well wooded. Upland areas to the south closely associated with the valley through field pattern and land use.

27. Mynydd James and Coety Mountain

Large area of marginal upland comprising high ground with extensive views. Contains the highest point in the study area (Coety Mountain - 578m AOD).

28. Blaenavon

Settled landscape of Blaenavon wholly within the WHS. The unit comprised the settlement and associated earthworks landscape types at the head of the Lywd valley.

29. Broad Valley landscape east and west of Abersychan

Large landscape unit incorporating the settled valley floor and associated hill and valley sides. The River Afon Lwdy runs through this landscape unit

30. Blaenavon and Abersychan upland moorland

Upland landscape on the east boundary of the study area overlooking the Afon Lwdy to the west and incorporating part of the Blaenavon WHS. The unit comprises the upland moorland and grassland landscape type and is on the boundary with the BBNP.

The following landscape units are in the BBNP and are landscape character areas that have been identified in the BBNP Landscape Character Assessment.

NP31. Waterfall Country and Southern Valleys (BBNP LCA)

This landscape unit is comprised of the hillside and scarp slope mosaic character type. The unit has a dramatic landform of steep, enclosed valleys, separated by ridges of flatter, higher land. It is an enclosed and relatively settled pastoral landscape with streams, waterfalls and ancient woodlands.

NP32. Fforest Fawr (BBNP LCA)

This unit comprises the upland moorland/grassland and mosaic landscape types. Character is locally influenced by its past use as a royal hunting ground and more recent estate ownership, apparent through the dry stone boundary walls, estate cottages, shelterbelts and former rabbit farms. Occasional roads run across the area which is relatively remote and wild. The distinctive flat-topped summits are prominent in views from the north.

NP33. Talybont and Taff Reservoirs (BBNP LCA)

This unit is characterised by its reservoirs, surrounded by steep sided, dark green forested valleys. It comprises upland moorland/grassland and mosaic upland valley landscape types. Between the reservoir valleys are more open ridges of upland moorland which have long views across the reservoirs and their surrounding forests. This area is easily accessed from Merthyr Tydfil and the A470, and is a popular recreation destination.

GIS shape files of the Landscape Units are available from the five local planning authorities in the Heads of the Valleys Study Area

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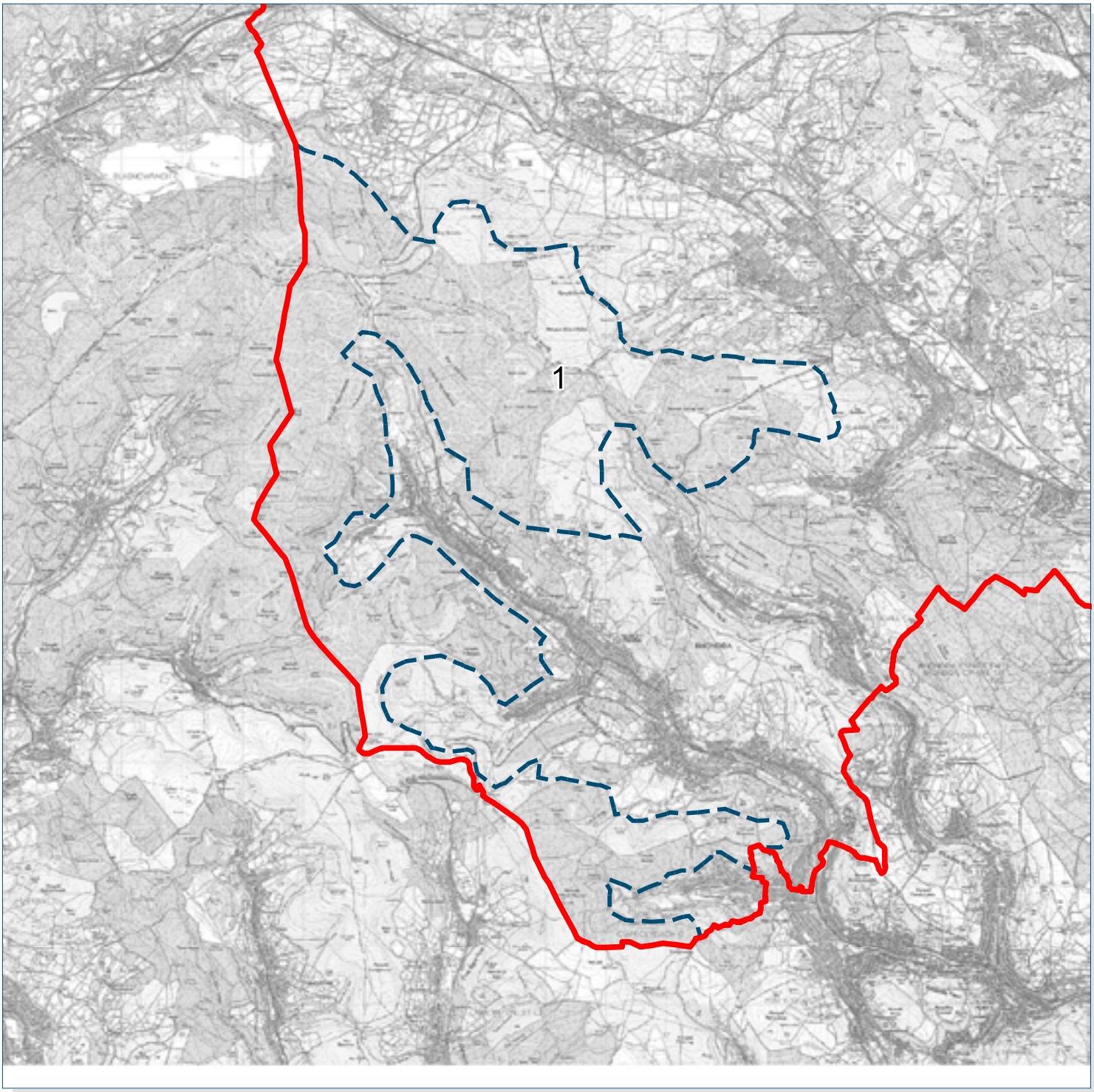
SECTION 4: LANDSCAPE SENSITIVITY AND CAPACITY ASSESSMENTS

Landscape Unit: 1

Forested upland and plateau at Treherbert



LANDSCAPE UNIT 1: Forested upland and plateau at Treherbert

		Assessed susceptibility		
		Low	Medium	High
LANDSCAPE				
Scale	Large scale VS8: large scale 88%			
Landform	Upland gently undulating plateau with well defined scarp slope to the north and ridges to the south. Numerous dramatic glaciated landforms including cwms and outcrops on the scarp slope to the north and features adjacent to the Rhondda Fawr Valley to the south. Susceptibility is very high on and close to the scarp slope and dramatic landforms but overall assessed to be medium for the unit. VS4:High hills/mountains 87%			
Land cover pattern	Upland landscape with large scale forestry and grazing. VS Class level 3 - wooded upland plateau 79% HL Class level 3 - combination of irregular fieldscapes, marginal land, settlement and reclaimed land. VS5 Land cover pattern - woodland 76% (forestry) VS16 Pattern - regular			
Built environment	Very little built form in the unit. Large scale forestry present and some medium/large scale wind turbine development. VS6 Settlement pattern - no settlement 89% VS20 Use of construction materials - generally appropriate VS25 Sense of Place - moderate			
VISUAL				
Skylines and settings	Skyline of the upland edge is distinctive e.g. Pen-pych table top plateau west of Blaenrhondda, Craig y Llyn and Tarren y Bwlch to the north and Tarren y Bwllfa to the east. Sharp contrast between the steep sided valleys and the forested plateau tops. High susceptibility at the scarp edge. Lower elsewhere.			
Movement	Calm landscape with occasional wind turbine movement. Quiet. Presence of turbines reduces sensitivity VS18 Level of Human access - rare 87%			
Visibility, key views, vistas.	Elevated views from within the unit. Views outside the unit look up into the unit at close quarters. Scenic viewpoints, at Craig y Llyn and Bwlch y Clawdd. VS9 Enclosure - enclosed 76%			
Intervisibility, associations with adjacent landscapes	Some intervisibility with adjacent landscapes particularly across valleys. Views from the northern part of the unit to BBNP. VS22 - there are attractive views largely out of the area. VS23 - there are detractive views neither in or out.			
Types of receptors	Road users have transitory views of the unit. Walkers using public footpaths are not very numerous. Residents of settlements in the valley bottoms have views up the steep valley slopes to valley tops but are not within the unit. Overall few receptors in the unit.			
Views to / from landscape and cultural heritage features	The southern and western part of this unit is in the Rhondda Landscape of Historic Interest. The landscape seen today was created in the latter part of the 19th century. The large areas of forestry are linked to the industrial past. Views to and from the unit are limited due to landform and forestry.			

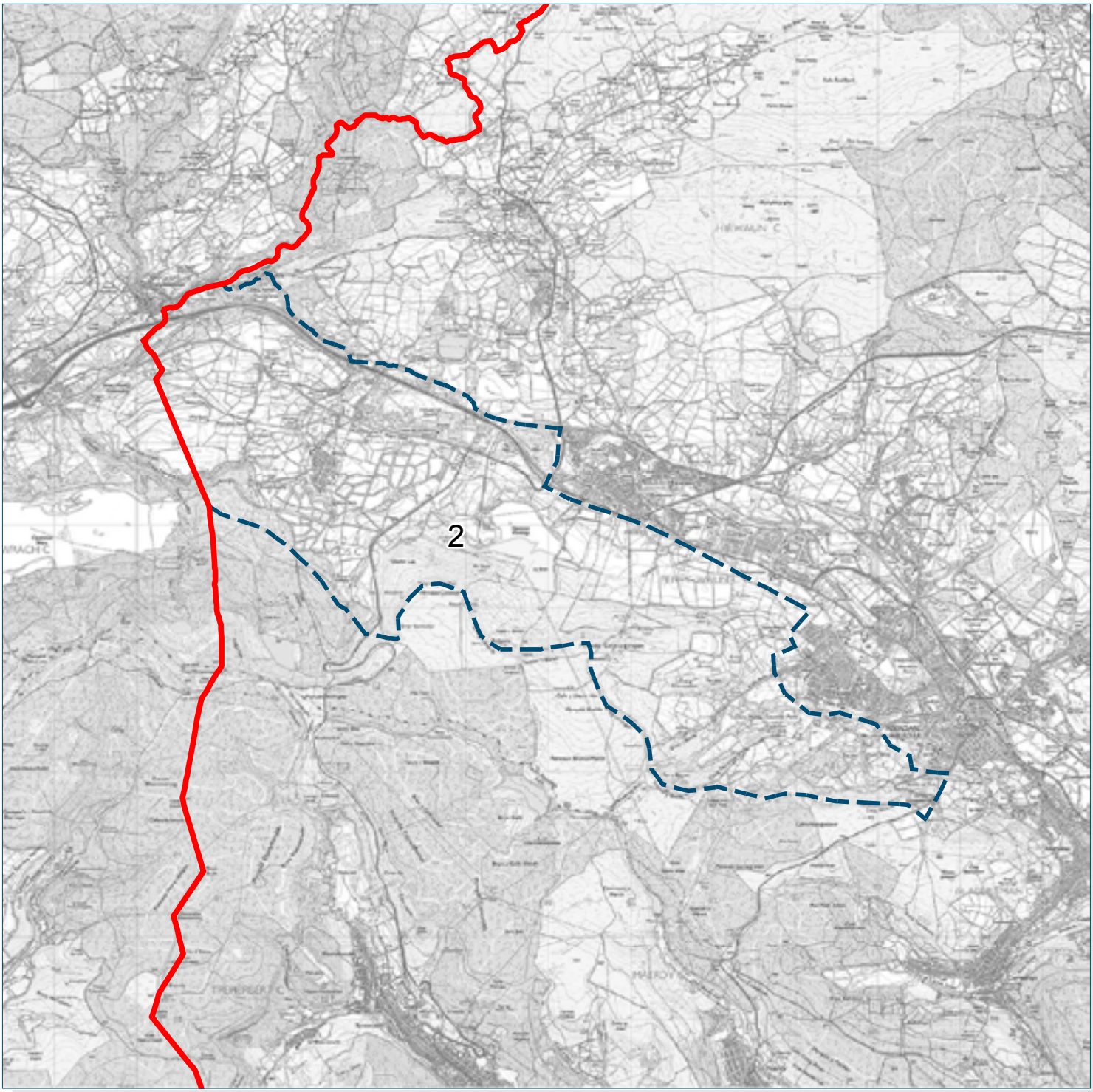
LANDSCAPE UNIT 1: Forested upland and plateau at Treherbert				
		Assessed susceptibility		
		Low	Medium	High
AESTHETIC, PERCEPTUAL AND EXPERIENTIAL				
Scenic quality and character	VS46 Scenic quality - moderate 89% VS47 Integrity - moderate 89% VS48 Character - moderate 77%			
Remoteness and tranquillity	The unit is large and remote in places. However roads and valley communities are nearby. VS24 Perceptual and other sensory qualities - largely sheltered.			
VALUE				
		Assessed value		
		Low	Medium	High
Landscape value	Parts of 3 SLAs covering approximately 39% of the unit: *Rhondda Fawr Northern Cwm & Slopes SLA,* *Cwm Orci SLA* *Hirwaun Common, Cwm Dare & Cwm Aman SLA* 78% of the unit falls within TAN8 SSA F and there are a number of existing turbines. VS50 Overall evaluation - moderate 87% VS49 Rarity - moderate 89% LH45 Overall evaluation (habitats) - moderate 46%, high 45% GL31 Rarity - high and outstanding 62% GL33 Overall evaluation - high and outstanding 62%			
Historic value	HL38 Rarity - high and outstanding 100% HL35 Integrity - high and outstanding 84% HL40 Overall evaluation - high and outstanding 100% The majority of the unit is in the Rhondda Landscape of Historic Interest. 12 SAMs.			
SUMMARY OF SENSITIVITY TO WIND TURBINE DEVELOPMENT				
		Assessed sensitivity		
		Low	Medium	High
Micro	Low sensitivity to micro and small development due to high level of enclosure by forestry and localised landform			
Small				
Medium	Medium sensitivity to medium and large development.			
Large				
Very Large	Medium - high sensitivity to very large development on account of historic value and presence of existing large scale wind farm			
Additional Comments	A significant portion of this forested upland landscape of high historic and geological value is within TAN 8 SSA F and as a result landscape change is accepted although not all areas may be suitable. There are local variations in sensitivity particularly where the plateau tops can be seen from settlement in the valley bottom.			

LANDSCAPE UNIT 1: Forested upland and plateau at Treherbert

Landscape Capacity and Guidance for siting wind turbines	
Landscape objective	**Objective 3: Accept landscape change within the SSA.** A refinement study was undertaken for SSA F. The current study does not supersede that assessment when making decisions within SSA F.
Key landscape, visual and cultural heritage characteristics susceptible to wind turbine development	**Designated features within the Landscape Unit:** The Rhondda Landscape of Historic Interest 12 SAMs some dating back to prehistoric times. 3 SLAs (approximately 39% of the unit): Rhondda Fawr Northern Cwm & Slopes SLA, Cwm Orci SLA Hirwaun Common, Cwm Dare & Cwm Aman SLA Views of northern part of the unit from the BBNP. Several RIGS adopted by the local authority.
	Other susceptible landscape, visual and cultural heritage features: Steep sided slopes of the upper valley sides. Open upland valleys at the head of the valley and its tributaries. Dramatic glacial features and distinctive skylines.
Baseline wind turbine development (March 2014)	78% of this unit is in TAN8 SSA F There is a large number of operational or consented turbines within or adjacent to this unit. Pen y Cymoedd (consented but not constructed) 76 turbines in TAN8 SSA F is partly within the study area and this unit. Maerdy (operational) 8 turbines is south of the Pen y Cymoed development and likely to link with that development visually. Mynydd Bwllfa (consented but not constructed) 9 turbines. Mynydd Pwll yr Hebog (operational) 7 turbines and Fforch Nest (operational) 2 turbines are to the south of the HoV study area. Abergorki (in planning) 3 turbines close to boundary with unit 4.
Indicative overall capacity	This unit has capacity for well placed micro and small scale development that is not intervisible with larger scale developments. Although the sensitivity to medium to very large scale development ranges from medium to high it is possible that due to the scale and extent of development consented and constructed that this unit has little capacity left for further development. Capacity for large or very large scale development is limited and any new development must be very carefully sited to avoid cumulative effects.
Guidance on siting	Section five of this document provides generic siting and guidance. In addition the following guidance should apply: Larger scale development should be located in or adjacent to TAN 8 SSA refined areas where consistent with the refinement study . Maintain the integrity of Rhondda Registered Historic Landscape. Protect the settings of designated and other important cultural heritage features and the key views to and from these features. Protect RIGS sites from the effects of development. Consider effects on views to and from BBNP in the northern part of the unit. Avoid siting wind turbines on the steep slopes and on or near to their crests. Avoid distinctive skyline of the upland plateau edge particularly those linked with important geological features. Consider views from residential receptors in the Afon Rhondda Fawr settled valley where there are open valley sides with clear views to the upland edge above the valley. Consider potential effects on adjacent landscape units with intervisibility e.g. unit 31. Consider cumulative effects of development on both sides of the valley to avoid 'surrounding' settlement with development. Avoid siting single/double turbines where they can be seen in juxtaposition with large scale developments, or where they may visually link large scale developments. Consider intervisibility with large scale wind farms associated with TAN 8 SSA F. There must be adequate separation between large scale wind farms and any new proposals.

Landscape Unit: 2

Hillside landscape south and west of Hirwaun



LANDSCAPE UNIT 2: Hillside landscape south and west of Hirwaun

		Assessed susceptibility		
		Low	Medium	High
LANDSCAPE				
Scale	Large/vast scale overall with some medium scale VS8: vast 21%, large 50%, medium 49%			
Landform	Sloping land facing north towards the BBNP well defined scarp slope to the south and dramatic glaciated landforms. VS4 Topographic - Hills/valleys 61%			
Land cover pattern	Mixed land cover pattern ranging from fieldscapes with hedgerow boundaries to disturbed land resulting from mining. The fieldscapes east of Rhigos are reclaimed to very high standard. VS class level 3 - mixed land cover - Hillside & scarp slopes mosaic 25%, Hillside & scarp slope grazing 16%, upland grazing 21%, excavation 12%, urban 7% HL class level 3 - marginal land 25%, regular fieldscapes 25%, reclaimed land 12% VS5 Land cover pattern - Field pattern/mosaic 36%, Development 20%, open land 21% VS16 Pattern - regular 87%			
Built environment	Sparsely settled hillside, VS6 Settlement pattern - no settlement and scattered rural/farm 91%, urban 7% VS20 Use of Construction Materials - generally appropriate VS25 Sense of Place - moderate 58%			
VISUAL				
Skylines and settings	Sloping land below the upland forested landscape of unit 2 generally without distinctive skyline. Hirwaun Common has a distinctive skyline on the boundary with unit 1 and has high susceptibility.			
Movement	Generally little human activity in this rural hillside landscape away from roads. VS18 Level of Human access - infrequent and rare 79% with areas of more activity.			
Visibility, key views, vistas.	Hillside generally open with pockets of enclosure close to built form and woodland/forestry. More exposed on higher ground. VS9 Enclosure - open 41%, exposed 21%			
Intervisibility, associations with adjacent landscapes	The unit is intervisible with the BBNP and with the developed valley floor of the Afon Cynon settled valley landscape. The former providing attractive views and the latter less attractive views VS22 there are attractive views both in and out of the unit. VS23 there are detractive views within and out of the unit.			
Types of receptors	Road users, cyclists, walkers using public footpaths, residents in the valley bottoms. Although not densely settled there are some sensitive residential receptors.			
Views to / from landscape and cultural heritage features	Views north towards BBNP and views from the BBNP into the unit.			

LANDSCAPE UNIT 2: Hillside landscape south and west of Hirwaun				
		Assessed susceptibility		
		Low	Medium	High
AESTHETIC, PERCEPTUAL AND EXPERIENTIAL				
Scenic quality and character	VS46 Scenic quality - moderate 58% VS47 Integrity - moderate 58% VS48 Character - moderate 58%			
Remoteness and tranquillity	The unit is large and remote in places. VS24 Perceptual and other sensory qualities - mixed.			

VALUE				
		Assessed value		
		Low	Medium	High
Landscape value	The area is adjacent to the BBNP and is important to its setting. 34% SLA *Hirwaun Common, Cwm Dare & Cwm Aman SLA* is on boundary with unit 1 to the south. Dare Valley Country Park. There are several RIGS in the area. 10% of the area is in TAN8 SSA F VS50 - overall evaluation moderate 58% VS49 rarity - moderate 71% LH45 overall evaluation - high/outstanding 67% GL31 rarity - high and outstanding 100% GL33 overall evaluation - high and outstanding 100%			
Historic value	1 SAM HL38 Rarity - high and outstanding 100% HL35 Integrity - high and outstanding 50% HL40 Overall evaluation - high and outstanding 87%			

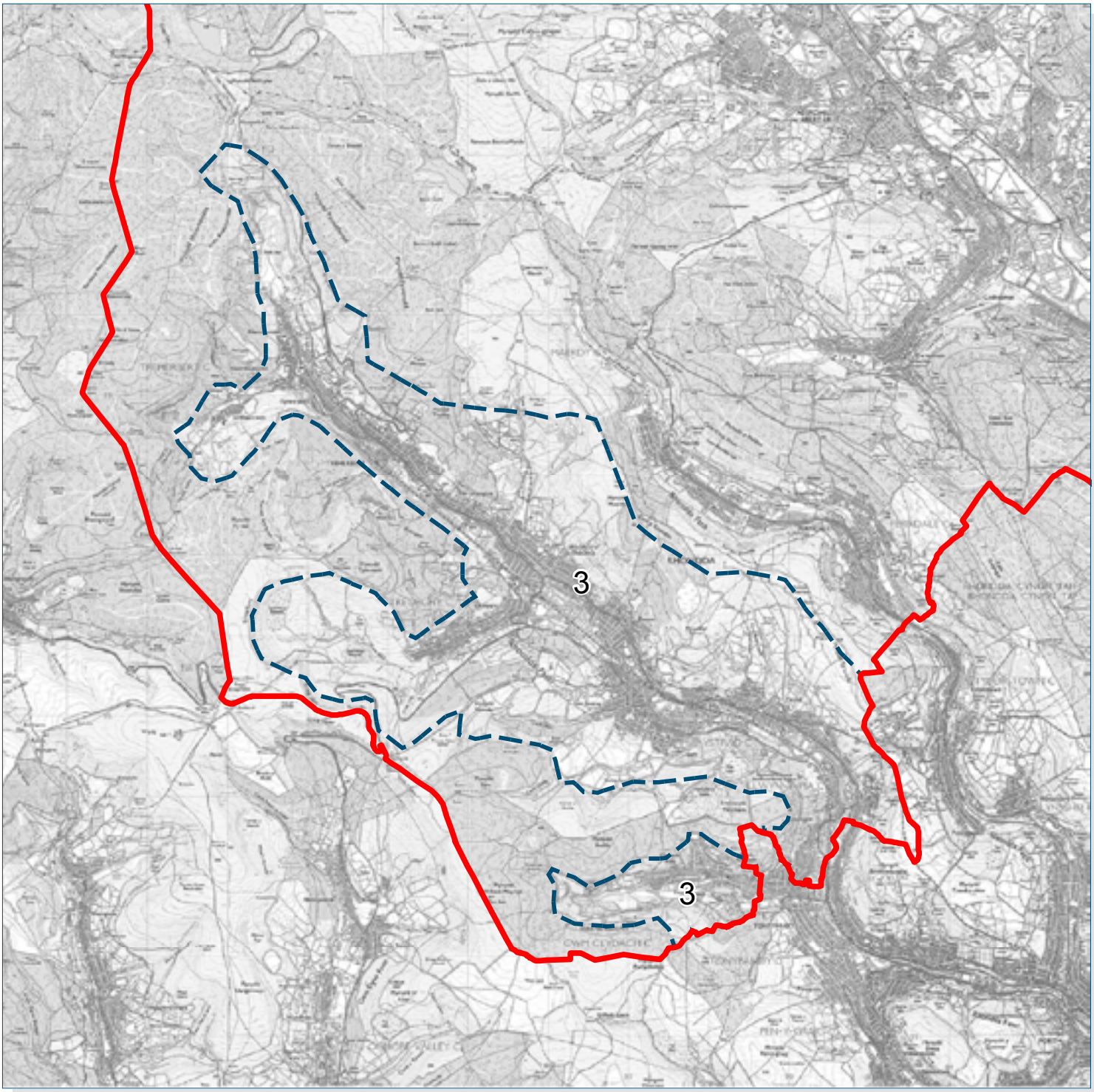
SUMMARY OF SENSITIVITY TO WIND TURBINE DEVELOPMENT				
		Assessed sensitivity		
		Low	Medium	High
Micro	The unit has low sensitivity to micro development due to the presence of existing detractors such as open cast mining, an industrial estate and areas of activity.			
Small	The unit has low to medium sensitivity to small development due to the presence of existing detractors and areas of activity.			
Medium	The unit has medium to high sensitivity to medium development as a result of its intervisibility with the BBNP and its overall high value. The scarp slope within the unit has high sensitivity.			
Large	The unit has medium to high sensitivity to large or very large development as a result of its intervisibility with the BBNP and the settled Afon Cynon valley and its overall high value. The scarp slope in particular has high sensitivity.			
Very Large				
Additional Comments	Despite being a large scale landscape with a mix of land cover pattern overall the area has higher sensitivity to medium to very large scale wind turbine development due to its proximity to the BBNP and to settlement at the top of the Afron Cynon valley. Proposals will be seen in context with larger scale development in unit 1 to the south.			

LANDSCAPE UNIT 2: Hillside landscape south and west of Hirwaun

Landscape Capacity and Guidance for siting wind turbines	
Landscape Objective	**Objective 2: Maintain the landscape character outside the SSA.** **Objective 3: Accept landscape change within the SSA.** A refinement study was undertaken for SSA F. The current study does not supersede that assessment when making decisions within SSA F.
Key landscape, visual and cultural heritage characteristics susceptible to wind turbine development	**Designated features within the Landscape Unit:** Adjacent to BBNP 1 SAM (on boundary with BBNP) Several RIGS Hirwaun Common, Cwm Dare & Cwm Aman SLA covers southern part of the unit (approx. 37%)
	Other susceptible landscape, visual and cultural heritage features: Sparsely settled area provides the setting for Hirwaun and Aberdare. Dare Valley Country Park Field and drainage patterns and tree cover around Rhigos are distinctive. Hirwaun Common has a distinctive skyline on the boundary with unit 1.
Baseline wind turbine development (March 2014)	A small proportion of the unit to the south is in TAN8 SSA F (10%). Currently there are no built wind turbine developments in this area. However, Maesgwyn (operational) 13 turbines lies to the west just outside the study area boundary and is visible from the unit and the BBNP. Pen y Cymoedd (consented but not constructed) 76 turbines in TAN8 SSA F is partly within unit 1 to the south and will be visible from parts of this unit.
Indicative overall capacity	It is considered that this landscape has capacity for well placed micro and small scale development where sufficient separation distances can be achieved with larger scale development to the south. There is low capacity for medium, large and very large scale development outside TAN8 SSA F due to the proximity of the BBNP and the potential affect on views and the setting of adjacent towns. The part of the area within the SSA comprises areas of scarp slope and plateau edge which are prominent as the setting for the valley and in views from BBNP. These are therefore unlikely to be suitable for any development. The proximity of medium, large and very large scale development to the scarp slope, and the juxtaposition with the larger scale development to the south are also issues.
Guidance on siting	Section five of this document provides generic siting and guidance. In addition the following guidance should apply: Micro and small scale developments will need to consider the proximity and location of larger scale developments when assessing potential impacts. Consider the effects of development proposals on the setting of and views from the BBNP. Protect RIGS sites from the effects of development. Consider views from neighbouring towns in the Cynon Valley. Scale and location of single small scale turbines should respect local landscape pattern and relate to existing built form. Maintain recreation and amenity value particularly at Dare Valley Country Park. Maintain field pattern that is particularly characteristic around Rhigos with mature vegetation on field boundaries. Ensure new access tracks do not damage historic and reclaimed field patterns and replant any hedges affected by construction. Consider the potential effect on adjacent landscape units where there is intervisibility e.g. unit 31. Consider intervisibility with large scale wind farms associated with TAN8 SSA F. There must be adequate separation must between large scale wind farms and any new proposals.

Landscape Unit: 3

Afon Rhondda Fawr settled valley



LANDSCAPE UNIT 3: Afon Rhondda Fawr settled valley

		Assessed susceptibility		
		Low	Medium	High
LANDSCAPE				
Scale	Large to medium scale landscape incorporating the settlements of Rhondda Fawr. VS8: large scale 53%, medium 47%			
Landform	Narrow U shaped valley. Narrow Cefn Rhondda ridge top on the east boundary with unit 4. VS4 Topographic - Hills/valleys 86%			
Land cover pattern	Settled valley landscape with dense settlement on the valley floor, fields and marginal land adjacent to settlement. Few trees in contrast to forested upland. VS class level 3 - mixed with larger proportion hillside & scarp slopes mosaic HL class level 3 - mix of irregular fields, marginal land and settlement. VS5 Land cover pattern - mixed VS16 Pattern - regular 100%			
Built environment	Densely settled valley floor and lower valley sides. Linear development. Sharp contrast at development edge. VS6 Settlement pattern - urban 28% VS20 Use of Construction Materials - generally appropriate 71% VS25 Sense of Place - moderate			
VISUAL				
Skylines and settings	Valley landscape. From within the unit views up to the skyline of the surrounding upland and plateau. Views of particular note are: Graig-fawr west of Cwmparc Mynydd Maendy west of Ton Pentre Mynydd Eglwys south east of Treorchy			
Movement	Residential areas are busy but beyond that there is little movement. VS18 Level of Human access - constant and occasional 69%			
Visibility, key views, vistas.	Views down into the area from the surrounding upland. VS9 Enclosure - open 57%,			
Intervisibility, associations with adjacent landscapes	Built form in the valley bottom sometimes restricts views to up and down the valley. Higher up the slopes views across the valley. Approach on the A4061 from the north has extensive views down into the valley. Views over the area from Bwlch y Clawdd viewpoint to the west . VS22 there are attractive views - mainly out of the unit			
Types of receptors	Large number of residential, commercial and recreational receptors in addition to road users.			
Views to / from landscape and cultural heritage features	Clydach Vale Country Park at the south west end of the unit and evidence of mining history throughout but no particularly important views. The settlements are not particularly attractive themselves but have important historic interest.			

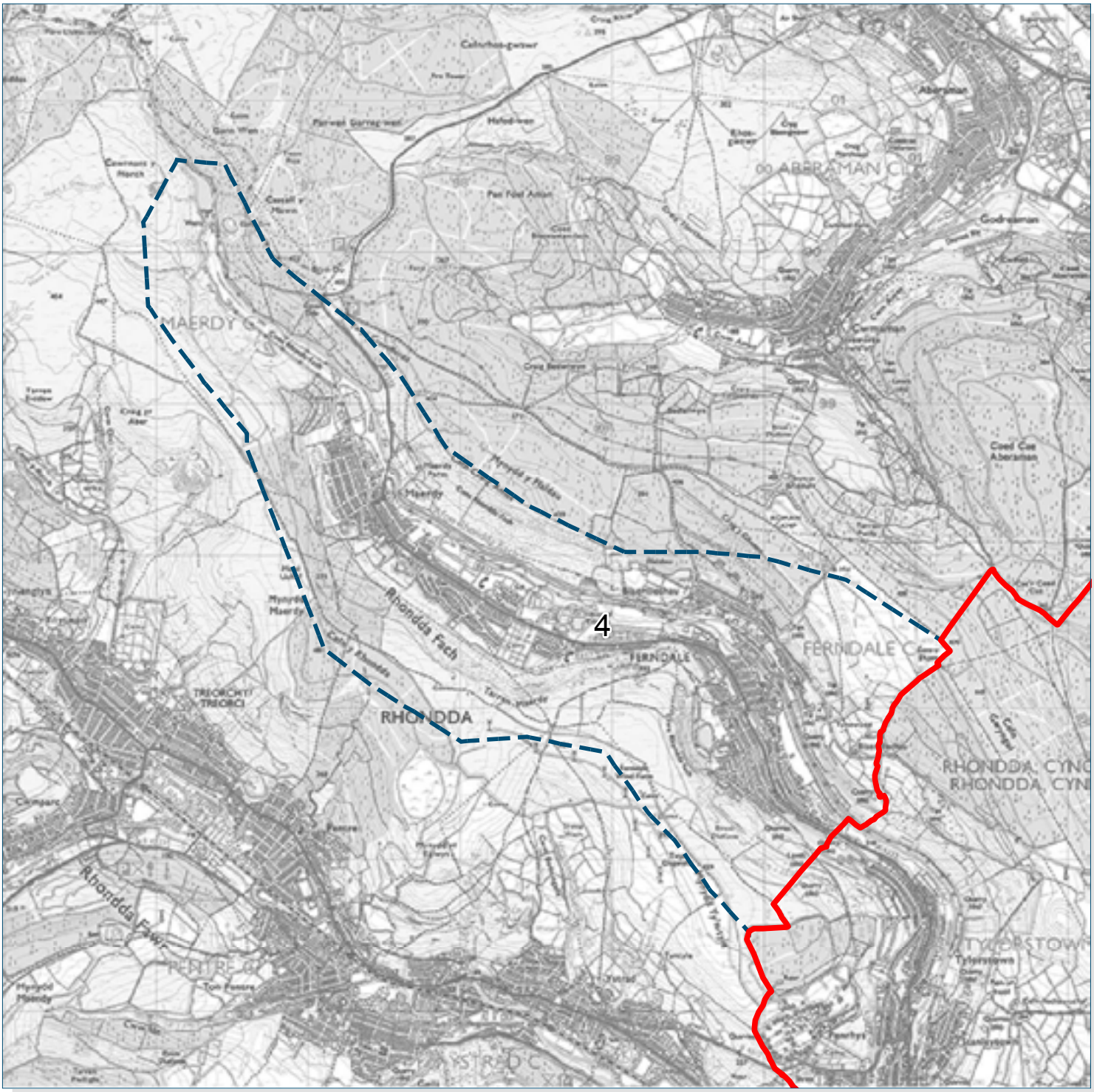
LANDSCAPE UNIT 3: Afon Rhondda Fawr settled valley				
		Assessed susceptibility		
		Low	Medium	High
AESTHETIC, PERCEPTUAL AND EXPERIENTIAL				
Scenic quality and character	Valley landscape influence by human activity in the latter half of the 19th century. VS46 Scenic quality - moderate 71% VS47 Integrity - moderate 53% VS48 Character - moderate 50%			
Remoteness and tranquillity	Settled valley landscape with good access. More remote away from settlement edges. VS24 Perceptual and other sensory qualities - exposed and			
VALUE				
		Assessed value		
		Low	Medium	High
Landscape value	The unit is in the Rhondda Landscape of Historic Interest. Two SLAs are part in the unit covering approximately 41% *Rhondda Fawr Northern Cwm & Slopes SLA,* *Cwm Orci SLA* Approximately 17% of the area is in TAN8 SSA F - predominantly covering the open upper valleys away from settlement edge. VS50 - overall evaluation - moderate 53% VS49 rarity - moderate 71% LH45 - overall evaluation - High 49% GL31 rarity - outstanding 56% GL33 overall evaluation - outstanding 56%			
Historic value	5 SAMs Rhondda Landscape of Historic Interest. HL38 Rarity - high and outstanding 87% HL35 Integrity - high and outstanding 84% HL40 Overall evaluation - high and outstanding 87%			
SUMMARY OF SENSITIVITY TO WIND TURBINE DEVELOPMENT				
		Assessed sensitivity		
		Low	Medium	High
Micro	Low sensitivity to micro and small development due to potential for enclosed valley landscape to limit views			
Small				
Medium	Medium sensitivity to medium development			
Large	Medium - high sensitivity to large and very large development due to the medium scale of the valley landscape and the presence of high density residential properties and association of the very large windfarm typology with the coalfield plateau.			
Very Large				
Additional Comments	The medium scale and presence of residential properties at the lower end of the valley increases sensitivity. TAN8 SSA F cover the upper valley parts of this unit.			

LANDSCAPE UNIT 3: Afron Rhondda Fawr settled valley

Landscape Capacity and Guidance for siting wind turbines	
Landscape objective	**Objective 2: Maintain the landscape character outside the SSA.** **Objective 3: Accept landscape change within the SSA.** A refinement study was undertaken for SSA F. The current study does not supersede that assessment when making decisions within SSA F.
Key landscape, visual and cultural heritage characteristics susceptible to wind turbine development	**Designated features within the Landscape Unit:** The Rhondda Landscape of Historic Interest covers 100% of the unit. Rhondda Fawr Northern Cwm & Slopes SLA and Cwm Orci SLA cover approximately 41% of the area. several RIGS present Blaenrhondda Conservation Area to the north. 5 SAMs
	Other susceptible landscape, visual and cultural heritage features: Distinctive linear settlement pattern confined by the steep side valley has a distinctive and well pronounced edge. Views up and down the valley and up to the surrounding forested plateau but not beyond. Extensive views across the valley from the northern approach on the A4061.
Baseline wind turbine development (March 2014)	Small areas of open upland valley at the head of valleys are in TAN 8 SSA F. (17%) No turbine development currently in the unit. Ferndale (operational) 8 turbines is located on the boundary of unit 3 and 4 along the ridge line between Rhondda Fawr and Rhondda Fach and is prominent. (outside TAN 8 SSA F) The edges of Maerdy are visible and turbines which form part of Pen y Cymoedd (consented but not constructed) comprising 76 turbines in TAN 8 SSA F, partly in unit 1, may be visible from parts of this unit. However the enclosed valley landscape means that views of the majority of the windfarms from lower levels are restricted.
Indicative overall capacity	Parts of the area are within TAN 8 SSA F but these are valley landscapes unsuitable for larger scale development and being on slopes mean that capacity is limited for other scales of development. In urban areas and on the urban fringe capacity is limited to small and micro development. Away from residential areas and ridgelines there may be some capacity for medium scale development.
Guidance on siting	Section five of this document provides generic siting and guidance. In addition the following guidance should apply: Larger scale development should be located in or adjacent to TAN 8 SSA refined areas. Maintain the integrity of Rhondda Registered Historic Landscape. Protect the settings of designated and other important cultural heritage features and the key views to and from these features. Protect RIGS from the effects of development. Avoid siting wind turbines on the steep slopes and valued skylines including but not limited to: Graig-Fawr and Craig Fach west of Cwmparc; Mynydd Maendy west of Ton Pentre; and Mynydd Eglwys south east of Treorchy. Consider the effect of proposals on Cefn y Rhondda and associated ridgeline due to its sensitive narrow character and the existing prominent development. Avoid diminishing the scale of the valley through inappropriate turbine siting. Protect the immediate setting of the towns in the valley bottom. Avoid significant cumulative adverse impact on residential receptors caused by development on both sides of the Valley. Consider cumulative effects of development on both sides of the Valley to avoid 'surrounding' settlement with development. Consider views from residential receptors, particularly those that already have views of existing wind energy developments. Consider views of the valley landscape from the A4061 and avoid cumulative sequential effects. Avoid siting single/double turbines where they can be seen in juxtaposition with existing

Landscape Unit: 4

Afon Rhondda Fach settled valley



LANDSCAPE UNIT 4: Afon Rhondda Fach settled valley

		Assessed susceptibility		
		Low	Medium	High
LANDSCAPE				
Scale	Medium scale valley bottom becoming larger scale up the valley sides. Incorporates the settlements of upper Rhondda Fach. VS8 Scale: large (57%) to medium (43%) scale			
Landform	Upland glaciated U valley landscape. Steep sides above valley bottom. Narrow Cefn Rhondda ridge top on the west boundary with unit 3. VS4 Topographic: Hills/valleys 88%			
Land cover pattern	Settlement in the upland valley bottoms and farmed landscape on slopes and unsettled valley bottom. VS class level 3 - Hillside and scarp slopes 57% HL class level 3 - irregular fieldscapes 50% VS5 Land cover pattern - field pattern/mosaic VS16 Pattern - regular			
Built environment	Sparsely settled hillside with settled upland valley bottom. Linear development. VS6 Settlement pattern - Urban 30%, village 11%. VS20 Use of Construction Materials - generally appropriate 68%. VS25 Sense of Place - moderate 68% weak 31%			
VISUAL				
Skylines and settings	Rural valley setting for the town and villages. Ferndale wind farm (8 turbines) to the west on boundary of unit 3 and 4. Skylines of particular note: Cwm Rhondda Fach/ Craig y Gilwern			
Movement	Settled valley in a rural setting. Generally quiet and calm away from development. VS18 Level of Human access - 43% Constant of frequent, 57% occasional or rare			
Visibility, key views, vistas.	Views in valley bottom and town and village restricted. Views on upper valley side across valleys and to upland beyond. VS9 Enclosure - open landscape 57%			
Intervisibility, associations with adjacent landscapes	Views of Ferndale windfarm on the ridge to the west and Maerdy to the north. Attractive views to the surrounding landscape. Detractors include wind turbines and masts both inside and outside the unit and development within. VS22 there are attractive views out of the area but not within VS23 there are detractive views - 31% within 57% out			
Types of receptors	Large number of residential, commercial and recreational receptors in addition to road users.			
Views to / from landscape and cultural heritage features	This valley is part of the Rhondda Landscape of Historic Interest which is identified for its mining past and associated development. The settlements are not particularly attractive themselves but have important historic interest.			

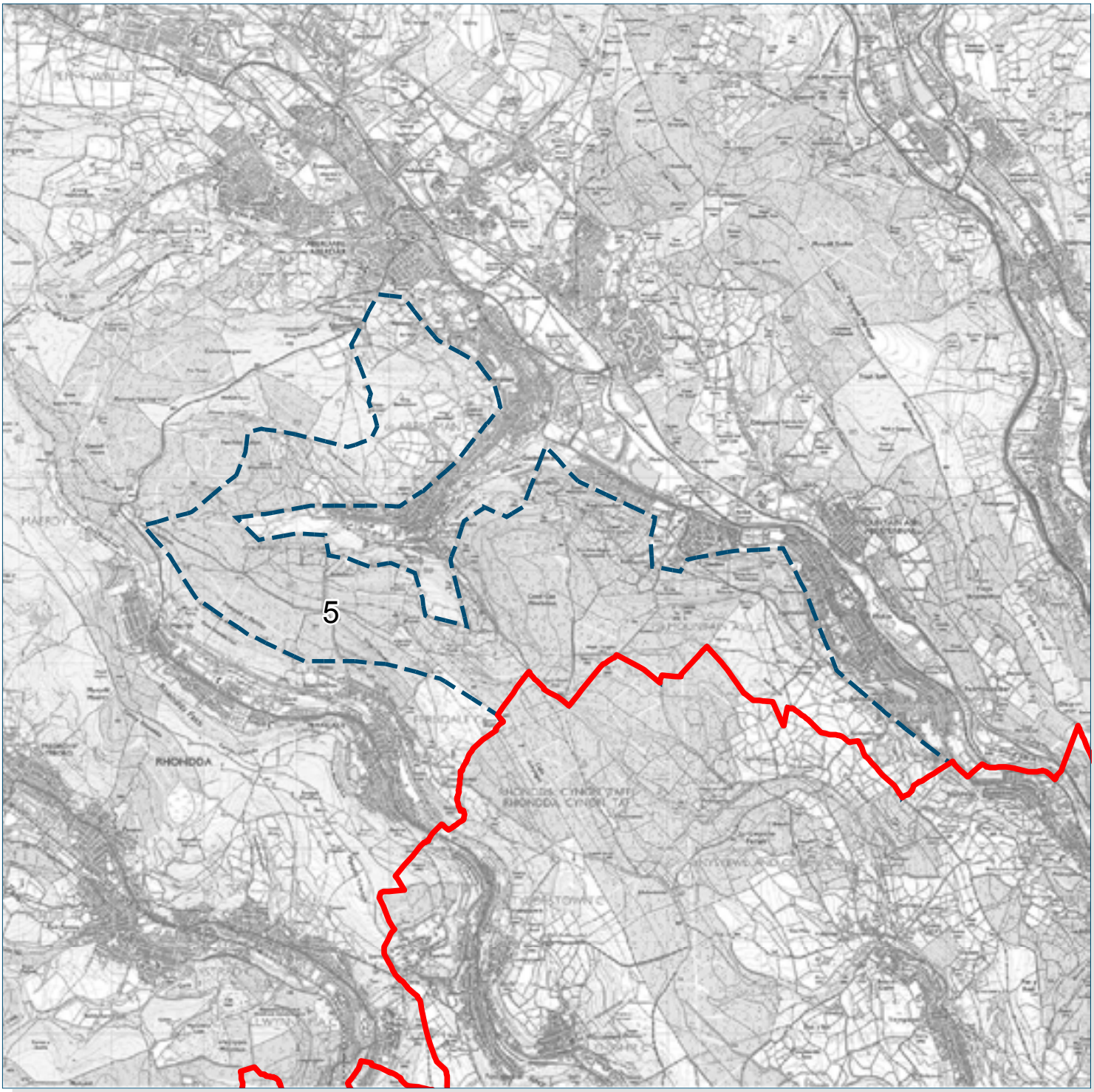
LANDSCAPE UNIT 4: Afon Rhondda Fach settled valley				
		Assessed susceptibility		
		Low	Medium	High
AESTHETIC, PERCEPTUAL AND EXPERIENTIAL				
Scenic quality and character	VS46 Scenic quality - moderate 68% VS47 Integrity - moderate 68% VS48 Character - moderate 68%			
Remoteness and tranquillity	Developed valley with evidence of former industry (mining and quarrying. VS24 Perceptual and other sensory qualities - exposed and			
VALUE				
		Assessed value		
		Low	Medium	High
Landscape value	The unit is in the Rhondda Landscape of Historic Interest. Approximately 22% of the unit is in TAN8 SSA F - this area covers the northern part of the unit. VS50 - overall evaluation - moderate 68% VS49 rarity - moderate 68% LH45 overall evaluation - high 63% GL31 rarity - low 99% GL33 overall evaluation - moderate 99%			
Historic value	HL38 Rarity - high and outstanding 82% HL35 Integrity - outstanding 50% HL40 Overall evaluation - high and outstanding 66%			
SUMMARY OF SENSITIVITY TO WIND TURBINE DEVELOPMENT				
		Assessed sensitivity		
		Low	Medium	High
Micro	The medium scale and mixed land cover pattern of the unit along with the developed character of the valley result in low sensitivity to micro development.			
Small	The settled nature of the rural valley that covers a relatively small area increases sensitivity as the scale of development increases.			
Medium				
Large	Landform, built environment, the number of sensitive receptors and historic value all contribute to medium-high landscape sensitivity to large and very large development.			
Very Large				
Additional Comments	The medium scale of this rural valley landscape with settled valley bottom and sparsely settled valley sides and the high historic value increases sensitivity of the landscape outside TAN 8 SSA F which covers an area at the head of the valley.			

LANDSCAPE UNIT 4: Afon Rhondda Fach settled valley

Landscape Capacity and Guidance for siting wind turbines	
Landscape objective	**Objective 2: Maintain the landscape character outside the SSA.** **Objective 3: Accept landscape change within the SSA.** A refinement study was undertaken for SSA F. The current study does not supersede that assessment when making decisions within SSA F.
Key landscape, visual and cultural heritage characteristics susceptible to wind	**Designated features within the Landscape Unit:** The Rhondda Landscape of Historic Interest covers 100% of the unit. 6 SAMs Darren Park, Ferndale
	Other susceptible landscape, visual and cultural heritage features: Views up and down the valley and up to the surrounding forested plateau but not beyond.
Baseline wind turbine development (March 2014)	Small areas at the head of the valley is in TAN 8 SSA F. (22%) Maerdy (operational) 8 turbines in TAN 8 SSA F just outside this unit. Ferndale (operational) 8 turbines is located on the boundary with unit 3 along the ridge line between Rhondda Fawr and Rhondda Fach. (outside TAN 8 SSA F)
Indicative overall capacity	The focus within TAN 8 SSA F and its refined areas is on strategic scale windfarms. However the area in and around this area is already developed and overall remaining capacity is very limited There is capacity for well placed micro development. Some capacity for small and medium scale development. There is very limited or no capacity for large or very large scale development within this area.
Guidance on siting	Section five of this document provides generic siting and guidance. In addition the following guidance should apply: Larger scale development should be located in or adjacent to TAN 8 SSA F. Maintain the integrity of Rhondda Registered Historic Landscape. Protect the settings of designated and other important cultural heritage features and the key views to and from these features. Avoid siting wind turbines on the steep slopes. Consider the effect of proposals on Cefn y Rhondda and associated ridgeline due to its sensitive narrow character and the existing prominent development. Avoid diminishing the scale of the valley through inappropriate turbine siting. Protect the immediate setting of the towns in the valley bottom. Consider views from residential receptors in Maerdy and Ferndale, particularly those that already have views of existing wind energy developments. Consider views from the A4233 particularly where the road enters the head of the valley to the north and there are views of 2 wind farms (Ferndale and Maerdy).

Landscape Unit: 5

Cwmaman upper valley slopes and upland



LANDSCAPE UNIT 5: Cwmaman upper valley slopes and upland

		Assessed susceptibility		
		Low	Medium	High
LANDSCAPE				
Scale	Large to medium scale landscape. VS8 scale: large 64%, medium 36%			
Landform	Upland landscape incorporating valley sides to the east of the area above Unit 6 VS4 Topographic: High hills/mountains 64%			
Land cover pattern	At higher elevations large areas of forestry. On the slopes there are grazed fields. VS class level 3 - wooded upland and plateau (64%) HL class level 3 - Irregular fieldscapes 57% VS5 Land cover pattern - woodland (forestry) and mixed. VS16 Pattern - regular			
Built environment	Very little built development throughout. VS6 Settlement pattern - no settlements 64% VS20 Use of Construction Materials - generally appropriate. VS25 Sense of Place - moderate overall			
VISUAL				
Skylines and settings	Forestry covers much of the higher ground. Skyline smooth overall. This upland area provides the setting for settlement in the valley to the east below. (Cwmaman, Aberdare, Mountain Ash and Aberaman). To the west the upper part of the unit contributes to the setting of Ferndale and Maerdy. Skylines of particular note are: Rhos Gwawr/Craig Fforchaman Cwm Aman/Craig Tir Llaethdy Craig Darren Las Cwm Rhondda Fach/ Craig y Gilwern			
Movement	Very little human activity and movement in the area large parts of which are forested. VS18 Level of Human access - infrequent and rare 98%			
Visibility, key views, vistas.	Views are limited in the upper parts of the area by forestry. Where there are views they extend down into the valleys to upland across the valleys.			
Intervisibility, associations with adjacent landscapes	There are views out of the unit away from the forestry. Many views into the area are restricted due to its elevation and forestry although rounded hills and ridge edges have greater visibility in particular from the Cynon Valley. VS22 there are attractive views out of the area. VS23 there are detractive views - some out of the area and some within.			
Types of receptors	Few receptors. Road users and walkers.			
Views to / from landscape and cultural heritage features	Views from ridge line in the Rhondda Landscape of Historic Interest to the south west.			

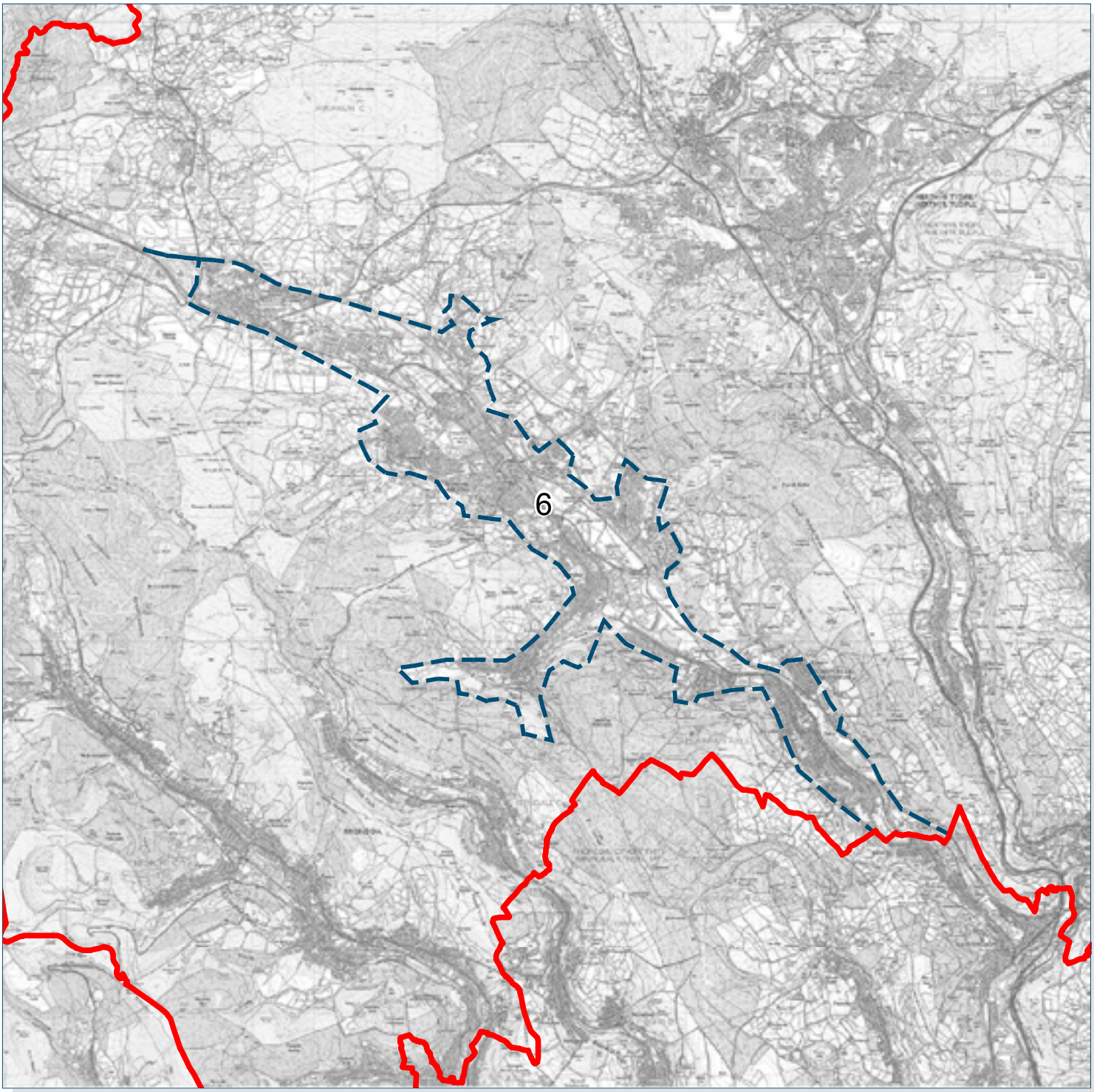
LANDSCAPE UNIT 5: Cwmaman upper valley slopes and upland				
		Assessed susceptibility		
		Low	Medium	High
AESTHETIC, PERCEPTUAL AND EXPERIENTIAL				
Scenic quality and character	VS46 Scenic quality - moderate 97% VS47 Integrity - moderate 97% VS48 Character - moderate 97%			
Remoteness and tranquillity	Forestry provides sheltered feel in upper elevations and slopes of the hillside below are also relatively sheltered. Although not much settlement in the area it is adjacent to settled valleys. VS24 Perceptual and other sensory qualities - largely sheltered.			
VALUE				
		Assessed value		
		Low	Medium	High
Landscape value	SLA covers approximately 31% of the unit *Hirwaun Common, Cwm Dare & Cwm Aman SLA* Ridge line on south west side of the unit is within the Rhondda Landscape of Historic Interest. Approximately 60% of the unit is in TAN8 SSA F which lowers the landscape value. VS50 - overall evaluation - moderate 97% VS49 rarity - moderate - 97% LH45 overall evaluation - high 93% GL31 rarity - high 81% GL33 overall evaluation - high 92%			
Historic value	4 SAMs HL38 Rarity - high and outstanding 85% HL35 Integrity - high and outstanding 42% HL40 Overall evaluation - high and outstanding 70%			
SUMMARY OF SENSITIVITY TO WIND TURBINE DEVELOPMENT				
		Assessed sensitivity		
		Low	Medium	High
Micro	Low sensitivity to micro, small and medium development as a result of medium scale landscape and low overall visual sensitivity.			
Small				
Medium				
Large	Medium sensitivity due to increased scale of development in a landscape of mixed scale and land cover. Proximity to and intervisibility with valleys increases sensitivity to larger scale development.			
Very Large	Very large development would affect views across a large area due to elevation of the unit.			

LANDSCAPE UNIT 5: Cwmaman upper valley slopes and upland

Landscape Capacity and Guidance for siting wind turbines	
Landscape objective	**Objective 2: Maintain the landscape character outside the SSA.** **Objective 3: Accept landscape change within the SSA.** A refinement study was undertaken for SSA F and this unit is outside the refined are. The current study does not supersede that assessment when making decisions within SSA F.
Key landscape, visual and cultural heritage characteristics susceptible to wind turbine development	**Designated features within the Landscape Unit:** Hirwaun Common, Cwm Dare & Cwm Aman SLA covers approximately 31% of the unit. 4 SAMs
	Other susceptible landscape, visual and cultural heritage features: Setting for Cynon valley settlement to the east. Forested areas with limited human activity. Overall high historic evaluation although no designations. Skylines of particular note are: Craig Fforchaman Cwm Aman St Gwynno Forest
Baseline wind turbine development (March 2014)	60% of the unit is in TAN8 SSA F. However, the unit is outside the TAN 8 annex D study refined area. No turbines in the unit. 1 small turbine (approved not constructed) just outside the unit and study area to the south.
Indicative overall capacity	The focus within TAN 8 SSA F and its refined areas is on strategic scale windfarms. The refined area does not extend into the unit. Outside TAN8 SSA F capacity is reduced where there is intervisibility with the adjacent valleys and where there would be cumulative impacts with development within TAN8 SSA F.
Guidance on siting	Section five of this document provides generic siting and guidance. In addition the following guidance should apply: Larger scale development proposals should be located in or adjacent to TAN 8 SSA F and should refer to the refinement study. Protect the immediate setting of the towns in the valley bottom. Protect the settings of designated and other important cultural heritage features and the key views to and from these features. Avoid siting wind turbines on the steep slopes and distinctive skylines including Craig Fforchaman, Cwm Aman and St Gwynno Forest Consider views from residential receptors in units 4 & 6. Consider intervisibility of proposed development with adjacent valleys and avoid cumulative impacts. Ensure new access tracks do not damage historic field patterns and replant any hedges affected by construction.

Landscape Unit: 6

Afon Cynon settled valley landscape



LANDSCAPE UNIT 6: Afon Cynon settled valley landscape

		Assessed susceptibility		
		Low	Medium	High
LANDSCAPE				
Scale	Medium scale landscape comprising the settled valley of the Afon Cynon. VS8 scale: medium 98%			
Landform	Glaciated upland valley bottom and lower slopes. VS4 Topographic: Hills/valleys 98%			
Land cover pattern	Densely settled valley landscape VS class level 3 - urban 85% HL class level 3 - very mixed including fieldscapes that suggests development has followed field pattern in places. VS5 Land cover pattern - development 85% VS16 Pattern - regular			
Built environment	Urban development with terraced housing and more recent residential development, some large scale commercial development. VS6 Settlement pattern - largely urban with some linear and scattered. VS20 Use of Construction Materials - generally inappropriate VS25 Sense of Place - weak 85%			
VISUAL				
Skylines and settings	No distinctive skylines in the unit.			
Movement	Busy settled valley. VS18 Level of Human access - constant 85%			
Visibility, key views, vistas.	Valley bottom is enclosed and steep valley sides restrict views out of the valley. VS9 Enclosure - 89%			
Intervisibility, associations with adjacent landscapes	The unit does not have particularly attractive views within but there are views out to the surrounding valley slopes and upland. VS22 there are attractive views out of the area VS23 there are detractive views within the area 85%			
Types of receptors	Densely settled valley with numerous residential receptors along with commercial and road users. Some areas of recreation. Cynon Valley River Park. Dare valley Country park in unit 2			
Views to / from landscape and cultural heritage features	Development in the valley intrinsically linked with the development of the iron and coal mining industries in the 19th century. Views to and from the BBNP at the northern end of this unit. Part of the setting of the BBNP but is not considered attractive and provides a contrast to the attractive landscape of the BBNP and surrounding SLAs.			

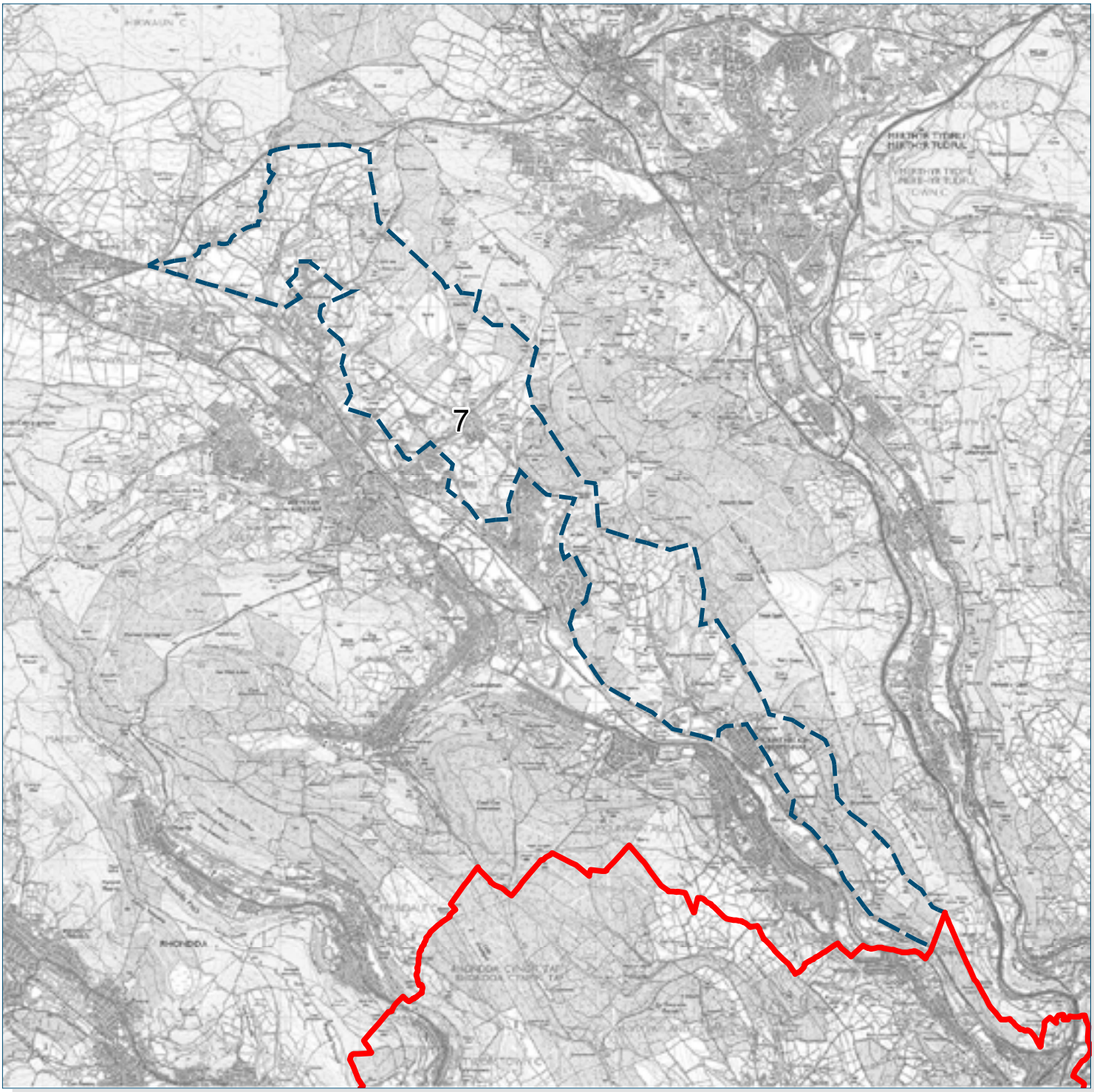
LANDSCAPE UNIT 6: Afon Cynon settled valley landscape				
		Assessed susceptibility		
		Low	Medium	High
AESTHETIC, PERCEPTUAL AND EXPERIENTIAL				
Scenic quality and character	VS46 Scenic quality - low 85% VS47 Integrity - low 85% VS48 Character - low 85%			
Remoteness and tranquillity	Densely settled valley. Very accessible. VS24 Perceptual and other sensory qualities - unattractive 85%			
VALUE				
		Assessed value		
		Low	Medium	High
Landscape value	On boundary with BBNP at northern end of unit. SLA covers approximately 12% *Brecon Beacons Edge at Llwydcoed SLA* in northern end of unit Largely surrounded by SLA designations in neighbouring units. VS50 - overall evaluation - low 85% VS49 rarity - low 85% LH45 overall evaluation - high 51% GL31 rarity - high 87% GL33 overall evaluation - high 87%			
Historic value	7 SAMs Registered Historic Park and Garden in Aberdare HL38 Rarity - high and outstanding 100% HL35 Integrity - moderate 60% HL40 Overall evaluation - high and outstanding 100%			
SUMMARY OF SENSITIVITY TO WIND TURBINE DEVELOPMENT				
		Assessed sensitivity		
		Low	Medium	High
Micro	Low sensitivity to micro and small development due to the medium scale busy character			
Small				
Medium	Medium sensitivity to medium development			
Large	High sensitivity to large or very large wind energy developments which would be out of scale with the valley and likely to affect a large number of sensitive receptors.			
Very Large				
Additional Comments	Although a number of criteria suggest lower and medium sensitivity most of this area is settled and there will be residential amenity issues which will limit the potential size of wind energy development.			

LANDSCAPE UNIT 6: Afon Cynon settled valley landscape.

Landscape Capacity and Guidance for siting wind turbines	
Landscape objective	**Objective 2: Maintain the landscape character.**
Key landscape, visual and cultural heritage characteristics susceptible to wind turbine development	**Designated features within the Landscape Unit:** Aberdare conservation area 7 SAMs particularly in Aberdare linked to industrial past Registered Historic Park and Garden in Aberdare Green wedges on the urban edge Cynon Valley River Park Unit adjacent to BBNP at Hirwaun Approximately 12% *Brecon Beacons Edge at Llwydcoed SLA* in northern end of unit.
	Other susceptible landscape, visual and cultural heritage features: Recreation grounds throughout the settlement. Cynon Valley River Park (14.5km from Abercynon to Hirwaun) includes National Cycle Network 478 Intervisibility with BBNP at northern end of the unit.
Baseline wind turbine development (March 2014)	No wind energy development currently built or planned in this area. 5%, in TAN 8 SSA F.
Indicative overall capacity	There is limited capacity for wind turbine development throughout the unit as the valley is densely settled and the proximity of so many residential properties reduces capacity particularly for medium, large and very large scale developments. Some capacity for small and micro scale development of which there has been none to date.
Guidance on siting	Section five of this document provides generic siting and guidance. In addition the following guidance should apply: Larger scale development should only be located in or adjacent to TAN 8 SSA F. Protect the immediate setting and amenity of the towns in the valley bottom. Protect the settings of designated and other important cultural heritage features and the key views to and from these features. e.g. Aberdare Park and Aberdare Canal Nature Reserve. Protect the amenity of Cynon Valley River Park. Consider Views from Dare Valley Country park and other recreation sites/routes in and adjacent to the unit. Avoid sequential cumulative effects on the A4059 and other popular routes and local viewpoints. Development in the northern part of the unit should consider views from the NNBP and the setting of the BBNP. Maintain the role of green wedges. Avoid diminishing the scale of the valley landscape through inappropriate turbine siting.

Landscape Unit: 7

South west facing Afon Cynon valley side



LANDSCAPE UNIT 7: South west facing Afon Cynon valley side

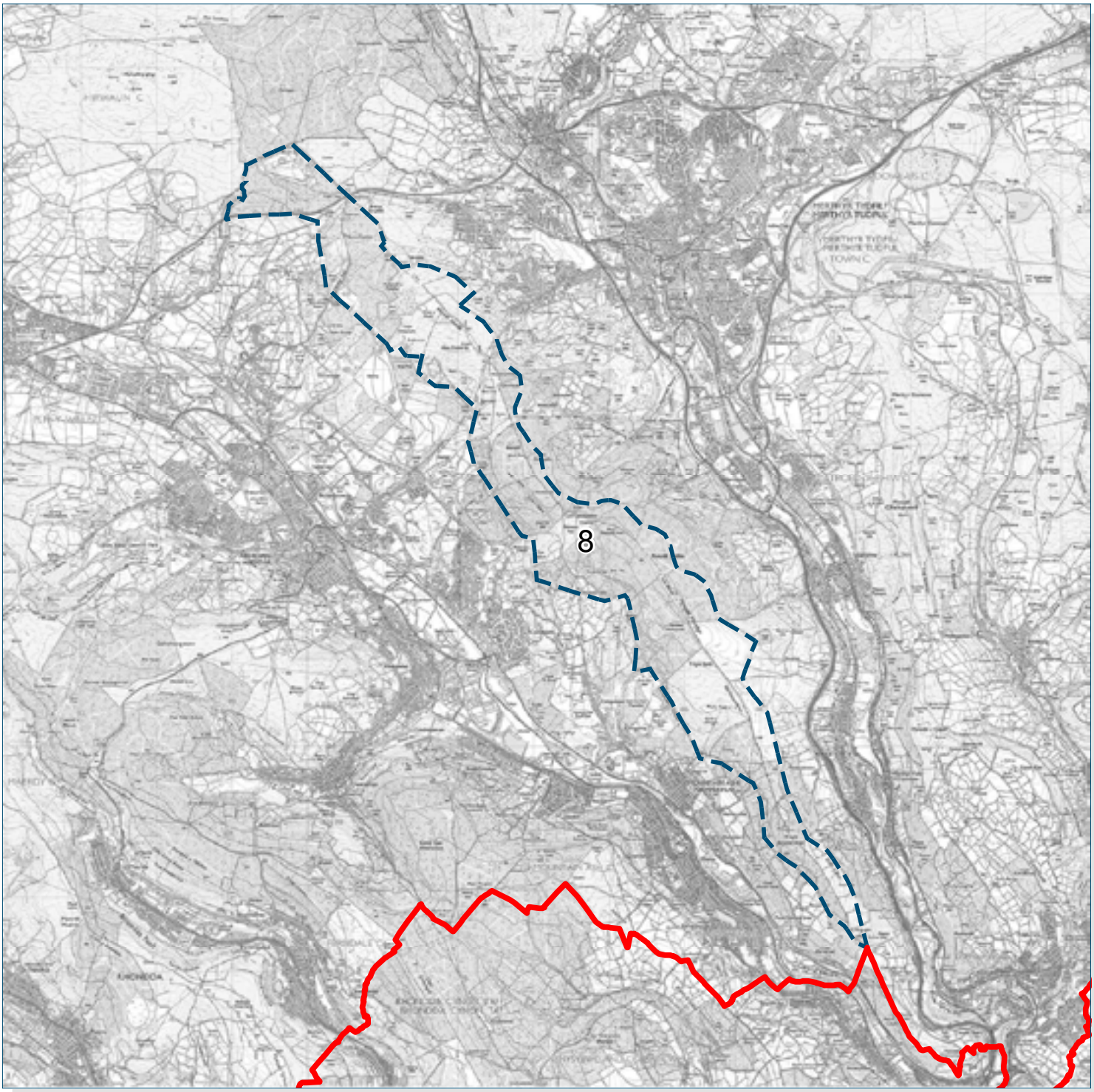
		Assessed		
		Low	Medium	High
LANDSCAPE				
Scale	Medium to large scale landscape VS8 scale: medium 61%			
Landform	Upper valley side with strong upland feel VS4 Topographic - hills/valleys 81%			
Land cover pattern	Hillside with varied land cover pattern and good tree cover. VS class level 3 - Hillside and scarp slopes mosaic 80% HL class level 3 - 50% fieldscapes with areas of marginal land, settlement and extraction. VS5 Land cover pattern - woodland 46% VS16 Pattern - regular 100%			
Built environment	Sparsely settled hillside with small villages and scattered farms/rural development. VS6 Settlement pattern - scattered and no settlements 64% VS20 Use of Construction Materials - generally appropriate VS25 Sense of Place - moderate 100%			
VISUAL				
Skylines and settings	Provides the setting for the developed valley floor. Skyline is smooth with no particular focal points.			
Movement	Valley side above densely settled valley. Little movement within the unit although busy units adjacent. VS18 Level of Human access - infrequent 80%			
Visibility, key views, vistas.	VS9 Enclosure - enclosed 46%, open 54%			
Intervisibility, associations with adjacent landscapes	Views out of the area to the west over Afon Cynon valley and north to BBNP. High level of intervisibility across Unit 6 to Unit 2. VS22 there are attractive views both in and out of the area. VS23 there are detractive views mainly out of the area.			
Types of receptors	Within the area residential properties and footpath users. Views from development in neighbouring unit 6 which is densely settled.			
Views to / from landscape and cultural heritage features	Views to and from BBNP in the northern part of the unit but intervisibility is limited due to land form and tree cover. Valley side provides the setting for the Afon Cynon valley settlements			

LANDSCAPE UNIT 7: South west facing Afon Cynon valley side				
		Assessed		
		Low	Medium	High
AESTHETIC, PERCEPTUAL AND EXPERIENTIAL				
Scenic quality and character	VS46 Scenic quality - moderate VS47 Integrity - moderate VS48 Character - moderate			
Remoteness and tranquillity	Exposed hillside not particularly remote. VS24 Perceptual and other sensory qualities - exposed 53%			
VALUE				
		Assessed value		
		Low	Medium	High
Landscape value	Green wedges local designation. Brecon Beacons Edge at *Llwydcoed SLA* to the north *Cynon Valley Northern Slopes SLA* to the south (SLAs approximately 51%) VS50 - overall evaluation - moderate VS49 rarity - moderate LH45 overall evaluation - high/outstanding 53% GL31 rarity - high 57% GL33 overall evaluation - high 57%			
Historic value	HL38 Rarity - high and outstanding 100% HL35 Integrity -moderate 50% HL40 Overall evaluation - high and outstanding 87%			
SUMMARY OF SENSITIVITY TO WIND TURBINE DEVELOPMENT				
		Assessed sensitivity		
		Low	Medium	High
Micro	Low sensitivity to micro development due to the scale of the landscape and location on the valley side.			
Small	Low to medium sensitivity for small development due to intervisibility with neighbouring units.			
Medium	Medium sensitivity to medium development as potential for intervisibility increases.			
Large	High sensitivity to large and very large scale development which would be likely to adversely affect the setting that the west facing valley side provides for settlement in the Afon Cynon valley.			
Very Large				
Additional Comments	This landscape unit is sensitive to development that is highly visible or out of scale with built form in the valley bottom. However, there may be scope for smaller development.			

LANDSCAPE UNIT 7: South west facing Afon Cynon valley side

Landscape Capacity and Guidance for siting wind turbines	
Landscape objective	**Objective 2: Maintain the landscape character.**
Key landscape, visual and cultural heritage characteristics susceptible to wind turbine development	**Designated features within the Landscape Unit:** Brecon Beacons Edge at Llwydcoed SLA in the northern part of the unit Cynon Valley Northern Slopes SLA to the southern end of the unit. SLA covers approximately 51% Northern boundary of the unit is shared with the BBNP 1 SAM on boundary with unit 8. 1 green wedge
	Other susceptible landscape, visual and cultural heritage features: Provides the eastern setting for the settlement in the Cynon Valley. Formal and informal recreation - e.g. golf courses and footpaths.
Baseline wind turbine development (March 2014)	No wind energy development currently built or planned in this area.
Indicative overall capacity	There is no capacity for large or very large scale development due to the proximity to the settled valley floor and the sensitivity of the sloping west facing valley side. There is some capacity for micro, small and medium scale development in the unit particularly as there has been no development to date. Capacity may reduce quickly once wind turbine development begins in the unit considering its proximity to residential development.
Guidance on siting	Section five of this document provides generic siting and guidance. In addition the following guidance should apply: Protect the immediate setting and amenity of the settled valley and its amenity and recreational spaces. Maintain the natural beauty of SLAs, their special qualities and their contribution to the setting of settlements. Consider views from the BBNP for proposals in the north of this unit. Consider views from Cynon Valley River Park in the neighbouring unit 6. Avoid sequential cumulative effects from the A4059 in unit 6 and other popular routes and local viewpoints. Ensure new access tracks do not damage historic field patterns and replace any boundaries (hedges/walls) affected by construction.

Landscape Unit: 8
Cynon Taff Ridge



LANDSCAPE UNIT 8: Cynon Taff Ridge

		Assessed susceptibility		
		Low	Medium	High
LANDSCAPE				
Scale	Generally large scale landscape VS8 scale: large 84%			
Landform	Upland area. Broad ridge line between two valleys. VS4 Topographic: High hills/mountains 84%			
Land cover pattern	Coniferous plantations on higher slopes. VS class level 3 - wooded upland and plateau 60% HL class level 3 - mixed fieldscapes and marginal including 30% extractive. VS5 Land cover pattern - woodland 61% VS16 Pattern - organised 25%, regular 74%			
Built environment	Very little built development VS6 Settlement pattern - no settlements 84% VS20 Use of Construction Materials - generally appropriate VS25 Sense of Place - moderate			
VISUAL				
Skylines and settings	Smooth forested broad ridge line. Skyline setting for settled valleys. Views across valleys to ridges and north to BBNP although forestry restricts views.			
Movement	Generally a calm landscape with little human activity VS18 Level of Human access - occasional or rare 84%			
Visibility, key views, vistas.	Forestry and landform helps to enclose parts of the area but other parts are exposed. VS9 Enclosure - enclosed 62% open 13% exposed 24%			
Intervisibility, associations with adjacent landscapes	There are views into and out of the area from adjacent landscapes and across valleys from high ground. VS22 there are attractive views into and out of the unit. VS23 there are detractive views mostly out of the area and a few within.			
Types of receptors	Few receptors. Residents, road users and walkers.			
Views to / from landscape and cultural heritage features	Intermittent views to Merthyr Tydfil Landscape of Historic Interest from forested high ground between the Taff and Cynon valleys.			

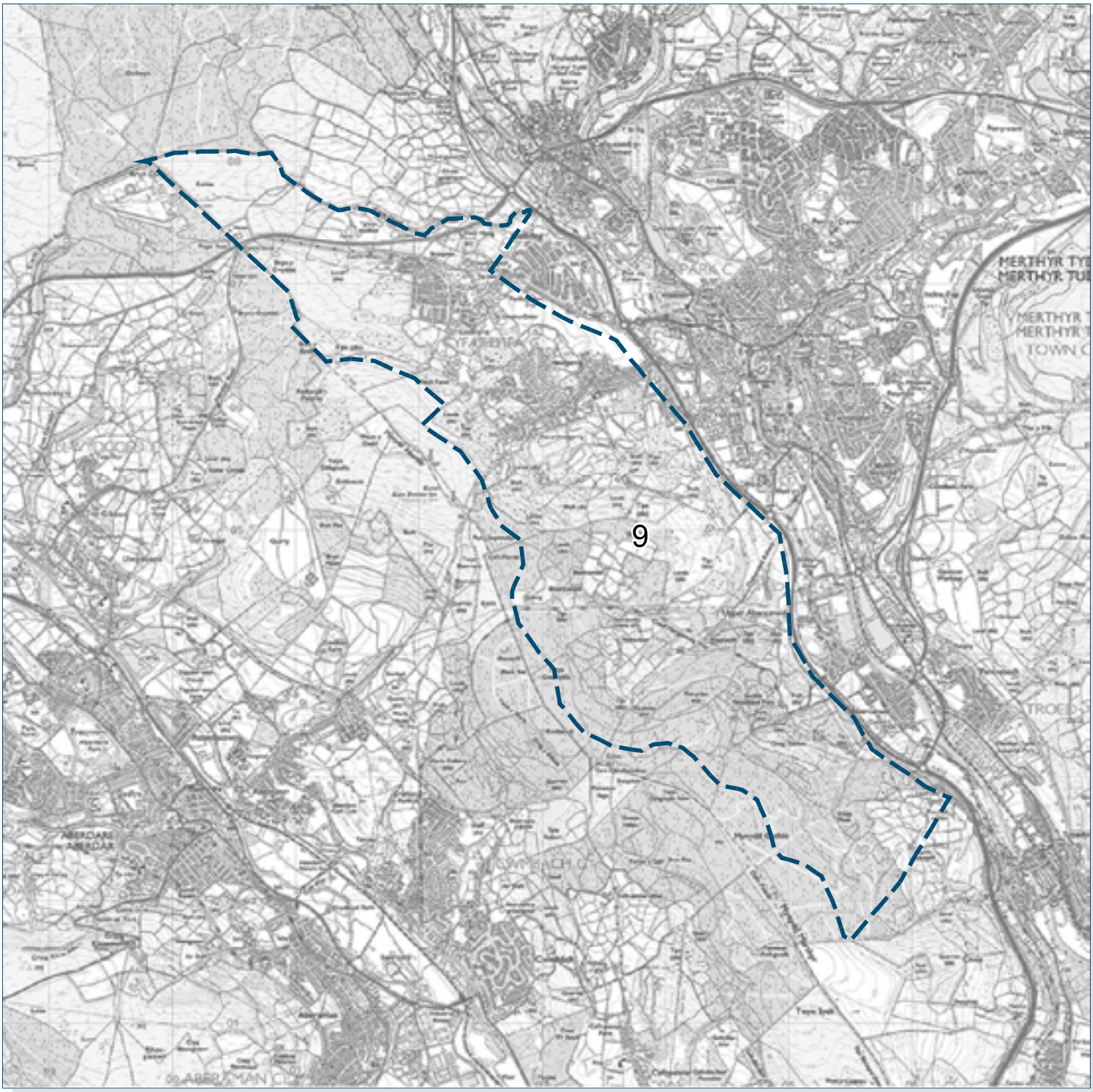
LANDSCAPE UNIT 8: Cynon Taff Ridge				
		Assessed susceptibility		
		Low	Medium	High
AESTHETIC, PERCEPTUAL AND EXPERIENTIAL				
Scenic quality and character	VS46 Scenic quality - moderate VS47 Integrity - moderate 75% VS48 Character - moderate 75%			
Remoteness and tranquillity	Mostly a sheltered landscape with areas of exposure. Neither remote nor accessible - secluded. VS24 Perceptual and other sensory qualities - sheltered 60%			
VALUE				
		Assessed value		
		Low	Medium	High
Landscape value	SLAs in Rhondda Cynon Taf to the south and north ends of this linear unit covering approximately 26% *Brecon Beacons Edge at Llwydcoed SLA* *Cynon Valley Northern Slopes SLA* Merthyr Tydfil does not use SLA designations SAMs along the ridge line. Merthyr Tydfil Landscape of Historic Interest on the east boundary of the unit. VS50 - overall evaluation - moderate 75% VS49 rarity - moderate 75% LH45 overall evaluation - high 46% GL31 rarity - high 50% GL33 overall evaluation - high 50%			
Historic value	HL38 Rarity - high and outstanding 90% HL35 Integrity - moderate 60% HL40 Overall evaluation - high and outstanding 80%			
SUMMARY OF SENSITIVITY TO WIND TURBINE DEVELOPMENT				
		Assessed sensitivity		
		Low	Medium	High
Micro	Low sensitivity to micro and small development due to the large scale of the landscape			
Small				
Medium	Medium sensitivity to medium development which if carefully sited would not affect the skyline setting of Merthyr Tydfil			
Large	High sensitivity to large and very large scale wind energy development which could adversely affect the skyline setting of Merthyr Tydfil.			
Very Large				
Additional comments	High ridge between valleys is highly visible. This ridge line is the first ridge line east of TAN 8 SSA F and there is the potential for significant cumulative effects if large or very large development were located on this ridge.			

LANDSCAPE UNIT 8: Cynon Taff Ridge

Landscape Capacity and Guidance for siting wind turbines	
Landscape objective	**Objective 2: Maintain the landscape character.**
Key landscape, visual and cultural heritage characteristics susceptible to wind turbine development	**Designated features within the Landscape Unit:** SLA approximately 26% in northern and southern parts of the unit in Merthyr Tydfil. Brecon Beacons Edge at Llwydcoed SLA in the northern part of the unit Cynon Valley Northern Slopes SLA to the southern end of the unit. Rhondda Cynon Taf has not employed SLA designations. 10 SAMs dating from prehistory. All are in Rhondda Cynon Taf part of this unit on the boundary with Merthyr Tydfil. BBNP on boundary to the north. Part of the unit in Merthyr Tydfil is a Landscape of Historic interest.
	Other susceptible landscape, visual and cultural heritage features: Forested ridge line viewed from the valleys either side is intervisible (where tree cover allows) with uplands across the study area. Particularly important is the relationship with the ridge line to the west in unit 1 parts of which are within TAN 8 SSA F. Some intervisibility with the BBNP to the north.
Baseline wind turbine development (March 2014)	No wind energy development currently built or planned in this area.
Indicative overall capacity	There is no capacity for large or very large scale development. There is some capacity for micro, small and medium scale development in the unit particularly as there has been no development to date. Capacity may reduce quickly once wind turbine development begins in the unit considering its intervisibility with the valleys below and uplands in the study area.
Guidance on siting	Section five of this document provides generic siting and guidance. In addition the following guidance should apply: Maintain the natural beauty of SLAs in the area and their special qualities. Protect the settings of designated and other important cultural heritage features and the key views to and from these features. Consider views from the BBNP for proposals in the north of this unit. Consider cumulative effects with development in TAN8 SSA F. Consider views from the valley settlement to the east and west, although no turbines constructed in the unit at present future siting should aim to avoid significant cumulative visual effects in the long term. In particular residential receptors in the Cynon valley (unit 6) may already have views of development in TAN 8 SSA F. Avoid siting wind energy development along open natural skylines, open hill slopes and within sight lines of key views.

Landscape Unit: 9

Merthyr Tydfil west valley side



LANDSCAPE UNIT 9: Merthyr Tydfil west valley side

		Assessed susceptibility		
		Low	Medium	High
LANDSCAPE				
Scale	Large scale landscape VS8 scale: large 90%			
Landform	East facing valley side between town and ridge line VS4 Topographic - Hills/valleys			
Land cover pattern	Varied complex landcover pattern on the hillside comprising a mix of settlement, fieldscapes, marginal land and extraction. VS class level 3 - open/wooded mosaic upland valley 68% HL class level 3 - extractive 30%, settlement 10% VS5 Land cover pattern - mixed 69%, woodland 21% VS16 Pattern - organised			
Built environment	Sparsely settled hillside with two main small settlements and country park. VS6 Settlement pattern - 9% urban/linear, 69% scattered VS20 Use of Construction Materials - generally appropriate 83% VS25 Sense of Place - moderate 83%			
VISUAL				
Skylines and settings	No distinctive skyline. Area provides setting for Merthyr Tydfil to the east.			
Movement	Secluded landscape away from main settlement but accessible. VS18 Level of Human access - infrequent 80%			
Visibility, key views, vistas.	Generally open across the valley side. Views of the town. Enclosed where wooded/forested. VS9 Enclosure - open 59%			
Intervisibility, associations with adjacent landscapes	There are views from this hillside landscape to the town and north to the BBNP although landform, built form and tree cover restricts some views. VS22 there are attractive views both in and out of the unit. VS23 there are detractive views both in and out of the unit.			
Types of receptors	Residents and visitors, road users and walkers within the area. Residents of Merthyr Tydfil out of the area.			
Views to / from landscape and cultural heritage features	BBNP boundary on north edge of this area. Some views into the BBNP. The unit is in the Merthyr Tydfil Landscape of Historic Interest which extends into unit 10 and 12 to the east. Potential views from Cyfarthfa Castle and gardens			

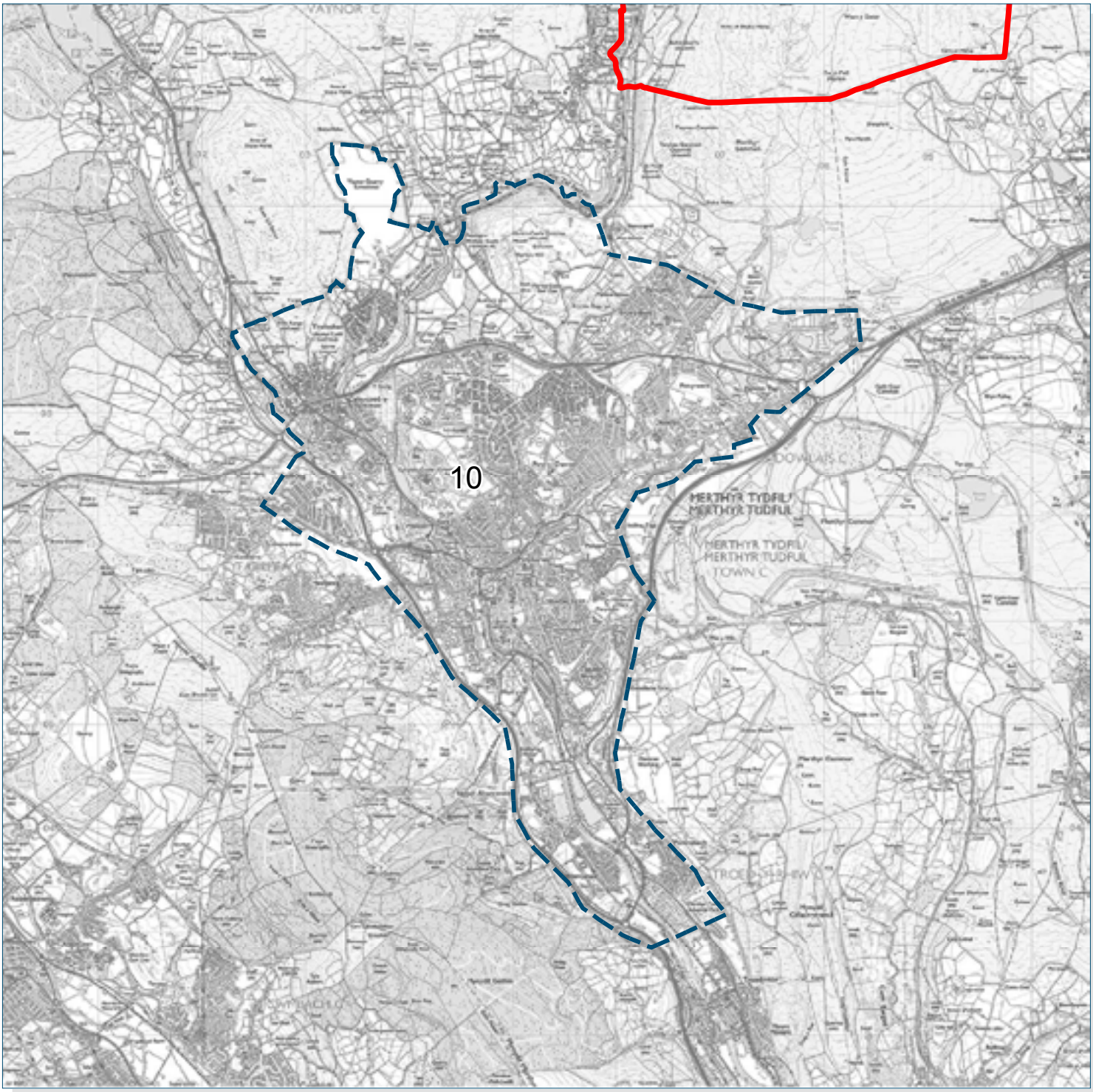
LANDSCAPE UNIT 9: Merthyr Tydfil west valley side				
		Assessed susceptibility		
		Low	Medium	High
AESTHETIC, PERCEPTUAL AND EXPERIENTIAL				
Scenic quality and character	Mixed attributes presenting a complicated picture. VS46 Scenic quality - moderate 83% VS47 Integrity - low 70% VS48 Character - high 66%			
Remoteness and tranquillity	Close to major settlement yet contains areas that appear tranquil and remote. VS24 Perceptual and other sensory qualities - overall attractive/sheltered/tranquil 87%			
VALUE				
		Assessed value		
		Low	Medium	High
Landscape value	Merthyr Tydfil Landscape of Historic Importance. Green wedges VS50 - overall evaluation - moderate 80% VS49 rarity - moderate 68% LH45 overall evaluation - high 48% GL31 rarity - moderate 73% GL33 overall evaluation - moderate 73%			
Historic value	4 SAMs HL38 Rarity - high and outstanding 85% HL35 Integrity - moderate 69% HL40 Overall evaluation - high and outstanding 84%			
SUMMARY OF SENSITIVITY TO WIND TURBINE DEVELOPMENT				
		Assessed sensitivity		
		Low	Medium	High
Micro	Importance to the setting of Merthyr Tydfil and the historic landscape results in medium sensitivity to micro and small development			
Small				
Medium	High sensitivity to medium to very large development that would affect the historic setting of Merthyr Tydfil			
Large				
Very Large				
Additional Comments	The landscape unit is important to the setting and historic fabric of Merthyr Tydfil and this increases overall sensitivity. Although this is a large scale landscape the land cover pattern is complex and would be sensitive to change as a result of turbine development.			

LANDSCAPE UNIT 9: Merthyr Tydfil west valley side

Landscape Capacity and Guidance for siting wind turbines	
Landscape objective	**Objective 2: Maintain the landscape character.**
Key landscape, visual and cultural heritage characteristics susceptible to wind turbine development	**Designated features within the Landscape Unit:** Merthyr Tydfil Landscape of Historic Interest covers 100% of the unit. Green wedge at Heolgerrig important to separation from Merthyr Tydfil. 4 SAMs linked to recent industrial past.
	Other susceptible landscape, visual and cultural heritage features: Gethin Woodland Park and informal recreation. The hillside of this unit is the setting for Merthyr Tydfil to the east.
Baseline wind turbine development (March 2014)	No wind energy development currently built or planned in this area.
Indicative overall capacity	There is no capacity for medium to very large scale development due to the historic importance of the area and the complexity of the landscape that provides the setting for Merthyr Tydfil to the east. There is some capacity for small and micro scale development carefully sited to maintain the special qualities of the historic landscape.
Guidance on siting	Section five of this document provides generic siting and guidance. In addition the following guidance should apply: Maintain the integrity of Merthyr Tydfil Landscape of Historic Interest. Protect the settings of designated and other important cultural heritage features and the key views to and from these features. Consider views from the BBNP for proposals in the north of this unit. Consider views from Merthyr Tydfil. Maintain the role of green wedges. Ensure new access tracks do not damage historic field patterns and replace any boundaries (hedges/walls) affected by construction.

Landscape Unit: 10

Merthyr Tydfil



LANDSCAPE UNIT 10: Merthyr Tydfil

		Assessed susceptibility		
		Low	Medium	High
LANDSCAPE				
Scale	Generally medium scale VS8 scale: medium 78%			
Landform	Glaciated valley with the River Taff meandering through. VS4 Topographic - hills/valleys 81%			
Land cover pattern	Complex mix of urban development with mixed use on the urban edge including quarrying, recreation and designed landscapes. VS class level 3 - urban 61% HL class level 3 - mixed including 27% extractive. VS5 Land cover pattern - development 70% VS16 Pattern - organised 86%			
Built environment	Densely settled broad valley bottom and lower slopes that are not too steep. Nucleated settlement. VS6 Settlement pattern - urban 64% VS20 Use of Construction Materials - inappropriate 63% VS25 Sense of Place - strong 83%			
VISUAL				
Skylines and settings	Views to broad ridges at tops of valleys outside the unit. Skylines within dominated by built development - mainly residential.			
Movement	Busy landscape with road corridors at the edges. VS18 Level of Human access - constant or frequent 77%			
Visibility, key views, vistas.	enclosed by surrounding valley sides and by built development. VS9 Enclosure - confined/enclosed 78%			
Intervisibility, associations with adjacent landscapes	Views out of the area to surrounding landscape are limited due to landform and built form. However there are views into the unit from surrounding high ground. VS22 there are attractive views mainly out of the area. VS23 there are detractive views both in and out of the area			
Types of receptors	Broad range and a large number of visual receptors - residents, commercial users, road users, visitors			
Views to / from landscape and cultural heritage features	Built form restricts views but landform gives rise to elevated locations with views across the unit. Cyfarthfa castle and parkland is an important site in the urban area and has framed views of the settlement and surrounding countryside to the west.			

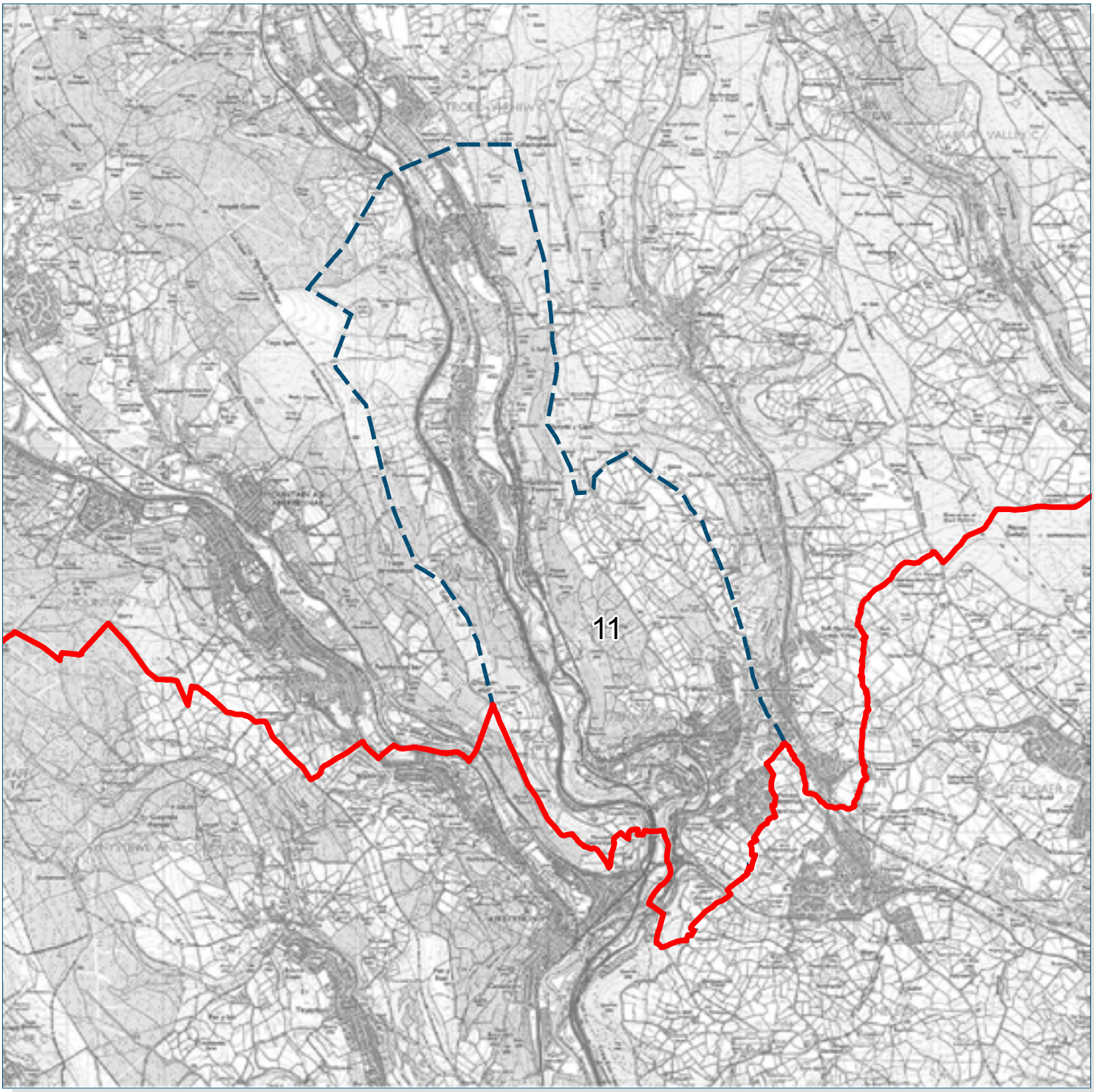
LANDSCAPE UNIT 10: Merthyr Tydfil				
		Assessed susceptibility		
		Low	Medium	High
AESTHETIC, PERCEPTUAL AND EXPERIENTIAL				
Scenic quality and character	VS46 Scenic quality - low 72% VS47 Integrity - low 82% VS48 Character - low 71%			
Remoteness and tranquillity	Very busy landscape with a wide variety of human activity and movement. VS24 Perceptual and other sensory qualities - unattractive/noisy/exposed/settled/threatening 79%			
VALUE				
		Assessed value		
		Low	Medium	High
Landscape value	Merthyr Tydfil Landscape of Historic Interest Cyfarthfa Castle and school (Grade 1 listed), Register of Landscapes, Parks and Gardens of Historic Interest in Wales Green wedges 12 SAMs VS50 - overall evaluation - Low 72% VS49 rarity - moderate 73% LH45 overall evaluation - low 48% GL31 rarity - moderate 39% GL33 overall evaluation - moderate 58%			
Historic value	HL38 Rarity - high and outstanding 76% HL35 Integrity - high and outstanding 44% HL40 Overall evaluation - high and outstanding 72%			
SUMMARY OF SENSITIVITY TO WIND TURBINE DEVELOPMENT				
		Assessed sensitivity		
		Low	Medium	High
Micro	Medium sensitivity to micro and small development due to the built up nature of the unit and the number of residential receptors			
Small				
Medium	High sensitivity to medium to very large development which would be out of keeping with the character of the settlement and affect residential amenity			
Large				
Very Large				
Additional Comments	Although a number of criteria suggest lower and medium sensitivity this area is densely settled and there will be residential amenity issues which will limit the potential size of wind energy development.			

LANDSCAPE UNIT 10: Merthyr Tydfil

Landscape Capacity and Guidance for siting wind turbines	
Landscape objective	**Objective 2: Maintain the landscape character.**
Key landscape, visual and cultural heritage characteristics susceptible to wind turbine development	**Designated features within the Landscape Unit:** Merthyr Tydfil Landscape of Historic Interest covers 100% of the unit. Cyfarthfa Castle and school (Grade 1 listed), Register of Landscapes, Parks and Gardens of Historic Interest in Wales Green wedge at Heolgerrig important BBNP to the north of the unit. 2 Conservation Areas (Merthyr town centre and Cyfarthfa Castle grounds) 12 SAMs linked to industrial past
	Other susceptible landscape, visual and cultural heritage features: Recreation grounds and open spaces Densely settled area in the Taff valley. Residential amenity Taff River corridor and associated Taff trail contribute to the amenity of the town
Baseline wind turbine development (March 2014)	1 medium sized turbine at Pengarddu Industrial Estate on the edge of the unit to the north east. 2nd medium sized turbine application pending nearby but in unit 17.
Indicative overall capacity	There is no capacity for medium, large or very large scale development due to the densely settled area of Merthyr Tydfil and its location, surrounded by high ground overloking the town. The historic importance of the area also reduces the capacity. There is some capacity for small and micro scale developments carefully sited to maintain the special qualities of the historic landscape.
Guidance on siting	Section five of this document provides generic siting and guidance. In addition the following guidance should apply: Maintain the integrity of Merthyr Tydfil Landscape of Historic Interest. Maintain the integrity and setting of Cyfarthfa Castle and associated Registered Park and Garden. Maintain the integrity of Conservation Areas. Protect the settings of designated and other important cultural heritage features and the key views to and from these features. Consider views from the BBNP for proposals in the north of this unit. Consider views from residential properties. Consider turbine scale in context with the scale and pattern of built form in the town.

Landscape Unit: 11

Taff Valley southern reach



LANDSCAPE UNIT 11: Taff Valley southern reach

		Assessed susceptibility		
		Low	Medium	High
LANDSCAPE				
Scale	Medium to large scale valley landscape VS8: scale large 53% medium 42%			
Landform	Glaciated valley bottom and sides incorporating pockets of land above the top edge of the steep sided valley slopes. VS4 Topographic- Hill/valleys 96%			
Land cover pattern	Mix of uses. Valley floor settled and major transport corridor. Valley sides a combination of woodland/forestry and grazed fields. VS class level 3 - upland valley open/wooded/mosaic 58% HL class level 3 - settled/extraction/communications 43% VS5 Land cover pattern - mixture 54%, development 22% VS16 Pattern - organised 84%			
Built environment	Densely settled valley floor with a variety of residential and commercial development types. VS6 Settlement pattern - urban 23%, scattered 68% VS20 Use of Construction Materials - generally appropriate 73% VS25 Sense of Place - moderate 69%			
VISUAL				
Skylines and settings	Views of skylines at top of steep valley slopes generally smooth with no distinctive features. Valley sides provide setting for settled valley bottom and approach to Merthyr Tydfil to the north.			
Movement	Busy settled valley landscape. Tops of valleys and beyond are quieter. VS18 Level of Human access - constant or frequent 75%			
Visibility, key views, vistas.	Valley topography, woodland/forestry and built form serve to restrict views. VS9 Enclosure - enclosed 86%			
Intervisibility, associations with adjacent landscapes	There are views in and out of the area particularly from the upper valley slopes and beyond. VS22 there are attractive views - 73% both in and out. VS23 there are detractive views - 33% both in and out. Also detractive views into the unit - 15% The valley has been heavily influenced by past mining activities.			
Types of receptors	Residents of villages/towns in the valley bottom and on valley sides.			
Views to / from landscape and cultural heritage features	Aberfan Cemetery, Garden of Remembrance and former tip and slide area is located at the north end of the unit and this area has historic and cultural significance and is designated as an Historic Park and Garden			

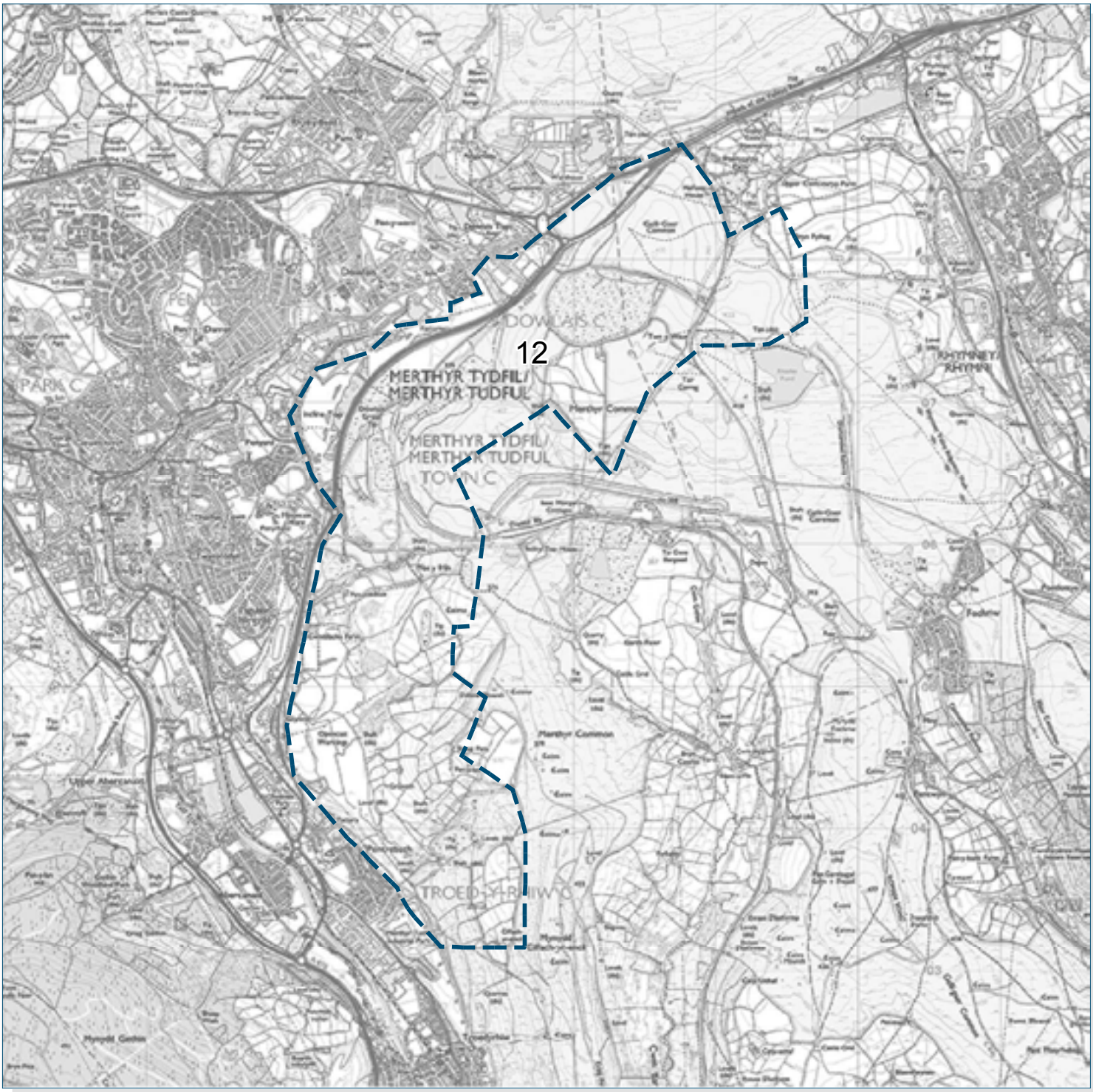
LANDSCAPE UNIT 11: Taff Valley southern reach				
		Assessed susceptibility		
		Low	Medium	High
AESTHETIC, PERCEPTUAL AND EXPERIENTIAL				
Scenic quality and character	VS46 Scenic quality - moderate 72% VS47 Integrity - moderate 54% VS48 Character - moderate 66%			
Remoteness and tranquillity	Mixed. Areas which are unattractive, noisy and easily accessible. Steep valley slopes not as accessible. VS24 Perceptual and other sensory qualities - Attractive/tranquil/sheltered 51%, unattractive/noisy/exposed/settled 44%			
VALUE				
		Assessed value		
		Low	Medium	High
Landscape value	Aberfan Cemetery, Garden of Remembrance and former tip and slide area (Historic Park and Garden) VS50 - overall evaluation - moderate 49% VS49 rarity - moderate 53% LH overall evaluation - moderate 66% GL31 rarity - high 59% GL33 overall evaluation - high 59%			
Historic value	HL38 Rarity - high and outstanding 93% HL35 Integrity - moderate 50% HL40 Overall evaluation - high and outstanding 80%			
SUMMARY OF SENSITIVITY TO WIND TURBINE DEVELOPMENT				
		Assessed sensitivity		
		Low	Medium	High
Micro	Low sensitivity to micro and small development that respects the built environment and historic importance of the landscape.			
Small				
Medium	Medium sensitivity due to medium scale of the landscape and organised land cover pattern.			
Large	High sensitivity to larger development out of keeping with the scale of the landscape and character of built development.			
Very Large				

LANDSCAPE UNIT 11: Taff Valley southern reach

Landscape Capacity and Guidance for siting wind turbines	
Landscape objective	**Objective 2: Maintain the landscape character.**
Key landscape, visual and cultural heritage characteristics susceptible to wind turbine development	**Designated features within the Landscape Unit:** Aberfan Cemetery, Garden of Remembrance and Former Tip and Slide Area 2 SAMs linked to recent industrial past Green wedges separating settlement in the valley bottom. Merthyr Tydfil Landscape of Historic Interest borders the northern part of the unit.
	Other susceptible landscape, visual and cultural heritage features: Valley is characterised by slopes that are well wooded with pastoral fields between areas of woodland. Settlement in the valley bottom has some degree of separation. Taff Trail is a national multipurpose trail that follows the river through the unit.
Baseline wind turbine development (March 2014)	Single medium scale turbine approved but not constructed on hillside approximately 1km east Merthyr Vale train station.
Indicative overall capacity	There is no capacity for large and very large scale development which would affect the scale of the valley landscape and the historic landscape.a. There is some capacity for medium scale development and higher capacity for carefully sited small and micro scale development.
Guidance on siting	Section five of this document provides generic siting and guidance. In addition the following guidance should apply: Consider views to and from the Merthyr Tydfil Landscape of Historic Interest. Maintain the integrity and setting of Aberfan Cemetery, Garden of Remembrance and former tip and slide area. Protect the settings of designated and other important cultural heritage features and the key views to and from these features. Consider views from the Taff Trail which is a promoted route. Maintain the role of green wedges. Avoid sequential cumulative effects on the A470 and other popular routes and local viewpoints. Locate development away from settlment edges and important historic sites.

Landscape Unit: 12

Merthyr Tydfil east valley side



LANDSCAPE UNIT 12: Merthyr Tydfil east valley side

		Assessed susceptibility		
		Low	Medium	High
LANDSCAPE				
Scale	Large scale landscape VS8 scale: large 97%			
Landform	Large scale disturbance and man made landform associated with a large scale coal recovery scheme (Ffos y Fran) apparent. VS4 Topographic - disturbed 33%, plateau 15%			
Land cover pattern	Mix of land cover dominated by man made land form of the coal recovery scheme to the north of the unit. Away from this area pattern is more traditionally rural with marginal land, fieldscapes and woodland. VS class level 3 - Derelict/waste ground 48% HL class level 3 - extractive 12%, nucleated settlement 25% VS5 Land cover pattern - open land 54%, development 18% VS16 Pattern - organised 78%			
Built environment	Despite obvious industrial activity in the area there is little built form. VS6 Settlement pattern - no settlement/scattered rural/farm 97% VS20 Use of Construction Materials - generally inappropriate 54% VS25 Sense of Place - moderate 48%			
VISUAL				
Skylines and settings	Man made landform of the coal recovery scheme dominates skyline when viewed from the north. The unit provides the landscape setting for the east side of Merthyr Tydfil and despite the man made nature of landform to the north the southern end of the unit provides a rural back drop to the setting of the town.			
Movement	Adjacent to Merthyr Tydfil much of the area is accessible VS18 Level of Human access - frequent 60%			
Visibility, key views, vistas.	Not a lot of tree cover or built form and extensive views from the valley sides in places. VS9 Enclosure - exposed/open 69%			
Intervisibility, associations with adjacent landscapes	There are views to the surrounding landscape. Detractive views appear to dominate. VS22 there are attractive views - 54% out of the unit. VS23 there are detractive views - 81% both in and out.			
Types of receptors	Few receptors although Merthyr Tydfil to the west contain numerous and varied visual receptors.			
Views to / from landscape and cultural heritage features	Views to and from the BBNP. Landform within the unit already changed considerably due to coal recovery scheme and will continue for several years before restoration complete.			

LANDSCAPE UNIT 12: Merthyr Tydfil east valley side				
		Assessed susceptibility		
		Low	Medium	High

AESTHETIC, PERCEPTUAL AND EXPERIENTIAL				
Scenic quality and character	VS46 Scenic quality - low 54% VS47 Integrity - low 99% VS48 Character - low 63%			
Remoteness and tranquillity	Area very influenced by mans activity and generally accessible. VS24 Perceptual and other sensory qualities - noisy/unattractive/exposed/settled 80%			

VALUE				
		Assessed susceptibility		
		Low	Medium	High
Landscape value	Merthyr Tydfil Landscape of Historic Interest VS50 - overall evaluation - low 81% VS49 rarity - Low 63% LH overall evaluation - high 82% GL31 rarity - low 70% GL33 overall evaluation - moderate 72%			
Historic value	2 SAMs HL38 Rarity - high and outstanding 74% HL35 Integrity - high and outstanding 62% HL40 Overall evaluation - high and outstanding 62%			

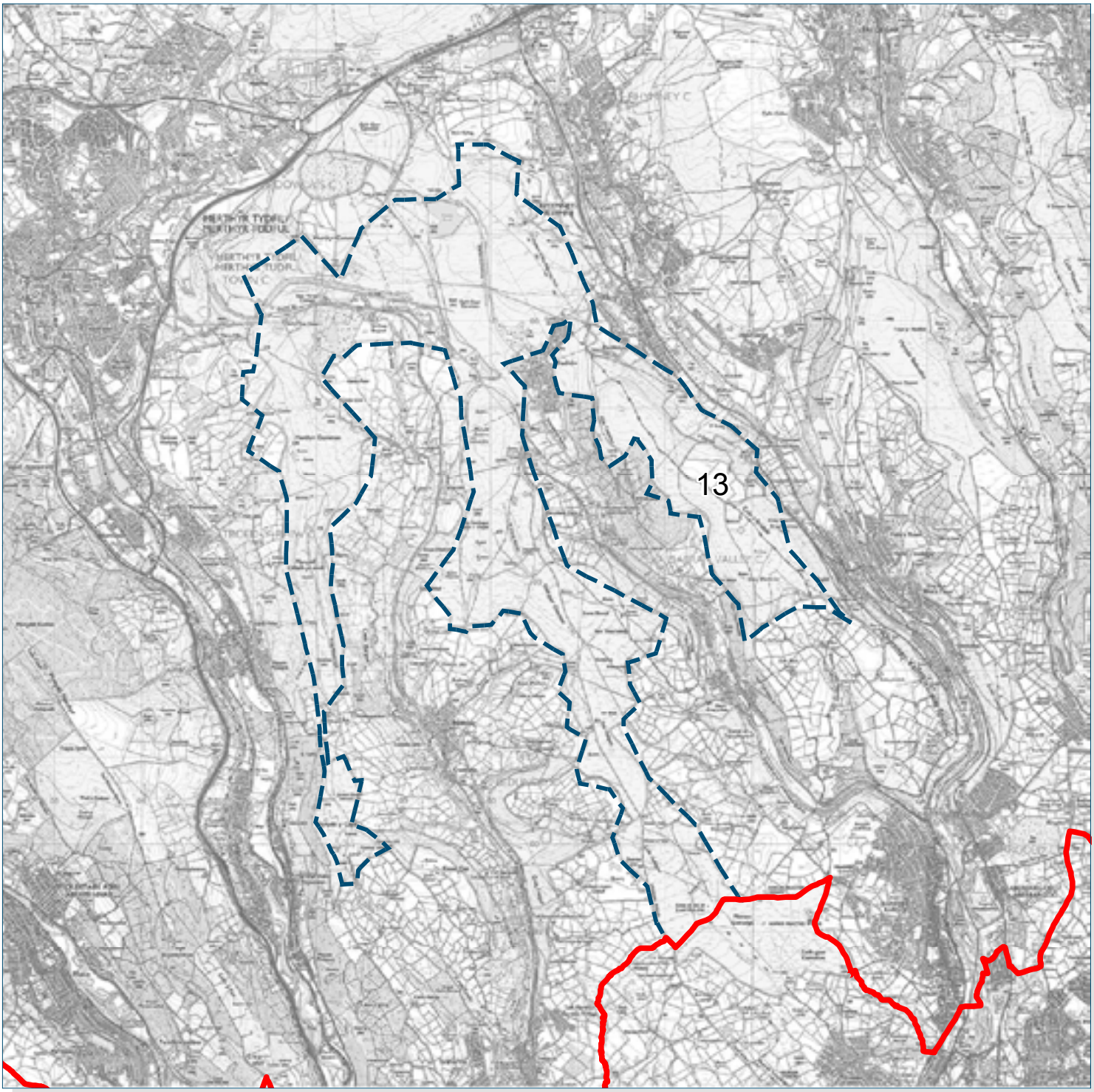
SUMMARY OF SENSITIVITY TO WIND TURBINE DEVELOPMENT				
		Assessed value		
		Low	Medium	High
Micro	The disturbed landscape has low sensitivity to micro, small or medium development.			
Small				
Medium				
Large	The proximity of Merthyr Tydfil and the size of this unit results in medium-high sensitivity to large development.			
Very Large	The proximity of Merthyr Tydfil and the size of this unit results in high sensitivity to very large development.			
Additional Comments	A large part of the area is included a coal recovery scheme with large scale earthworks and is less sensitive to wind energy development. However, large or very large development close to the urban edge is unlikely to be easily accommodated.			

LANDSCAPE UNIT 12: Merthyr Tydfil east valley side

Landscape Capacity and Guidance for siting wind turbines	
Landscape objective	**Objective 2: Maintain the landscape character.**
Key landscape, visual and cultural heritage characteristics susceptible to wind turbine	**Designated features within the Landscape Unit:** Merthyr Tydfil Landscape of Historic Interest covers the majority of the unit. 2 SAMs (deserted mining village)
	Other susceptible landscape, visual and cultural heritage features: Hillside to the north has extensive earthworks (coal recovery scheme) and is intervisible with the BBNP. Southern extent of this unit is less open and maintains some field boundaries among historic open cast workings.
Baseline wind turbine development (March 2014)	No wind turbine development constructed or in planning. View of existing medium scale turbine in unit 10.
Indicative overall capacity	There is no capacity for very large scale development that would be viewed from the BBNP and Merthyr Tydfil and would be out of scale with the built form in neighbouring Merthyr Tydfil There is some capacity for large scale development located to avoid impacts on residential receptors and the setting of Merthyr Tydfil. There is capacity for carefully sited medium, small and micro scale development in this man
Guidance on siting	Section five of this document provides generic siting and guidance. In addition the following guidance should apply: Maintain the integrity of Merthyr Tydfil Landscape of Historic Interest. Protect the settings of designated and other important cultural heritage features and the key views to and from these features. Consider views from the BBNP and Merthyr Tydfil. Maintain field patterns that remain to the south of the unit. Consider tree planting in association with small scale and micro development on the lower slopes of the unit. Where possible turbine proposals should be located in areas that have been disturbed as a result of recent industrial activity (coal recovery scheme). These areas currently have lower scenic value and are in disturbed landscapes of lower sensitivity. Possible opportunity for wind energy development of appropriate scale to be incorporated into restoration proposals. Consider potential sequential cumulative impact from the A4060 in combination with sequential views from the A470 in unit 11 to the south.

Landscape Unit: 13

Upland moorland between Taff and Rhymney valleys



LANDSCAPE UNIT 13: Upland moorland between Taff and Rhymney Valleys

		Assessed susceptibility		
		Low	Medium	High
LANDSCAPE				
Scale	Large scale landscape VS8 scale: large 91%			
Landform	Upland gently undulating broad ridges between valleys. VS4 Topographic - High hills/mountains 74%			
Land cover pattern	Upland grazing and moorland dominates. VS class level 3 - upland grazing 55%, Moorland 38% HL class level 3 - irregular fields 45%, Marginal land 27% VS5 Land cover pattern - open land 93% VS16 Pattern - random 63%, regular 33%			
Built environment	Very little built development in the areas VS6 Settlement pattern - no settlements 79% VS20 Use of Construction Materials - appropriate and generally appropriate 50% VS25 Sense of Place - moderate 66%			
VISUAL				
Skylines and settings	Broad ridge tops have a smooth profile. Unit provides the setting for valley landscapes and their villages/towns.			
Movement	Some human access but limited to roads and footpaths. VS18 Level of Human access - infrequent or rare 95%			
Visibility, key views, vistas.	Ex[posed upland landscape with gently undulating landform and no cover. VS9 Enclosure - exposed 92%			
Intervisibility, associations with adjacent landscapes	There are attractive and detractive views in and out of the area. Given the elevated position there are views from and into the valley bottoms and to uplands across valleys and beyond. VS22 there are attractive views - both in and out 42% VS23 there are detractive views - both in and out and within 49% The northern end of the unit is particularly affected by extraction.			
Types of receptors	Few receptors. Residents, road users and walkers.			
Views to / from landscape and cultural heritage features	Distant views to and from BBNP. Unit overlooks Merthyr Tydfil Landscape of Historic Interest to the west and includes a small area of the designation. Also overlooks and includes the Gelli-gaer Common Landscape of Historic Interest. Numerous SAMs possibly prehistoric, Roman and Medieval.			

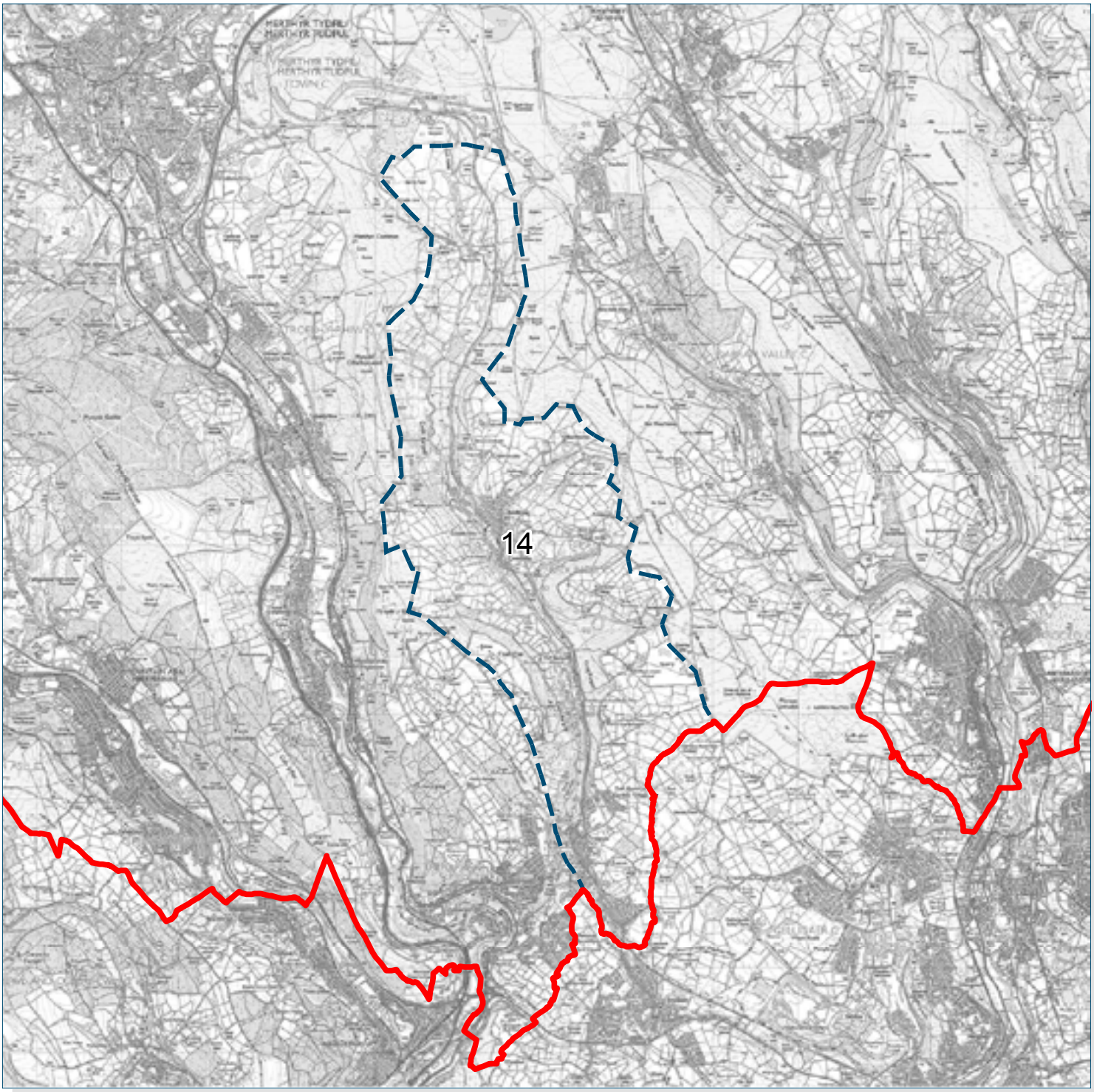
LANDSCAPE UNIT 13: Upland moorland between Taff and Rhymney Valleys				
		Assessed susceptibility		
		Low	Medium	High
AESTHETIC, PERCEPTUAL AND EXPERIENTIAL				
Scenic quality and character	VS46 Scenic quality - high 68% VS47 Integrity - integrity low 49% VS48 Character - moderate 66%			
Remoteness and tranquillity	Very mixed. Overall exposed. Some sense of remoteness but also accessible by minor roads that appear well used. VS24 Perceptual and other sensory qualities - exposed 58%			
VALUE				
		Assessed value		
		Low	Medium	High
Landscape value	Merthyr Tydfil Landscape of Historic Interest Gelli-gaer Common Landscape of Historic Interest SLA covers approximately 15% of the unit *Gelli-gaer Common SLA* in Caerphilly VS50 - overall evaluation - high 45% VS49 rarity - moderate 60% LH overall evaluation - high 96% GL31 rarity - low 60% GL33 overall evaluation - moderate 89%			
Historic value	HL38 Rarity - high and outstanding 91% HL35 Integrity - high and outstanding 45% HL40 Overall evaluation - high and outstanding 81%			
SUMMARY OF SENSITIVITY TO WIND TURBINE DEVELOPMENT				
		Assessed sensitivity		
		Low	Medium	High
Micro	Low sensitivity to small and micro development due to scale, land cover pattern and few sensitive visual receptors			
Small				
Medium	Medium sensitivity to medium scale development.			
Large	Medium sensitivity where the area is affected by existing activity at the northern end of the unit but high sensitivity towards the south			
Very Large	High sensitivity to very large development which could affect the historic landscape and long distance views.			

LANDSCAPE UNIT 13: Upland moorland between Taff and Rhymney Valleys

Landscape Capacity and Guidance for siting wind turbines	
Landscape objective	**Objective 2: Maintain the landscape character.**
Key landscape, visual and cultural heritage characteristics susceptible to wind turbine development	**Designated features within the Landscape Unit:** Merthyr Tydfil Landscape of Historic Interest to the north. Gelli-gaer Common Landscape of Historic Interest on upland between landscape units 14 and 15. Gelli-gaer Common SLA in Caerphilly - approximately 15% of the unit. 13 SAMs (Prehistoric and Roman)
	Other susceptible landscape, visual and cultural heritage features: Upland moorland/grassland character type has extensive views across upland of the study area and north to the BBNP. There is very little if any built form in the unit. Minor roads cross the area. Remoteness and tranquillity would be affected by wind turbine development.
Baseline wind turbine development (March 2014)	No wind turbine development constructed or in planning at present.
Indicative overall capacity	There is no capacity for very large development and limited capacity for large scale development as this is an exposed landscape that is viewed from neighbouring uplands and provides the landscape setting to valley settlements that have views up to the unit. There is some capacity for medium scale development and capacity for carefully sited small and micro development.
Guidance on siting	Section five of this document provides generic siting and guidance. In addition the following guidance should apply: Maintain the integrity of Merthyr Tydfil Landscape of Historic Interest to the north. Maintain the integrity of Gelli-gaer Common Landscape of Historic Interest to the south. Protect the settings of designated and other important cultural heritage features and the key views to and from these features. Consider views from the BBNP and upland landscapes in the study area. Consider views from settlements in adjacent units. Although currently no wind development in the unit in the long term avoid potential cumulative impacts by ensuring visual separation between developments. Avoid locating turbine at the upland edge where they would be highly visible from the surrounding landscape and valleys below.

Landscape Unit: 14

Bedlinog Valley and farmed upland landscape



LANDSCAPE UNIT 14: Bedlinog Valley and farmed upland landscape

		Assessed susceptibility		
		Low	Medium	High
LANDSCAPE				
Scale	Generally large scale with some medium scale areas VS8 scale: large 67% medium 30%			
Landform	Valley landscape with steep slopes. VS4 Topographic - Hills/Valleys 90%			
Land cover pattern	Settled valley bottom with farmed valley slopes comprising mix of grazing and pockets of woodland and moorland VS class level 3 - open/wooded mosaic and open upland valleys 57% HL class level 3 - Fieldscapes 36% VS5 Land cover pattern - mixture 49% VS16 Pattern - organised 77%, random 22%			
Built environment	One major settlement in valley bottom with scattered settlement throughout. VS6 Settlement pattern - scattered Rural/Farm 93% VS20 Use of Construction Materials - generally appropriate 66% VS25 Sense of Place - strong 61%			
VISUAL				
Skylines and settings	None that are distinctive, Valley sides provide setting for settled valley bottom.			
Movement	Busy valley bottom, quiet valley sides VS18 Level of Human access - occasional and frequent 87%			
Visibility, key views, vistas.	Unit is enclosed by valley slopes, views out from lower levels are restricted. VS9 Enclosure - enclosed 57%			
Intervisibility, associations with adjacent landscapes	VS22 there are attractive views - both in and out 92% VS23 there are detractive views - both in and out. Small amount with in.			
Types of receptors	Residents in valley bottom, road users, visitors, walkers			
Views to / from landscape and cultural heritage features	Overlooked by upland areas of Merthyr Tydfil Landscape of Historic Interest and Gelli-gaer Common Landscape of Historic Interest.			

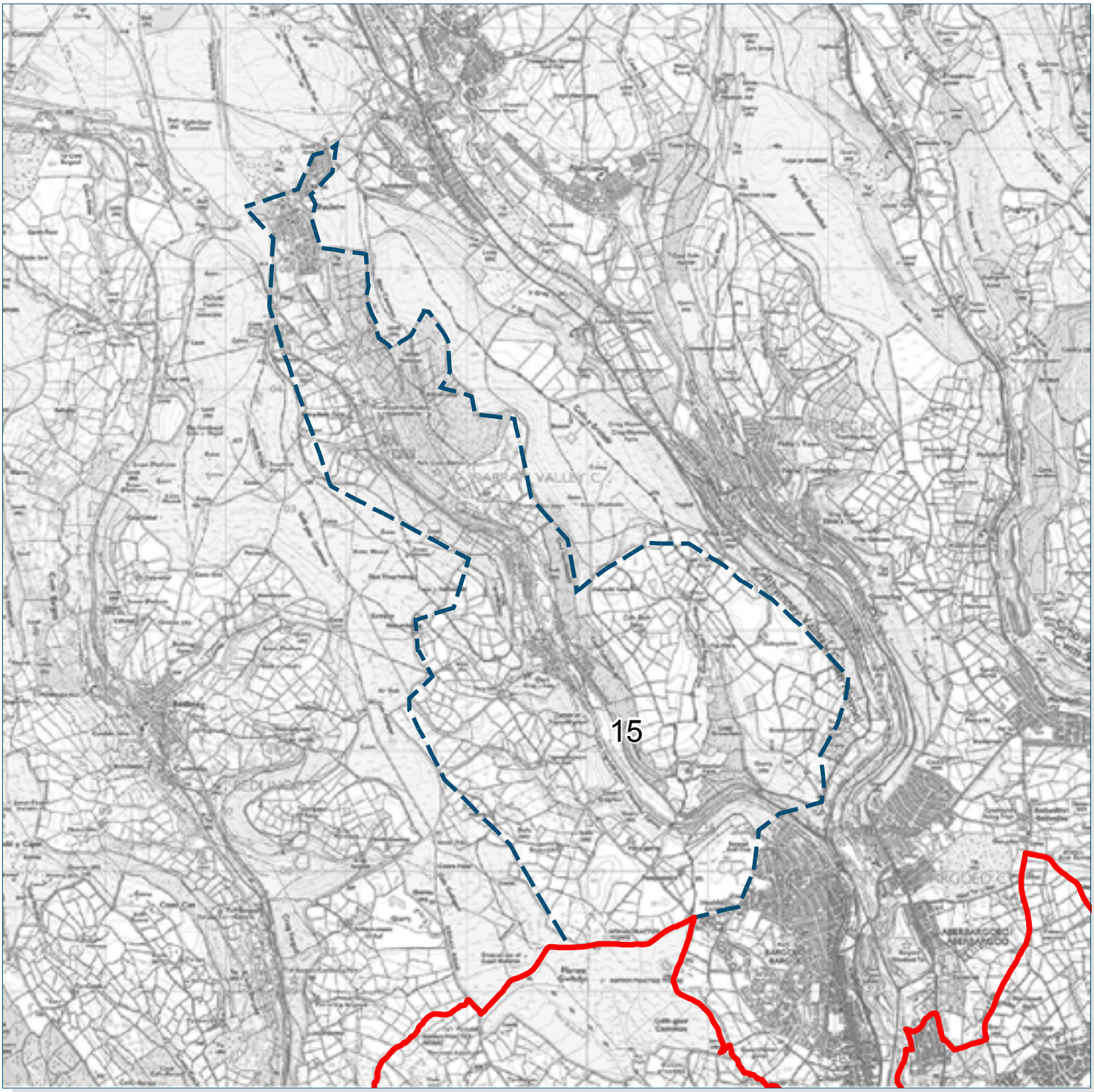
LANDSCAPE UNIT 14: Bedlinog Valley and farmed upland landscape				
		Assessed susceptibility		
		Low	Medium	High
AESTHETIC, PERCEPTUAL AND EXPERIENTIAL				
Scenic quality and character	VS46 Scenic quality - moderate 84% VS47 Integrity - moderate 85% VS48 Character - moderate 66%			
Remoteness and tranquillity	Overall tranquil, attractive sheltered. Community is remote at the top of the valley but also accessible by road. VS24 Perceptual and other sensory qualities - attractive/tranquil/sheltered/exposed 76%. only 6% unattractive/settled.			
VALUE				
		Assessed value		
		Low	Medium	High
Landscape value	Merthyr Tydfil Landscape of Historic Interest in a small area to the north of the unit and unit shares boundary with to Gelli-gaer Common Landscape of Historic Interest on upland between landscape units 14 and 15 Taff Bargoed Community Park VS50 - overall evaluation - moderate 85% VS49 rarity - moderate 60% LH overall evaluation - high 82% GL31 rarity - moderate 98% GL33 overall evaluation - moderate 99%			
Historic value	5 SAMs Bedlinog Conservation Area HL38 Rarity - high and outstanding 90% HL35 Integrity - high and outstanding 45% HL40 Overall evaluation - high and outstanding 90%			
SUMMARY OF SENSITIVITY TO WIND TURBINE DEVELOPMENT				
		Assessed sensitivity		
		Low	Medium	High
Micro	Low sensitivity to micro and small development due to enclosed landscape.			
Small				
Medium	Low to medium sensitivity to medium development			
Large	High sensitivity to large or very large development which would affect views along the valley and be out of scale with the built environment.			
Very Large				
Additional Comments	This valley landscape with steep slopes and a rural settled character has not been as heavily influenced by industrial development as its neighbours. Large development could impact upon the overall tranquil character.			

LANDSCAPE UNIT 14: Bedlinog Valley and farmed upland landscape

Landscape Capacity and Guidance for siting wind turbines	
Landscape objective	**Objective 2: Maintain the landscape character.**
Key landscape, visual and cultural heritage characteristics susceptible to wind turbine development	**Designated features within the Landscape Unit:** Merthyr Tydfil Landscape of Historic Interest in a small area to the north of the unit and unit shares boundary with to Gelli-gaer Common Landscape of Historic Interest on upland between landscape units 14 and 15. Bedlinog Conservation Area 5 SAMs dating from prehistory.
	Other susceptible landscape, visual and cultural heritage features: Valley landscape is varied with settled valley floor, pockets of woodland and grazed fields with scattered farmsteads on the valley side. Informal recreation particularly along the Bargod valley.
Baseline wind turbine development (March 2014)	No wind turbine development constructed or in planning at present.
Indicative overall capacity	There is no capacity for large and very large scale development in this settled rural valley landscape where the presence of large scale development would be out of scale with existing development in the valley. There is some capacity for medium scale development and capacity for small and micro scale development that is carefully sited. Capacity may be reached quickly if wind turbine development is introduced to the valley landscape.
Guidance on siting	Section five of this document provides generic siting and guidance. In addition the following guidance should apply: Maintain the integrity of Merthyr Tydfil Landscape of Historic Interest and Gelli-gaer Common Landscape of Historic Interest. Protect the settings of designated and other important cultural heritage features and the key views to and from these features. Ensure new access tracks do not damage historic field patterns and replant any hedges affected by construction. Consider views from settlements in adjacent units. Although currently no wind development in the unit in the long term avoid potential cumulative impacts by ensuring appropriate grouping and visual separation between developments/groups of developments. Avoid siting wind turbines on the steep slopes and their crests where they would be highly visible on the skyline. Avoid the loss of trees and woodland cover. Consider the role of planting to help mitigate smaller developments. Avoid diminishing the scale of the valley through inappropriate turbine siting.

Landscape Unit: 15

Darran Valley and hillsides



LANDSCAPE UNIT 15: Darran Valley and hillsides

		Assessed susceptibility		
		Low	Medium	High
LANDSCAPE				
Scale	Medium scale landscape VS8 scale: medium 98%			
Landform	Upland glaciated valley with narrow valley bottom and steep valley sides. Incorporates grazed farmland above the top valley edge. VS4 Topographic - hills/valleys 99%			
Land cover pattern	Narrow settled valley floor with steep sided slopes comprising marginal land and grazed fields where the gradient is not so steep. VS class level 3 - hillside and scarp slope grazing 57% HL class level 3 - equal mix irregular fields, marginal land and other settlements. VS5 Land cover pattern - mixture 57% VS16 Pattern - random 41%, regular 59%			
Built environment	Some development - villages in the valley bottom. VS6 Settlement pattern - scattered rural/farm 58%, village 40% VS20 Use of Construction Materials - generally appropriate VS25 Sense of Place - moderate			
VISUAL				
Skylines and settings	No particularly distinctive skylines. Valley sides and tops provide setting for villages in valley bottom.			
Movement	Some human activity in the valley landscape but not as busy as adjacent valleys. VS18 Level of Human access - Frequent 40% infrequent 58%			
Visibility, key views, vistas.	Valley landscape with views up and down and across the valley. VS9 Enclosure - open 57%			
Intervisibility, associations with adjacent landscapes	There are views up and down the valley and across the valley from higher slopes. VS22 there are attractive views - attractive views out 59% VS23 there are detractive views - detractive views out 99%			
Types of receptors	Residents of the valley settlements have views up and down and across the valley. Additionally there are visitors and road and footpath users. Rhymney Valley Ridgeway walk through the area has views across the unit.			
Views to / from landscape and cultural heritage features	Overlooked by the Gelli-gaer Common Landscape of Historic Interest.			

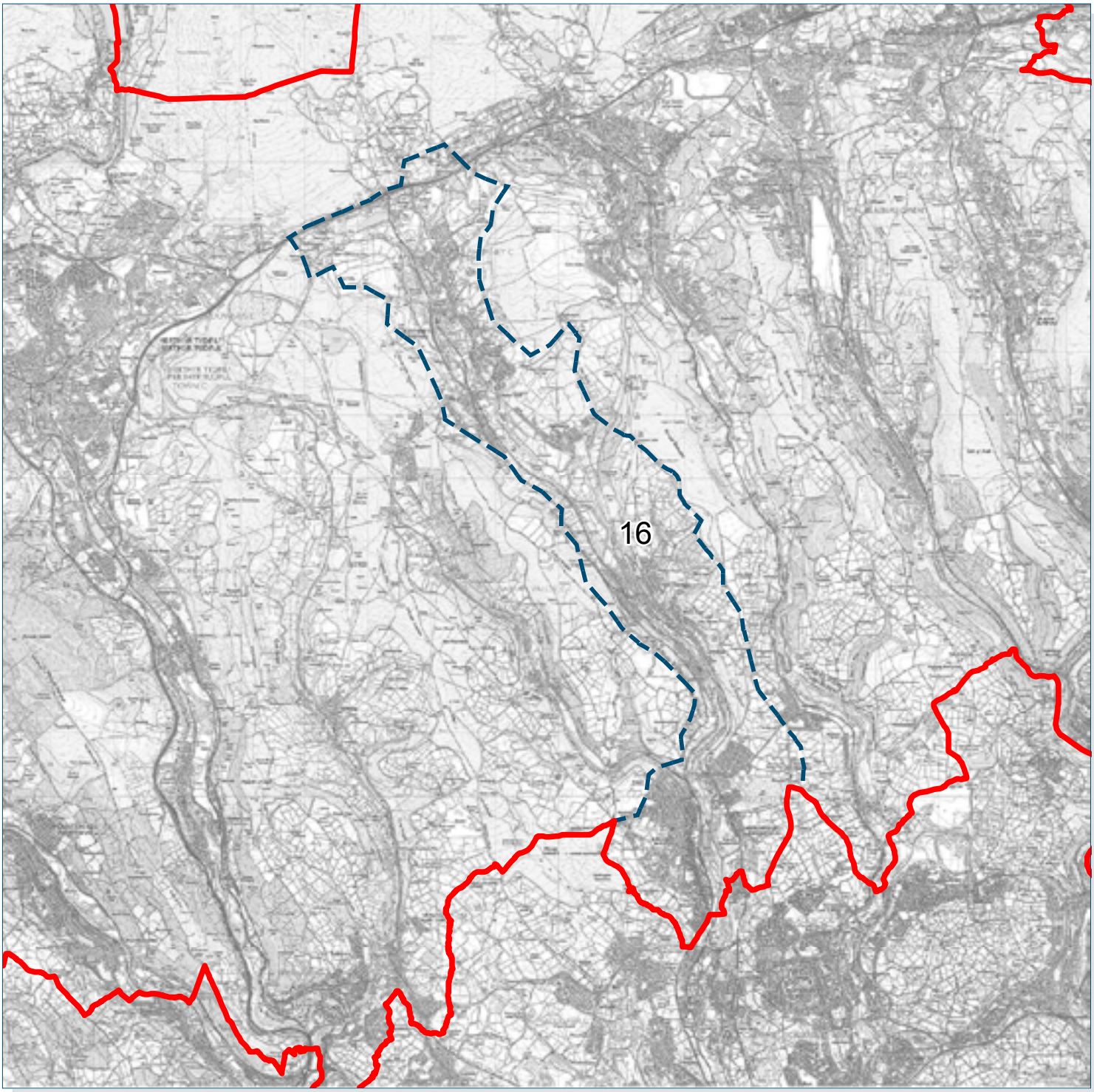
LANDSCAPE UNIT 15: Darran Valley and hillsides				
		Assessed susceptibility		
		Low	Medium	High
AESTHETIC, PERCEPTUAL AND EXPERIENTIAL				
Scenic quality and character	VS46 Scenic quality - moderate 98% VS47 Integrity - moderate 98% VS48 Character - moderate 99%			
Remoteness and tranquillity	Remote village at the head of the valley but area is accessible on the whole. VS24 Perceptual and other sensory qualities - combination of exposed 59% and sheltered 41%			
VALUE				
		Assessed value		
		Low	Medium	High
Landscape value	SLA covers approximately 38% of the unit. *Gelli-gaer Common SLA* on the west side of the valley is an extension of Gelli-gaer Common Landscape of Historic Interest to the west. Cwmllwydrew Meadows Nature Reserve. VS50 - overall evaluation - moderate 98% VS49 rarity - moderate 98% LH45 overall evaluation - moderate 58% GL31 rarity - low 100% GL33 overall evaluation - moderate 100%			
Historic value	5 SAMs HL38 Rarity - high and outstanding 100% HL35 Integrity - high and outstanding 66% HL40 Overall evaluation - high and outstanding 100%			
SUMMARY OF SENSITIVITY TO WIND TURBINE DEVELOPMENT				
		Assessed sensitivity		
		Low	Medium	High
Micro	Valley landscape with open valley sides and ribbon development in valley bottom has low sensitivity to micro development.			
Small	Low-medium sensitivity to small development which should avoid appearing out of scale with development			
Medium	Medium scale landscape that is relatively open has medium sensitivity			
Large	High sensitivity to large and very large development which would affect views along the valley and be out of scale with the built environment.			
Very Large				

LANDSCAPE UNIT 15: Darran Valley and hillsides

Landscape Capacity and Guidance for siting wind turbines	
Landscape objective	**Objective 2: Maintain the landscape character.**
Key landscape, visual and cultural heritage characteristics susceptible to wind turbine development	**Designated features within the Landscape Unit:** Gelli-gaer Common SLA west side of the valley covering approximately 38% Gelli-gaer common Landscape of Historic Interest on the boundary to the west. 3 SAMs
	Other susceptible landscape, visual and cultural heritage features: Valley landscape is varied with settled valley floor, pockets of woodland and grazed fields with scattered farmsteads on the valley side. Cycle route in the valley bottom Narrow strip of development restricted to valley floor. Steep side valley sides either wooded or open grassland. Where less steep this gives way to small to medium sized field systems. Rhymney Valley Ridgeway walk through the area has views across the unit.
Baseline wind turbine development (March 2014)	No wind turbine development constructed. One development in planning.
Indicative overall capacity	There is no capacity for large and very large scale development in this settled valley landscape. There is some capacity for medium scale development and capacity for small and micro scale development that is carefully sited.
Guidance on siting	Section five of this document provides generic siting and guidance. In addition the following guidance should apply: Consider the potential effect on neighbouring Gelli-gaer Common Landscape of Historic Interest. Protect the settings of designated and other important cultural heritage features and the key views to and from these features. Consider views from the Rhymney Valley Ridgeway walk. Ensure new access tracks do not damage historic field patterns and replant any hedges and replace any walls affected by construction. Consider views from settlements in adjacent units. Although currently no wind development in the unit in the long term avoid potential cumulative impacts by ensuring appropriate grouping and visual separation between developments/groups of developments. Avoid siting wind turbines on the steep slopes and their crests. Maintain the natural beauty of SLAs in the area and their special qualities. Avoid the loss of trees and woodland cover. Avoid diminishing the scale of the valley through inappropriate turbine siting.

Landscape Unit: 16

Rhymney Valley from Rhymney to Bargoed



LANDSCAPE UNIT 16: Rhymney Valley from Rhymney to Bargoed

		Assessed susceptibility		
		Low	Medium	High
LANDSCAPE				
Scale	Medium scale landscape VS8 scale: medium 88%			
Landform	Valley landscape extending north south across the study area. VS4 Topographic - Hills/valleys 98%			
Land cover pattern	VS class level 3 - urban/village 25%. Remainder is a combination of grazed slopes, upland valleys and plateau HL class level 3 - marginal land 37% VS5 Land cover pattern - Development 33%, open land 11% VS16 Pattern - regular 88%			
Built environment	Settled valley bottom with a variety of development types. VS6 Settlement pattern - clustered 23%, urban 14%, village 31% VS20 Use of Construction Materials - generally appropriate 76% VS25 Sense of Place - moderate 98%			
VISUAL				
Skylines and settings	No distinct skylines. Valley setting for development and approaches to Rhymney and Bargoed.			
Movement	Variations across the unit. Busy in the valley bottom along major transport route (A 469) but quieter on the valley sides. VS18 Level of Human access - Constant or frequent 55% and infrequent 52%			
Visibility, key views, vistas.	Enclosed valley bottoms with views up and down the valley interrupted by built form. Higher up the steep valley sides the landscape is more open and there are views across the valley and to the uplands. VS9 Enclosure - enclosed 39%, open 51%			
Intervisibility, associations with adjacent landscapes	The upland areas adjacent have views down into this unit. VS22 there are attractive views mainly out of the unit. VS23 there are detractive views out and within the unit.			
Types of receptors	Few receptors. Residents, road users and walkers. Rhymney Valley Ridge walk (promoted route) on the west valley ridge			
Views to / from landscape and cultural heritage features	None apparent.			

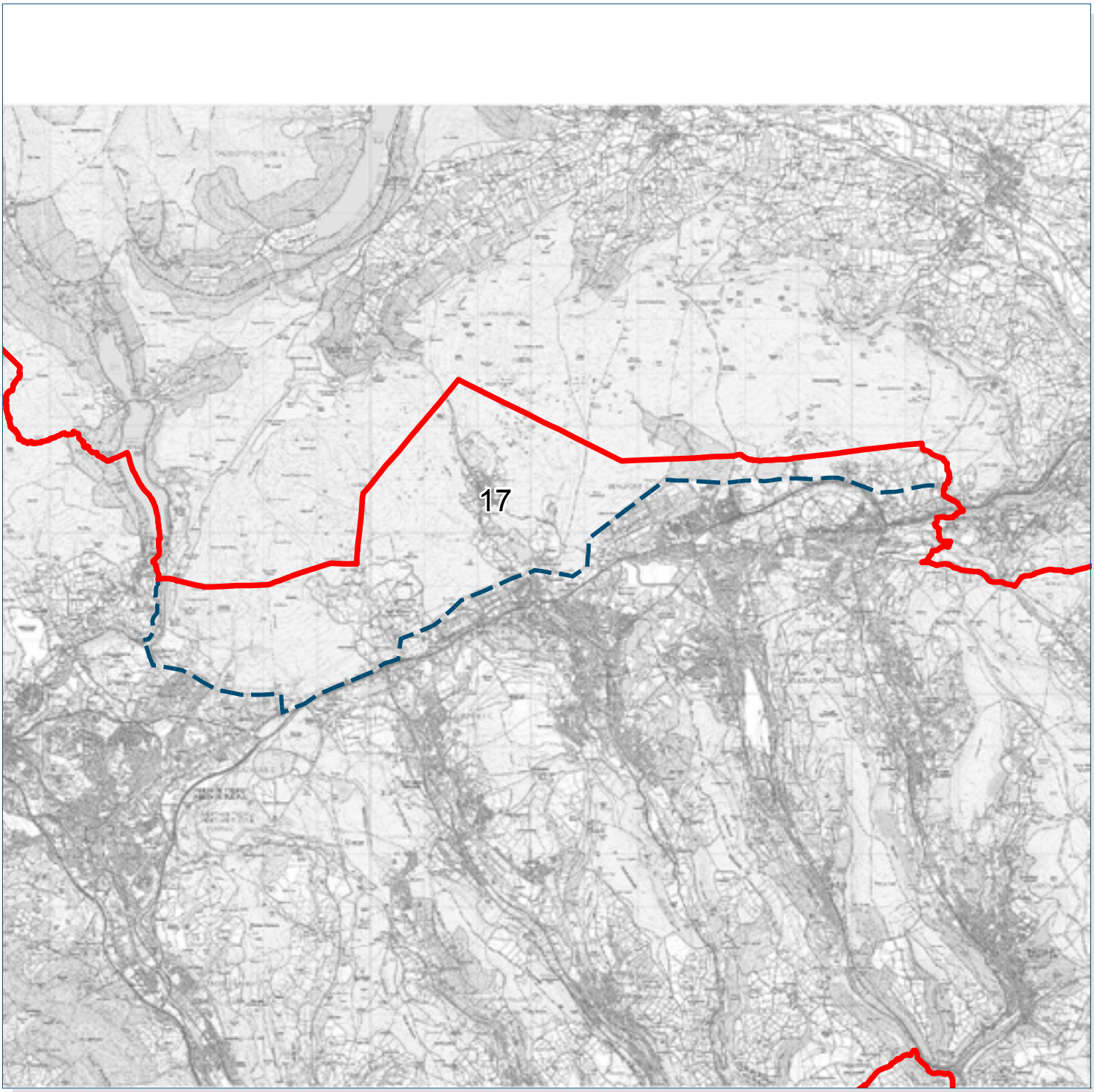
LANDSCAPE UNIT 16: Rhymney Valley from Rhymney to Bargoed				
		Assessed susceptibility		
		Low	Medium	High
AESTHETIC, PERCEPTUAL AND EXPERIENTIAL				
Scenic quality and character	VS46 Scenic quality - moderate 62% VS47 Integrity - moderate 62% VS48 Character - moderate 98%			
Remoteness and tranquillity	Busy landscape that in the main is easily accessible and not particularly remote or accessible. VS24 Perceptual and other sensory qualities -mainly exposed, sheltered and unattractive.			
VALUE				
		Assessed value		
		Low	Medium	High
Landscape value	SLA covers approximately 11% *Upper Rhymney Valley SLA* VS50 - overall evaluation - moderate 63% VS49 rarity - moderate 65% LH45 overall evaluation -high/outstanding 44% GL31 rarity - low 71% GL33 overall evaluation - moderate 71%			
Historic value	3 SAMs HL38 Rarity - high and outstanding 62% HL35 Integrity - moderate 43% HL40 Overall evaluation - high and outstanding 49%			
SUMMARY OF SENSITIVITY TO WIND TURBINE DEVELOPMENT				
		Assessed sensitivity		
		Low	Medium	High
Micro	Low sensitivity to micro development due to areas of enclosure in the valley and presence of existing built form.			
Small	Low to medium sensitivity due to large number of residential receptors who may be affected.			
Medium	Medium sensitivity due to large number of residential receptors who may be affected.			
Large	High sensitivity to large or very large development which could adversely affect residential amenity			
Very Large				
Additional Comments	Although some indicators suggest this area has low to medium sensitivity the settled character of the area means that residential amenity issues are likely to arise particularly with larger development.			

LANDSCAPE UNIT 16: Rhymney Valley from Rhymney to Bargoed

Landscape Capacity and Guidance for siting wind turbines	
Landscape objective	**Objective 2: Maintain the landscape character.**
Key landscape, visual and cultural heritage characteristics susceptible to wind turbine development	**Designated features within the Landscape Unit:** Upper Rhymney Valley SLA (approximately 11% at the northern end of the unit.) Area of Visually Important Local Landscape (Caerphilly local designation) Rhymney Conservation Area and Bute Conservation Area 3 SAMs related to industrial past. Green wedges
	Other susceptible landscape, visual and cultural heritage features: Valley landscape is varied with densely settled valley floor. Large number of sensitive visual receptors in the unit. Rhymney Valley Ridge walk on the west valley ridge has views down into and across the valley.
Baseline wind turbine development (March 2014)	One medium scale turbine consented but not built east of New Tredegar. Outside the area approximately 1km north in unit 18 is a second medium sized turbine also approved but not built. These two turbines may be inter visible.
Indicative overall capacity	There is no capacity for large and very large scale development in this settled valley landscape. There is some capacity for medium scale development and greater capacity for small and micro scale development that is carefully sited.
Guidance on siting	Section five of this document provides generic siting and guidance. In addition the following guidance should apply: Protect the settings of designated and other important cultural heritage features and the key views to and from these features. Consider views from the Rhymney Valley Ridgeway walk . Avoid sequential cumulative impacts from the A4049 in the valley bottom by ensuring visual separation between turbines/small groups of turbines. Ensure new access tracks do not damage historic field patterns. Replant any hedges and replace any walls affected by construction. Avoid siting wind turbines on the steep slopes and their associated tops. Maintain the natural beauty of SLAs in the area and their special qualities. Maintain the distinctive visual and sensory landscape features and characteristics of the Visually Important Local Landscape Avoid the loss of trees and woodland cover. Avoid diminishing the scale of the valley through inappropriate turbine siting. Protect the immediate setting of the towns in the valley bottom.

Landscape Unit: 17

Upland north of the Heads of Valley corridor



LANDSCAPE UNIT 17:Upland north of the Heads of the Valleys corridor

		Assessed susceptibility		
		Low	Medium	High
LANDSCAPE				
Scale	Large scale to vast landscape with smaller areas of medium scale. VS8 scale: large 36%, vast 50%			
Landform	Varied upland topography with rolling undulating landform VS4 Topographic - Rolling/Undulating 59%			
Land cover pattern	Upland grazing and moorland dominate the area with pockets of valleys and excavation. Large quarry at Trefil. VS class level 3 - Upland grazing and moorland 76% HL class level 3 - Extractive 20% Processing/manufacturing 13% VS5 Land cover pattern - open land 73% VS16 Pattern - random 92%			
Built environment	Very little settlement, mainly concentrated on Heads of the Valleys road corridor and along small upland valleys. VS6 Settlement pattern - no settlement 75%, scattered 21% VS20 Use of Construction Materials - appropriate 53% VS25 Sense of Place -strong 73% Permission has been granted for a motor racing track within this unit.			
VISUAL				
Skylines and settings	Skyline is smooth with few focal points. Two single medium scale wind turbines in the area interrupt the skyline from certain vantage points. The unit is adjacent to the BBNP and part of the setting of the BBNP.			
Movement	Sparsely populated area with limited movement. The Heads of the Valley Road Corridor on the south boundary is busy. Two single turbines have introduced movement. VS18 Level of Human access - infrequent 52% Consented race track will increase movement within this area.			
Visibility, key views, vistas.	Views of the unit from the Brecon Beacons to the north. VS9 Enclosure - exposed 87%			
Intervisibility, associations with adjacent landscapes	Views of the unit from the Brecon Beacons to the north. Attractive views in and out Some detractive views out but few within			
Types of receptors	Few receptors. Residents, road users and walkers. Visitors to the BBNP.			
Views to / from landscape and cultural heritage features	Intervisible with the BBNP. Unit provides setting for BBNP and is a buffer between the developed Heads of the Valley road corridor and BBNP. Merthyr Tydfil Landscape of Historic Interest at the west end of the unit and Clydach Gorge Landscape of Historic Interest to the east end of the unit.			

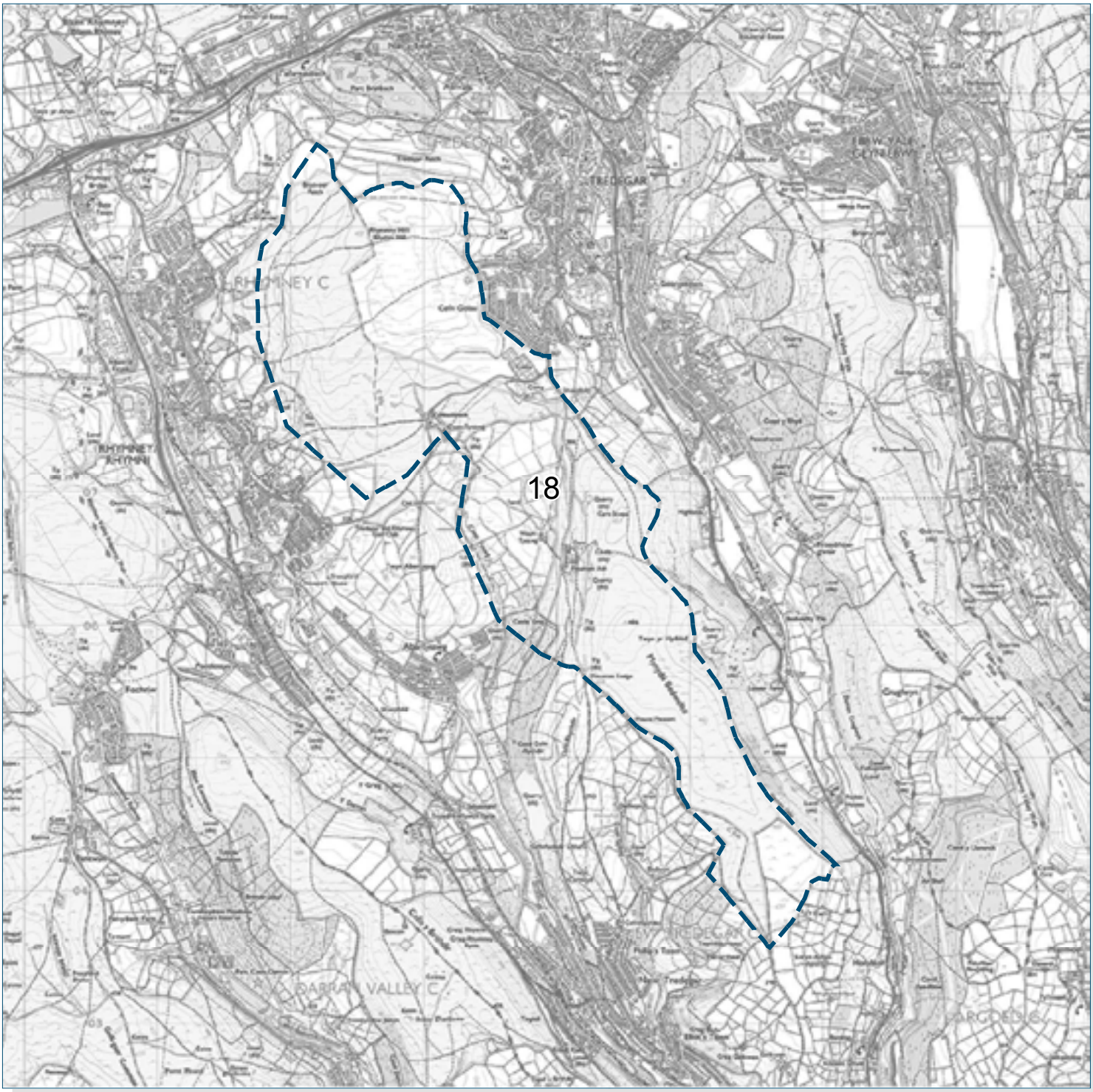
LANDSCAPE UNIT 17:Upland north of the Heads of the Valleys corridor				
		Assessed susceptibility		
		Low	Medium	High
AESTHETIC, PERCEPTUAL AND EXPERIENTIAL				
Scenic quality and character	VS46 Scenic quality - high 76% VS47 Integrity - high 51% VS48 Character - high 56%			
Remoteness and tranquillity	Sense of remoteness along north boundary with the BBNP away from the Heads of the Valley road corridor. VS24 Perceptual and other sensory qualities - varies depending on proximity to the road corridor and associated development.			
VALUE				
		Assessed value		
		Low	Medium	High
Landscape value	SLA covering approximately 77% of the unit: *Upper Rhymney Valley SLA (Caerphilly)* *Trefil and Garnlydan surrounds SLA* Clydach Gorge Landscape of Historic Interest at the eastern end of the unit in the BBNP. Merthyr Tydfil Landscape of Historic Interest at the west end of the unit. VS50 - overall evaluation - High 55% VS49 rarity - High 68% LH45 overall evaluation - high/outstanding 89% GL31 rarity - high/outstanding 72% GL33 overall evaluation - high/outstanding 59%			
Historic value	4 SAMs HL38 Rarity - high and outstanding 59% HL35 Integrity - moderate 60% HL40 Overall evaluation - high and outstanding 59%			
SUMMARY OF SENSITIVITY TO WIND TURBINE DEVELOPMENT				
		Assessed sensitivity		
		Low	Medium	High
Micro	Large/vast scale and upland moorland and grazed landscape has low sensitivity to micro development			
Small	Large/vast scale and upland land moorland and grazed landscape has low to medium sensitivity to small development on the edge of the BBNP			
Medium	Large/vast scale and upland land moorland and grazed landscape has medium sensitivity to medium development on the edge of the BBNP			
Large	Large/vast scale and upland land moorland and grazed landscape has medium to high sensitivity to large development on the edge of the BBNP.			
Very Large	Large/vast scale and upland land moorland and grazed landscape has high sensitivity to very large development on the edge of the BBNP			
Overall Sensitivity to wind energy developments	High sensitivity overall as a result of being on the boundary with the BBNP. Away from the BBNP boundary and closer to the A465 road corridor sensitivity is reduced.			

LANDSCAPE UNIT 17:Upland north of the Heads of the Valleys corridor

Landscape Capacity and Guidance for siting wind turbines	
Landscape objective	**Objective 2: Maintain the landscape character.**
Key landscape, visual and cultural heritage characteristics susceptible to wind turbine development	**Designated features within the Landscape Unit:** Approximately 77% of the unit is SLA: Upper Rhymney Valley SLA (Caerphilly) Trefil and Garnlydan surrounds SLA Merthyr Tydfil Landscape of Historic Importance at the west end of the unit. Clydach Gorge Landscape of Historic Importance to the east end. This small area is also in the BBNP. Adjacent to the BBNP. 4 SAMs
	Other susceptible landscape, visual and cultural heritage features: This upland landscape is a buffer between the Heads of the Valleys road corridor and the BBNP and provides separation. Consented motor racing track is likely to reduce the sense of separation.
Baseline wind turbine development (March 2014)	None constructed but there are turbines applications (one constructed) in unit 19 near the boundary with this unit. Single medium scale turbine in planning north of Merthyr Tydfil.
Indicative overall capacity	There is no capacity for very large scale development due to the proximity of the BBNP. There is limited capacity for large scale development that is associated with the HoV road corridor and associated development away from the BBNP boundary. There is some capacity for medium and small scale development and capacity for micro scale development that is carefully sited on the south side of the unit closely associated with industrial development on the Heads of the Valleys road. The consented motor racing track may provide opportunities to locate associated wind turbine development but cumulative impacts will also be a consideration.
Guidance on siting	Section five of this document provides generic siting and guidance. In addition the following guidance should apply: Consider the effects of development on views to and from the BBNP and the impact on the setting of the BBNP. Maintain the natural beauty of SLAs in the area and their special qualities. Protect the settings of designated and other important cultural heritage features and the key views to and from these features. Protect the settings and character of villages and farmsteads in the unit (Trefil) Avoid sequential cumulative impacts by ensuring visual separation between turbines/small groups of turbines. This is particularly important when considering views on approaches to and from the BBNP. Avoid sequential cumulative impacts from the A465 HoV road by ensuring visual separation between turbines/small groups of turbines. Maintain the integrity of Merthyr Tydfil Landscape of Historic Interest and Clydach Gorge Landscape of Historic Interest. Avoid the loss of trees and woodland cover in this area which overall has limited tree cover.

Landscape Unit: 18

Mynydd Bedwellte and associated upland



LANDSCAPE UNIT 18: Mynydd Bedwellte and associated upland

		Assessed susceptibility		
		Low	Medium	High
LANDSCAPE				
Scale	Vast to large scale landscape VS8 scale: Vast 60%, large 23%			
Landform	Broad ridge of upland between valleys. VS4 Topographic - Hills/Valleys 65%			
Land cover pattern	Simple upland moorland and grazed landscape between Tredegar and Rhymney incorporating upper valley sides. VS class level 3 - upland grazing and moorland 65% HL class level 3 - marginal land 50% VS5 Land cover pattern - open land 83% VS16 Pattern - Random 61% regular 27% organised 12%			
Built environment	Very little built development in the unit. VS6 Settlement pattern - no settlements 83% VS20 Use of Construction Materials - Appropriate 95% VS25 Sense of Place - strong 83%			
VISUAL				
Skylines and settings	Distinctive open skyline. Cairns and the Cefn Golau cholera cemetery, seen from valleys on either side. Upland setting for neighbouring settled valleys.			
Movement	Secluded place with some human access. A minor road crosses the area and there are farms on lower slopes VS18 Level of Human access - occasional 71%			
Visibility, key views, vistas.	Upland landscape with few trees or buildings and extensive views out of the area and into the area. VS9 Enclosure - exposed 83%			
Intervisibility, associations with adjacent landscapes	This elevated areas is visible from other uplands in the study area and from some distant vantage points in the BBNP. VS22 there are attractive views - 96% both in and out VS23 there are detractive views - not so many. (60% not allocated)			
Types of receptors	Few receptors. Residents, road users and walkers.			
Views to / from landscape and cultural heritage features	Panoramic views across to other uplands to the west, and north to Brecon Beacons, & into valley from Cefn Golau.			

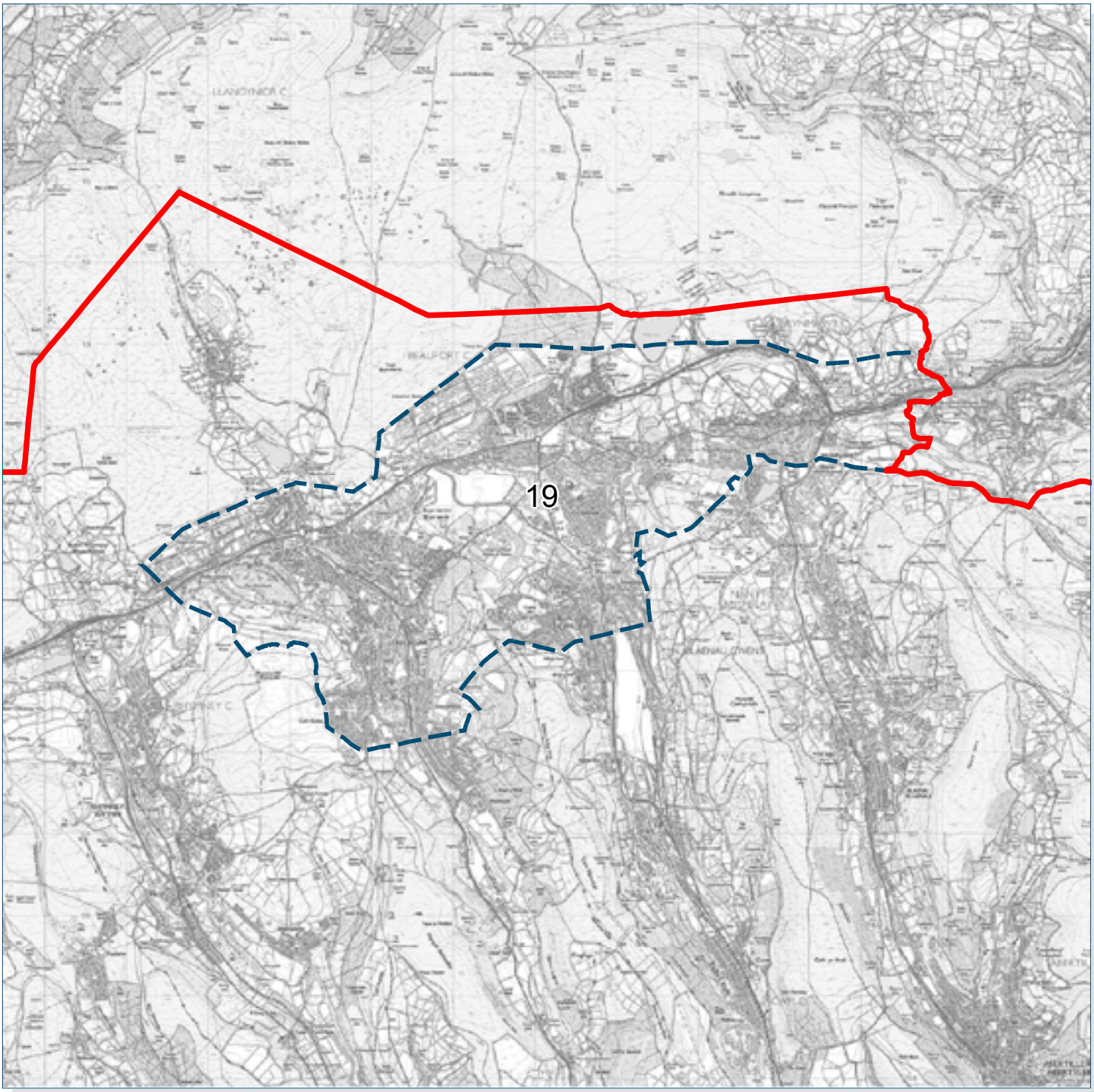
LANDSCAPE UNIT 18: Mynydd Bedwellte and associated upland				
		Assessed susceptibility		
		Low	Medium	High
AESTHETIC, PERCEPTUAL AND EXPERIENTIAL				
Scenic quality and character	VS46 Scenic quality - high 50% VS47 Integrity - high 71% VS48 Character - high 95%			
Remoteness and tranquillity	Overall there are remote parts to this unit away from the road. Isolated in places. VS24 Perceptual and other sensory qualities - attractive, Tranquil, exposed, threatening, remote 60%			
VALUE				
		Assessed value		
		Low	Medium	High
Landscape value	Approximately 84% SLA: *Mynydd Bedwellte, Rhymney Hill and Sirhowy SLA (BG)* *Upper Rhymney Valley SLA (Caerphilly)* VS50 - overall evaluation - high 50% VS49 rarity -high 60% LH45 overall evaluation - high 45%, moderate 49% GL31 rarity - low 84% GL33 overall evaluation - moderate 84%			
Historic value	1 SAM HL38 Rarity - high and outstanding 70% HL35 Integrity - moderate 50% HL40 Overall evaluation - high and outstanding 50%			
SUMMARY OF SENSITIVITY TO WIND TURBINE DEVELOPMENT				
		Assessed sensitivity		
		Low	Medium	High
Micro	Low sensitivity to micro and small development due to large scale upland landscape with few visual receptors			
Small				
Medium	Low to medium sensitivity to medium development			
Large	Large and very large development would be seen from the BBNP and neighbouring uplands and impact on value.			
Very Large				

LANDSCAPE UNIT 18: Mynydd Bedwellte and associated upland

Landscape Capacity and Guidance for siting wind turbines	
Landscape objective	**Objective 2: Maintain the landscape character.**
Key landscape, visual and cultural heritage characteristics susceptible to wind turbine development	**Designated features within the Landscape Unit:** 84% SLA: Mynydd Bedwellty, Rhymney Hill and Sirhowy SLA (BG) Upper Rhymney Valley SLA (Caerphilly) One SAM south of Tredegar (Cefn Golau cemetery)
	Other susceptible landscape, visual and cultural heritage features: There is potential intervisibility with the BBNP from the north end of this upland landscape unit. This broad ridge line is intervisible with uplands in the study area as well as the BBNP and overlooks the Rhymney valley to the west and the Sirhowy valley to the west. Distinctive open skyline, including cairns and Cefn Golau cemetery, seen from valleys on either side. Informal recreation - footpaths and bridleways.
Baseline wind turbine development (March 2014)	One single turbine approved but not constructed in the southern end of the unit. One single turbine in planning at the northern end of the unit.
Indicative overall capacity	There is no capacity for large and very large scale development due to the exposed nature of the area and proximity to sensitive receptors. There is some capacity for medium scale development and higher capacity for small scale and micro development.
Guidance on siting	Section five of this document provides generic siting and guidance. In addition the following guidance should apply: Consider the effects of development on views to and from the BBNP in the north part of this unit. Maintain the natural beauty of SLAs in the area and their special qualities. Protect the settings of designated and other important cultural heritage features and the key views to and from these features. (in particular the Cefn Golau cemetery) Avoid sequential cumulative impacts by ensuring visual separation between turbines/small groups of turbines. Consider views from the valley settlement to the east (Tredegar) and west (Rhymney).

Landscape Unit: 19

Heads of the Valley corridor



LANDSCAPE UNIT 19: Heads of the Valleys corridor

		Assessed susceptibility		
		Low	Medium	High
LANDSCAPE				
Scale	Large to medium scale landscape. VS8 scale: large 40% medium 53%			
Landform	VS4 Topographic - rolling/undulating 95%			
Land cover pattern	Complex mix of land uses in this developed upland area at the Heads of the Valleys. Dominated by development. VS class level 3 - urban 46%, road corridor 4%, mosaic upland and plateau 34% HL class level 3 - manufacturing 14%, settlement 10% VS5 Land cover pattern - Development 53% VS16 Pattern - 53%			
Built environment	Developed landscape along the road corridor and at the Heads of the Valleys. Includes narrow corridor of Clydach Gorge to the east which is a Registered Historic Landscape. VS6 Settlement pattern - urban 49%, mixture 25% VS20 Use of Construction Materials - generally inappropriate 51% VS25 Sense of Place - moderate 60%			
VISUAL				
Skylines and settings	No distinct skyline.			
Movement	Busy developed landscape with major road corridor. VS18 Level of Human access - constant 41%, frequent 36%			
Visibility, key views, vistas.	VS9 Enclosure - enclosed 51%, open 45%			
Intervisibility, associations with adjacent landscapes	The intervisibility with neighbouring units is influenced by topography and built form. VS22 there are attractive views - 52% in and out. Attractive views are out to mostly to adjacent SLAs. VS23 there are detractive views - 77% in and out - the area comprises a variety of built form from residential to industrial.			
Types of receptors	Large number of residential receptors as well as commercial and road users.			
Views to / from landscape and cultural heritage features	There is some intervisibility with the southern edge of the BBNP but Unit 17 acts as a buffer.			

LANDSCAPE UNIT 19: Heads of the Valleys corridor				
		Assessed susceptibility		
		Low	Medium	High
AESTHETIC, PERCEPTUAL AND EXPERIENTIAL				
Scenic quality and character	VS46 Scenic quality - low 82% VS47 Integrity - low 49% VS48 Character - moderate 54%			
Remoteness and tranquillity	Not remote. Very accessible area. VS24 Perceptual and other sensory qualities - broad range of qualities dependant on location. Very little tranquil and no remote.			
VALUE				
		Assessed value		
		Low	Medium	High
Landscape value	Clydach Gorge Registered Historic landscape Bedwellte Park, Tredegar Registered Park and Garden 24% SLA - small portions of several SLAs that surround the unit. *Mynydd Bedwellte, Rhymney Hill and Sirhowy SLA* *Cafn Manmoel SLA* *Mynydd Carn-y-Cefn and Cefn yr Arail SLA* *Eastern Ridge and Mynydd James (northern slopes) SLA* *Trefil and Garnlydan surrounds SLA* *Beaufort Common SLA* VS50 - overall evaluation - moderate 56% VS49 rarity - moderate 54% LH45 overall evaluation - low 55% GL31 rarity - low 92% GL33 overall evaluation - moderate 89%			
Historic value	3 SAMs Tredegar Conservation Area. HL38 Rarity - high and outstanding 53% HL35 Integrity - moderate 46% HL40 Overall evaluation - high and outstanding 46%			
SUMMARY OF SENSITIVITY TO WIND TURBINE DEVELOPMENT				
		Assessed sensitivity		
		Low	Medium	High
Micro	Low sensitivity to micro and small development due to the medium scale landscape with high level of enclosure			
Small				
Medium	Medium scale landscape that is settled has medium to high sensitivity to medium development			
Large	This settled unit is potentially very sensitive to large and very large wind energy developments which would be out of scale with existing built form. In addition the large number of sensitive receptors (i.e. residents) increases sensitivity to large or very large development.			
Very Large				
Overall Sensitivity to wind energy developments	Although a number of criteria suggest lower and medium sensitivity this area is densely settled and there will be residential amenity issues which will limit the potential size of wind energy development.			

LANDSCAPE UNIT 19: Heads of the Valleys corridor

Landscape Capacity and Guidance for siting wind turbines	
Landscape objective	**Objective 2: Maintain the landscape character.**
Key landscape, visual and cultural heritage characteristics susceptible to wind turbine development	**Designated features within the Landscape Unit:** 24% SLA designation at the urban edges. Mynydd Bedwellty, Rhymney Hill and Sirhowy SLA Cafn Manmoel SLA Mynydd Carn-y-Cefn nd Cefn yr Arail SLA Eastern Ridge and Mynydd James (northern slopes) SLA Trefil and Garnlydan surrounds SLA Beaufort Common SLA 3 SAMs - site of Sirhowy ironworks. Green wedges Bedwellty Park, Tredegar - Registered Historic Park and Garden Tredegar Conservation Area (include Bedwelty Park) Clydach Gorge Landscape of Historic interest at the eastern end of the unit which is also in the BBNP.
	Other susceptible landscape, visual and cultural heritage features: There is potential intermittent intervisibility with the BBNP. Recreation areas throughout have views of the surrounding landscape. e.g. golf courses, country parks. Informal recreations parks e.g. Park Brynbach at Tredegar.
Baseline wind turbine development (March 2014)	One constructed single wind turbine and two consented but not constructed.
Indicative overall capacity	There is no capacity for large and very large scale development in this unit. There is some capacity for medium scale development and higher capacity for small and micro scale development associated with industrial development along the Heads of the Valleys corridor.
Guidance on siting	Section five of this document provides generic siting and guidance. In addition the following guidance should apply: Consider the effects of development on views to and from the BBNP. No development in Clydach Gorge and the BBNP. Maintain the natural beauty of SLAs in the area and their special qualities. Maintain the role of green wedges. Maintain the integrity and setting of Bedwelty Park Registered Park and Garden. Maintain the integrity of Tredegar Conservation Area. Protect the settings of designated and other important cultural heritage features and the key views to and from these features. Avoid cumulative effects with other large scale infrastructure. Avoid the loss of trees and woodland cover in this area which overall has limited tree cover. Consider woodland and tree planting mitigation for smaller scale development where appropriate.

Landscape Unit: 20

Sirhowy Valley northern reach from Tredegar to Pochin Houses

LANDSCAPE UNIT 20: Sirhowy Valley northern reach from Tredegar to Pochin Houses

		Assessed susceptibility		
		Low	Medium	High
LANDSCAPE				
Scale	Large scale landscape. VS8 scale: large 88%			
Landform	Glaciated U shaped valley. VS4 Topographic - Hills/valleys 79%			
Land cover pattern	Rural farmed valley with settlement and transport corridor. VS class level 3 - open/wooded mosaic upland valley 71% HL class level 3 - settlement 14%, fieldscapes 40%, marginal land 28% VS5 Land cover pattern - field pattern/mosaic 73% VS16 Pattern - random 71%			
Built environment	Settled valley floor and lower valley sides. VS6 Settlement pattern - linear 71% urban 20% VS20 Use of Construction Materials -generally appropriate 74% VS25 Sense of Place - strong 77%			
VISUAL				
Skylines and settings	Narrow valley landscape - no distinct skylines.			
Movement	Settled valley landscape has some movement. VS18 Level of Human access -infrequent 73%			
Visibility, key views, vistas.	Valley landscape with some woodland but generally open views. VS9 Enclosure - open 85%			
Intervisibility, associations with adjacent landscapes	Valley landscape with attractive valley sides comprising rural farmed and wooded landscape with marginal land on steep slopes. Detractors include the road and industrial/commercial development in the valley. VS22 there are attractive views - 80% both in and out. VS23 there are detractive views - 92% both in and out.			
Types of receptors	Residents of the valley settlements, commercial premises and road users			
Views to / from landscape and cultural heritage features	None apparent			

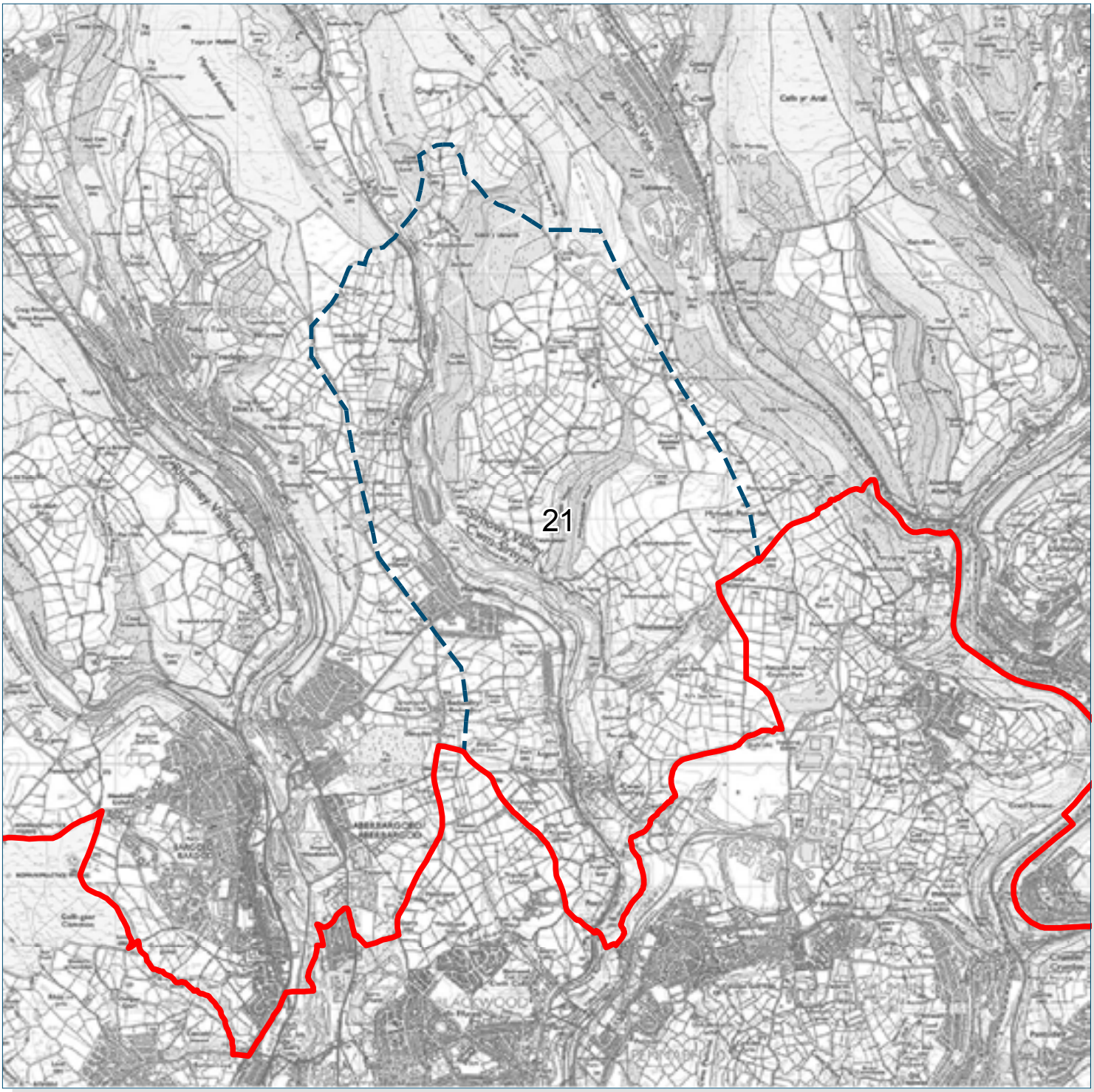
LANDSCAPE UNIT 20: Sirhowy Valley northern reach from Tredegar to Pochin Houses				
		Assessed susceptibility		
		Low	Medium	High
AESTHETIC, PERCEPTUAL AND EXPERIENTIAL				
Scenic quality and character	VS46 Scenic quality - high 77% VS47 Integrity - moderate 82% VS48 Character - high 77%			
Remoteness and tranquillity	Accessible valley landscape that is not remote or particularly tranquil. VS24 Perceptual and other sensory qualities - Sheltered; Exposed; Threatening 71%			
VALUE				
		Assessed value		
		Low	Medium	High
Landscape value	Approximately 60% SLA *Cefn Manmoel SLA* *Mynydd Bedwellte, Rhymney Hill and Sirhowy Valley SLA* VS50 - overall evaluation - high 77% VS49 rarity - moderate 91% LH45 overall evaluation - moderate 58% GL31 rarity - low 100% GL33 overall evaluation - moderate 86%			
Historic value	HL38 Rarity - high and outstanding 57% HL35 Integrity - low 57%% HL40 Overall evaluation - moderate 57%			
SUMMARY OF SENSITIVITY TO WIND TURBINE DEVELOPMENT				
		Assessed sensitivity		
		Low	Medium	High
Micro	Low sensitivity to micro and small development due to open accessible valley landscape with no distinct skyline			
Small				
Medium	Low to Medium sensitivity for medium development.			
Large	Small unit with valley characteristics has high sensitivity to large and very large developments.			
Very Large				

LANDSCAPE UNIT 20: Sirhowy Valley northern reach from Tredegar to Pochin Houses

Landscape Capacity and Guidance for siting wind turbines	
Landscape objective	**Objective 2: Maintain the landscape character.**
Key landscape, visual and cultural heritage characteristics susceptible to wind turbine development	**Designated features within the Landscape Unit:** 60% SLA Cefn Manmoel SLA Mynydd Bedwellty, Rhymney Hill and Sirhowy Valley SLA Visually important local landscape at southern end of the unit (Caerphilly designation) 1 SAM linked to recent industrial past,
	Other susceptible landscape, visual and cultural heritage features: Valley landscape with steep valley sides that have few fields and some woodland/forestry.
Baseline wind turbine development (March 2014)	No wind turbine development
Indicative overall capacity	There is no capacity for large and very large scale development in this narrow settled valley landscape. There is some capacity for medium scale development and capacity for small and micro scale development associated with existing built form along the road corridor in the bottom of the valley. Capacity is likely to be reached quickly in this small landscape unit.
Guidance on siting	Section five of this document provides generic siting and guidance. In addition the following guidance should apply: Maintain the natural beauty of SLAs in the area and their special qualities. Maintain the role of green wedges. Protect the settings of designated and other important cultural heritage features and the key views to and from these features. Consider views from the A4048 and cumulative impacts of sequential views including in conjunction with units 19 and 21. Avoid the loss of trees and woodland cover in this area. Consider woodland and tree planting mitigation for smaller scale development where appropriate. Avoid siting wind turbines on the steep slopes and their associated tops where the skyline would be broken by turbine development.

Landscape Unit: 21

Southern Sirhowy valley incorporating hillsides above



LANDSCAPE UNIT 21: Southern Sirhowy valley incorporating hillsides above

		Assessed susceptibility		
		Low	Medium	High
LANDSCAPE				
Scale	Medium scale landscape VS8 scale: medium 99%			
Landform	VS4 Topographic - Hills/valleys 99%			
Land cover pattern	VS class level 3 - Hillside and scarp slopes mosaic 71% HL class level 3 - marginal land 30% VS5 Land cover pattern - Field pattern/mosaic 99% VS16 Pattern - regular 71%			
Built environment	VS6 Settlement pattern - clustered 71%, village 28% VS20 Use of Construction Materials - generally appropriate 99% VS25 Sense of Place - moderate 99%			
VISUAL				
Skylines and settings	Valley landscape with no distinct skyline. Includes grazed upland above the valley to the east.			
Movement	Valley bottom busy but quieter away from the road corridor and up the valley sides. VS18 Level of Human access - infrequent 71%			
Visibility, key views, vistas.	Overall enclosed by tree cover and landform. Areas of mature trees on field boundaries in upland areas restricts views. VS9 Enclosure - open 71%			
Intervisibility, associations with adjacent landscapes	Views into and out of the area across valleys. VS22 there are attractive views -71% out. VS23 there are detractive views - 99% out. Views out of the area to settlement and industrial/commercial development and transport corridors.			
Types of receptors	Few receptors. Residents, road users and walkers especially the Sirhowy Valley Walk.			
Views to / from landscape and cultural heritage features	None apparent.			

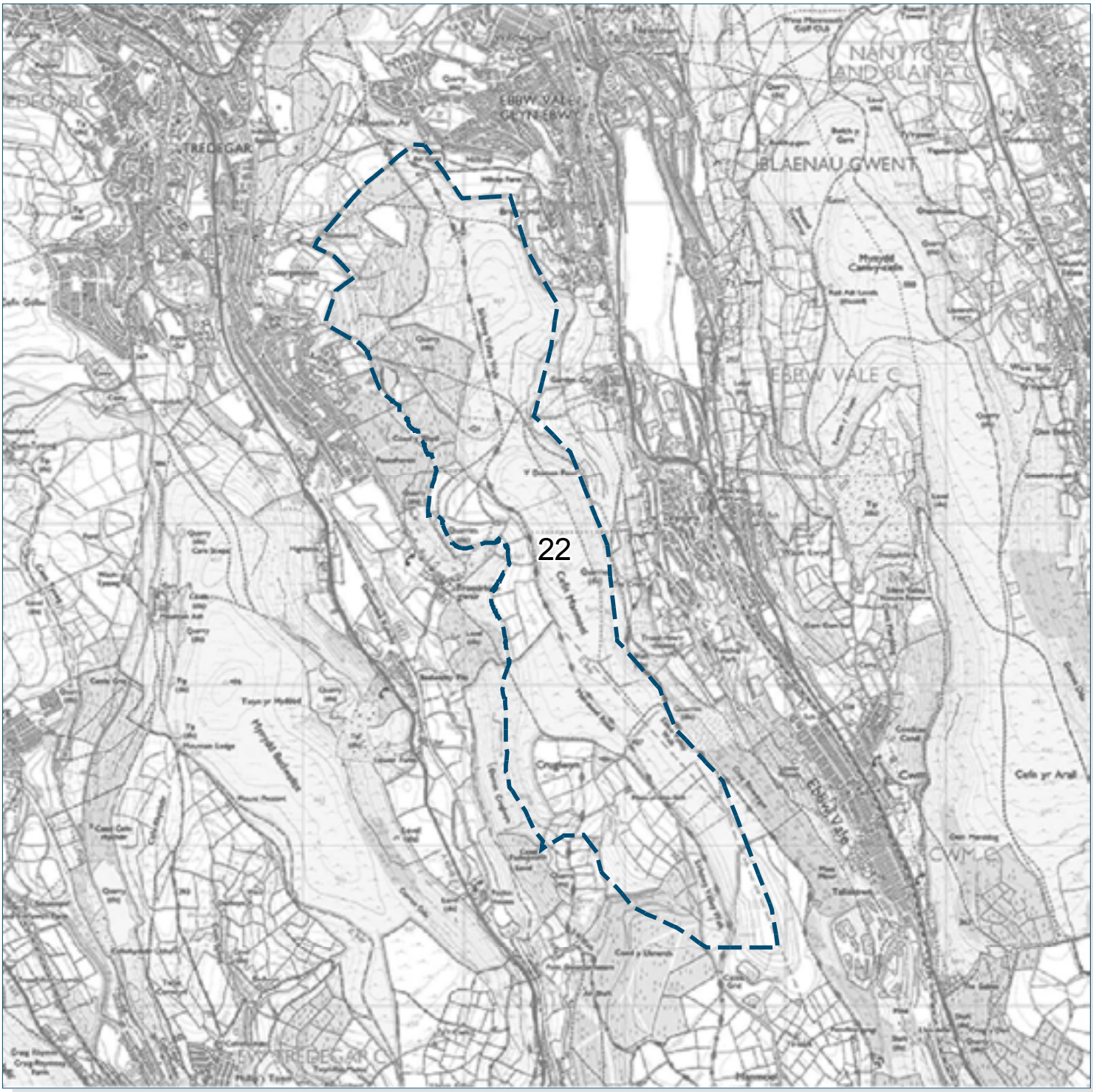
LANDSCAPE UNIT 21: Southern Sirhowy valley incorporating hillsides above				
		Assessed susceptibility		
		Low	Medium	High
AESTHETIC, PERCEPTUAL AND EXPERIENTIAL				
Scenic quality and character	VS46 Scenic quality - moderate 99% VS47 Integrity - moderate 99% VS48 Character - moderate 99%			
Remoteness and tranquillity	Rural landscape incorporating hill tops and hillsides. Secluded and quiet. Calm. VS24 Perceptual and other sensory qualities - mixed depending upon where in the unit. Road corridor unattractive and noisy, upland areas sheltered			
VALUE				
		Assessed value		
		Low	Medium	High
Landscape value	Visually Important Local landscape designation to the north. VS50 - overall evaluation - moderate 99% VS49 rarity - moderate 99% LH45 overall evaluation - moderate 69% GL31 rarity - low 100% GL33 overall evaluation - moderate 100%			
Historic value	HL38 Rarity - high and outstanding 80% HL35 Integrity - moderate 50% HL40 Overall evaluation - high 50% NB: historic field systems around ancient settlement of Manmoel (in Caerphilly) of considerable historic and cultural value although no formal designation.			
SUMMARY OF SENSITIVITY TO WIND TURBINE DEVELOPMENT				
		Assessed sensitivity		
		Low	Medium	High
Micro	Low sensitivity to micro and small development due to areas of mature trees, particularly in upland parts, restricting visibility.			
Small				
Medium	Medium scale and intricate field pattern result in medium sensitivity for medium development.			
Large	Medium scale landscape has high sensitivity to large and very large scale wind energy development not in keeping with landform and land cover.			
Very Large				

LANDSCAPE UNIT 21: Southern Sirhowy valley incorporating hillsides above

Landscape Capacity and Guidance for siting wind turbines	
Landscape objective	**Objective 2: Maintain the landscape character.**
Key landscape, visual and cultural heritage characteristics susceptible to wind turbine development	**Designated features within the Landscape Unit:** Area of Visually important local landscape at the northern end of the unit. No SAMs
	Other susceptible landscape, visual and cultural heritage features: Valley landscape on the west side of the unit with steep valley sides that have few fields and some woodland/forestry. Upland hillside farmed landscape to the east side of the unit with distinctive field pattern and field boundaries. Sparsely settled area with a remote and cut off feel. Distinctive beech hedges and tree cover strong on field boundaries in upland farmed area. Complex medium scale landscape. Limited intervisibility with surrounding areas due to landform and tree cover.
Baseline wind turbine development (March 2014)	1 medium scale turbine approved not constructed. 2 medium sized turbines constructed just outside the unit and the study area to the south.
Indicative overall capacity	There is no capacity for large or very scale development in this complex medium scale landscape. There is some capacity for medium scale development and capacity for small and micro scale development associated with existing built form.
Guidance on siting	Section five of this document provides generic siting and guidance. In addition the following guidance should apply: Maintain the special qualities of the area designated as Visually Important Local Landscape (Caerphilly) Protect the settings of villages in the unit (Manmoel and Markham) Consider views from the A4048 and cumulative impacts of sequential views including in conjunction with units 19 and 20. Ensure visual separation between turbines/small groups of turbines. Avoid the loss of trees and woodland cover in this area. Consider woodland and tree planting mitigation for smaller scale development where appropriate. Avoid siting wind turbines on the steep slopes and their associated tops. Maintain field pattern and mature hedgerow and tree lined boundaries. Ensure new access tracks do not damage historic field patterns and replant any hedges affected by construction. Avoid locating turbines on the crest of the valley where they would be visually prominent. Avoid diminishing the scale of the valley through inappropriate turbine siting.

Landscape Unit: 22

Northern Manmoel ridge



LANDSCAPE UNIT 22: Northern Manmoel Ridge

		Assessed susceptibility		
		Low	Medium	High
LANDSCAPE				
Scale	Ranges from vast to medium scale VS8 scale: Vast 39%, large 11%, medium 49%			
Landform	Broad ridge of upland between valleys. VS4 Topographic - Hills/valleys 74%, rolling/undulating 26%			
Land cover pattern	Various fieldscapes and open moorland with evidence of quarrying. VS class level 3 - upland moorland 39%, wooded upland plateau 25%, upland grazing 10%. HL class level 3 - extraction 22%, fieldscapes 33%, marginal 22%. VS5 Land cover pattern - open land 49% VS16 Pattern - random 39%, open 34%, organised 25%			
Built environment	Very little build development in the unit. VS6 Settlement pattern - no settlements 75% VS20 Use of Construction Materials - appropriate/generally appropriate 100% VS25 Sense of Place - strong 50%, moderate 50%			
VISUAL				
Skylines and settings	Distinctive open skyline seen from valleys on either side			
Movement	Generally quiet and calm landscape with little activity in the area. VS18 Level of Human access - occasional 64%			
Visibility, key views, vistas.	Upland viewed from adjacent upland across valleys. Some enclosed due to land form and woodland /forestry. VS9 Enclosure - exposed 49%			
Intervisibility, associations with adjacent landscapes	Views from this upland area are across valleys to adjacent uplands and BBNP to the north. VS22 there are attractive views - 65% in and out. VS23 there are detractive views - 60% out.			
Types of receptors	Few receptors. Residents, road users and walkers.			
Views to / from landscape and cultural heritage features	Sirhowy valley walk (promoted) runs through the area along the broad ridge and has views down into the valley and to upland across the valleys. Panoramic views across to other upland areas and the BBNP			

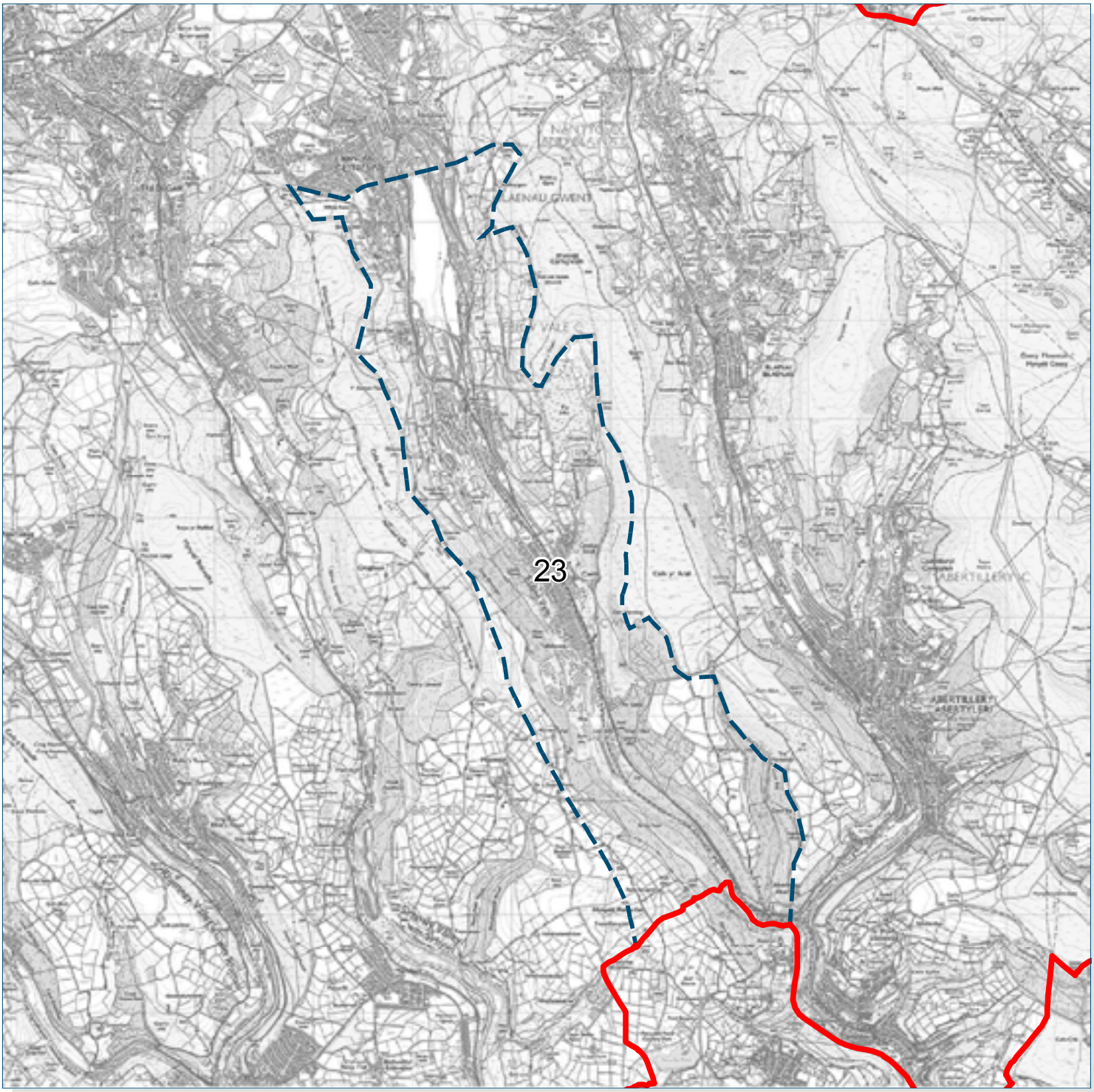
LANDSCAPE UNIT 22: Northern Manmoel Ridge				
		Assessed susceptibility		
		Low	Medium	High
AESTHETIC, PERCEPTUAL AND EXPERIENTIAL				
Scenic quality and character	VS46 Scenic quality - High 50%, moderate 50% VS47 Integrity - high 50%, moderate 50% VS48 Character - high 50%, moderate 50%			
Remoteness and tranquillity	Sense of remoteness due to lack of roads and limited human access despite proximity to development in the valleys. VS24 Perceptual and other sensory qualities - Attractive, tranquil, exposed, threatening, remote 39%, Tranquil, sheltered, smell 25%			
VALUE				
		Assessed value		
		Low	Medium	High
Landscape value	*65% Cefn Manmoel SLA* VS50 - overall evaluation - high 50%, moderate 50% VS49 rarity - moderate 60% LH45 overall evaluation - high 61% GL31 rarity - low 100% GL33 overall evaluation - moderate 100%			
Historic value	2 SAMs HL38 Rarity - high 66% HL35 Integrity - moderate 55% HL40 Overall evaluation - moderate 55%			
SUMMARY OF SENSITIVITY TO WIND TURBINE DEVELOPMENT				
		Assessed sensitivity		
		Low	Medium	High
Micro	Low sensitivity to micro and small development in larger scale areas with few receptors			
Small				
Medium	Medium sensitivity to medium development in larger scale areas with few receptors			
Large	High sensitivity to large and very large development due to distinctive skyline and visibility of the elevated areas in the BBNP.			
Very Large				

LANDSCAPE UNIT 22: Northern Manmoel Ridge

Landscape Capacity and Guidance for siting wind turbines	
Landscape objective	**Objective 2: Maintain the landscape character.**
Key landscape, visual and cultural heritage characteristics susceptible to wind turbine development	**Designated features within the Landscape Unit:** 65% Cefn Manmoel SLA Visually important local landscape at southern end of the unit (Caerphilly designation) Two SAMs
	Other susceptible landscape, visual and cultural heritage features: Upland open landscape that is intervisible with surrounding uplands. Sirhowy Valley Walk (promoted route) and cycle routes close to the ridge line of this upland and has views of development in the valleys below, other uplands within the study area and the BBNP. Historic/cultural interest of reduced settlement of Troedrhiw-gwair
Baseline wind turbine development (March 2014)	No wind turbine development consented or planned within the unit.
Indicative overall capacity	There is no capacity for large and very large scale development on this narow ridge. There is some capacity for medium scale development and for small or micro scale development associated with existing built form. Capacity is likely to be reached quickly in this small landscape unit.
Guidance on siting	Section five of this document provides generic siting and guidance. In addition the following guidance should apply: Maintain the natural beauty of SLAs in the area and their special qualities. Maintain the special qualities of the area designated as Visually Important Local Landscape. Protect the settings of designated and other important cultural heritage features and the key views to and from these features. Consider the effects of development on views to and from the BBNP in the north part of this unit. Consider views from the Sirhowy valley walk and cycle route. Consider views from residential receptors in neighbouring units. Avoid siting wind turbines on the steep slopes and prominent skylines.

Landscape Unit: 23

Ebbw Vale valley landscape



LANDSCAPE UNIT 23: Ebbw Vale valley landscape

		Assessed susceptibility		
		Low	Medium	High
LANDSCAPE				
Scale	Medium to large scale landscape. VS8 scale: large 59%, medium 38%			
Landform	Broad glaciated valley. VS4 Topographic - hills/valleys 70%, rolling/undulating 21%			
Land cover pattern	Mixed land cover with urban areas in the valley bottom, fields and woods on the valley sides. Some recreation and past extraction. VS class level 3 - open/wooded mosaic upland valleys 40%. HL class level 3 - Fieldscapes 35%, VS5 Land cover pattern - Field pattern/mosaic 55%, Development 23%, extractive 17% VS16 Pattern - organised 45%, random 44%			
Built environment	Linear settlement pattern along valley floor. VS6 Settlement pattern - linear 40%, urban 23% VS20 Use of Construction Materials - generally appropriate 70%. VS25 Sense of Place - strong 72%			
VISUAL				
Skylines and settings	No distinct skylines in the area. Views up to the steep valley edge that provides the setting for development on the valley floor.			
Movement	Busy valley bottom and less busy up the valley sides where there is little or no settlement. VS18 Level of Human access -Occasional or Infrequent 74%			
Visibility, key views, vistas.	Open valley sides with some enclosure due to woodlands and built form. VS9 Enclosure - open 65%			
Intervisibility, associations with adjacent landscapes	Views up and down the valley and into the valley from adjacent upland areas. VS22 there are attractive views - 58% both in and out. VS23 there are detractive views - 54% both in and out.			
Types of receptors	Few receptors. Residents, road users and walkers.			
Views to / from landscape and cultural heritage features	Local path - Ebbw Vale valley walk runs along the valley side to the west and has views up and down the valley.			

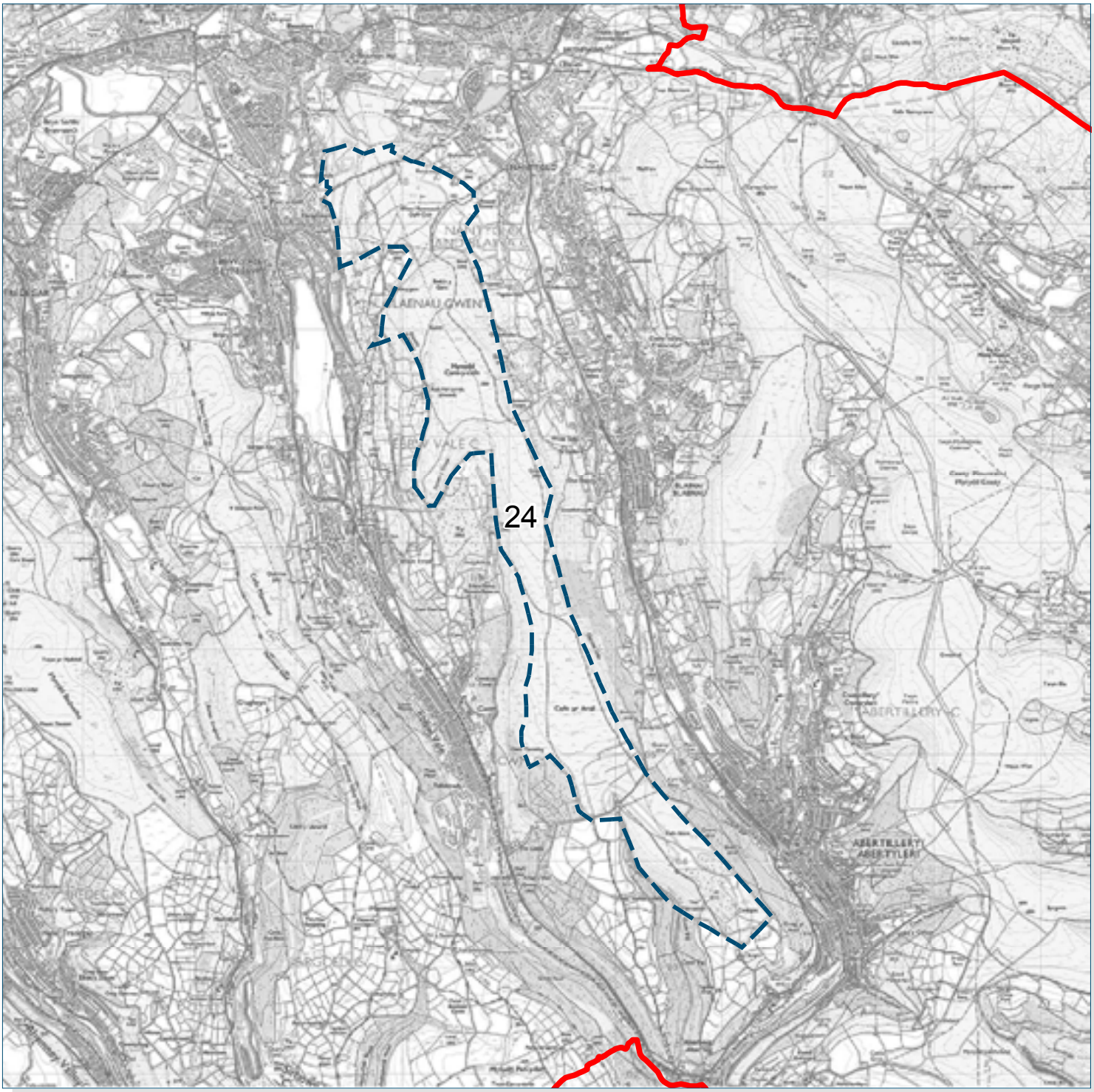
LANDSCAPE UNIT 23: Ebbw Vale valley landscape				
		Assessed susceptibility		
		Low	Medium	High
AESTHETIC, PERCEPTUAL AND EXPERIENTIAL				
Scenic quality and character	VS46 Scenic quality - high 46% VS47 Integrity - moderate 44% VS48 Character - high 80%			
Remoteness and tranquillity	Sense of remoteness and tranquillity very mixed depending on location. The top of the valley sides is remote in places but always close to development. VS24 Perceptual and other sensory qualities - sheltered, exposed threatening 40%, tranquil, sheltered 17%			
VALUE				
		Assessed value		
		Low	Medium	High
Landscape value	Approximately 76% SLA *Cafn Manmoel SLA* *Mynydd Carn-y-Cefn and Cefn yr Arail SLA* VS50 - overall evaluation - high 63% VS49 rarity - moderate 53% LH45 overall evaluation - moderate 46% GL31 rarity - low 71% GL33 overall evaluation - moderate 60%			
Historic value	1 SAM HL38 Rarity - high and outstanding 69% HL35 Integrity - moderate 58% HL40 Overall evaluation - high and outstanding 52%			
SUMMARY OF SENSITIVITY TO WIND TURBINE DEVELOPMENT				
		Assessed sensitivity		
		Low	Medium	High
Micro	Low sensitivity to micro scale wind turbine development due to the presence of existing commercial development.			
Small	Low to medium sensitivity to micro scale wind turbine development due to the presence of existing commercial development.			
Medium	Medium to high sensitivity to medium developments			
Large	High sensitivity to large and very large development due to presence and proximity of numerous sensitive receptors			
Very Large				
Additional Comments	The valley landscape has higher sensitivity to larger development due to the presence of visual receptors and potential effects on the scale, landform and pattern of the valley			

LANDSCAPE UNIT 23: Ebbw vale valley landscape

Landscape Capacity and Guidance for siting wind turbines	
Landscape objective	**Objective 2: Maintain the landscape character.**
Key landscape, visual and cultural heritage characteristics susceptible to wind turbine development	Designated features within the Landscape Unit: 76% SLA Cafn Manmoel SLA Mynydd Carn-y-Cefn nd Cefn yr Arail SLA One SAM at the southern end of the unit (Marine Colliery pumping engine)
	Other susceptible landscape, visual and cultural heritage features: Medium to large scale valley landscape that extends from the Ebbw Vale south through the study area. Mix of land cover. Large areas for informal recreation. Ebbw Valley walk links with the Sirhowy Valley Walk Ebbw Fawr sides rich in archaeological remains of industry, including tips, levels, inclines, quarries.
Baseline wind turbine development (March 2014)	Very large scale development (two turbines) proposed at Hafod-Y-Dafal decision pending (south end of the valley on the east side).
Indicative overall capacity	There is no capacity for large and very large scale development in this unit. There is some capacity for medium scale development and greater capacity for small and micro scale development associated with existing built form.
Guidance on siting	Section five of this document provides generic siting and guidance. In addition the following guidance should apply: Maintain the natural beauty of SLAs in the area and their special qualities. Protect the settings of designated and other important cultural heritage features and the key views to and from these features. Consider views from the A4046 and cumulative impacts of sequential views through the valley. Avoid sequential cumulative impacts by ensuring visual separation between turbines/small groups of turbines. Avoid the loss of trees and woodland cover in this area. Consider woodland and tree planting mitigation for smaller scale development where appropriate. Consider views from the valley settlement to the east and west, although no turbines constructed in the unit at present future siting should aim to avoid overbearing cumulative visual effects in the long term. Avoid siting wind turbines on the steep slopes and their associated tops and skylines.

Landscape Unit: 24

Mynydd Carn-y-cefn & Cefn yr Arail



LANDSCAPE UNIT 24: Mynydd Carn-y-Cefn & Cefn yr Arail

		Assessed susceptibility		
		Low	Medium	High
LANDSCAPE				
	NOTE: The LANDMAP Visual and Sensory information for this area suggests a valley landscape, however this is largely an upland moorland and it has been agreed with the local authority that the LANDMAP data is incorrect and therefore this unit has been assessed by fieldwork.			
Scale	Generally large scale landscape			
Landform	Broad upland ridge			
Land cover pattern	Open upland moorland in the main with very few fields at the edges. Marginal land.			
Built environment	No significant development in this upland area. No farmsteads or buildings in the unit. Golf course at the northern end of the unit but the club house is in unit 25.			
VISUAL				
Skylines and settings	This upland unit forms prominent skyline from both valleys to east and west.			
Movement	Very little human activity in the area. No roads. Some footpaths and bridle ways.			
Visibility, key views, vistas.	Open/exposed upland landscape with no buildings or tree cover			
Intervisibility, associations with adjacent landscapes	Views up to the ridge and from and to other uplands.			
Types of receptors	Footpath and bridleway users plus users of the golf course within the areas			
Views to / from landscape and cultural heritage features	None apparent			

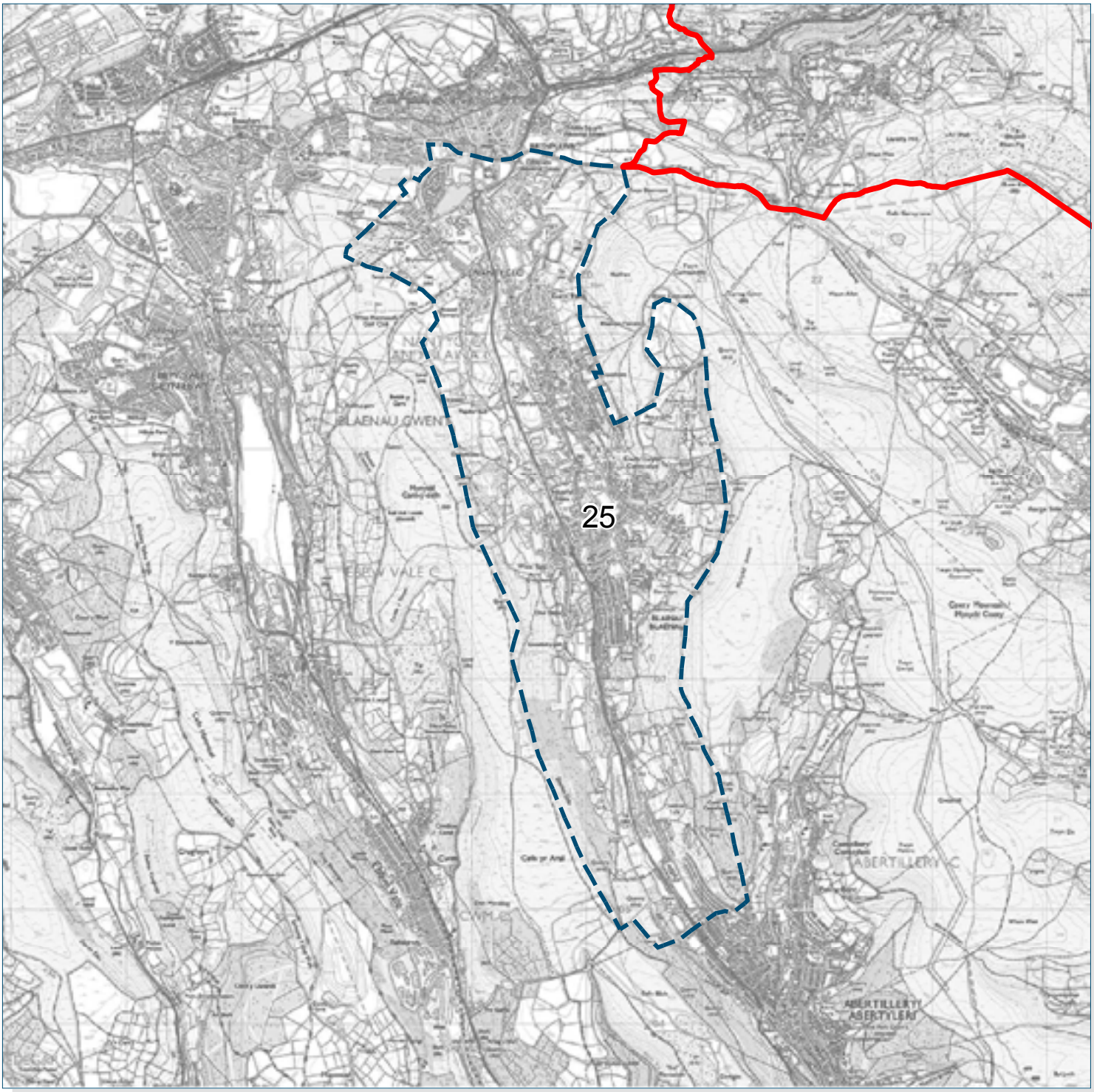
LANDSCAPE UNIT 24: Mynydd Carn-y-Cefn & Cefn yr Arail				
		Assessed susceptibility		
		Low	Medium	High
AESTHETIC, PERCEPTUAL AND EXPERIENTIAL				
Scenic quality and character	The open upland of the Mynydd Carn-y-Cefn SLA has a distinctive skyline seen from the neighbouring valleys.			
Remoteness and tranquillity	Feels remote although it is a narrow area close to settled valleys.			
VALUE				
		Assessed value		
		Low	Medium	High
Landscape value	100% Mynydd Carn-y-Cefn and Cefn yr Arail SLA			
Historic value	HL38 Rarity - 50% high 10% outstanding HL35 Integrity - 50% low HL40 Overall evaluation - 50% high 10% outstanding			
SUMMARY OF SENSITIVITY TO WIND TURBINE DEVELOPMENT				
		Assessed sensitivity		
		Low	Medium	High
Micro	Low sensitivity to micro development			
Small	Low to medium sensitivity to small development			
Medium	Medium sensitivity to medium development			
Large	The narrow upland area has higher sensitivity to large and very large development due to its intervisibility with surrounding landscape and the BBNP.			
Very Large				
Additional Comments	This is a large scale upland landscape with limited access. Land cover pattern is simple and open. There are panoramic views across to ridges in the study area and views from adjacent valley settlements.			

LANDSCAPE UNIT 24: Mynydd Carn-y-Cefn & Cefn yr Arail

Landscape Capacity and Guidance for siting wind turbines	
Landscape objective	**Objective 2: Maintain the landscape character.**
Key landscape, visual and cultural heritage characteristics susceptible to wind turbine development	**Designated features within the Landscape Unit:** The whole of the unit is in Mynydd Carn-y-Cefn nd Cefn yr Arail SLA No SAMs
	Other susceptible landscape, visual and cultural heritage features: Upland moorland/grassland landscape with views to the valleys below. Northern part of the unit intervisible with BBNP. Views across to upland moorland in the study area. Open and exposed landscape. Tranquil due to the lack of development and roads.
Baseline wind turbine development (March 2014)	No turbines proposed in the unit but possible views of turbine at Rassau to the north. Also possible views of turbines currently in planning in unit 23.
Indicative overall capacity	There is no capacity for large and very large scale development in the open upland ridge landscape. Although there is some capacity for medium, small and micro scale development this is a very narrow upland area which provides the skyline setting for the valley settlement below and would reach capacity very quickly.
Guidance on siting	Section five of this document provides generic siting and guidance. In addition the following guidance should apply: Maintain the natural beauty of the SLAs and its special qualities. Protect the settings of important cultural heritage features and the key views to and from these features. Consider views from the A4046 and A467 in the valleys either side of the ridge and cumulative impacts of sequential views through the valleys. Consider views from the valley settlement to the east and west. Avoid siting wind turbines on prominent skylines.

Landscape Unit: 25

Upper Ebbw Fach valley



LANDSCAPE UNIT 25: Upper Ebbw Fach Valley

		Assessed susceptibility		
		Low	Medium	High
LANDSCAPE				
Scale	Large scale VS8 scale: large 70%, medium 24%,			
Landform	Broad valley with rolling/undulating valley bottom and sides VS4 Topographic - rolling/undulating 95%			
Land cover pattern	Large proportion of amenity land in this settled valley. Good woodland and tree cover. VS class level 3 - amenity 67%, urban 18% HL class level 3 - nucleated settlement 26%, processing manufacturing 6%, woodland 20% VS5 Land cover pattern - Development 85% VS16 Pattern - organised 85%			
Built environment	Settled valley with large amount of various types of development. VS6 Settlement pattern - urban 85% VS20 Use of Construction Materials -generally inappropriate 90% VS25 Sense of Place - weak 94%			
VISUAL				
Skylines and settings	None that are distinct. North slopes are backdrop to Ebbw Vale and Brynmawr			
Movement	Busy area with lots of human activity. VS18 Level of Human access - constant 18%, frequent 70%			
Visibility, key views, vistas.	Open broad valley landscape with areas of enclosure due to woodland and built form VS9 Enclosure - open 75%			
Intervisibility, associations with adjacent landscapes	Views up and down the valley particularly from elevated positions. Views within are not particularly attractive. There are detractors in the landscape due to the amount of development. VS22 there are attractive views - 92% out. VS23 there are detractive views - 75% in and out.			
Types of receptors	Residential properties, commercial areas, recreation areas and visitors			
Views to / from landscape and cultural heritage features	Good views from valley sides into valley. Blaina is the main settlement in the valley bottom and the valley landscape is densely settled.			

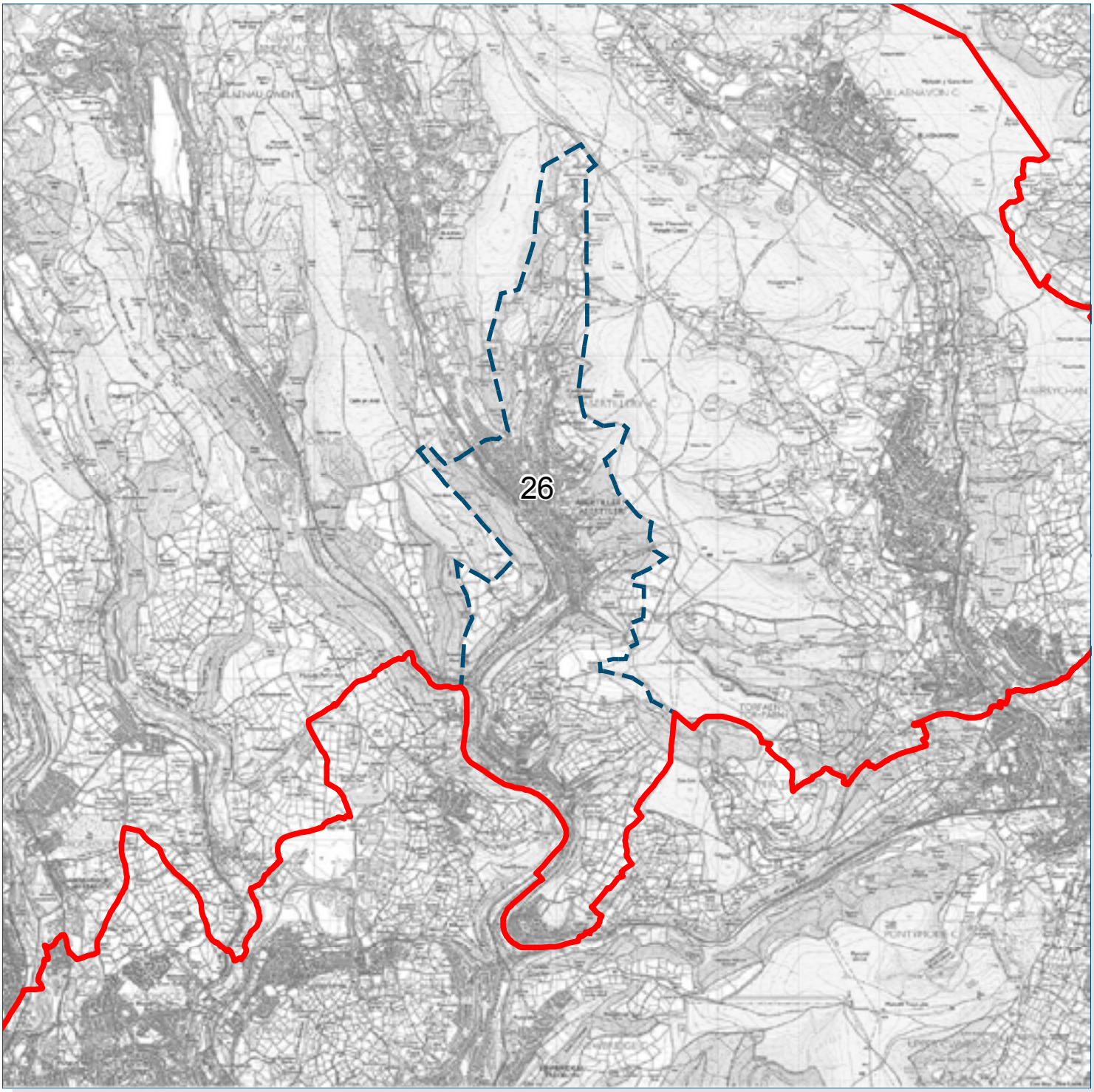
LANDSCAPE UNIT 25: Upper Ebbw Fach Valley				
		Assessed susceptibility		
		Low	Medium	High
AESTHETIC, PERCEPTUAL AND EXPERIENTIAL				
Scenic quality and character	VS46 Scenic quality - moderate 69% VS47 Integrity - low 94% VS48 Character - low 94%			
Remoteness and tranquillity	Busy, accessible developed valley landscape. VS24 Perceptual and other sensory qualities - attractive, noisy, other 67%			
VALUE				
		Assessed value		
		Low	Medium	High
Landscape value	SLA covers 65% the majority of the unit. *Mynydd Carn-y-Cefn and Cefn yr Arail SLA* *Cym Celyn SLA.* *Eastern Ridge and Mynydd James SLA* VS50 - overall evaluation - moderate 69% VS49 rarity - moderate 77% LH45 overall evaluation - low 47%, high 44% GL31 rarity - low 50% GL33 overall evaluation - high 47%, moderate 44%			
Historic value	HL38 Rarity - high 60% HL35 Integrity - moderate 46% HL40 Overall evaluation - high 53%			
SUMMARY OF SENSITIVITY TO WIND TURBINE DEVELOPMENT				
		Assessed sensitivity		
		Low	Medium	High
Micro	Low sensitivity to micro development as a result of areas of enclosure in the valley and presence of existing built form in scale with micro			
Small	Medium sensitivity to small and medium development due to large number of residential receptors, and presence of existing busy road corridor in a valley landscape			
Medium				
Large	High sensitivity to large and very large development which would be out of keeping with the character of the settlement and could affect residential amenity			
Very Large				
Additional Comments	Although a number of criteria suggest lower and medium sensitivity this area is densely settled and there will be residential amenity issues which will limit the potential size of wind energy development.			

LANDSCAPE UNIT 25: Upper Ebbw Fach Valley

Landscape Capacity and Guidance for siting wind turbines	
Landscape objective	**Objective 2: Maintain the landscape character.**
Key landscape, visual and cultural heritage characteristics susceptible to wind turbine development	**Designated features within the Landscape Unit:** SLA designation for the 65% of the unit outside built up settlement area. Mynydd Carn-y-Cefn nd Cefn yr Arail SLA Cym Celyn SLA. Eastern Ridge and Mynydd James SLA No SAMs
	Other susceptible landscape, visual and cultural heritage features: Valley landscape that extends from Brynmawr south through the study area to the north end of Abertillery Mix of land cover from urban to grass fields and open steep valleys slopes. Includes areas for informal recreation. Area is crisscrossed with footpaths and bridleways. Views up and down the valley and up to the valley tops on the boundary with neighbouring units are significant.
Baseline wind turbine development (March 2014)	No wind turbines constructed or proposed.
Indicative overall capacity	Much of this unit already contains built develoment and locations for wind turbine develoment are limited. There is no capacity for large and very large scale development which would be out of scale with existing development in the valley and likely to affect residential receptors. There is some capacity for medium and small scale development and greater capacity for micro scale development associated with existing built form. However capacity may be reached quickly in this unit.
Guidance on siting	Section five of this document provides generic siting and guidance. In addition the following guidance should apply: Maintain the natural beauty of SLAs in the area and their special qualities. Protect the settings of important cultural heritage features and the key views to and from these features. Consider views from the A467 in conjunction with unit 26 and cumulative impacts of sequential views through the valley. Avoid sequential cumulative impacts by ensuring visual separation between turbines/small groups of turbines. Avoid the loss of trees and woodland cover in this unit. Consider woodland and tree planting mitigation for smaller scale development where appropriate. Consider views from the valley settlement to the east and west. Avoid siting wind turbines on the steep slopes and the valley crest.

Landscape Unit: 26

Abertillery settled valley and associated valley and upland slopes



LANDSCAPE UNIT 26: Abertillery settled valley and associated valley and upland slopes.

		Assessed susceptibility		
		Low	Medium	High
LANDSCAPE				
Scale	Generally medium scale landscape VS8 scale: medium 65%			
Landform	Valley landscape with steep valley sides. VS4 Topographic - Hills/valleys 71%			
Land cover pattern	Mix of land cover from urban to upland moorland and grazing with hillside grazed fields in between. VS class level 3 - Open/wooded upland valleys 36%, urban 19% HL class level 3 - nucleated settlement 17% VS5 Land cover pattern - development 28%, field pattern/mosaic 40% VS16 Pattern - organised 74%			
Built environment	Development in the valley bottom and scattered development on the valley sides where they are less steep. VS6 Settlement pattern - urban 28%, scattered rural/farms 57% VS20 Use of Construction Materials - appropriate/generally appropriate 71% VS25 Sense of Place - strong 66%			
VISUAL				
Skylines and settings	Valley landscape - skyline is the upper valley edge. Nothing of particular note but important to the rural setting of development in the valleys.			
Movement	Valley floor is busy where there is settlement and roads. Elsewhere less busy. VS18 Level of Human access - infrequent 54%			
Visibility, key views, vistas.	Valley landscape restricts views in many cases. More open higher up the valley sides. VS9 Enclosure - enclosed 63%			
Intervisibility, associations with adjacent landscapes	Generally attractive valley with built form and communications infrastructure introducing detractors to the area. VS22 there are attractive views - both in and out 58% VS23 there are detractive views - neither in or out 64%			
Types of receptors	Few receptors. Residents, road users and walkers.			
Views to / from landscape and cultural heritage features	The area contains valley settlements			

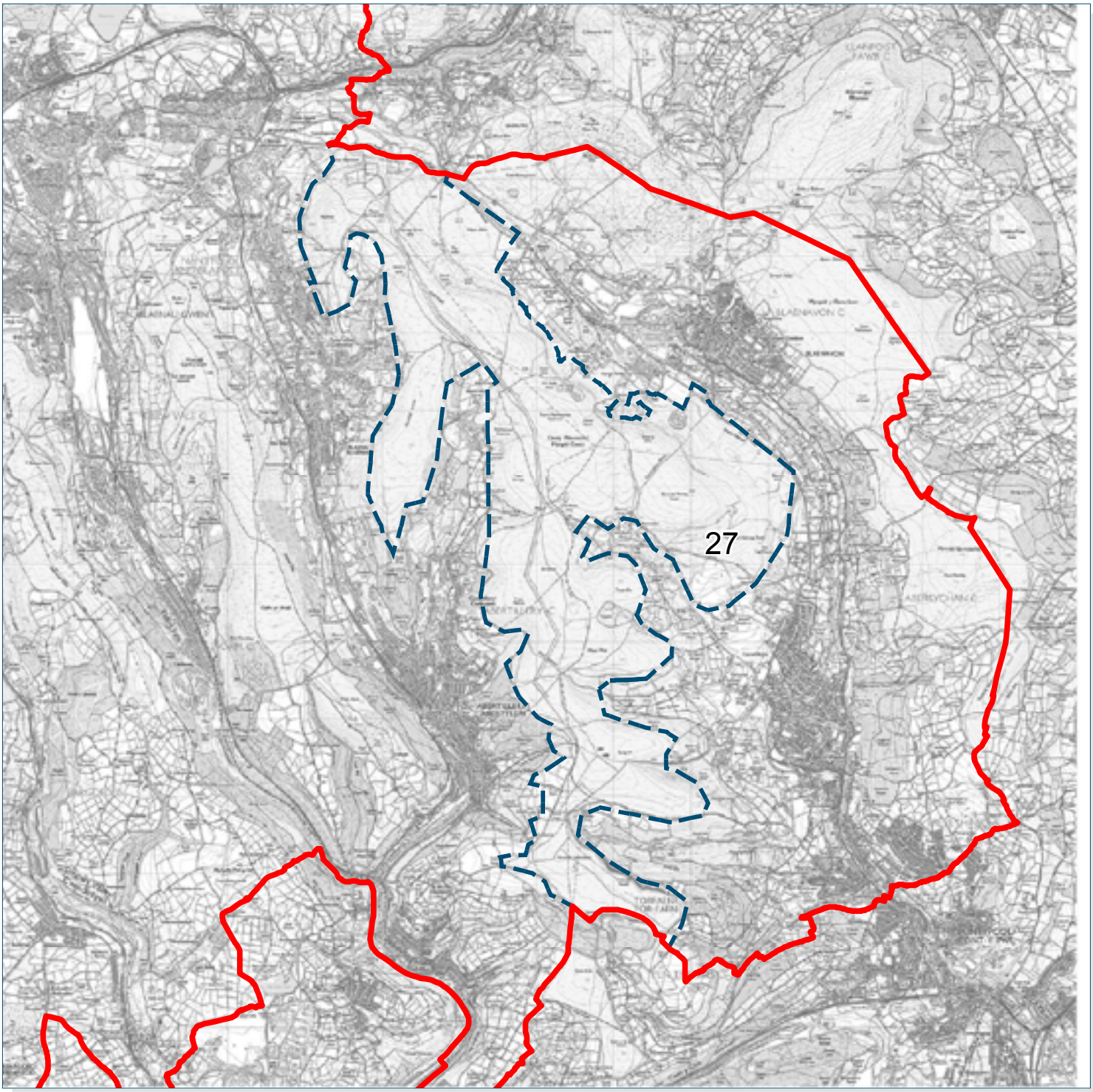
LANDSCAPE UNIT 26: Abertillery settled valley and associated valley and upland slopes.				
		Assessed susceptibility		
		Low	Medium	High
AESTHETIC, PERCEPTUAL AND EXPERIENTIAL				
Scenic quality and character	VS46 Scenic quality - high 60% VS47 Integrity - high 71% VS48 Character - high 66%			
Remoteness and tranquillity	Overall a quiet valley landscape with busy accessible valley bottom. VS24 Perceptual and other sensory qualities - very mixed depending on location within the unit.			
VALUE				
		Assessed value		
		Low	Medium	High
Landscape value	Approximately 73% SLA *Cwn Tyleri SLA.* *Eastern Ridge and Mynydd James SLA* *St Illtyd Plateau and Ebbw Eastern sides SLA.* VS50 - overall evaluation - high 66% VS49 rarity - moderate 55% LH45 overall evaluation - low 33%, moderate 34%, high 31% GL31 rarity - moderate 73% GL33 overall evaluation - moderate 82%			
Historic value	HL38 Rarity - high and outstanding 63% HL35 Integrity - moderate 47% HL40 Overall evaluation - high and outstanding 60%			
SUMMARY OF SENSITIVITY TO WIND TURBINE DEVELOPMENT				
		Assessed sensitivity		
		Low	Medium	High
Micro	High level of enclosure indicates low sensitivity to micro development.			
Small	High level of enclosure indicates low to medium sensitivity to small development.			
Medium	Medium development has potential to be more prominent therefore medium sensitivity.			
Large	Medium scale of the landscape and valley topography along with high number of sensitive receptors result in high sensitivity for large and very large development.			
Very Large				
Additional Comments	Valley landscape that is generally of medium scale is well settled. Pattern and land cover vary and are sensitive to change as the result of introducing uncharacteristic development.			

LANDSCAPE UNIT 26: Abertillery settled valley and associated valley and upland

Landscape Capacity and Guidance for siting wind turbines	
Landscape objective	**Objective 2: Maintain the landscape character.**
Key landscape, visual and cultural heritage characteristics susceptible to wind turbine development	**Designated features within the Landscape Unit:** 73% SLA Cwn Tyleri SLA. Eastern Ridge and Mynydd James SLA St Illtyd Plateau and Ebbw Eastern sides SLA. 1 SAM
	Other susceptible landscape, visual and cultural heritage features: Overall medium scale valley landscape that is the southern extent of the Ebbw Fach river valley and the Afron Tyleri tributary valley to the north. Mix of land cover from urban to grass fields and open steep valleys slopes. Areas for informal recreation. Area crisscrossed with footpaths and bridleways. Views up and down the valley restricted by landform, tree cover and built form. Well-preserved pattern of pre-industrial farmland of small rectangular fields, especially around St Illtyd
Baseline wind turbine development (March 2014)	No wind turbines constructed or proposed.
Indicative overall capacity	There is no capacity for large and very scale development in the valley landscape which would be out of scale with the built development already in the valleys. There is some capacity for medium and small scale development and greater capacity for micro scale development associated with existing built form.
Guidance on siting	Section five of this document provides generic siting and guidance. In addition the following guidance should apply: Maintain the natural beauty of SLAs in the area and their special qualities. Protect the settings of designated and other important cultural heritage features and the key views to and from these features. In particular the landscape around St Illtyd. Preserve historic field pattern. Avoid the need for new access tracks. Replace field boundaries affected by development. Consider views from the A467 and cumulative impacts of sequential views through the valley in conjunction with unit 25. Avoid sequential cumulative impacts by ensuring visual separation between turbines/small groups of turbines. Avoid the loss of trees and woodland cover in this unit. Consider woodland and tree planting mitigation for smaller scale development where appropriate. Consider views from the valley settlement. Avoid siting wind turbines on the steep slopes and their associated tops and skylines.

Landscape Unit: 27

Mynydd James and Coety Mountain



LANDSCAPE UNIT 27: Mynydd James and Coety Mountain

		Assessed susceptibility		
		Low	Medium	High
LANDSCAPE				
Scale	Vast landscape VS8 scale: 89% vast			
Landform	Series of high open rounded ridges contains the highest point in the study area (Coety Mountain 578m). VS4 Topographic - high hills/mountains 48%, hills/valleys 50%			
Land cover pattern	Grazed upland landscape. VS class level 3 - upland grazing and moorland 89% HL class level 3 - marginal land 30% VS5 Land cover pattern - open land 89% VS16 Pattern - regular 55%			
Built environment	Very little development VS6 Settlement pattern - no settlement 41%, scattered rural/farm 56% VS20 Use of Construction Materials - appropriate 94% VS25 Sense of Place -strong 92%			
VISUAL				
Skylines and settings	Rounded/smooth ridges from a simple skyline. Provides the setting from Blaenavon WHS to the west.			
Movement	One road crosses the area to the south and there are numerous footpaths and bridleways. VS18 Level of Human access - infrequent 51%, occasional 41%			
Visibility, key views, vistas.	Exposed upland landscape with very little tree cover and landform that does not provide shelter. VS9 Enclosure - exposed 89%			
Intervisibility, associations with adjacent landscapes	The unit has intervisibility with other uplands in the study area and within the BBNP to the north. VS22 there are attractive views - both in and out 97% VS23 there are detractive views - out 54%			
Types of receptors	Few receptors within the area. Mainly walkers/cyclists.			
Views to / from landscape and cultural heritage features	Distant views to the BBNP to the north. Views of the Blaenavon WHS part of which is in the unit above Blaenavon.			

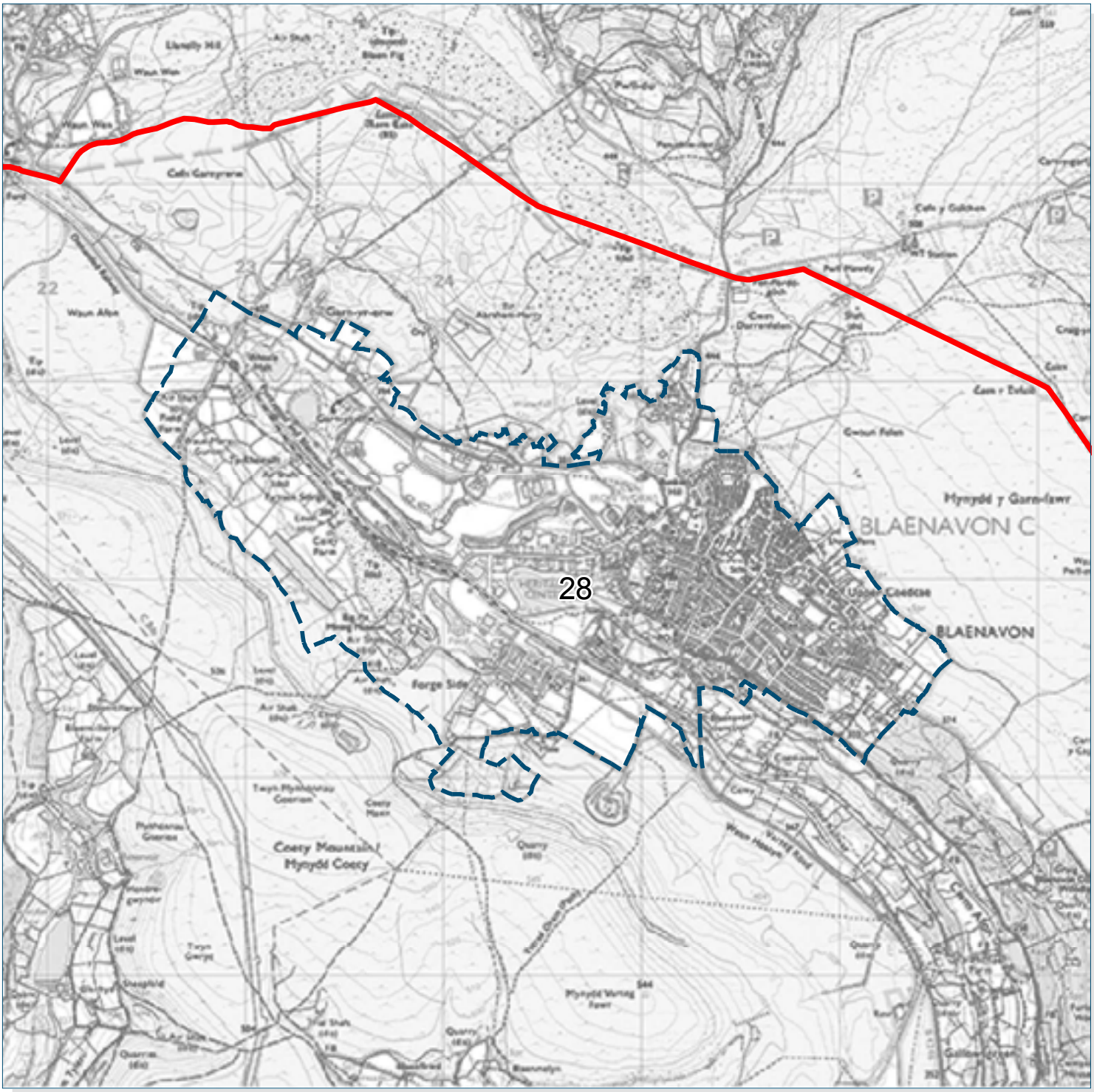
LANDSCAPE UNIT 27: Mynydd James and Coety Mountain				
		Assessed susceptibility		
		Low	Medium	High
AESTHETIC, PERCEPTUAL AND EXPERIENTIAL				
Scenic quality and character	VS46 Scenic quality - high 92% VS47 Integrity - high 925 VS48 Character - high 92%			
Remoteness and tranquillity	Remote area not accessible by road. VS24 Perceptual and other sensory qualities - attractive, tranquil, exposed, threatening, remote 41%, exposed 48%			
VALUE				
		Assessed value		
		Low	Medium	High
Landscape value	85% SLA Eastern Ridge and Mynydd James SLA (BG) Blaenavon Heritage Landscape SLA Western Uplands Blaenavon WHS and potential buffer zone. Blaenavon Landscape of Historic Interest. VS50 - overall evaluation - high 92% VS49 rarity - high 92% LH45 overall evaluation - moderate 51% GL31 rarity - moderate 94% GL33 overall evaluation - moderate 82%			
Historic value	2 SAMs HL38 Rarity - high and outstanding 68% HL35 Integrity - high and outstanding 38% HL40 Overall evaluation - high and outstanding 68%			
SUMMARY OF SENSITIVITY TO WIND TURBINE DEVELOPMENT				
		Assessed sensitivity		
		Low	Medium	High
Micro	Low sensitivity to micro and small development due to the scale of the landscape and views that tend to be distant.			
Small				
Medium	Medium to high sensitivity to medium development which would have increased visibility and potential adverse effects on value.			
Large	High sensitivity where likely to impact upon the setting of the WHS and its designation. Large or very large development may be viewed from the BBNP and would impact on the relatively tranquil character of this area.			
Very Large				
Additional Comments	Upland vast scale landscape provides the setting for the WHS and is an SLA. The unit contains some of the highest land in the study area and there is a high level of intervisibility with the BBNP and neighbouring uplands. This unit provides a backdrop for settlements in valleys			

LANDSCAPE UNIT 27: Mynydd James and Coety Mountain

Landscape Capacity and Guidance for siting wind turbines	
Landscape objective	**Objective 1: No change to the landscape character within nationally designated landscapes.** **Objective 2: Maintain the landscape character.**
Key landscape, visual and cultural heritage characteristics susceptible to wind turbine development	**Designated features within the Landscape Unit:** Blaenavon Landscape of Historic Interest in the area west of Blaenavon Part of Blaenavon WHS. 85% SLA Eastern Ridge and Mynydd James SLA (BG) Blaenavon Heritage landscape SLA Western Uplands 2 SAMs
	Other susceptible landscape, visual and cultural heritage features: Upland moorland/grassland character type has extensive views across uplands within the study area and north to the BBNP. Intervisibility with Blorange in the BBNP and more distant views from Sugar Loaf. There is very little if any built form in the unit. Minor roads cross the area. Remoteness and tranquillity would be affected by wind turbine development. Footpaths and bridleways crisscross the area. Generally featureless landscape that would be affected by the introduction of new structures.
Baseline wind turbine development (March 2014)	One turbine approved but not constructed near boundary with unit 25 in the north. Two single turbine applications pending at Blaentillery Farm.
Indicative overall capacity	There is no capacity for large or very large scale development as this is an exposed landscape that is viewed from neighbouring uplands and the BBNP. There is some capacity for medium scale development that does not impact on the WHS designation and setting. There is capacity for carefully sited small and micro scale development. Capacity may be reduced by development in neighbouring units, in particular within upland units that are intervisible with this unit.
Guidance on siting	Section five of this document provides generic siting and guidance. In addition the following guidance should apply: Maintain the integrity of Blaenavon Landscape of Historic Interest. Maintain the natural beauty of SLAs in the area and their special qualities. Maintain the qualities of the Blaenavon WHS and its setting. Protect the settings of designated and other important cultural heritage features and the key views to and from these features. Consider views from the BBNP, in particular from Blorange to the north, and also upland landscapes in the study area. Consider views from settlements in adjacent units. Although currently no constructed wind development in the unit in the long term avoid potential cumulative impacts by ensuring visual separation between developments. Avoid locating turbine at the upland edge where they would be highly visible from the surrounding landscape.

Landscape Unit: 28

Blaenavon



LANDSCAPE UNIT 28: Blaenavon

		Assessed susceptibility		
		Low	Medium	High
LANDSCAPE				
Scale	Medium to large scale. VS8 scale: medium 57%, large 36%			
Landform	Upland valley landscape. VS4 Topographic - Hills/valleys 98%			
Land cover pattern	Largely urban area with derelict waste ground. VS class level 3 - urban 32%, Derelict/waste ground 24% HL class level 3 - communications 33%, nucleated settlement 33%, marginal land 33% VS5 Land cover pattern - development 32%, mixture 65% VS16 Pattern - regular 42%			
Built environment	Settlement of Blaenavon and associated former mining dominates this unit. VS6 Settlement pattern - urban 32% mixture 24%, clustered 36% VS20 Use of Construction Materials -generally appropriate 73% VS25 Sense of Place - moderate 98%			
VISUAL				
Skylines and settings	Valley landscape with industrial features that may appear on the skyline when viewed from below. The unit is within the Blaenavon WHS and contributes to the setting of features within the WHS.			
Movement	Busy landscape with a strong industrial past VS18 Level of Human access - constant 32%, frequent 41%			
Visibility, key views, vistas.	Valley landscape restricts views out of the valley. VS9 Enclosure - enclosed 73%			
Intervisibility, associations with adjacent landscapes	Views out are up the hillside slopes to the upland moorland. VS22 there are attractive views - 61% out VS23 there are detractive views - 38% out			
Types of receptors	Visitors to the WHS, residents, road users and walkers.			
Views to / from landscape and cultural heritage features	The unit is within the Blaenavon WHS and a Registered Landscape of Historic Interest. Views are strongly influenced by the industrial past. Changes to this may affect WHS status.			

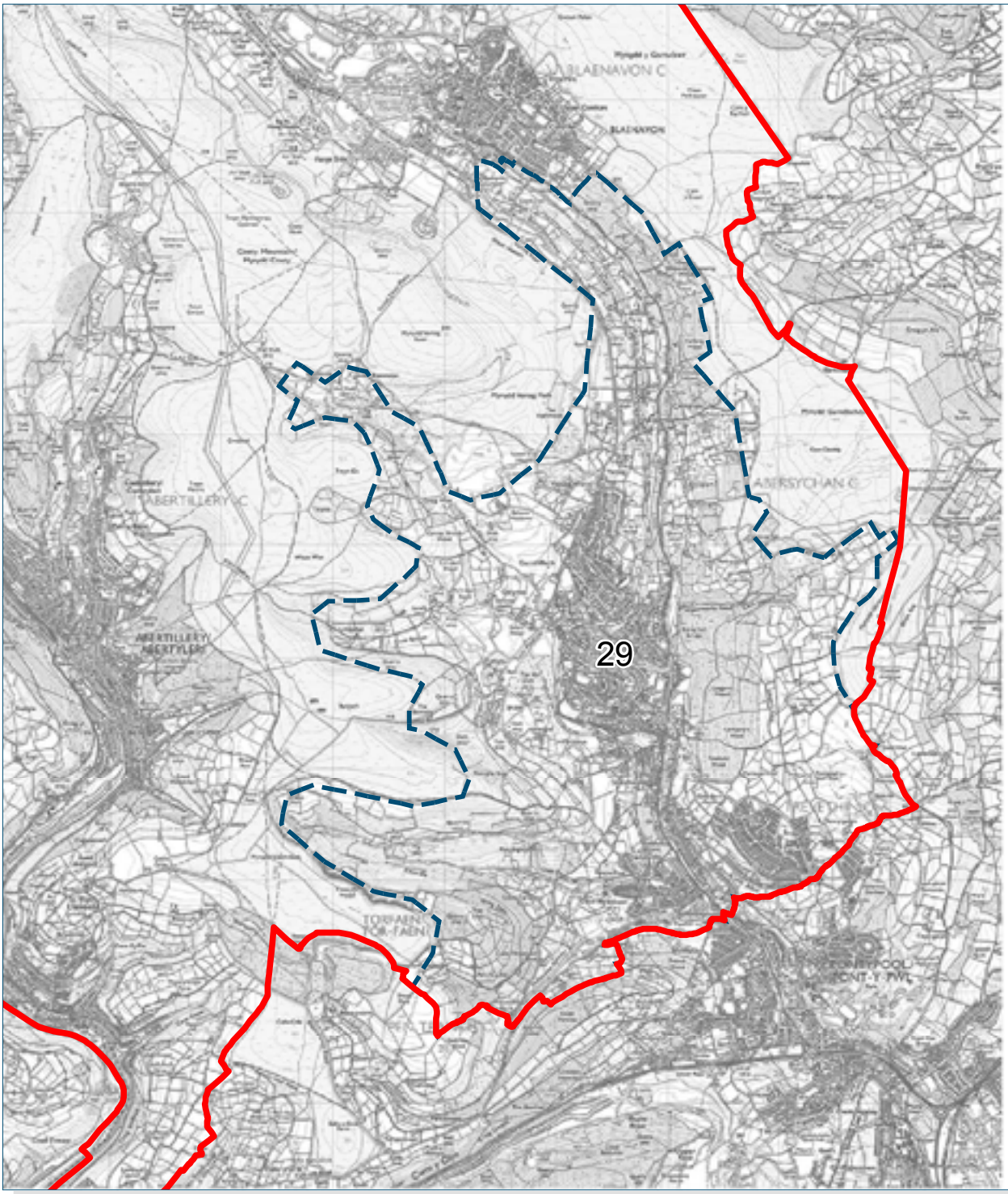
LANDSCAPE UNIT 28: Blaenavon				
		Assessed susceptibility		
		Low	Medium	High
AESTHETIC, PERCEPTUAL AND EXPERIENTIAL				
Scenic quality and character	VS46 Scenic quality - low 57% VS47 Integrity - low 57% VS48 Character - moderate 98%			
Remoteness and tranquillity	Landscape is strongly influenced by its industrial past and the high level of human influence in the area. VS24 Perceptual and other sensory qualities - noisy 32%, unattractive 24%			
VALUE				
		Assessed value		
		Low	Medium	High
Landscape value	Designations - World Heritage Site and Registered Historic Landscape. 20% SLA: Afon Llwyd Valley SLA Blaenavon Heritage Landscape SLA Eastern uplands SLA VS50 - overall evaluation - moderate 98% VS49 rarity - moderate 65% LH45 overall evaluation - moderate 89% GL31 rarity -moderate 65% GL33 overall evaluation - moderate 65%			
Historic value	HL38 Rarity - high and outstanding 100% HL35 Integrity - high and outstanding 100% HL40 Overall evaluation - high and outstanding 100%			
SUMMARY OF SENSITIVITY TO WIND TURBINE DEVELOPMENT				
		Assessed sensitivity		
		Low	Medium	High
Micro	Medium to high sensitivity to micro development that is located to respect land form, skylines and existing built form.			
Small	High sensitivity to small, medium, large or very large development which could adversely affect the WHS and its character.			
Medium				
Large				
Very Large				
Additional Comments	The historic importance of this area and its World Heritage Site status mean that although some of the characteristics of the area suggest lower sensitivity to wind energy development the potential effects on WHS status of such development results in generally high sensitivity to all typologies.			

LANDSCAPE UNIT 28: Blaenavon

Landscape Capacity and Guidance for siting wind turbines	
Landscape objective	**Objective 1: No change to the landscape character within nationally designated landscapes.**
Key landscape, visual and cultural heritage characteristics susceptible to wind turbine development	**Designated features within the Landscape Unit:** Blaenavon Landscape of Historic Interest in the area west of Blaenavon Part of Blaenavon WHS. Blaenavon Conservation Area 20% SLA: Afon Llwyd Valley SLA Blaenavon Heritage Landscape SLA Eastern uplands SLA 8 SAMs that relate to the recent industrial past of the area.
	Other susceptible landscape, visual and cultural heritage features: This is an industrial urban landscape that is in the heart of the Blaenavon WHS. There are views of skylines that surround the town and masts are visible on some of these skylines.
Baseline wind turbine development (March 2014)	No turbine development proposed in the area.
Indicative overall capacity	There is no capacity for very large, large, medium or small scale development that would impact upon the WHS status of the town. There may be limited capacity for well placed micro scale turbines in the unit.
Guidance on siting	Section five of this document provides generic siting and guidance. In addition the following guidance should apply: Maintain the integrity of Blaenavon Landscape of Historic Interest and WHS. Protect the settings of designated and other important cultural heritage features and the key views to and from these features. Consider views from the BBNP and surrounding uplands. Consider views from residential properties in Blaenavon. Protect the historic industrial setting of the town. Micro development proposals should consider impact on the industrial skyline.

Landscape Unit: 29

Broad Valley Landscape east and eest of Abersychan



LANDSCAPE UNIT 29: Broad Valley landscape east and west of Abersychan

		Assessed susceptibility		
		Low	Medium	High
LANDSCAPE				
Scale	Scale varied in this large complex landscape unit. VS8 scale: large 41%, vast 4%, medium 30%, small 24%			
Landform	Broad glaciated valley landscape. VS4 Topographic - Hills/valleys			
Land cover pattern	Land cover is varied from the urban valley floor to the grazed and wooded slopes of the upper valley hillsides. VS class level 3 - open/wooded mosaic upland valleys 49, urban 18% HL class level 3 - marginal land 55% VS5 Land cover pattern - mixture 78%, Development 18% VS16 Pattern - regular 74%			
Built environment	Urban area in the valley bottom, scattered development throughout. VS6 Settlement pattern - scattered rural/farm 71%, urban 18% VS20 Use of Construction Materials - appropriate/generally appropriate 100% VS25 Sense of Place -moderate 79%			
VISUAL				
Skylines and settings	Valley landscape. No particularly distinct skylines or settings			
Movement	Variation across the unit. Busy valley landscape becoming quieter and more remote away from the valley bottom and up side valleys. VS18 Level of Human access - frequent and constant 45% Infrequent and rare 53%			
Visibility, key views, vistas.	Overall sense of enclosure due to landform, built form and tree cover. Pockets of exposure on the upper valley edge. VS9 Enclosure - enclosed 76%			
Intervisibility/ Associations with adjacent landscapes	Intervisibility within the area across the valley. Views out of the area restricted by land form. Few detractors in views. VS22 there are attractive views - 35% both in and out, 24% within. VS23 there are detractive views - 48% neither in or out			
Types of receptors	Residents, visitors, commercial property, etc. Large number of potential receptors.			
Views to / from landscape and cultural heritage features	Blaenavon WHS is at the north end of this valley which serves as the approach to the WHS from the south. The approach is the narrow wooded valley corridor at the north end of this unit.			

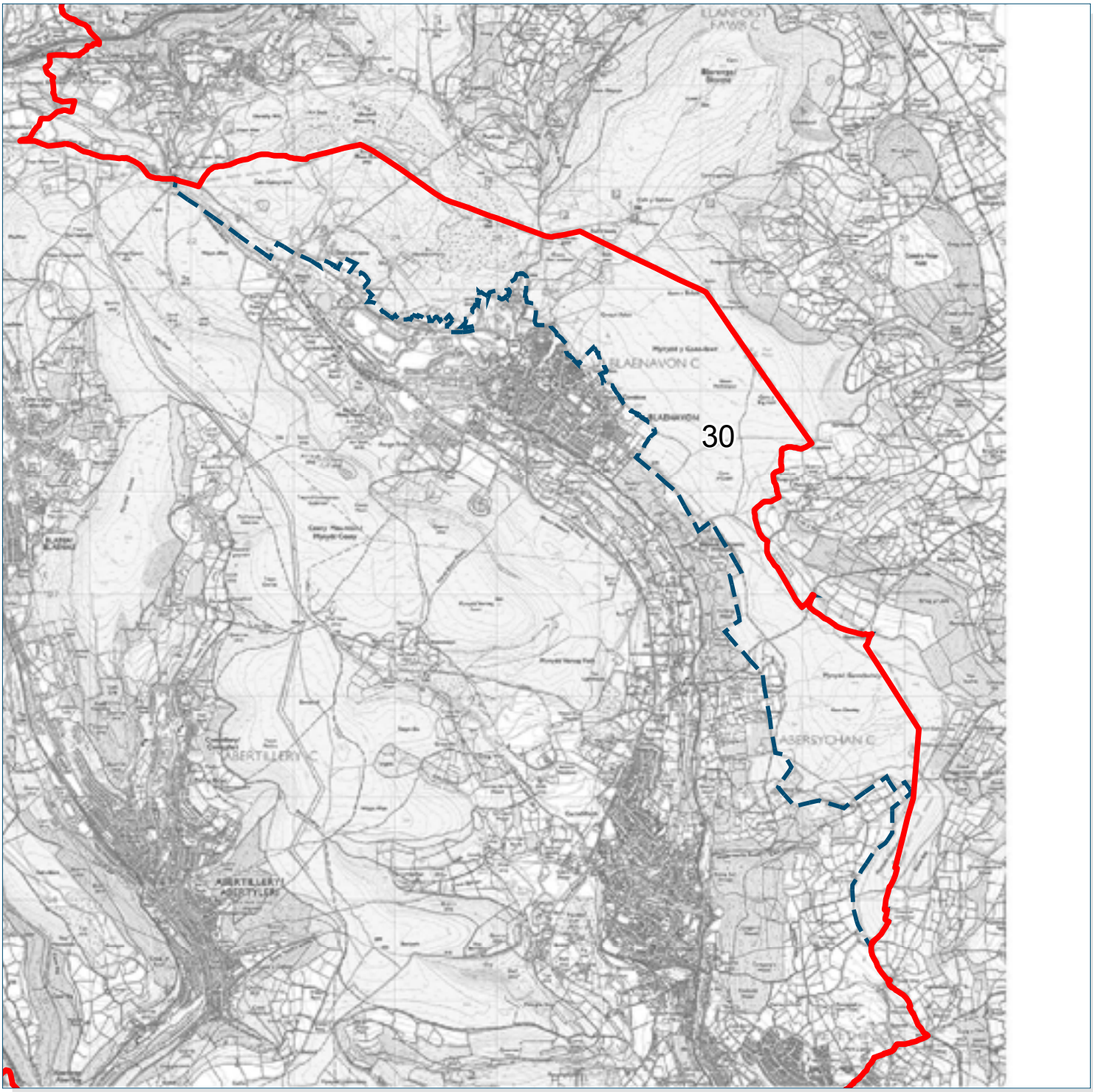
LANDSCAPE UNIT 29: Broad Valley landscape east and west of Abersychan				
		Assessed susceptibility		
		Low	Medium	High
AESTHETIC, PERCEPTUAL AND EXPERIENTIAL				
Scenic quality and character	VS46 Scenic quality - moderate 58% VS47 Integrity - high 40%, moderate 33% VS48 Character - moderate 79%			
Remoteness and tranquillity	Busy valley bottom, quieter valley sides becoming more remote at higher elevations. VS24 Perceptual and other sensory qualities - noisy 18%, settled 11%, sheltered 24%, other 34%			
VALUE				
		Assessed value		
		Low	Medium	High
Landscape value	Approximately 44% SLA *Afon Llwyd Valley SLA* *Eastern uplands SLA* *Western uplands SLA.* VS50 - overall evaluation - moderate 59% VS49 rarity - moderate 59% LH45 overall evaluation - high 56% GL31 rarity - moderate 90% GL33 overall evaluation - moderate 77%			
Historic value	HL38 Rarity - high and outstanding 100% HL35 Integrity - moderate 55% HL40 Overall evaluation - high and outstanding 100%			
SUMMARY OF SENSITIVITY TO WIND TURBINE DEVELOPMENT				
		Assessed sensitivity		
		Low	Medium	High
Micro	Low sensitivity to micro or small development due to high levels of enclosure.			
Small				
Medium	Medium sensitivity to medium development in areas of larger scale within the unit away from residential areas.			
Large	High sensitivity to large or very large development which would impact on scale and residential amenity.			
Very Large				
Additional Comments	The valley and hillside landscape in this unit is complex and sensitivity across the unit varies. To the north a small part of the unit is in the Blaenavon WHS and the valley provides the approach to the WHS resulting in higher sensitivity to all scales of development in this part of the unit.			

LANDSCAPE UNIT 29: Broad Valley landscape east and west of Abersychan

Landscape Capacity and Guidance for siting wind turbines	
Landscape objective	**Objective 2: Maintain the landscape character.**
Key landscape, visual and cultural heritage characteristics susceptible to wind turbine development	**Designated features within the Landscape Unit:** Approximately 44% SLA Afon Llwyd Valley SLA Eastern uplands SLA Western uplands SLA BBNP on the boundary of the unit to the east. 4 SAMs Cwmavon Conservation Area.
	Other susceptible landscape, visual and cultural heritage features: Complex medium scale valley landscape and associated hillsides. Densely settled valley bottom with remote upper valley sides adjacent to upland landscape units east and west. Mosaic of fields and woodland. Tree cover good on lower valley sides. Limited intervisibility with surrounding areas due to landform and tree cover. Potential intervisibility with the BBNP to the east. Important areas of open space in Abersychan. Blaenavon WHS on the boundary to the north.
Baseline wind turbine development (March 2014)	No turbines constructed or proposed.
Indicative overall capacity	There is very little capacity for large and very large scale development in this unit as a result of the high number of sensitive receptors (e.g. residents and the WHS) and the valley landform. There is some capacity for medium scale development and greater capacity for small or micro scale development associated with existing built form although cumulative effects will become a issue where more than one development is proposed and there is intervisibility.
Guidance on siting	Section five of this document provides generic siting and guidance. In addition the following guidance should apply: Maintain the integrity of the Blaenavon WHS at the northern end of this unit and consider views to and from the WHS. Maintain the natural beauty of SLAs in the area and their special qualities. Protect the settings of designated and other important cultural heritage features and the key views to and from these features. Maintain the integrity of Cwmavon Conservation Area. Consider views from the A4043 and cumulative impacts of sequential views in conjunction with Unit 28, Blaenavon. Avoid sequential cumulative impacts by ensuring visual separation between turbines/small groups of turbines. Avoid the loss of trees and woodland cover in this area. Consider woodland and tree planting mitigation for smaller scale development where appropriate. Avoid siting wind turbines on the steep slopes and their associated tops. Maintain field pattern. Ensure new access tracks do not damage historic field patterns and replant any hedges affected by construction. Consider views from residential receptors.

Landscape Unit: 30

Blaenavon and Abersychan upland moorland



LANDSCAPE UNIT 30: Blaenavon and Abersychan upland moorland

		Assessed susceptibility		
		Low	Medium	High
LANDSCAPE				
Scale	Vast to large scale VS8 scale: vast 61%, large 35%			
Landform	Ridge line on east boundary of the study area. VS4 Topographic - High hills/mountains 61%			
Land cover pattern	Upland grazing and hillside grazing on marginal land is dominant. Communications infrastructure and extractions also present. VS class level 3 - upland grazing 61%, hillside and scarp slope grazing 34% HL class level 3 - marginal land 55% VS5 Land cover pattern - open land 61% VS16 Pattern - regular 99%			
Built environment	Few settlements VS6 Settlement pattern - no settlements 61%, clustered 34% VS20 Use of Construction Materials - generally appropriate 100% VS25 Sense of Place - moderate 100%			
VISUAL				
Skylines and settings	The ridge line is the setting for the Blaenavon WHS and Registered Historic Landscape. Part of the WHS is within this unit to the east of Blaenavon.			
Movement	Variation across the unit. Generally a quiet landscape but close to the edge of Blaenavon there is considerable movement. VS18 Level of Human access - Frequent 37%, rare 61%			
Visibility, key views, vistas.	Upland landscape is exposed with little tree cover. Some enclosure provided by sloping land form north of Blaenavon and by Blaenavon itself VS9 Enclosure - exposed 62%			
Intervisibility, associations with adjacent landscapes	There is intervisibility with the surrounding landscape and the BBNP as well as the WHS. VS22 there are attractive views - 61% neither in or out VS23 there are detractive views - 97% out			
Types of receptors	Few receptors.			
Views to / from landscape and cultural heritage features	The area is on the boundary with the BBNP and also contains part of the Blaenavon WHS. As a result development may affect these designations.			

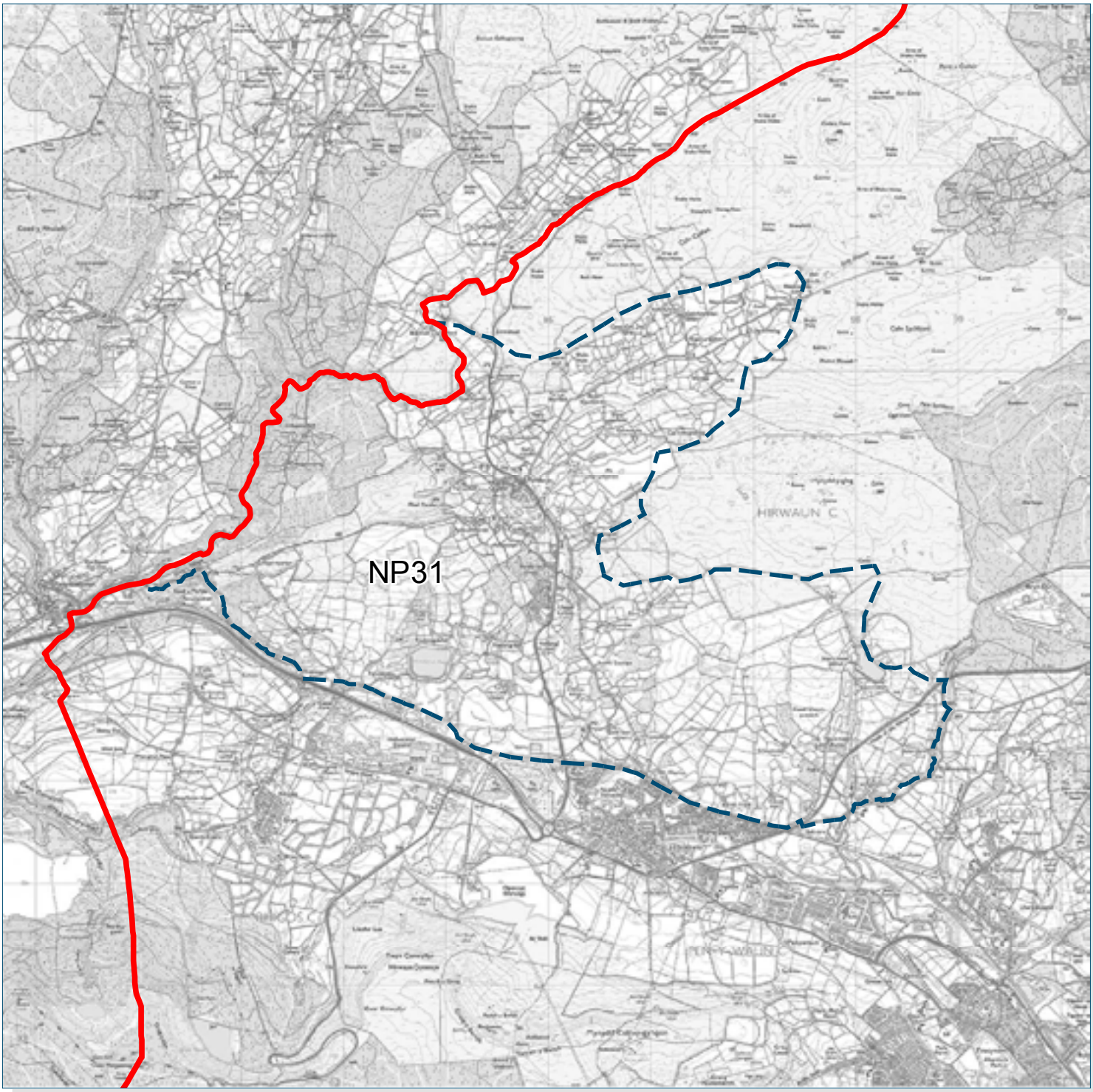
LANDSCAPE UNIT 30: Blaenavon and Abersychan upland moorland				
		Assessed susceptibility		
		Low	Medium	High
AESTHETIC, PERCEPTUAL AND EXPERIENTIAL				
Scenic quality and character	VS46 Scenic quality - high 62% VS47 Integrity - high 65% VS48 Character - moderate 99%			
Remoteness and tranquillity	Not a particularly remote upland area being so closely linked to the valley below and to Blaenavon. VS24 Perceptual and other sensory qualities - exposed 61%.			
VALUE				
		Assessed value		
		Low	Medium	High
Landscape value	Blaenavon World Heritage site and Landscape of Historic Importance cover part of the unit to the east of Blaenavon. 96% SLA : Eastern uplands Blaenavon Heritage landscape. VS50 - overall evaluation - high 62% VS49 rarity - high 62% LH45 overall evaluation - high 64% GL31 rarity - moderate 65% GL33 overall evaluation - moderate 65%			
Historic value	HL38 Rarity - high and outstanding 100% HL35 Integrity - high and outstanding 84% HL40 Overall evaluation - high and outstanding 100%			
SUMMARY OF SENSITIVITY TO WIND TURBINE DEVELOPMENT				
		Assessed sensitivity		
		Low	Medium	High
Micro	Landscape scale and land cover pattern in an area with few receptors results in low sensitivity.			
Small	Increase in scale of development increases sensitivity due to proximity of BBNP and overall visual sensitivity and value.			
Medium	High Sensitivity to medium, large and very large development which would impact on the built environment, views and perceived qualities and value.			
Large				
Very Large				

LANDSCAPE UNIT 30: Blaenavon and Abersychan upland moorland

Landscape Capacity and Guidance for siting wind turbines	
Landscape objective	**Objective 1: No change to the landscape character within nationally designated landscapes.** **Objective 2: Maintain the landscape character.**
Key landscape, visual and cultural heritage characteristics susceptible to wind turbine development	**Designated features within the Landscape Unit:** Blaenavon Landscape of Historic Interest in the area east of Blaenavon Part of Blaenavon WHS. 96% SLA : Eastern uplands Blaenavon Heritage landscape. 7 SAMs Adjacent to the BBNP.
	Other susceptible landscape, visual and cultural heritage features: Upland moorland/grassland and hillside grazing character type has extensive views across other uplands within the study area and north to the BBNP. Intervisibility with Blorange in the BBNP and more distant views from Sugar Loaf. There is very little if any built form in the unit. Minor roads cross the area. Remoteness and tranquillity would be affected by wind turbine development. Footpaths and bridleways crisscross the area. Generally featureless landscape that would be affected by the introduction of new structures.
Baseline wind turbine development (March 2014)	No wind turbines constructed or proposed.
Indicative overall capacity	There is very limited capacity for medium, large and very large scale development as this is an exposed landscape that is viewed from neighbouring uplands and the BBNP and has international historic importance. There is some capacity for small and micro scale development that is carefully sited to the southern end of the unit outside the WHS to avoid impact on its setting and views to and from the BBNP and WHS.
Guidance on siting	Section five of this document provides generic siting and guidance. In addition the following guidance should apply: Maintain the integrity of the Blaenavon WHS and its setting. Maintain the integrity of Blaenavon Landscape of Historic Interest. Maintain the natural beauty of SLAs in the area and their special qualities. Protect the settings of designated and other important cultural heritage features and the key views to and from these features. Consider views from the BBNP, in particular Blorange and Sugar Loaf. Consider views from other upland landscapes in the study area. Consider views from settlements in adjacent units. In particular Blaenavon, Cwmavon and Abercychan. Although currently no constructed wind development in the unit in the long term avoid potential cumulative impacts by ensuring visual separation between developments. Avoid locating turbine at the upland edge where they would be highly visible on the skyline from the surrounding landscape.

Landscape Unit: NP31

Waterfall Country and Southern Valleys



LANDSCAPE UNIT NP31: Waterfall Country and Southern Valleys

		Assessed susceptibility		
		Low	Medium	High
LANDSCAPE				
Scale	Large scale landscape VS8 scale: large 100%			
Landform	Varied upland land form VS4 Topographic - Hills/valleys 100%			
Landcover pattern	Intricate pattern of fields on hillsides. VS class level 3 - hillside and scarp slope mosaic 99% HL class level 3 - marginal land 33%, Fieldscapes 50%, nucleated settlement 16% VS5 Land cover pattern - Field pattern mosaic 100% VS16 Pattern - Regular 100%			
Built environment	Scattered rural development including village of Penderyn. VS6 Settlement pattern - scattered rural/farm 100% VS20 Use of Construction Materials - generally appropriate 100% VS25 Sense of Place - moderate 100%			
VISUAL				
Skylines and settings	Largely valley landscape with no distinct skyline but when viewed from the south provides the foreground in views to the Brecon Beacons. Important to the setting and status of the BBNP.			
Movement	Quiet rural landscape disturbed only by the A4059 which runs through it. VS18 Level of Human access - infrequent 100%			
Visibility, key views, vistas.	The hill side and valley landscape is generally open with some tree cover to interrupt views. VS9 Enclosure - open 100%			
Intervisibility, associations with adjacent landscapes	There is intervisibility with the landscape to the south (unit 2 and unit 6) which contain detractors. Views into the unit are across the valley. VS22 there are attractive views - 100% both in and out VS23 there are detractive views - out only (i.e. no detractors within the unit)			
Types of receptors	Few receptors - mainly village residents and rural residences and visitors to the BBNP.			
Views to / from landscape and cultural heritage features	The unit is in the BBNP and has views of the steep scarp slope geological feature in unit 1.			

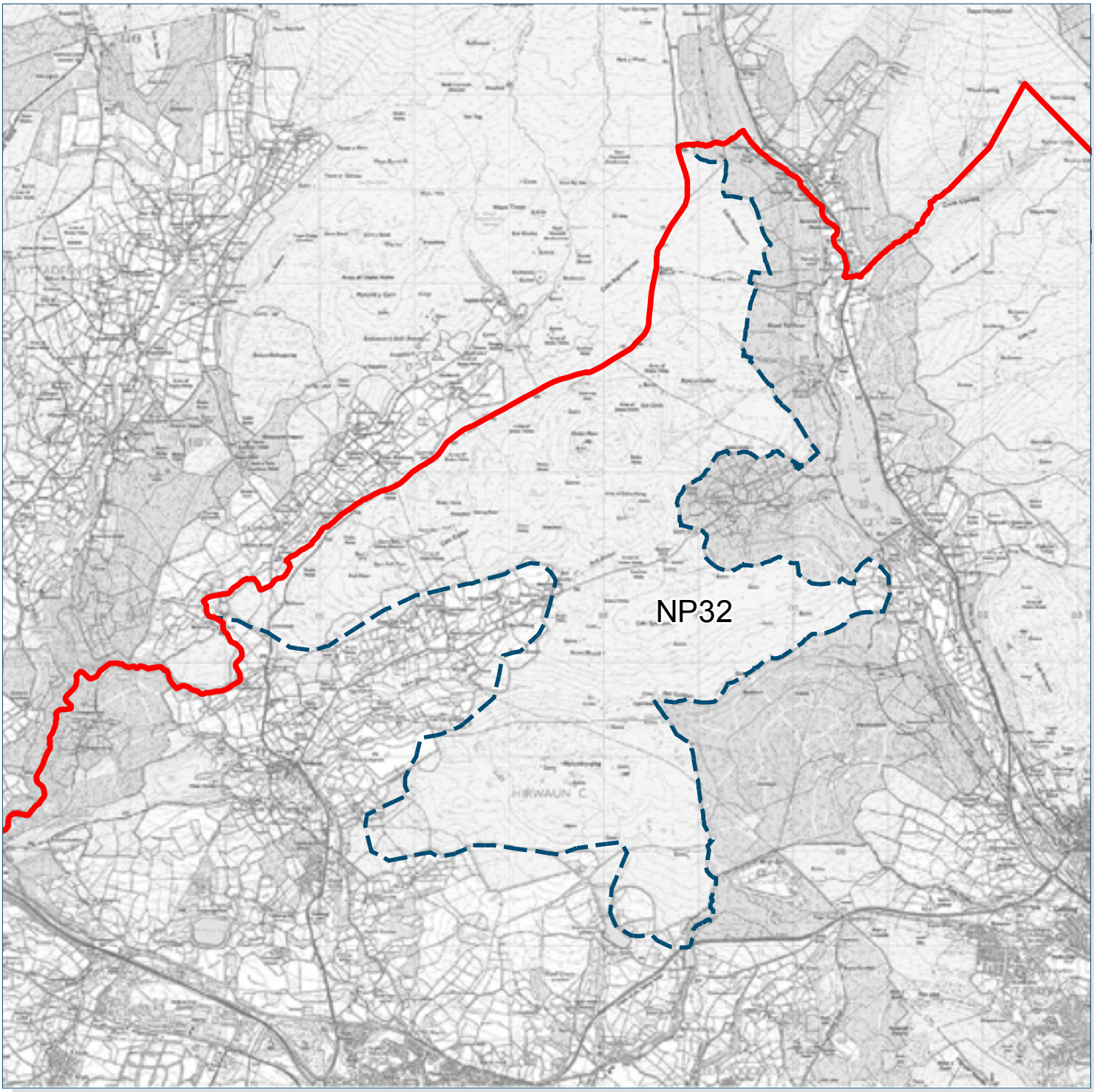
LANDSCAPE UNIT NP31: Waterfall Country and Southern Valleys				
		Assessed susceptibility		
		Low	Medium	High
AESTHETIC, PERCEPTUAL AND EXPERIENTIAL				
Scenic quality and character	VS46 Scenic quality - moderate 100% VS47 Integrity - moderate 100% VS48 Character - moderate 100%			
Remoteness and tranquillity	Exposed landscape on the hillside within the BBNP. There are more sheltered and remote areas within the unit further into the NP. VS24 Perceptual and other sensory qualities - exposed 100%			
VALUE				
		Assessed value		
		Low	Medium	High
Landscape value	The unit is within BBNP East Fforest Fawr and Mynydd-y-Glôg Landscape of Historic Interest on east boundary with NP32. VS50 - overall evaluation - moderate 100% VS49 rarity - moderate 100% LH45 overall evaluation - high/outstanding 87% GL31 rarity - high/outstanding 100% GL33 overall evaluation - high/outstanding 100%			
Historic value	HL38 Rarity - high and outstanding HL35 Integrity - high and outstanding 84% HL40 Overall evaluation - high and outstanding			
SUMMARY OF SENSITIVITY TO WIND TURBINE DEVELOPMENT				
		Assessed sensitivity		
		Low	Medium	High
Micro	Medium to high sensitivity to micro and small development that is placed to respect land form, skylines and existing built form			
Small				
Medium	National Park status results in high sensitivity to all other wind turbine typologies that have the potential to impact on views, the built environment, tranquillity and perceived value			
Large				
Very Large				

LANDSCAPE UNIT NP31: Waterfall Country and Southern Valleys

Landscape Capacity and Guidance for siting wind turbines	
Landscape objective	**Objective 1: No change to the landscape character within nationally designated landscapes.**
Key landscape, visual and cultural heritage characteristics susceptible to wind turbine development	**Designated features within the Landscape Unit:** BBNP East Fforest Fawr and Mynydd-y-Glôg Landscape of Historic Interest Forest Fawr Geopark (covers the eastern part of the Brecon Beacons 11 scheduled monuments in the unit 5 SSSIs in the unit and 1 NNR
	Other susceptible landscape, visual and cultural heritage features: Historic field patterns on the south facing hillside which is intervisible with Landscape units to the south. Settlement in the valley comprises scattered farms and small villages in the vernacular. Although the landscape is large scale the landscape pattern in the valleys is smaller scale.
Baseline wind turbine development (March 2014)	There is no wind turbine development within the unit. However there is a large wind farm to the west of the study area which can be seen from this landscape unit. Consented wind farm in unit 1 - Pen Y Cymoedd Scheme not yet constructed will be visible from this unit approximately 3.5km to the south
Indicative overall capacity	There is no capacity for medium, large and very large wind turbine development in this area. There may be limited capacity for small and micro scale development that is well placed to be associated with existing buildings and that is not visually prominent.
Guidance on siting	Section five of this document provides generic siting and guidance. In addition the following guidance should apply: Protect and conserve the natural beauty and integrity of the BBNP. Maintain the geological integrity of the Geopark. Maintain the integrity of East Fforest Fawr and Mynydd-y-Glôg Landscape of Historic Interest. Consider the effects of development proposals on views from other parts of the BBNP. Consider views from towns in the Cynon Valley. Scale and location of micro scale turbines to respect local landscape pattern and relate to existing built form. Consider cumulative effects of multiple micro and small scale turbine developments to avoid appearance of 'mini' wind farm within the BBNP. Maintain field pattern. Micro and small scale development should avoid the need for new access tracks.

Landscape Unit: NP32

Fforest Fawr



LANDSCAPE UNIT NP32: Fforest Fawr

		Assessed susceptibility		
		Low	Medium	High
LANDSCAPE				
Scale	Large scale landscape VS8 scale: large 100%			
Landform	Upland that is undulating VS4 Topographic - high hills/mountains 100%			
Land cover pattern	Upland grazing. VS class level 3 - upland grazing 99% HL class level 3 - marginal land 25%, Fieldscapes 75% VS5 Land cover pattern - Open land 99% VS16 Pattern - formal 100%			
Built environment	No development in the area. VS6 Settlement pattern - no settlement 100% VS20 Use of Construction Materials -appropriate 100% VS25 Sense of Place - strong 100%			
VISUAL				
Skylines and settings	Area does not have a prominent skyline but does provide the foreground of views to the Brecon Beacons from the south.			
Movement	Very little activity in the area. VS18 Level of Human access - rare 100%			
Visibility, key views, vistas.	Elevated upland with no tree cover. VS9 Enclosure - exposed 100%			
Intervisibility, associations with adjacent landscapes	There are views out of the area to the surrounding landscape and views of the area from within the BBNP. VS22 there are attractive views - 100% out VS23 there are detractive views - 100% neither in or out.			
Types of receptors	Few receptors - hill walkers and off road cyclists. Users of a minor roads.			
Views to / from landscape and cultural heritage features	The area is within the BBNP and provides the initial setting for the BBNP from the south.			

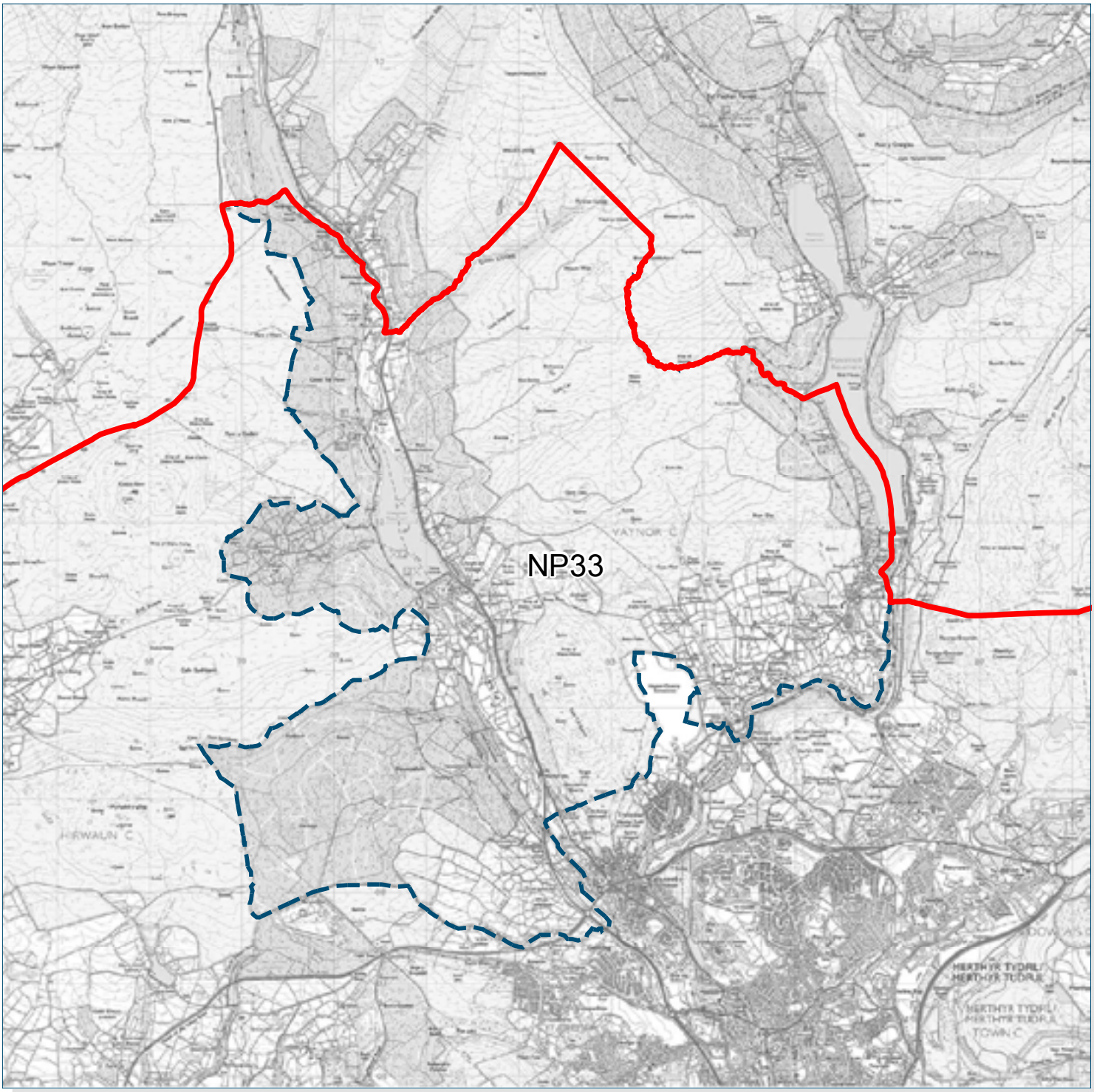
LANDSCAPE UNIT NP32: Fforest Fawr				
		Assessed susceptibility		
		Low	Medium	High
AESTHETIC, PERCEPTUAL AND EXPERIENTIAL				
Scenic quality and character	VS46 Scenic quality - high 100% VS47 Integrity - high 100% VS48 Character - high 100%			
Remoteness and tranquillity	Remote area with one road crossing it and few footpaths. VS24 Perceptual and other sensory qualities - attractive, exposed, wild 100%			
VALUE				
		Assessed value		
		Low	Medium	High
Landscape value	BBNP East Fforest Fawr and Mynydd-y-Glôg Landscape of Historic Interest. VS50 - overall evaluation - high 100% VS49 rarity - high 100% LH45 overall evaluation - high 91% GL31 rarity - high/outstanding 82% GL33 overall evaluation - high/outstanding 82%			
Historic value	HL38 Rarity - high and outstanding HL35 Integrity - high and outstanding 84% HL40 Overall evaluation - high and outstanding			
SUMMARY OF SENSITIVITY TO WIND TURBINE DEVELOPMENT				
		Assessed sensitivity		
		Low	Medium	High
Micro	This wild upland landscape in the BBNP has high sensitivity to all types of wind turbine development. It is sensitive to change due to the exposed nature of the unit and the lack of any development in the area as well as its National Park status. Wind turbine development has the potential to impact on views and the tranquillity and perceived value of the area.			
Small				
Medium				
Large				
Very Large				

LANDSCAPE UNIT NP32: Fforest Fawr

Landscape Capacity and Guidance for siting wind turbines	
Landscape objective	**Objective 1: No change to the landscape character within nationally designated landscapes.**
Key landscape, visual and cultural heritage characteristics susceptible to wind turbine development	**Designated features within the Landscape Unit:** BBNP East Fforest Fawr and Mynydd-y-Glôg Landscape of Historic Interest Forest Fawr Geopark (covers the eastern part of the Brecon Beacons) 15 scheduled monuments scatter across the unit and covering a relatively large proportion of it. Dating from prehistory 1 SSSIs on boundary with NP31.
	Other susceptible landscape, visual and cultural heritage features: Open and exposed upland landscape with no buildings and one road running across it. Undulating upland plateau landscape with some intervisibility with neighbouring units to the south and north.
Baseline wind turbine development (March 2014)	There is no wind turbine development within the unit. However there is a large wind farm to the west of the study area which can be seen from this landscape unit. Consented wind farm in unit 1 - Pen Y Cymoedd Scheme not yet constructed will be visible from this unit approximately 6km to the south
Indicative overall capacity	There is no capacity for wind turbine development in this area which is in the BBNP and has no existing built form. The area is exposed and wind turbine development would be impact on the BBNP and its natural beauty.
Guidance on siting	No guidance has been provided for this unit as it is not considered to be capable of accommodating wind turbine development at any scale.

Landscape Unit: NP33

Talybont and Taff Reservoirs



LANDSCAPE UNIT NP33: Talybont and Taff Reservoirs

		Assessed susceptibility		
		Low	Medium	High
LANDSCAPE				
Scale	Large to vast scale landscape. VS8 scale: large 40%, vast 39%			
Landform	Varied upland landform taking in the valley and adjacent upland to the east. VS4 Topographic - high hills/mountains 72%			
Land cover pattern	Varied land cover pattern due to the varied landform. The reservoir is a dominant feature in the valley bottom. VS class level 3 - upland moorland 39%, woodland upland and plateau 33% HL class level 3 - irregular fieldscapes 55% VS5 Land cover pattern - woodland 43% VS16 Pattern - organised 23%, regular 36%, random 40%			
Built environment	Built development limited to the valley and A470 corridor VS6 Settlement pattern - no settlements 74%, scattered 25% VS20 Use of Construction Materials - generally appropriate 92% VS25 Sense of Place - strong 50%			
VISUAL				
Skylines and settings	The upland moorland area to the east has a smooth featureless skyline. However, it is important to the views of and within the BBNP.			
Movement	Road corridor is quite busy but away from the corridor and associated valley there is little human activity. VS18 Level of Human access - rare 72%			
Visibility, key views, vistas.	Valley landscape limits views where as there are extensive views from the upland areas which are devoid of trees in this area. VS9 Enclosure - enclosed 58%, exposed 39%			
Intervisibility, associations with adjacent landscapes	This area has intervisibility with other parts of the BBNP along the road corridor and from the upland area within the unit. VS22 there are attractive views - 66% both in and out VS23 there are detractive views - 55% out, 33% within			
Types of receptors	Road users and visitors/tourists will be the main visual receptors. Few residents.			
Views to / from landscape and cultural heritage features	The unit is within the BBNP. Views are restricted on the slopes and valley bottoms due to landform and tree cover.			

LANDSCAPE UNIT NP33: Talybont and Taff Reservoirs				
		Assessed susceptibility		
		Low	Medium	High
AESTHETIC, PERCEPTUAL AND EXPERIENTIAL				
Scenic quality and character	VS46 Scenic quality - High 50% moderate 46% VS47 Integrity - moderate 49%, high 48% VS48 Character - moderate 49%, high 48%			
Remoteness and tranquillity	Varied perception. A470 road corridor not remote. Upland areas exposed, remote and wild. VS24 Perceptual and other sensory qualities - attractive, tranquil, exposed, remote, wild 39%			
VALUE				
		Assessed value		
		Low	Medium	High
Landscape value	BBNP Small part of East Fforest Fawr and Mynydd-y-Glôg Landscape of Historic Interest. VS50 - overall evaluation - high 48%, moderate 49% VS49 rarity - moderate 51%, high 48% LH45 overall evaluation - high 77% GL31 rarity - high/outstanding 50% GL33 overall evaluation - high/outstanding 62%			
Historic value	HL38 Rarity - high and outstanding HL35 Integrity - high and outstanding 84% HL40 Overall evaluation - high and outstanding			
SUMMARY OF SENSITIVITY TO WIND TURBINE DEVELOPMENT				
		Assessed sensitivity		
		Low	Medium	High
Micro	Medium to high sensitivity to micro development that is placed to respect land form, skylines and existing built form. National Park status results in high sensitivity to all other wind turbine typologies that have the potential to impact on views, tranquillity and perceived value of this unit.			
Small				
Medium				
Large				
Very Large				

LANDSCAPE UNIT NP33: Talybont and Taff Reservoirs

Landscape Capacity and Guidance for siting wind turbines	
Landscape objective	**Objective 1: No change to the landscape character within nationally designated landscapes.**
Key landscape, visual and cultural heritage characteristics susceptible to wind turbine development	**Designated features within the Landscape Unit:** BBNP East Fforest Fawr and Mynydd-y-Glôg Landscape of Historic Interest Forest Fawr Geopark (covers the eastern part of the Brecon Beacons) 15 scheduled monuments in the unit.
	Other susceptible landscape, visual and cultural heritage features: The reservoir and valley landscape includes upland between the valleys that is open and unenclosed Settlement in the valley comprises scattered farms and small villages in the vernacular. Although the landscape is large scale the landscape pattern in the valleys is smaller scale. South end of the unit and upland part of the unit is intervisible with Merthyr Tydfil and the surrounding landscape in places.
Baseline wind turbine development (March 2014)	There is no wind turbine development within the unit. However there are views of Merthyr Tydfil which has a turbine on the north east side of town that may be seen from parts of the unit. (boundary with unit 10 and 17)
Indicative overall capacity	There is no capacity for wind turbine development in this area except micro scale development
Guidance on siting	Micro development should be associated with existing buildings and not visually prominent. As this landscape unit is not considered to have any capacity for wind turbine development except micro no further guidance is provided

SECTION 5: GUIDANCE FOR WIND ENERGY DEVELOPMENT

The following guidance should be read in conjunction with the specific locational guidance for each Landscape Unit in Section 4. This guidance is intended to aid the integration of wind turbines into the landscape through good siting and design. The first section below relate specifically to the Heads of the Valleys study area and provides strategic guidance for local authorities and developers to consider in terms of the whole study area and its overall landscape context.

Heads of the Valley specific guidelines

The European Landscape Convention defines landscape as: '*An area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors*.' The Heads of the Valleys study area is a perfect example of a landscape whose distinct landscape character has been formed though the interaction of natural and human forces, most notably by industrialisation of the 19th and early 20th centuries within the distinct steep sided glaciated valleys that dissect the plateau landscape. The area contains unique geological features in particular in Rhondda Cynon Taf where a number of Regionally Important Geological sites (RIGs) have been identified. The valleys are heavily settled but development has been constrained by landform, resulting in open steep valley sides and open ridges and uplands. The varied landform with ridges and plateaus of fairly consistent height dissected by steep sided valleys results in intervisibility across the uplands of the study area and north to the BBNP. Opportunities for development within or close to the BBNP will be limited and any proposals would have to show that they do not affect the purposes of the National Park designation.

The uplands play an important role in separating the built form of the settled valley floors, provide a unique contrast in landscape types over a relatively small geographic area and act as a valued backdrop to the settlements. Wind turbine development that dilutes this contrast should be avoided. Currently there are extensive views within the study area across all the upland areas. Apart from the uplands in which TAN8 SSA F is located, the character of the uplands is not noticeably affected by turbine development. Wind turbine development should be avoided if it causes significant change to the remote and unspoilt qualities of the uplands within the study areas due the value placed on them.

Wind turbine development to date has concentrated on the TAN8 SSA F to the west of the study area (both within the study area and adjacent to it). A significant proportion of the consented development has not yet been implemented. As accepted under TAN 8, when implemented there will be a significant change in landscape character and this will affect the capacity of the surrounding area to accept additional wind turbine development without significant adverse cumulative effects. Any proposals in this area must be carefully considered in terms of cumulative impacts.

The valley sides are important in providing the immediate setting for the settlements. There is local sensitivity to re-industrialisation of hillsides that have been reclaimed since the end of coal mining in the area. Wind turbine development on the valley sides surrounding the settlements should avoid dominating the settlements either in height, proximity or extent. No settlement should have the sense of being surrounded by wind turbines such as developments on both sides of a valley. The uplands provide important separation between settlements and the location of wind turbines should avoid reducing this sense of separation.

The capacity of each landscape unit to accommodate wind turbine development is partly dependent on development in neighbouring units. It may be that when one landscape unit reaches capacity it will significantly reduce the capacity of adjoining units, particularly for smaller landscape units and for units where cumulative effects have been identified as a particular issue.

Additional Guidance

The following notes are summarised from guidelines set out in Scottish Natural Heritage (2012) Siting and Design of Small Scale Wind Turbines of between 15 and 50 metres in height. Useful guidance is also provided in the following documents:

- Design Commission for Wales (2012) Designing Wind Farms in Wales
- Scottish Natural Heritage (204) Siting and Designing Wind Farms in the Landscape Version 2

Although aimed at larger wind farm developments, the guidance set out in the two documents above is frequently transferable and should be considered when designing and siting smaller scale developments.

Factors Relating to Design

Turbine Choice

Small turbines offer a greater choice of variety, styles, design and colours than large commercial scale turbines and their selection should be carefully considered in relation to the site in which they are to be located. This is particularly important when other turbines are present to ensure that there aren't conflicting styles in the same locality.

Turbine Colour

Turbine colour should be chosen to help blend the structure into the landscape. The same colour should be used for all components of the turbine and should be non-reflective. A very light grey is commonly used because it minimises the visibility of the turbines when they are seen against the skyline, which is how most large scale turbines are viewed. In all cases the aim should be to minimise visibility and reflectivity of the turbine components.

Turbine Size and Scale

Although small scale turbines are likely to have fewer landscape and visual effects than large commercial models, they can still visually dominate nearby landscape features. Identifying the main landscape and visual characteristics of the landscape in which the turbines are to be sited is an important determinant in selecting the most appropriate size. Landscapes with a simple, strong and mainly horizontal form are better able to accommodate taller turbines and large turbine groups as the height of turbines appears more proportionate to the landscape. Small scale turbines, smaller groupings or individual turbines tend to be better suited to smaller scale, more complex landscapes where there are other features such as buildings, trees or hedges.

Turbine Layout

Although there is scope to present a small group of turbines as a coherent visual image, this may be difficult where there are other built elements such as buildings, wood poles and masts present with the result that visual conflict can arise. Where possible turbine layout should respond to existing landscape patterns, whether field boundaries, buildings or vegetation patterns.

In all cases, turbine layout should respect the underlying landform. Where possible turbines should be located along contours rather than crossing them.

Micro-siting

Micro-siting of turbines often takes place during construction due to unforeseen circumstances such as ground conditions. This can affect the original design concept, particularly the relationship with nearby vertical features such as tress and masts. It is preferable if developers undertake pre-application ground surveys to minimise the requirement for micro-siting at the construction stage.

Ancillary Infrastructure

Visual impacts of any ancillary developments and visual conflicts between turbines and ancillary structures should be minimised by:

- Sensitive siting and design of ancillary equipment and infrastructure (e.g. using local landform, locally appropriate materials, architectural style and colours to more successfully integrate them into their surroundings).
- Using turbines with integral transformers.
- Siting turbines as close as possible to the point of use or grid connection to avoid long sections of overhead power lines or cable runs (more applicable to large scale wind farm developments).
- Utilising existing tracks to avoid tree and hedgerow removal, which may have adverse landscape effects. New tracks if required should follow existing landscape features such as field and woodland boundaries.
- Minimising cut and fill operations.
- Designing fencing or walling to fit the local situation, whilst maintaining the required security.
- Identifying locations for new tree and shrub planting to provide long term screening.

Factors Relating to Location

Landscape Character

This study provides the basis for identifying the key landscape characteristics of the site and the wider area. It also identifies the sensitivity of the landscape to turbines and any special qualities which should be protected. However, this is a strategic study and in all cases turbine applications must be considered on their individual merits and detailed analysis is required to fully appreciate the nature of the development, site and its surroundings.

Impacts on landscape character are likely to be related to:

- Scale of the landscape – whether it is small or large and whether the proposed turbines are of an appropriate scale.
- Topography – turbines can dominate the landform if not carefully sited.
- Skylines – turbines can affect the simplicity of skyline or ridges even if located below such features.
- Settlement pattern – turbines should be carefully sited in relation to existing buildings.
- Influence on the tranquillity of the landscape – turbines create movement, the amount depending on the particular model.

Areas with a Sense of Remoteness

Rural areas which are particularly valued for their remoteness can be affected by the introduction of turbines, although this is less likely to be the case if the turbines are located close to farms or other existing buildings. However, incremental erosion of the special qualities of remoteness and tranquillity should be avoided. Some locations close to centres of population are valued as an important recreational resource and have a sense of being unspoilt and remote even though they are close to urban areas. Locating turbines in these areas should be very carefully considered.

Valued Landscapes

This study identifies landscapes which are designated for their international, national or regionally valued qualities. This is a strategic study and in all cases turbine applications must be considered on their individual merits and detailed analysis will be required to fully appreciate the nature of the development, the site and its surroundings and effect on any locally designated or valued landscapes.

Factors relating to Siting

Landform

Smaller turbines have more potential to utilise landform (often in conjunction with vegetation) to help lessen their visual impact than larger scale commercial models.

As the viewer's eye tends to be drawn towards the skyline, turbines should be set back from ridges and skylines to reduce their visibility within the wider landscape.

Siting of turbines on distinctive or prominent summits or skylines should generally be avoided. Shallower side slopes or gently undulating landform below ridgelines should be selected where possible.

It is often preferable for wind energy developments to be grouped upon the most level part of the site so the development appears to be less visually confusing when viewed from different elevations and directions.

Landscape Pattern

Turbines can be sited to reflect patterns in the landscape, for example field and woodland boundaries. Conversely, care must be taken not to site turbines so that they conflict with patterns in the landscape.

Groupings of turbines can affect how they appear in the landscape. For example three dispersed turbines could be grouped to form a single feature in a visually complex landscape, whilst in a larger scale landscape, a larger single turbine with the same generating capacity may be preferable. A small group of small turbines is most likely to be preferable in valley bottoms and on lower valley slopes where there are other scale indicators.

Focal Features

Turbines are likely to become focal features in the landscape particularly when new or unfamiliar designs are introduced. Care is required to ensure that they do not cause visual conflict or competition with other focal points. The siting of turbines should therefore be carefully considered to protect views to and from important landscape and cultural heritage features and their wider setting.

Turbines can highlight features which would otherwise be hidden. For example a turbine next to a farm could draw attention to its presence when the farm itself is hidden by buildings or trees.

Settlements and Urban Landscapes

Turbines should be carefully located in relation to nearby settlements, buildings and other structures. In sparsely settled rural landscapes, turbines should be located near to existing buildings or structures.

Views to/from, or on the approach to settlements (including dispersed properties) should be carefully considered when siting wind energy developments. Turbines should be located in the least visually prominent location. The type of turbine may be influenced by its proximity to a settlement.

Turbines should be sited to minimise impacts on public viewpoints, roads and public rights of way.

Woodland & Trees

Although trees and woodlands can cause turbulence which interferes with the efficiency or longevity of turbines, in some locations there may be the opportunity to screen small scale turbines by locating them close to trees and woodland. Care should be taken to site turbines so that they do not visually dominate or compete with prominent vegetation such as parkland trees, trees on knolls, avenues etc.

Turbines should be located without the need to fell trees and woodlands particularly where they are important features in the local landscape.

Seasonal variation in leaf cover should be considered when using trees to screen turbines. The felling and restocking regimes of commercial forestry should be considered when locating turbines close to commercial forestry.

Cumulative Considerations

Potential cumulative landscape and visual effects should be carefully considered on a case by case basis, assisted by the production of Zones of Theoretical Visibility (ZTVs) and appropriate visualisations (preferably from agreed viewpoints). Existing, consented and proposed turbines should be taken into account, in addition to any similar developments, which together may give rise to cumulative effects.

See Pembrokeshire and Carmarthenshire: Cumulative Impact of Wind Turbines on Landscape and Visual Amenity guidance April 2013 for detailed guidance on how to assess cumulative impacts.

In Combination with Micro-Renewables

Groups of micro turbines can be prominent in some locations, by drawing the eye to their rotating blades. Rotation speeds vary considerably between small and larger bladed turbines, which if viewed together can create visual disturbance and clutter. Variations in rotor blade diameter should therefore be avoided.

In Combination with Other Small Scale Developments

Multiple small scale developments can dominate the landscape. Turbines should not create visual clutter and cumulative impact with existing built development and vertical structures such as high voltage overhead power lines and communications masts. To avoid this consider the following principles:

- Avoid inconsistent turbine height, layout and design between multiple wind energy developments that are intervisible.
- Identify opportunities to lessen intervisibility between multiple developments – intervening landform and forestry are all useful in this respect.

In Combination with Larger Turbines in an area

Smaller turbines when seen in combination with large turbines can create a confusing visual image. This can be lessened by:

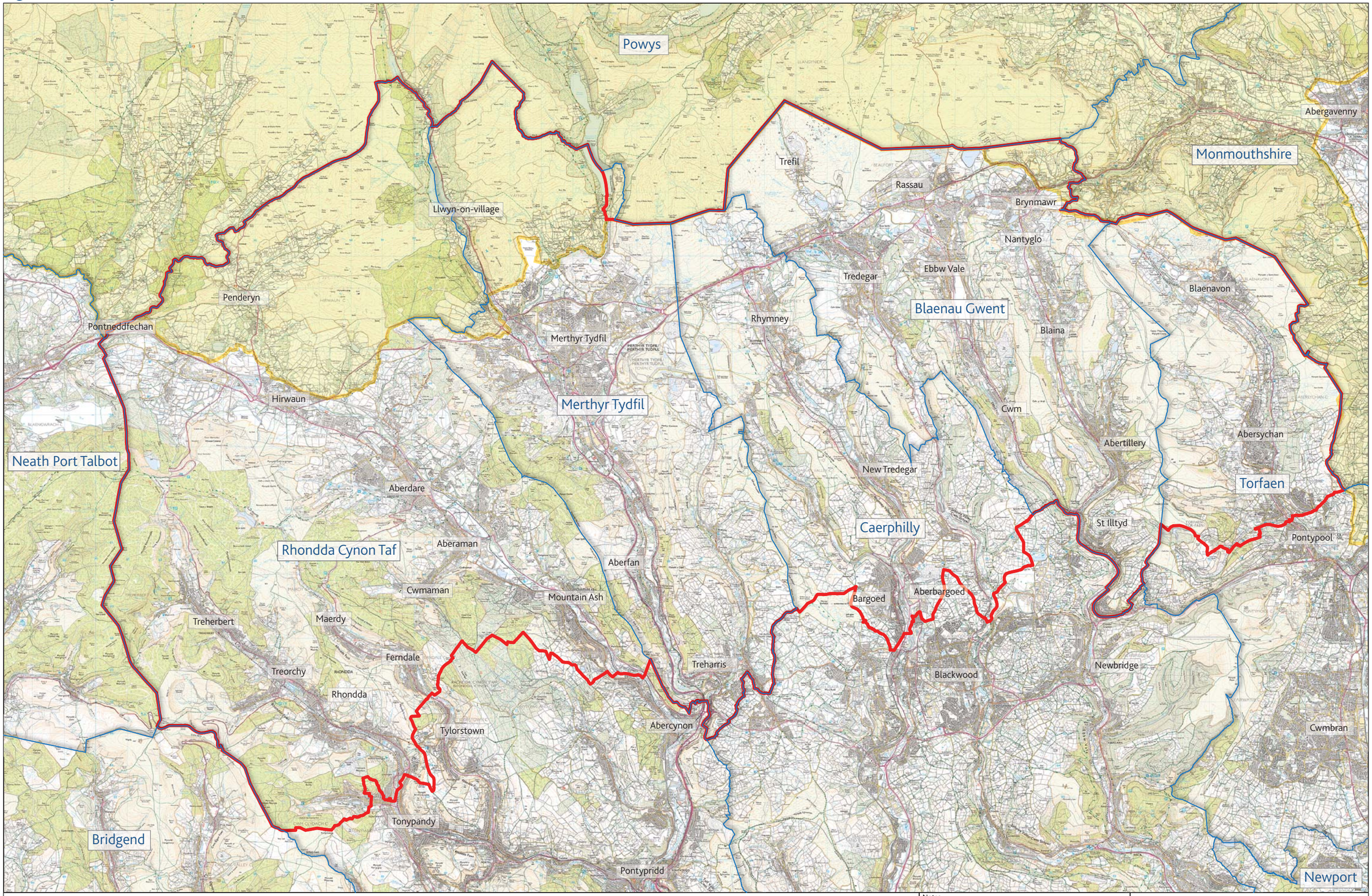
- Using turbine layouts of a similar arrangement where more than one turbine group is present.
- Avoid situations where turbine rotary speeds are significantly different.

Filling in Gaps between Clusters of Wind Turbines

Where there are large scale windfarms in an area, the introduction of single or double turbines between clusters can create visual links between developments. There is also potential for incongruous juxtapositions between the different scales of developments. Therefore, where site analysis indicates that maintaining visual separation between and around windfarm clusters is desirable, the gap between developments should be maintained.

SECTION 6: FIGURES

Figure 01 : Study Area



Legend

- Heads of the Valley Study Area
- Local Authority Boundary
- Brecon Beacons National Park (BBNP)

Notes:

1. Local Authority boundary information derived from OS Open Data Boundary Line ESRI Shapefile.
2. National Park boundary derived from Cadw.

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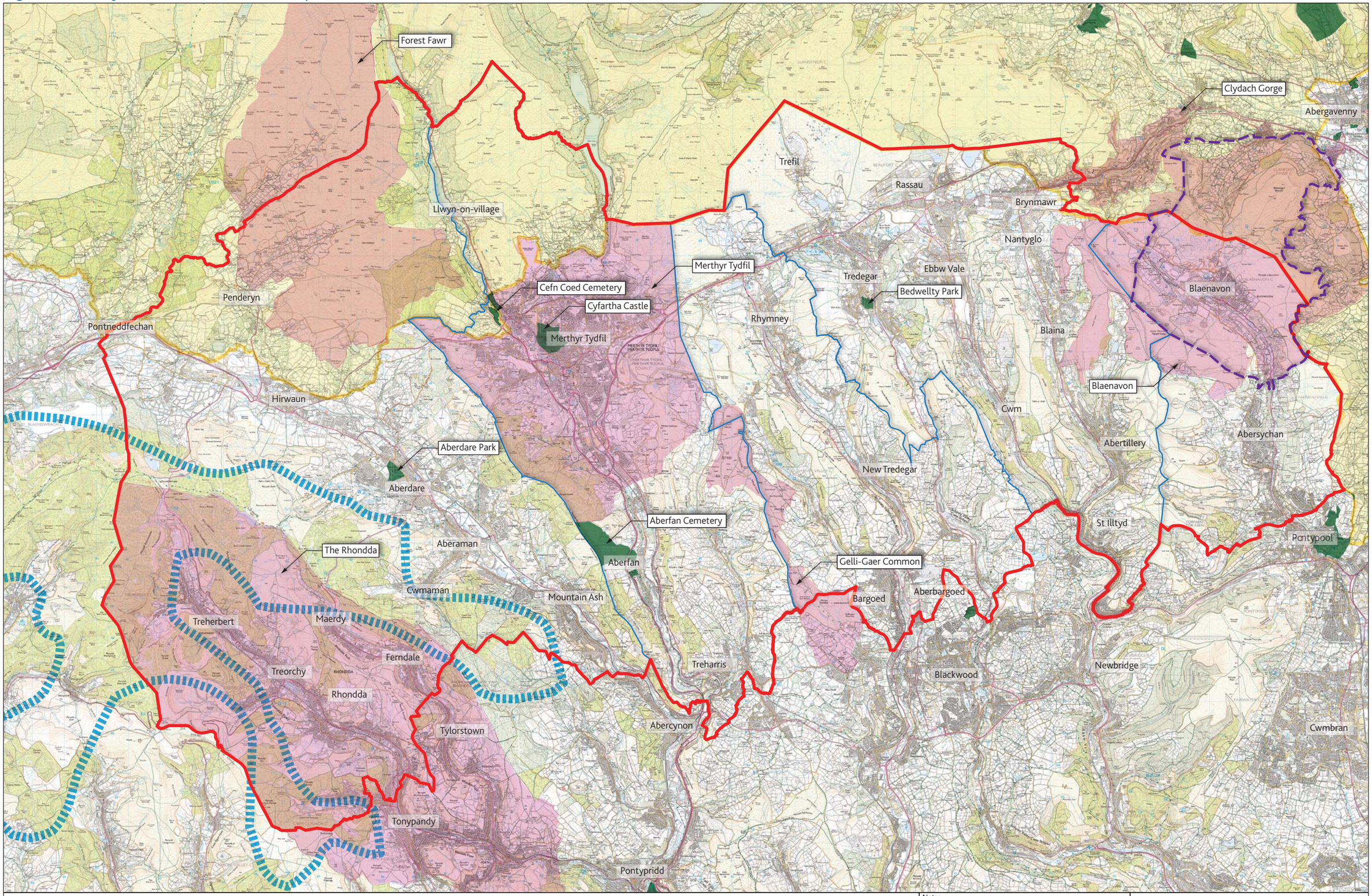
Figure 02 : Study Area and Areas of Landscape Interest



Legend

- Heads of the Valley Study Area
- Local Authority Boundary
- Brecon Beacons National Park (BBNP)
- Blaenavon World Heritage Site (WHS)
- Registered Landscapes of Historic Interest
- Registered Historic Park
- TAN 8 Strategic Search Area (SSA): F - Coed Morgannwg

Notes:

1. Local Authority boundary information derived from OS Open Data Boundary Line ESRI Shapefile.
2. National Park boundary derived from Cadw.
3. Designation information derived from the relevant local authority.
4. SSA F Coed Morgannwg Boundary derived from Technical Advice Note (TAN) 8: Renewable energy (2005) - Map 7

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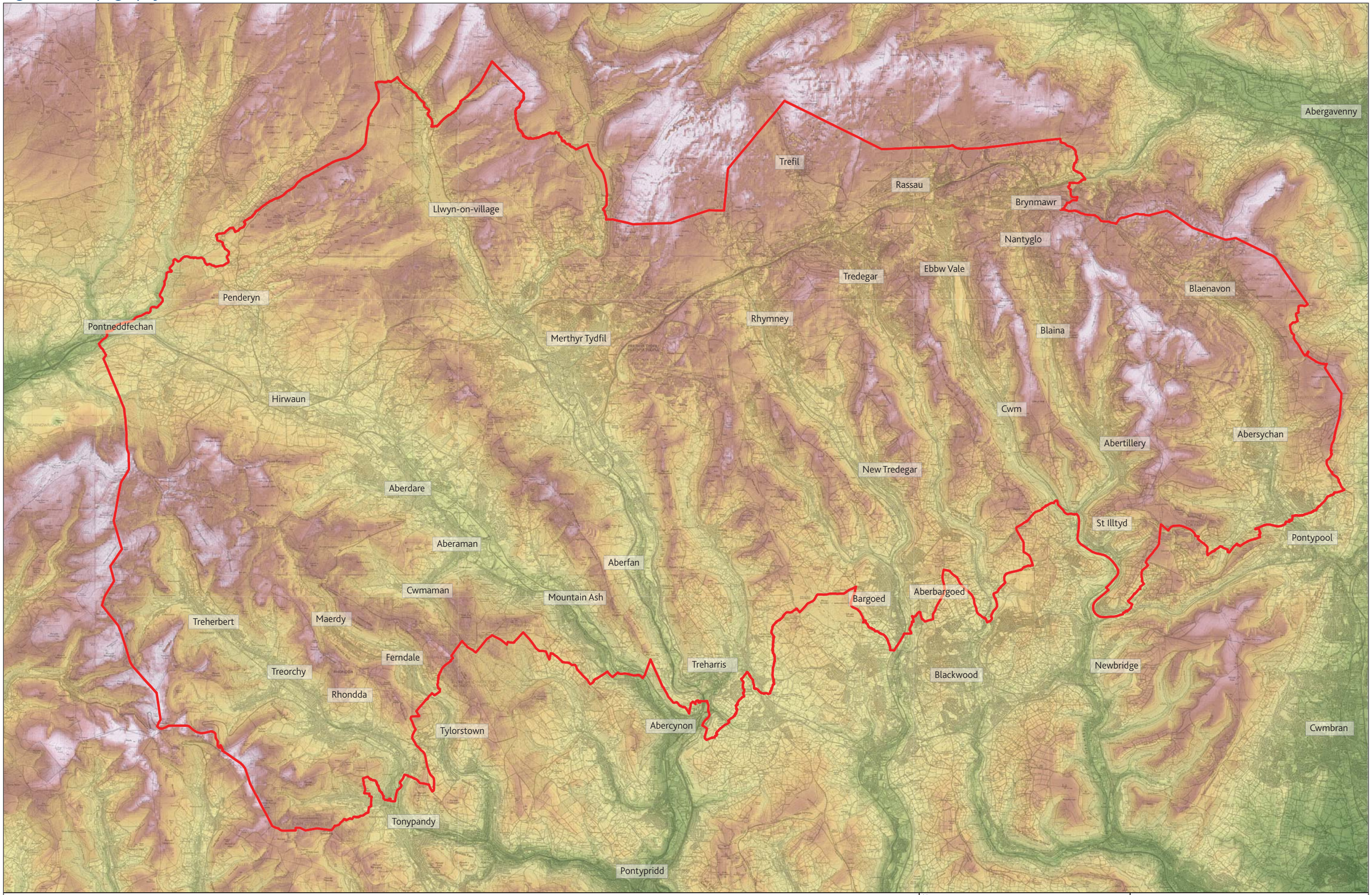
0 1.0km 5.0km

Figure 03 : Topography



Legend

Heads of the Valley Study Area

Topography

- 780m
- 0m

Notes:

1. Topography Data produced using ESRI ArcMap 10.2 Software from OS Terrain 50® OS OpenData.

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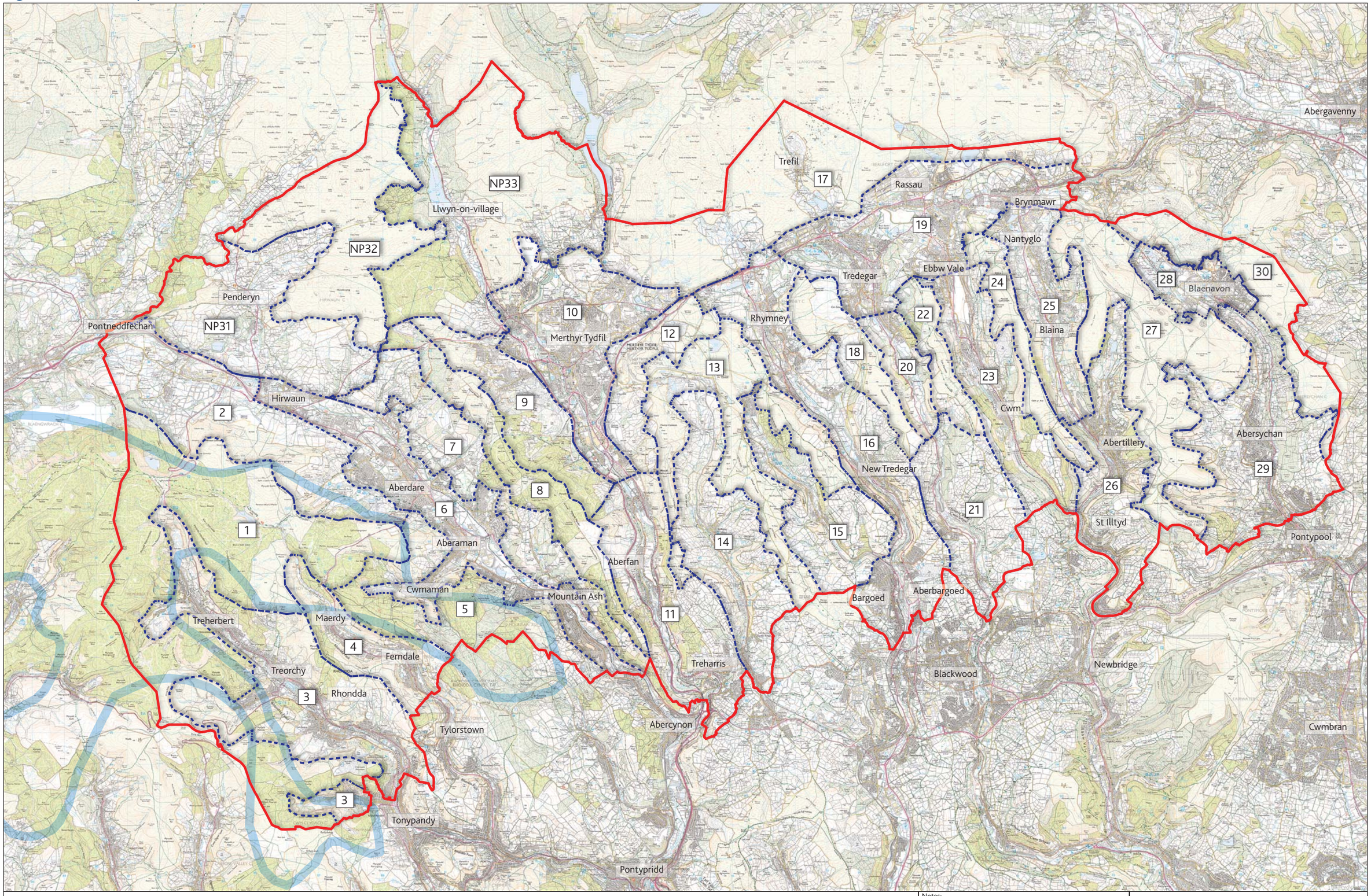
0 1.0km 5.0km

Figure 04 : Landscape Units



Legend

- Heads of the Valley Study Area
- Landscape Units (LU)
- TAN 8 Strategic Search Area (SSA): F - Coed Morgannwg

Notes:

1. SSA F Coed Morgannwg Boundary derived from Technical Advice Note (TAN) 8: Renewable energy (2005) - Map 7

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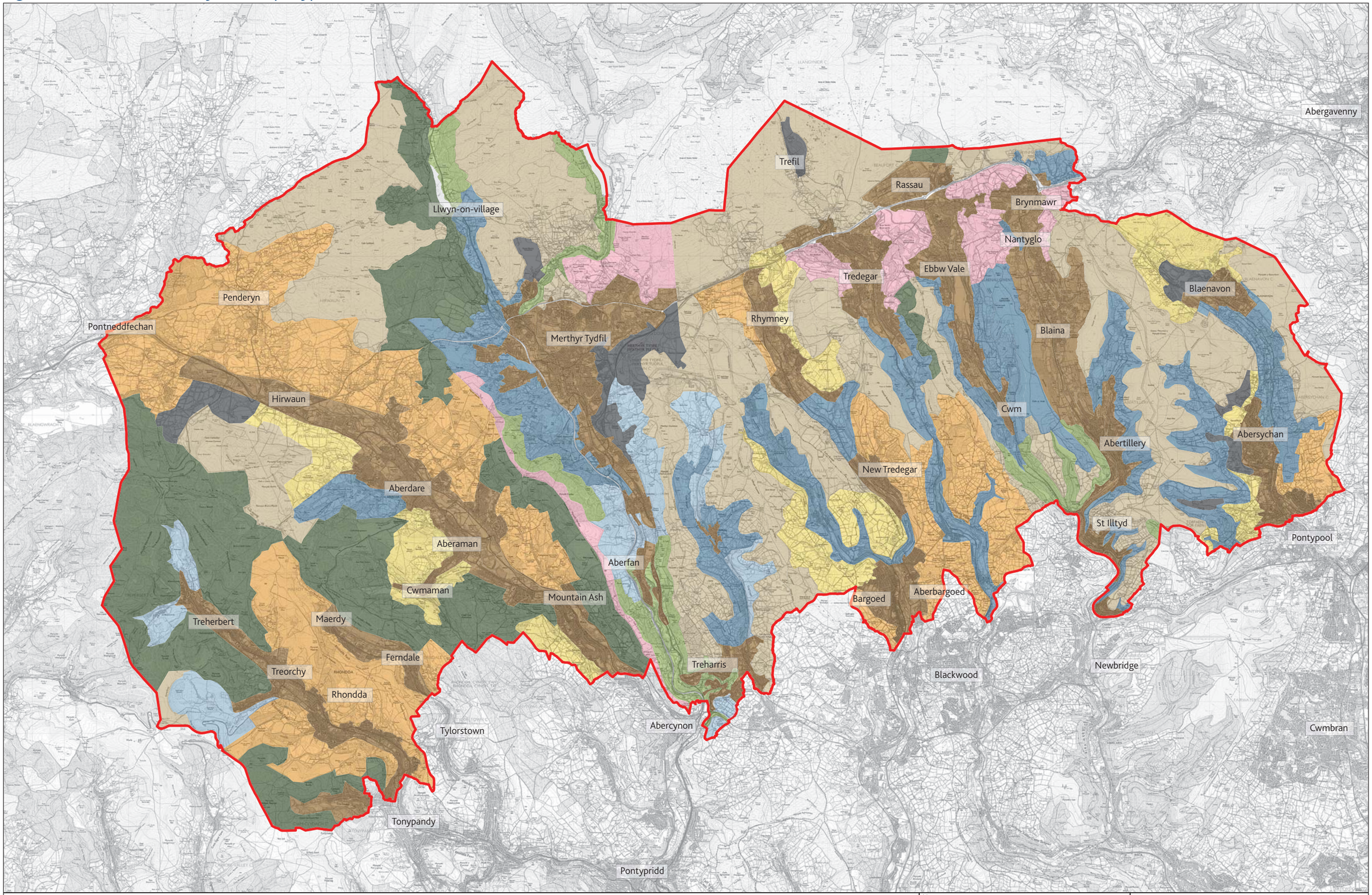
0 1.0km 5.0km

Figure 05 : Heads of the Valley Landscape Types



Legend

Heads of the Valley Study Area

Heads of the Valley Landscape Types

- Upland Moorland / Grassland
- Upland Mosaic
- Forested Upland and Plateau
- Open Upland Valley
- Mosaic Upland Valley
- Wooded Upland Valley
- Hillside and Scarp Slope Grass
- Hillside and Scarp Slope Mosaic
- Settlement
- Earthworks / Excavation / Landfill

Notes:

1. Heads of the Valley landscape types information derived from LANDMAP Visual and Sensory Classification Level 3.

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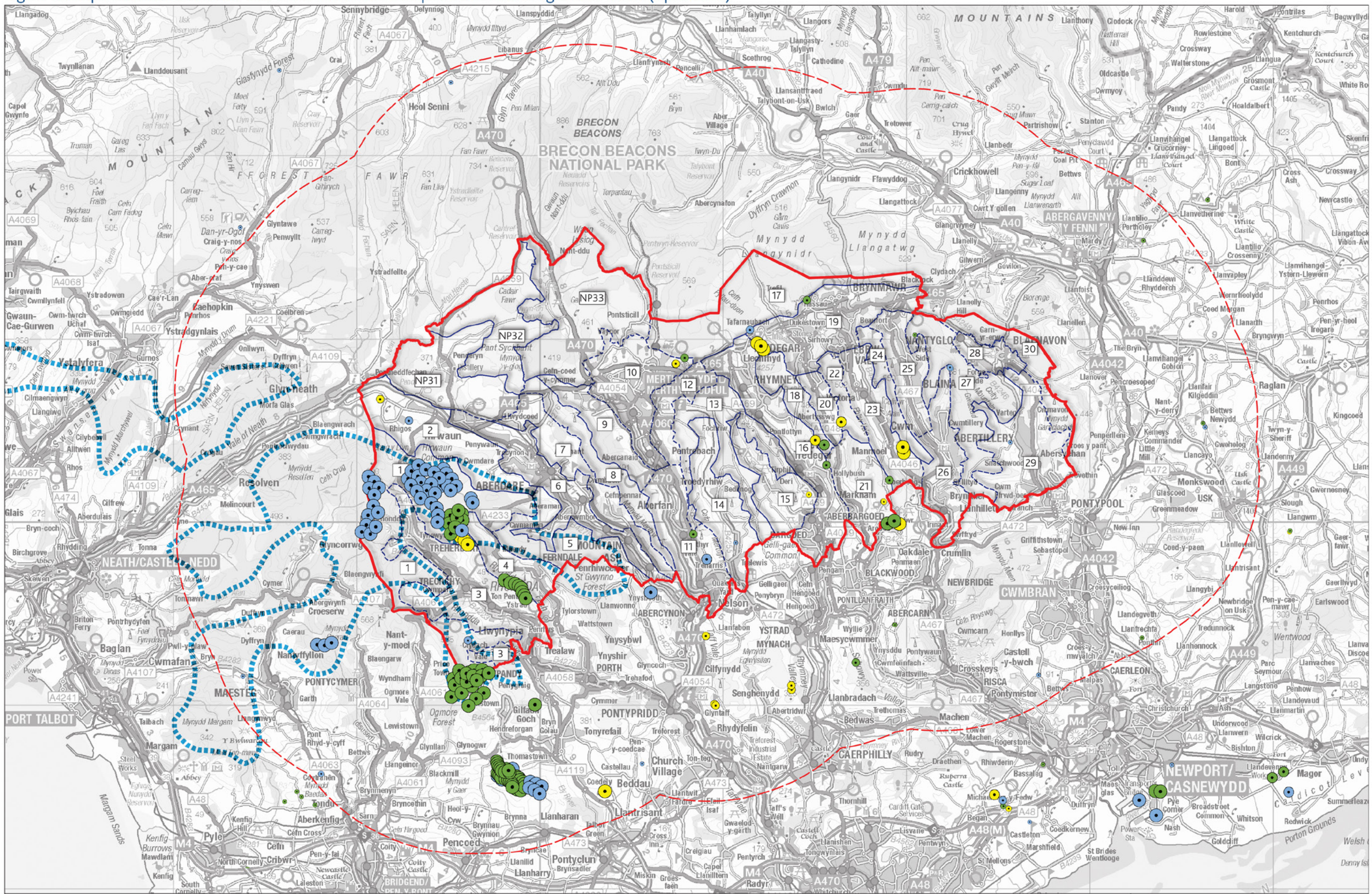
Figure 06: Operational/Consented and Wind Turbine Developments in Planning within 10km (April 2015)



Legend

- Heads of the Valley Study Area
- Study Area 10km Buffer
- Landscape Units
- TAN 8 Strategic Search Areas (SSA): E - Pontardawe & F - Coed Morgannwg

Operational Wind Turbines
- Micro
- Medium
- Large
- Very Large

Consented Wind Turbines
- Micro
- Small
- Medium
- Large
- Very Large

Wind Turbines In Planning
- Small
- Medium
- Large
- Very Large

Notes:
1. Wind Turbine locations, size and operational status information derived from submitted planning applications.
2. SSA E Pontardawe Boundary derived from Technical Advice Note (TAN) 8: Renewable energy (2005) - Map 6
3. SSA F Coed Morgannwg Boundary derived from Technical Advice Note (TAN) 8: Renewable energy (2005) - Map 7
4. Figures 06 and 07 have been updated in April 2015 with information from the online database. The sensitivity study records the situation at March 2014.

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0 2.0km 10km

Figure 07 : Wind Turbine Development Typologies (April 2015)

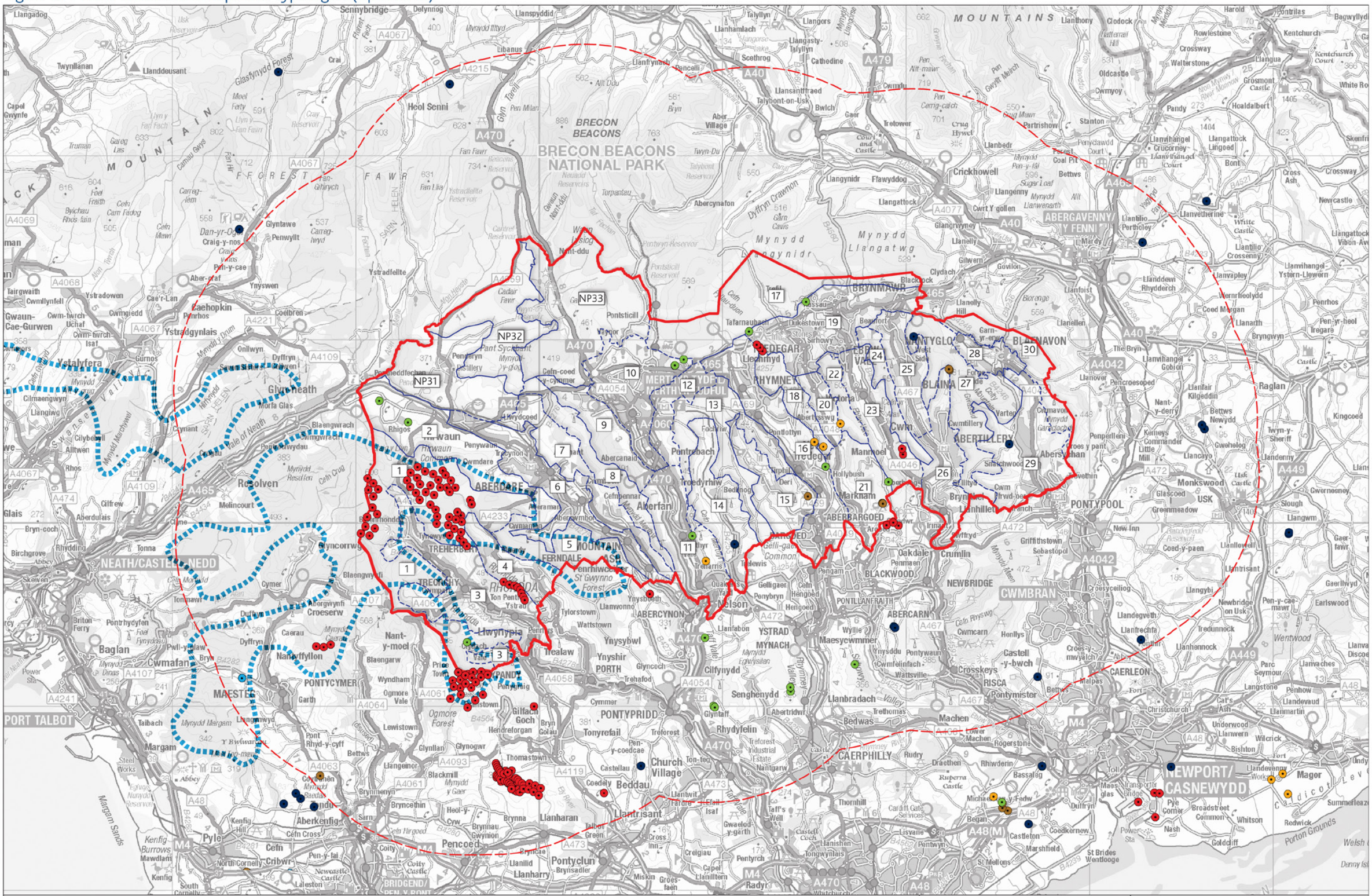
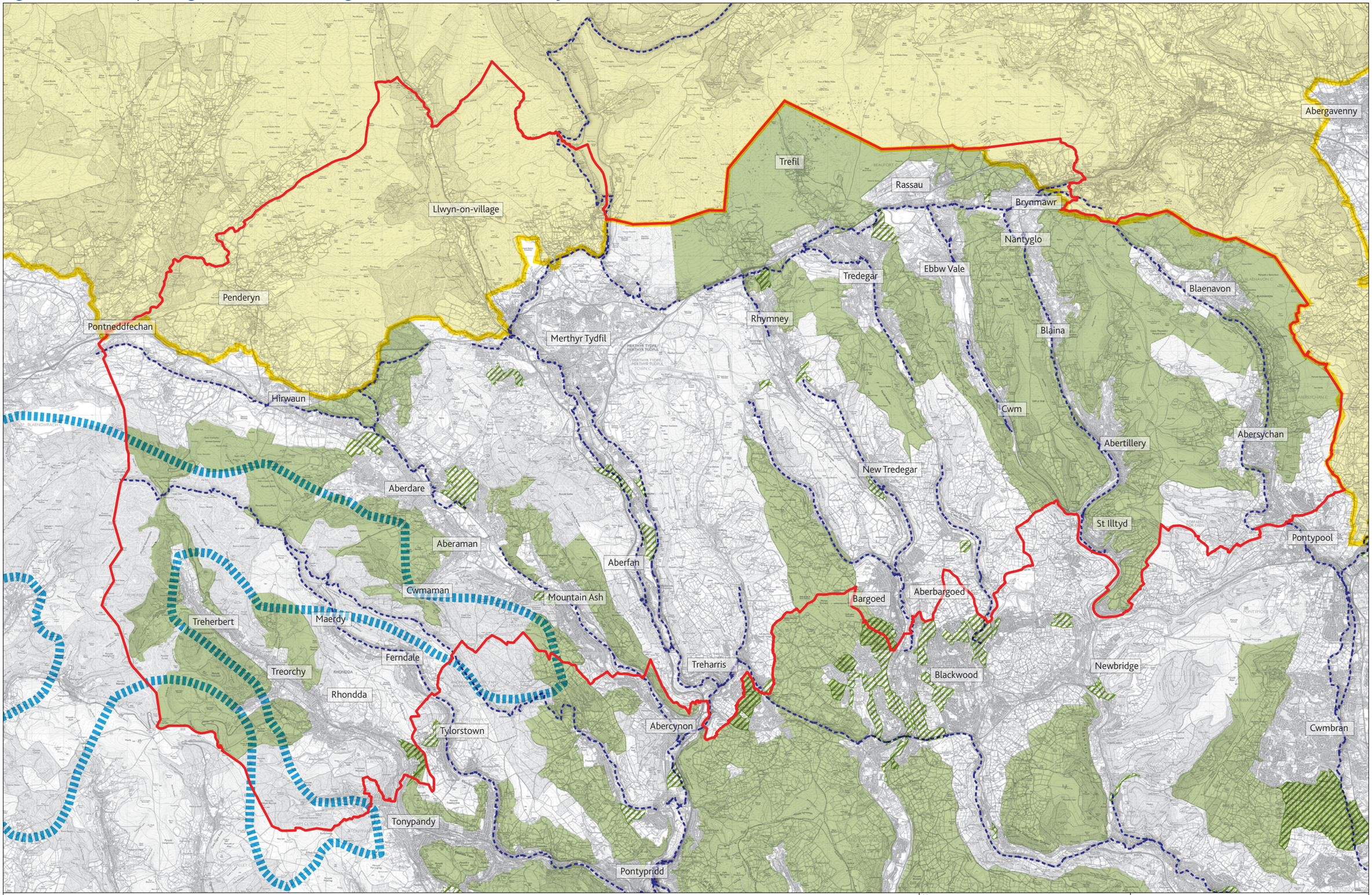


Figure 08 : Landscape Designations, TAN 8 Strategic Search Area and National Cycle Routes



Legend

- Heads of the Valley Study Area
- TAN 8 Strategic Search Area (SSA): F - Coed Morgannwg
- Brecon Beacons National Park (BBNP)
- Special Landscape Areas (SLA)
- Sustrans - National Cycle Routes
- Green Wedges

Notes:

1. National Park boundary derived from Cadw.
2. Designation information derived from the relevant local authority.
3. SSA F Coed Morgannwg Boundary derived from Technical Advice Note (TAN) 8: Renewable energy (2005) - Map 7

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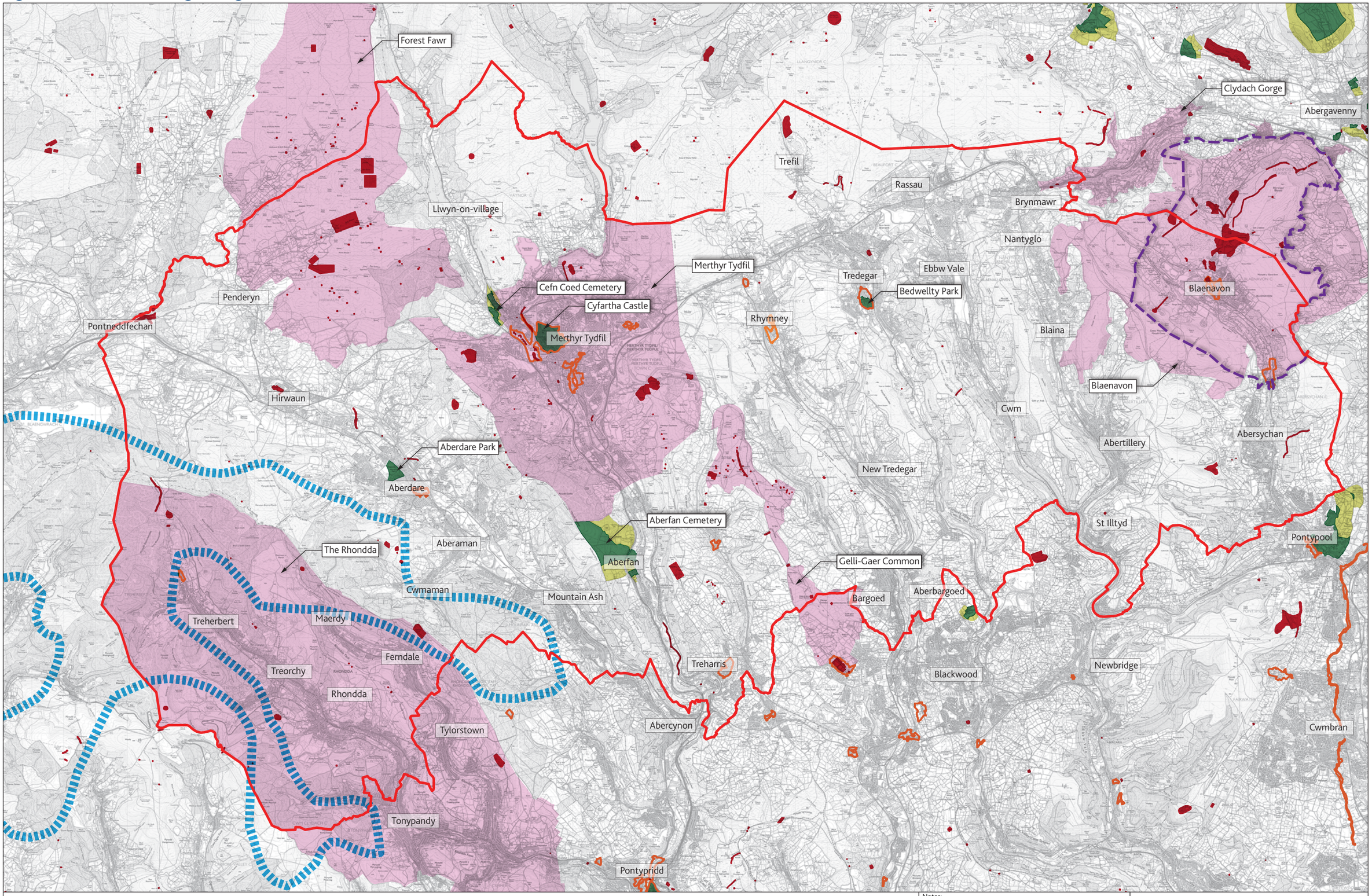
0 1.0km 5.0km

Figure 09 : Cultural Heritage Designations



Legend

- Heads of the Valley Study Area
- TAN 8 Strategic Search Area (SSA): F - Coed Morgannwg
- Blaenavon World Heritage Site (WHS)
- Conservation Area
- Scheduled Ancient Monuments
- Registered Landscape of Historic Interest
- Registered Parks and Gardens
- Registered Parks and Gardens - Essential Setting

Notes:

1. Designation information derived from the relevant local authority.
2. SSA F Coed Morgannwg Boundary derived from Technical Advice Note (TAN) 8: Renewable energy (2005) - Map 7

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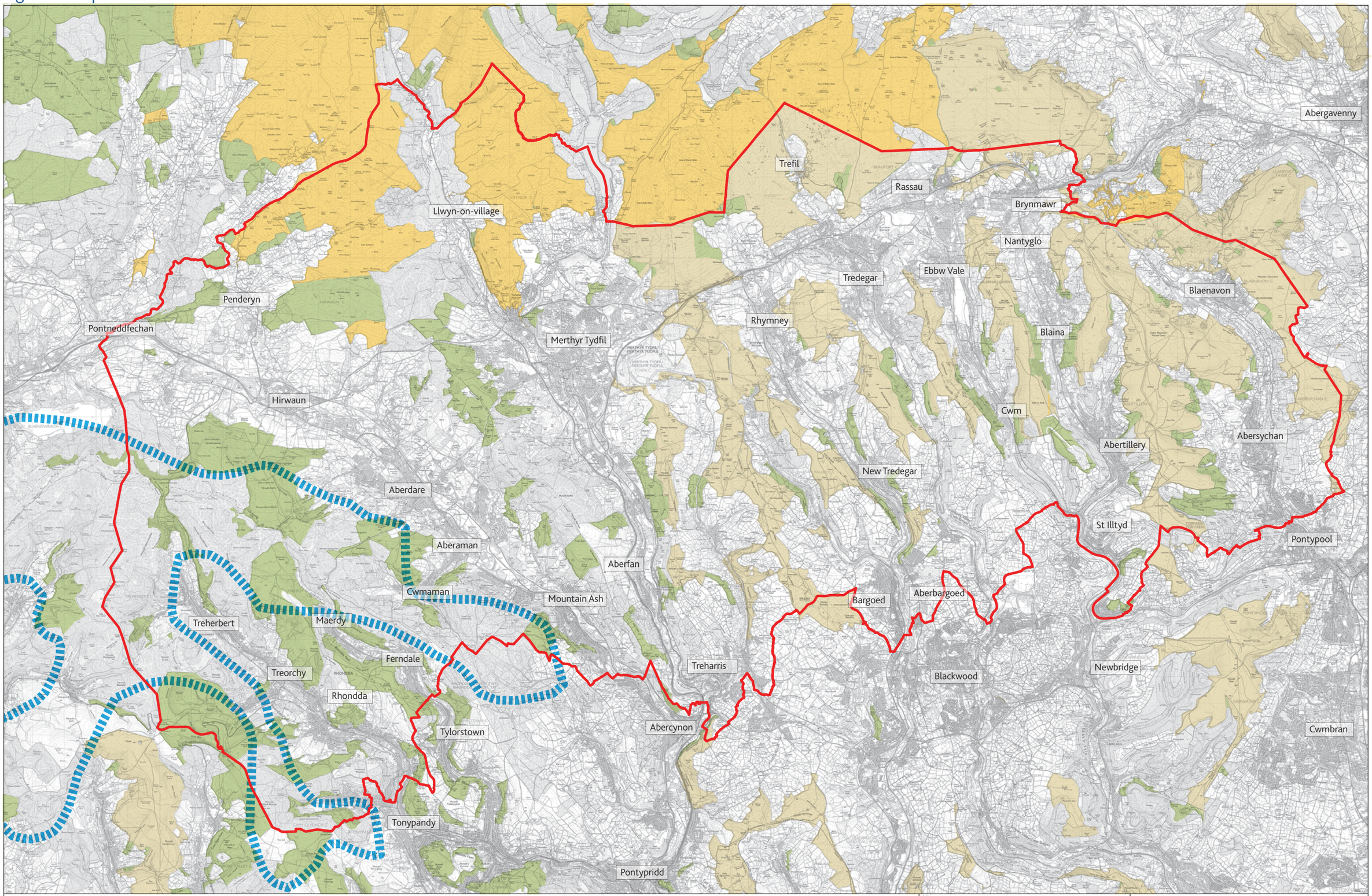
0 1.0km 5.0km

Figure 10 : Open Access Land



Legend

- Heads of the Valley Study Area
- TAN 8 Strategic Search Area (SSA): F - Coed Morgannwg
- Open Access Land - Registered Common Land
- Open Access Land - Open Country
- Open Access Land - Other Statutory Access Land

Notes:

1. Open Access Data derived from Cadw.
2. SSA F Coed Morgannwg Boundary derived from Technical Advice Note (TAN) 8: Renewable energy (2005) - Map 7

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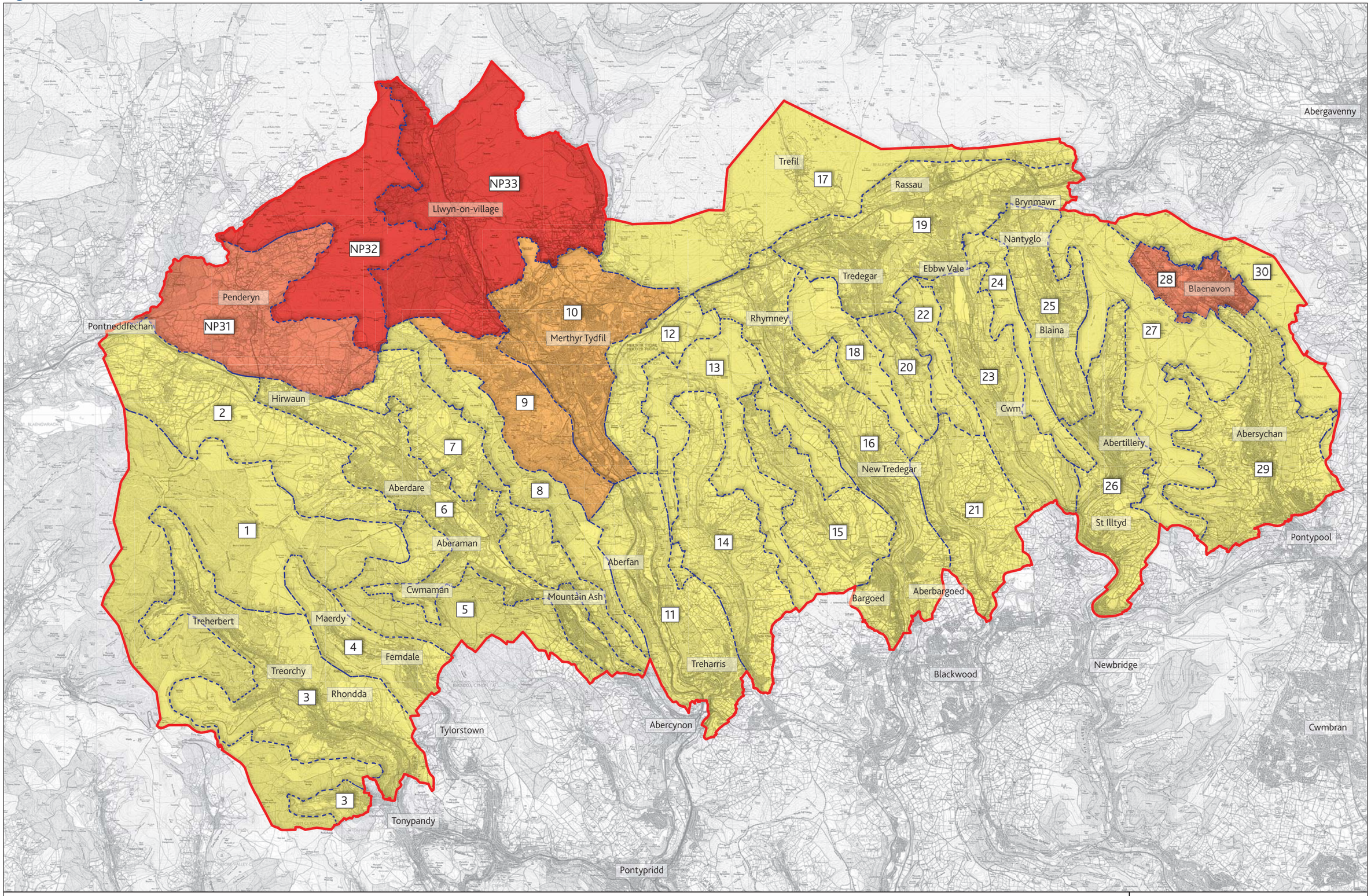
0 1.0km 5.0km

Figure 11 : Sensitivity to Micro Wind Turbine Development



Legend

- Heads of the Valley Study Area
- Landscape Units (LU)

Sensitivity

- Low Sensitivity
- Low to Medium Sensitivity
- Medium Sensitivity
- Medium to High Sensitivity
- High Sensitivity

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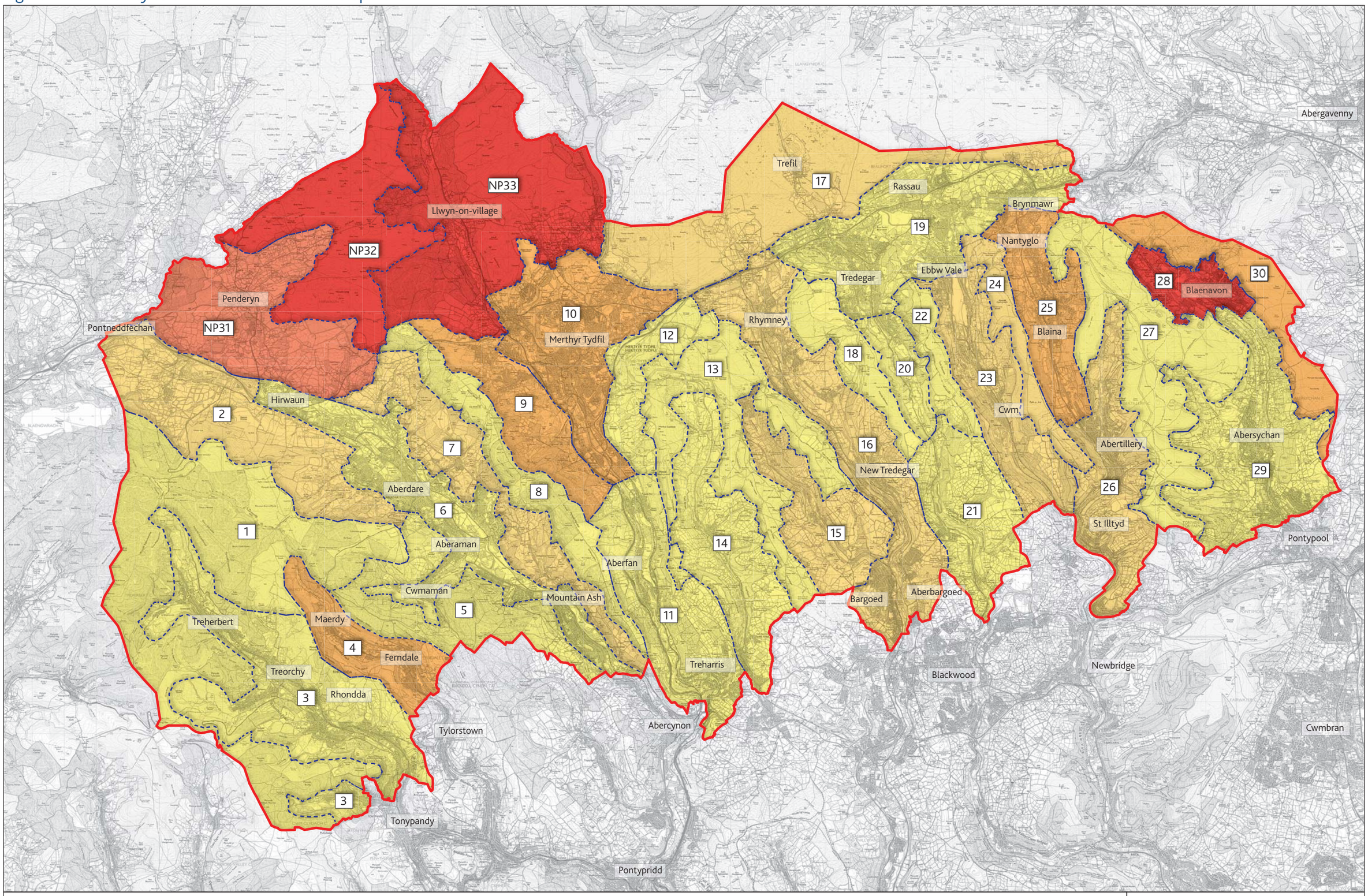
0 1.0km 5.0km

Figure 12 : Sensitivity to Small Wind Turbine Development



Legend

- Heads of the Valley Study Area
- Landscape Units (LU)

Sensitivity

- Low Sensitivity
- Low to Medium Sensitivity
- Medium Sensitivity
- Medium to High Sensitivity
- High Sensitivity

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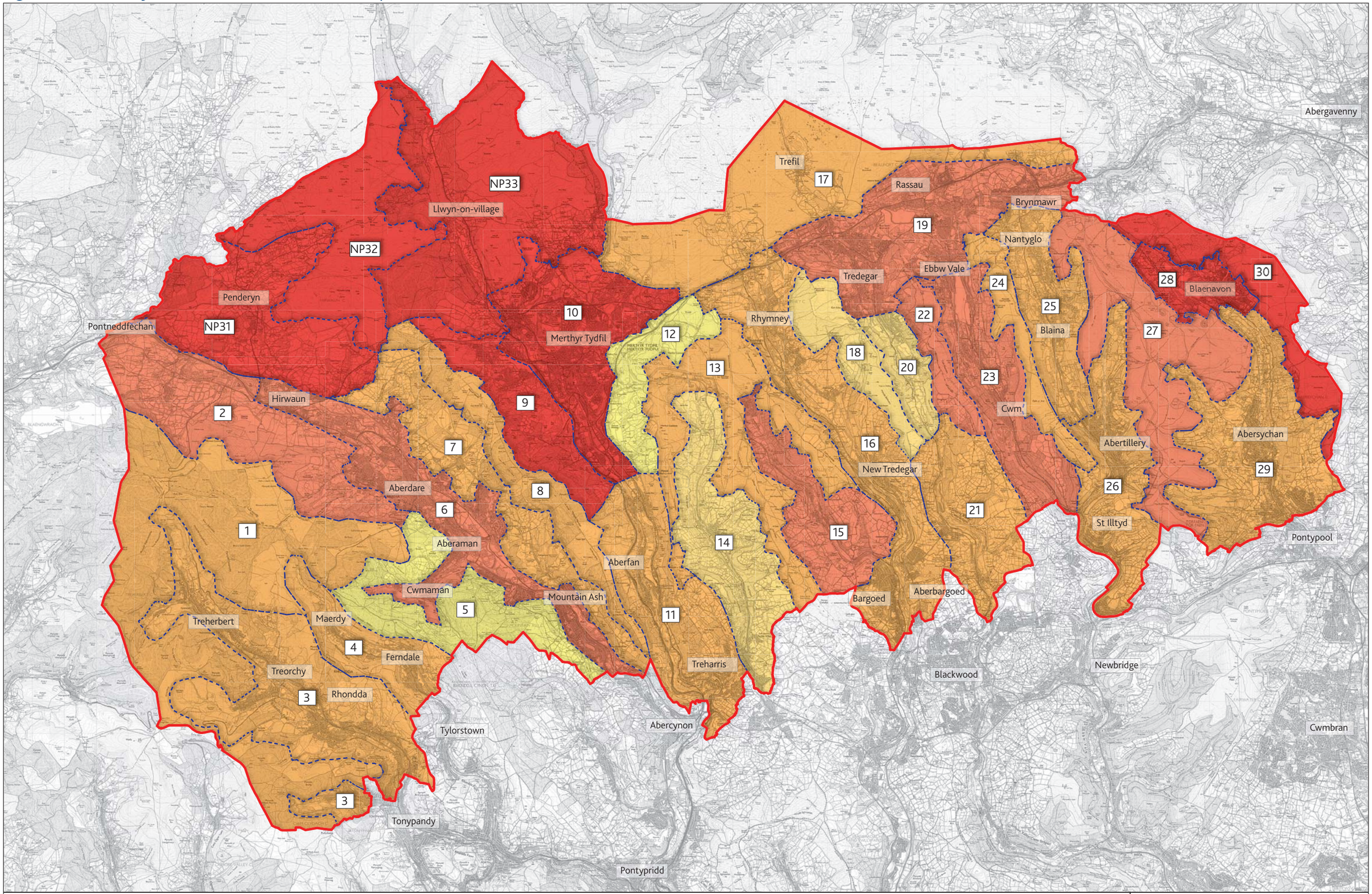
0 1.0km 5.0km

Figure 13 : Sensitivity to Medium Wind Turbine Development



Legend

- Heads of the Valley Study Area
- Landscape Units (LU)

Sensitivity

- Low Sensitivity
- Low to Medium Sensitivity
- Medium Sensitivity
- Medium to High Sensitivity
- High Sensitivity

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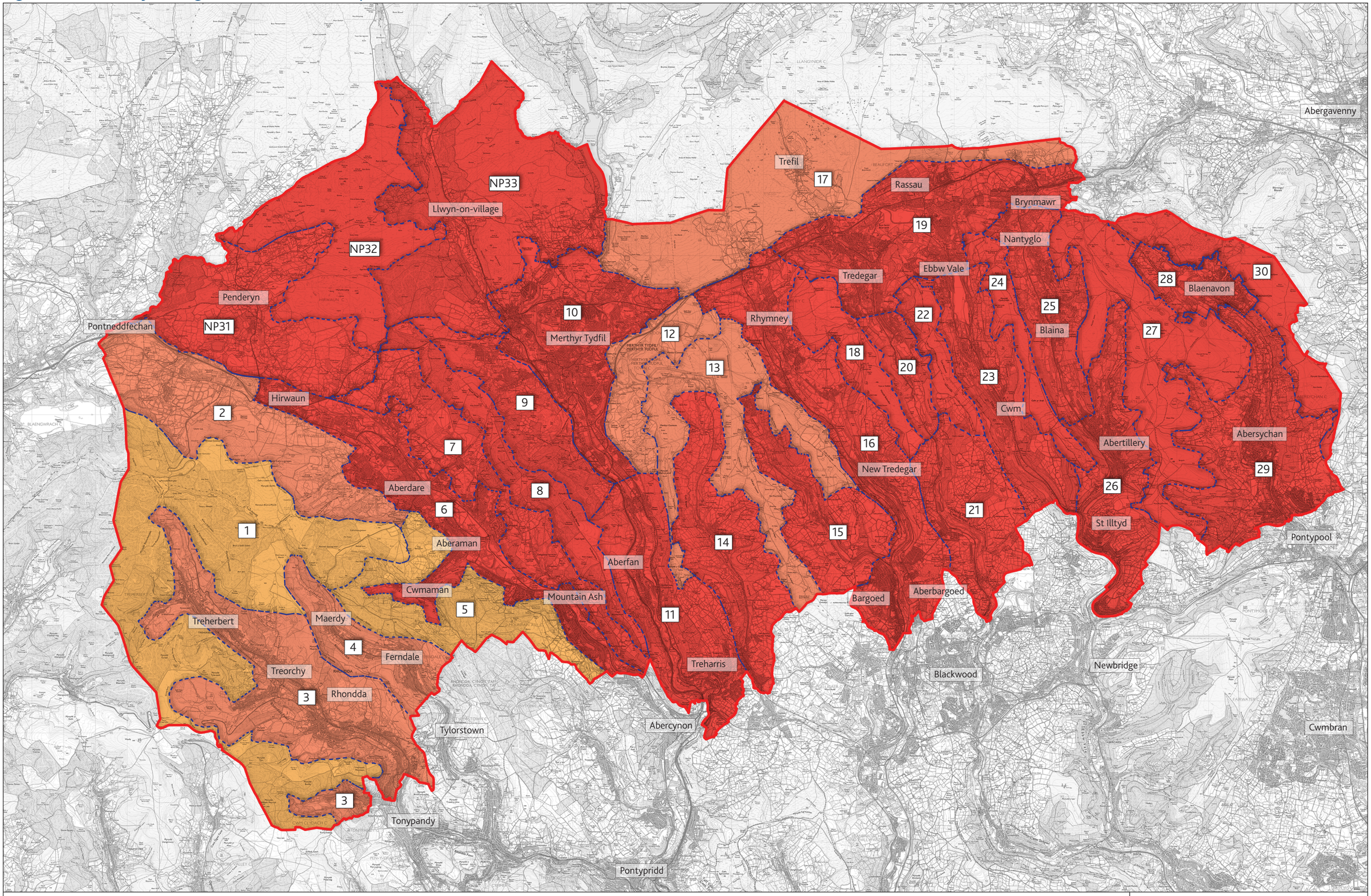
P 0207 253 2929 F 0207 253 3900 E design.london@gillespies.co.uk

0 1.0km 5.0km

Figure 14 : Sensitivity to Large Wind Turbine Development



Legend

- Heads of the Valley Study Area
- Landscape Units (LU)

Sensitivity

- Low Sensitivity
- Low to Medium Sensitivity
- Medium Sensitivity
- Medium to High Sensitivity
- High Sensitivity

N

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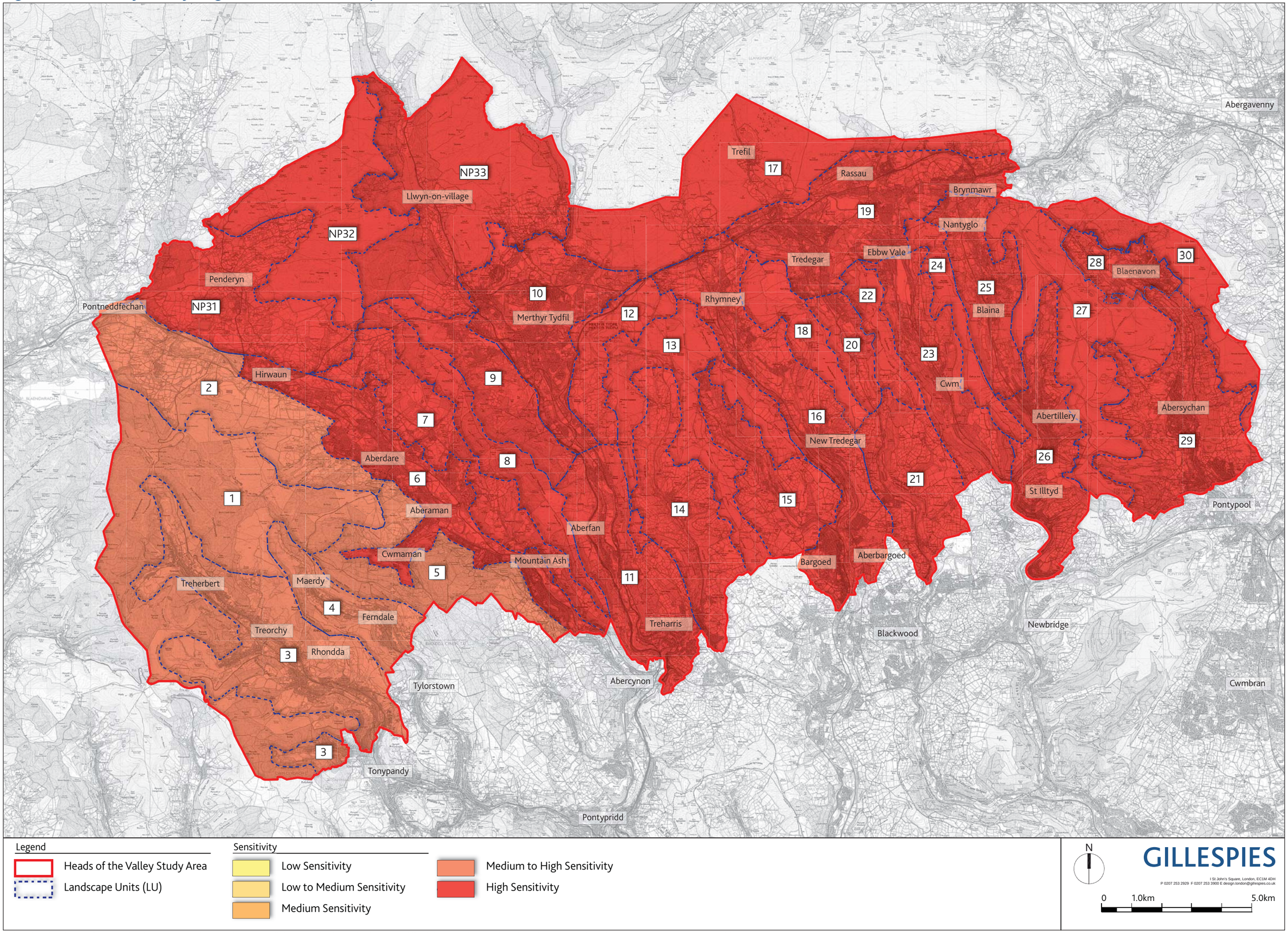
P 0207 253 2929 F 0207 253 3900 E design.london@gillespies.co.uk

0 1.0km 5.0km

Figure 15 : Sensitivity to Very Large Wind Turbine Development



APPENDIX 1: ABBREVIATIONS & GLOSSARY OF KEY TERMS

Abbreviations

Below is a list of abbreviations used in this study.

AOD	Above Ordnance Datum
AONB	Area of Outstanding Natural Beauty
BBNP	Brecon Beacons Nation Park
CCW	Countryside Council for Wales (Now Natural Resources Wales)
CROW	Countryside & Rights of Way Act (2005)
DCfW	Design Commission for Wales
GIS	Geographical Information Systems
GLVIA3	Guidelines for Landscape and Visual Impact Assessment. Third Edition. Landscape Institute and Institute for Environmental Management and Assessment (2013)
LCA	Landscape Character Area
LCT	Landscape Character Type
LU	Landscape Unit
MW	Megawatt
NRW	Natural Resources Wales (formerly the Countryside Council for Wales)
PPW	Planning Policy Wales
SLA	Special Landscape Area
SNH	Scottish Natural Heritage
SSA	Strategic Search Area
SSA F	Strategic Search Area F Coed Morgannwg
TAN	Technical Advice Note
WHS	World Heritage Site
ZTV	Zone of Theoretical Visibility

Glossary of Key Terms

Landscape is defined as 'An area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors.' GVLIA3 notes that the term does not only mean landscapes that are recognised as being special or valuable but is also about the ordinary and the everyday landscapes where people live and work, and spend their leisure time. This includes rural landscapes, seascapes and townscapes.

Landscape Sensitivity is a term applied to specific receptors, combing judgements of the susceptibility of the receptor to the specific type of change or development proposed and the value related to that receptor.

Landscape Value is defined as the relative value that is attached to different landscapes by society. A landscape may be valued by different stakeholders for a whole variety of reasons.

Landscape Capacity relates to how much change arising from wind energy development can be accommodated without unacceptable adverse effects on the character or perception of the landscape and without compromising any values attached to it.

Cumulative Effects are the additional effects caused by the proposed development when considered in conjunction with other proposed developments or as the combined effect of a set of developments taken together.

Cumulative Landscape Effects 'can impact on either the physical fabric or character of the landscape, or any special values attached to it'.

Cumulative Visual Effects can be caused by combined visibility, which 'occurs where the observer is able to see two or more developments from one viewpoint' and/or sequential effects which 'occur when the observer has to move to another viewpoint to see different developments'[3].

Tranquillity is defined as a state of calm and quietude associated with peace, considered to be a significant asset of landscape.

European Landscape Convention (2007)
Scottish Natural Heritage 2012:10
Scottish Natural Heritage 2012:11

APPENDIX 2: REFERENCE DOCUMENTS

General Landscape and Visual Assessment Documents

- Landscape Institute and IEMA, (2013) *Guidelines for Landscape and Visual Impact Assessment* (GLVIA), *Third Edition*
- Tudor, Christine, Natural England, (October 2014) *An Approach to Landscape Character Assessment*
- Swanwick, Carys and LUC, Scottish Natural Heritage with the Countryside Agency, (2004) *Topic Paper 6 'Techniques and criteria for judging landscape sensitivity and capacity'*
- Landscape Institute, (2011) *Photography and photomontage in landscape and visual impact assessment, Advice Note 01/11*

Welsh Documents

- Welsh Assembly Government (2014) *Planning Policy Wales, Edition 6*
- Welsh Assembly Government (2005) *Technical Advice Note 8: Renewable Energy*
- Countryside Council for Wales (2008) *LANDMAP Methodology: Guidance for Wales*
- Countryside Council for Wales (2008) *LANDMAP Information Guidance Note 1: LANDMAP and Special Landscape Areas*
- Countryside Council for Wales, (May 2013) *LANDMAP information Guidance Note 3: Using LANDMAP for landscape and visual impact assessment of onshore wind turbines.*
- Countryside Council for Wales, Cadw and Welsh Assembly Government (2007) *Guide to Good Practice on Using the Register of Landscapes of Historic Interest in Wales in the Planning and Development Process*
- Countryside Council for Wales (2008) *Energy & Natural Heritage. Countryside Council for Wales Policy Position Statement*
- Design Commission for Wales (2012) *Designing Wind Farms in Wales*
- Pembrokeshire and Carmarthenshire (2013) *Cumulative Impact of Wind Turbines on Landscape and Visual Amenity guidance*
- Conwy and Denbighshire (2013) *Landscape Sensitivity and Capacity Assessment for Wind Energy Development*
- • Consortium of South Wales Valleys Authorities (2006) *TAN 8 Annex D Study of Strategic Search Areas E and F: South Wales Valleys* Final report

Scottish Documents

- Scottish Natural Heritage (2002) *'Visual Assessment of Windfarms: Best Practice'*
- Scottish Natural Heritage (March 2012) *Assessing the cumulative impact of onshore wind energy developments*
- Scottish Natural Heritage (2012) *Siting and design for small scale wind turbines between 15 and 50 metres in height*
- Scottish Natural Heritage (2012) *Assessing the Impact of Small Scale Wind Energy Proposals on the Natural Heritage*
- The Highland Council (2013) *Visualisation Standards for Wind Energy Developments*
- Scottish Natural Heritage (2014) *Siting and designing windfarms in the landscape, Version 2*
- Scottish Natural Heritage. (2014) *Visual Representation of Windfarms: Version 2.1*

Other Documents

- Department of Energy and Climate Change (2009) *Guidance on the Assessment of Cumulative Effects of Onshore Wind Farms. Entec Phase 2 Report 2nd draft.*

APPENDIX 3: BASELINE INFORMATION

Background Documents

- Blaenau Gwent County Borough Council (2009) *Proposals for Designation of Special Landscape Areas in Blaenau Gwent. Final Report* Prepared by Bronwen Thomas Landscape Architect
- Torfaen County Borough Council (2011) *Designation of Special Landscape Areas* Prepared by TACP Consultants
- Caerphilly County Borough Council (2008) *Designation of Special Landscape Areas* Prepared by TACP Consultants
- Brecon Beacons National Park (2012) *Landscape Character Assessment* prepared by Fiona Fyfe Associates.
- Cadw (1998) *Register of Landscapes of Outstanding Historic Interest in Wales*
    - *Merthyr Tydfil Landscape of Outstanding Historic Interest Full description*
    - *Blaenavon Landscape of Outstanding Historic Interest Full Description*
- Cadw (2001) *Register of Landscapes of Special Historic Interest in Wales*
    - *Clydach Gorge Landscape of Special Historic Interest Full Description*
    - *Forest Fawr Landscape of Special Historic Interest Full Description*
    - *Gelli-Gaer Common Landscape of Special Historic Interest Full Description*
    - *The Rhondda Landscape of Special Historic Interest Full description*
- Cadw (1998) *Register of Landscapes, Parks and Gardens of Special Historic Interest in Wales*
- Forestry Commission for Wales (2010) *Heads of the Valley Woodland Plan.*
- Rhondda Cynon Taf County Borough Council (2008) Local Development Plan (2006-2021) *Natural Environment Topic Paper*
- Torfaen County Borough Council (2008) *Forgotten Landscape Partnership Landscape Partnership Project, Landscape Strategy*
- Torfaen County Borough Council (2011) *Blaenavon Industrial Landscape World Heritage Site Management plan 2011 – 2016*

APPENDIX 4: USING LANDMAP DATA TO INFORM SENSITIVITY ASSESSMENTS

Landscape sensitivity is a combination of the susceptibility of landscape attributes and the value placed on the landscape. LANDMAP is a GIS based landscape resource that consists of five layers which have been recorded as five datasets concerning Cultural Landscape, Geological Landscape, Historic Landscape, Landscape Habitats, and Visual and Sensory aspects. It is possible to use the five LANDMAP datasets to generate consistent information across Wales on those aspects of the landscape that indicate how susceptible a landscape may be to adverse impacts as a result of wind turbine development. The text below and the following diagrams explain how the information in the database is extracted.

Certain questions in each layer/dataset have been identified as indicating susceptibility to wind. These are set out in Table 3: Criteria for Assessing Landscape and Visual Susceptibility to Wind Turbine Development

The defined landscape units will include aspect areas from all five layers but is also likely to include two or more aspect areas from the same layer.

The example provided is from the Caerphilly Landscape Sensitivity and Capacity Study. It shows that Caerphilly Landscape Unit 6: Mynyddislwyn includes:

- All or part of four Visual and Sensory aspect areas; -
- Two main Geological aspects areas; and
- Two main Historic aspect areas.

The criteria for assessing the landscape and visual sensitivity of a landscape to wind turbine development include a number of questions from the LANDMAP dataset.

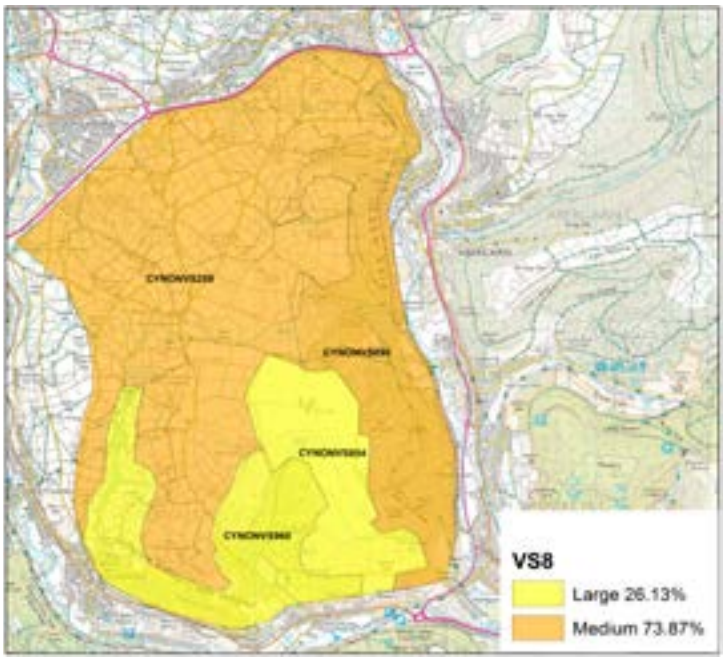
Plan 1, for example, shows the answers to the question 'Aesthetic Qualities: Scale?' for Caerphilly Landscape Unit 6. This is question 8 of the Visual and Sensory layer – VS8.

Within Caerphilly Landscape Unit 6 two of the Visual and Sensory Aspect Areas are assessed as being large scale whilst two are medium scale. This can be seen in Plan 1. It is possible to know exactly how much of how much of Caerphilly Landscape Unit 6 is assessed as large and how much is assessed as medium because the information is recorded in a GIS dataset. In this case 74% is assessed as large and 26% as medium. This information is used, alongside other criteria to decide how susceptible that particular attribute is to wind turbine development.

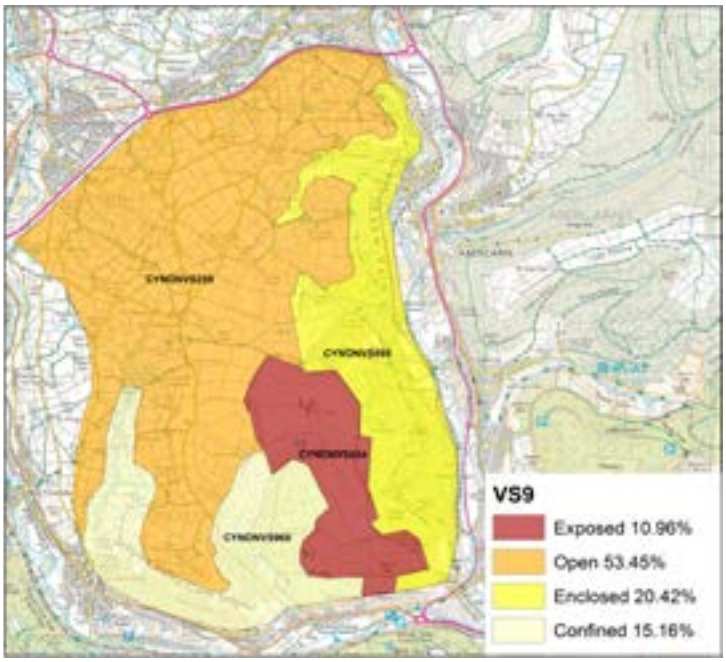
Plans 2-4 show the answers to three other Visual and Sensory questions including the overall Visual and Sensory evaluation where 88% of the unit has been assessed as moderate and 11% assessed as high.

Plans 5-7 show the same process for the overall evaluation for the Geological aspect areas and two of the questions for the Historic layer. It can be seen that whilst the whole of the unit is considered to have high integrity (very small percentages are ignored) the overall historic evaluation for the unit is moderate.

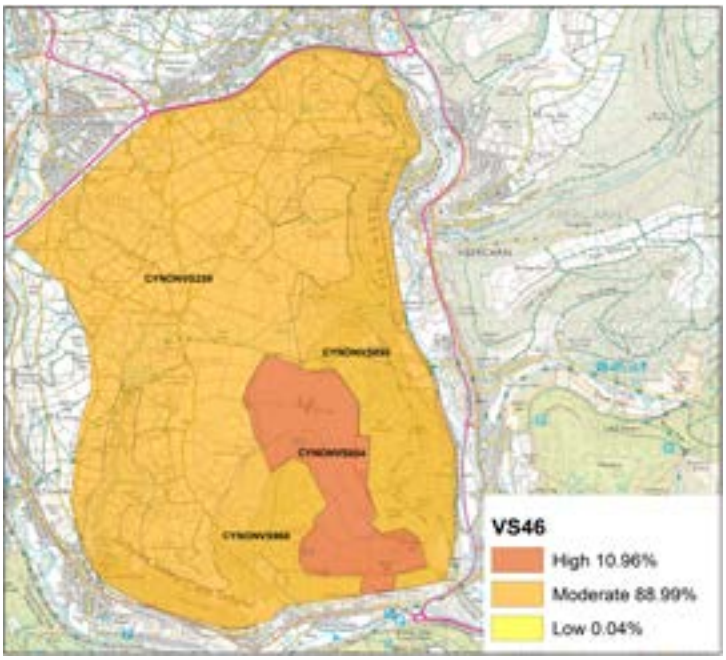
PLAN 1
Visual and Sensory - VS8: Scale



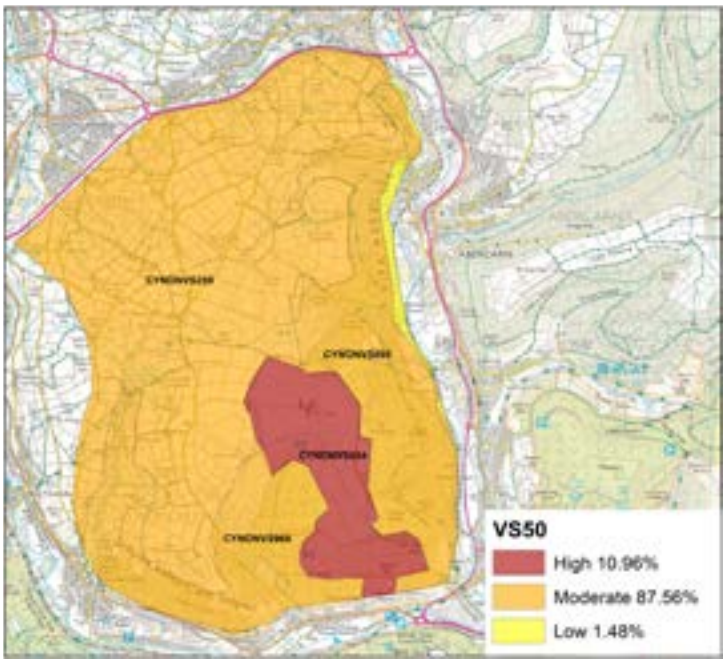
PLAN 2
Visual and Sensory – VS9: Enclosure



PLAN 3
Visual and Sensory – VS46: Scenic Quality

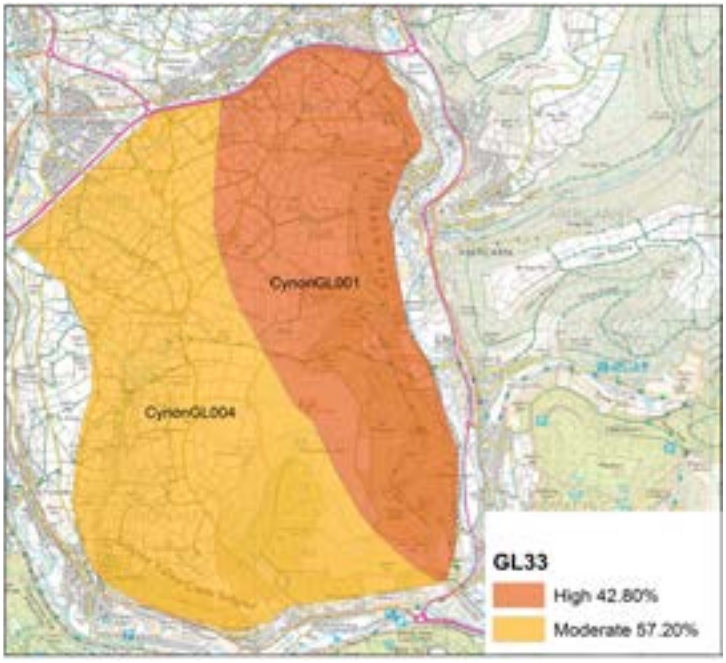


PLAN 4
Visual and Sensory – VS50: Overall Evaluation



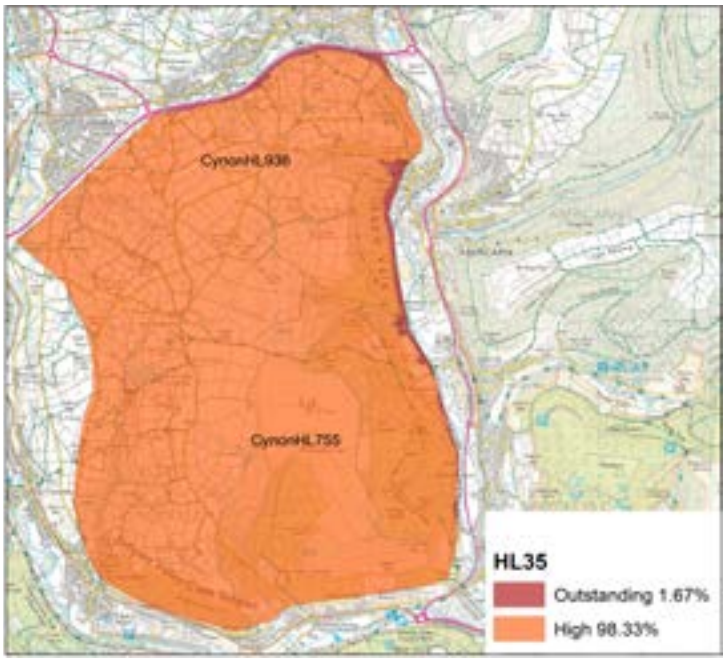
PLAN 5

Geological Landscape – GL33: Overall Evaluation



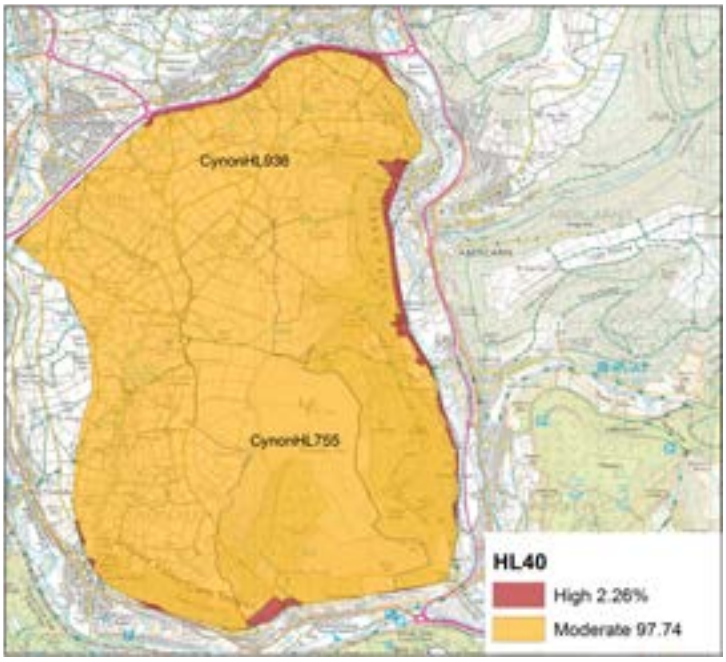
PLAN 6

Historic Landscape – HL35: Integrity



PLAN 7

Historic Landscape – HL40: Overall Evaluation



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