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17. Inter-related cumulative effects

17.1 Introduction

- This chapter presents the assessment of the likely significant effects of the Proposed Development with respect to inter-related (intra-project) cumulative effects. It should be read in conjunction with the description provided in **Chapter 4: Description of the Proposed Development**.
- Potential inter-project cumulative effects arising from the combination of effects from the Proposed Development with similar topic-related effects generated by other developments are discussed in **Chapter 2: Approach to Environmental Impact Assessment** and assessed in **Chapters 6-16**.

Limitations and assumptions

- The Draft ES has been produced to fulfil the Applicant's consultation duties and enable consultees to develop an informed view of the likely significant effects of the Proposed Development.
- There are no limitations that affect the robustness of the assessment of the likely significant inter-related cumulative effects of the Proposed Development

17.2 Relevant Legislation, planning policy and technical guidance

This section identifies the legislation, planning policy and technical guidance that has informed the assessment of effects with respect to inter-related cumulative effects. Further information on policies relevant to the Proposed Development is provided in **Chapter 5:**Legislation and policy overview.

Legislation

This assessment takes into account Paragraph 5 of Schedule 4 of the Town & Country Planning (Environmental Impact Assessment) (Wales) Regulations 2017¹ which states that the "The description of the likely significant effects on the factors specified in regulation 4(2) should cover the direct effects and any indirect, secondary, cumulative², transboundary, short-term, medium-term and long-term, permanent and temporary, positive and negative effects of the development."

Planning policy

17.2.3 A summary of the relevant national and local planning policy is given in **Table 17.1**.

October 2022

¹ UK Government (2017). The Town and Country Planning (Environmental Impact Assessment) (Wales) Regulations 2017. (Online) Available at: https://www.legislation.gov.uk/wsi/2017/567/contents (Accessed April 2022).

² Boldened for emphasis



Table 17.1 Planning policy relevant to the inter-related cumulative effects assessment

Policy	Policy Context
National Planning Policy	
Future Wales: The National Development Plan 2040 ³	Policy 18: Renewable and Low Carbon Energy Developments of National Significance outlines that proposals should consider the cumulative impacts of existing and consented renewable energy schemes. The Plan further states that "Both within and outside Pre-Assessed Areas, communities should be protected from significant cumulative impacts to avoid unacceptable situations whereby, for example, smaller settlements could be potentially surrounded by large wind schemes".
Planning Policy Wales, Edition 11, Welsh Government (2021) ⁴	Chapter 5: Productive and Enterprising Places covers the economic components of placemaking. The chapter outlines that local planning authorities should, when formulating their renewable energy targets, "take into account the cumulative impact of renewable and low carbon energy development and their associated infrastructure, for example grid connections".

Technical Guidance

- A summary of other relevant information and guidance relevant to the assessment undertaken for inter-related cumulative effects is provided here:
 - Environmental Impact Assessment of Projects: Guidance on the preparation of the Environmental Impact Assessment Report (Directive 2011/92/EU as amended by 2014/52/EU) ⁵ aims to help developers and consultants produce good quality EIA reports. Section 1.4.3 highlights the need to consider interactions between the different environmental aspects in a single project. It recommends using interactive matrices that consider the interactions of impacts assessed individually.
 - Guideline for the Assessment of Indirect and Cumulative Impacts as well as Impact Interactions⁶ sets out various tools that can be used for inter-related effects, guidance on the approach and assessment. Section 3 of the guidance outlines the tools that can be used for inter-related effects, which are: expert opinion, matrices, consultation and questionnaires, network and systems analysis and spatial analysis. These tools can be used in different combinations at different stages of the project. Section 7.7 of the guidance states the inter-related effects assessment can be within the individual aspect chapters or as its own standalone chapter (as in this Draft ES). Section 7.3.1 of

^{3 3} Welsh Government (2021). Future Wales: The National Plan 2040. (Online) Available at: https://gov.wales/sites/default/files/publications/2021-02/future-wales-the-national-plan-2040.pdf (Accessed 19 April 2022).

⁴ Welsh Government (2021) Planning Policy Wales, Edition 11, February 2021. (Online). Available at: https://gov.wales/sites/default/files/publications/2021-02/planning-policy-wales-edition-11 0.pdf. (Accessed 01 December 2021).

⁵ European Commission (2017). Environmental Impact Assessment of Projects: Guidance on the preparation of the Environmental Impact Assessment Report (Directive 2011/92/EU as amended by 2014/52/EU). (Online) Available at: https://ec.europa.eu/environment/eia/pdf/EIA quidance EIA report final.pdf (Accessed April 2022).

⁶ European Commission (1999). Guideline for the Assessment of Indirect and Cumulative Impacts as well as Impact Interactions. (Online) Available at: https://ec.europa.eu/environment/archives/eia/eia-studies-and-reports/pdf/guidel.pdf (Accessed April 2022).



the guidance states where the assessment cannot be qualitative, a qualitive assessment can be carried out.

17.3 Consultation and engagement

Overview

The assessment has been informed by consultation responses and ongoing stakeholder engagement. An overview of the approach to consultation is provided in **Section 2.4** of **Chapter 2: Approach to Environmental Impact Assessment.**

Scoping Direction

A Scoping Direction was issued by Planning and Environmental Decisions Wales (PEDW; formerly Planning Inspectorate Wales), on behalf of the Welsh Ministers, on 01 December 2021. No comments on inter-related cumulative effects were raised in the Scoping Direction.

17.4 Data gathering methodology

The study area and data gathering exercises for the inter-related effects assessment are informed by those from each of the environment topic chapters (**Chapter 6** to **Chapter 16**).

17.5 Overall baseline

The baseline for the assessment is as discussed within the individual topic chapters (**Chapters 6-16**).

17.6 Embedded measures

A range of environmental measures have been embedded into the development proposals as outlined in **Section 4.8** and **Chapters 6-16** of this Draft ES.

17.7 Scope of the assessment

Spatial scope

The spatial study area is dependent on each receptor. To have a potential inter-related effect a receptor or receptor group must be within the study area of more than one environmental topic. An illustrative example of this is described in **Graphic 17.1**; only the green receptors have the potential to experience inter-related effects as they are in the study area for environmental topic (aspect) 1 and environmental topic (aspect) 2.



Graphic 17.1 Illustrative example of the spatial scope and study area for an example receptor



The study area for each of the individual environmental topics (**Chapter 6** to **Chapter 16**) relevant to this chapter have been informed through desk study and engagement with stakeholders.

Temporal scope

The temporal scope of the assessment of inter-related effects is the entire lifetime of the Proposed Development which therefore covers the construction, operation and maintenance and decommissioning periods.

Potential receptors

- The most likely types of receptors where topic effects are likely to combine are those pertaining to the amenity of the human population. For example the occupants of a residential property in close proximity to the Proposed Development might be subject to adverse effects in terms of noise or shadow flicker, as well as with regard to visual amenity, or any combination thereof, each of which, when assessed individually, may not be significant in EIA terms, but when assessed in combination the combined effects may be judged to be significant.
- 17.7.5 Consideration has also been given to the potential for cumulative effects on other environmental receptors. A review of the respective Draft ES chapters has been undertaken to identify where one non-human receptor may be affected by more than one environmental effect.

Landscape/Visual and Environment Receptors

- 17.7.6 22 receptor locations have been considered in two or more of the following receptors:
 - Chapter 6: Landscape and Visual Impact Assessment (LVIA);
 - Chapter 7: Historic Environment; and
 - Chapter 16 Socio-economics



Human/Residential Receptors

- 17.7.7 28 receptor locations have been considered in two or more of the following chapters:
 - .Chapter 6: Landscape and Visual Impact Assessment (LVIA);
 - Chapter 7: Historic Environment;
 - Chapter 10: Water Environment;
 - Chapter 13: Noise;
 - Chapter 15: Shadow Flicker; and
 - Chapter 16: Socio-economics.

Ecological Receptors

- 17.7.8 10 receptor locations have been considered in two or more of the following chapters:
 - Chapter 8: Biodiversity; and
 - Chapter 10: Water Environment
- All receptors considered in two or more Draft ES chapters are summarised in **Table 17.2**.



 Table 17.2
 Common receptors between Draft ES Chapters

Receptor	Ch 6: Landscape & Visual	Ch 7: Historic Env	Ch 8: Biodiversity	Ch 10: Water Env	CH 12: Traffic & Transport	CH13: Noise	Ch 15 : Shadow Flicker	Ch 16: Socio economics
A4233	✓	Х	Х	Х	✓	Χ	Х	Х
A4119	✓	Χ	X	Χ	✓	X	Χ	Χ
A4058	✓	Χ	Χ	Χ	✓	X	Х	Χ
PRoW RH ANT 75/1	✓	Χ	Х	Х	Х	X	Х	✓
PRoW RH ANT181/1	✓	Χ	X	Χ	Х	X	Х	✓
PRoW 331/75/1	✓	Χ	Χ	Х	Х	X	Х	✓
PRoW331/112/1	✓	Χ	Χ	Χ	Х	X	Х	✓
PRoW 331/113/1	✓	Χ	X	Х	Х	X	Х	X
Graigwen, Pontypridd	✓	✓	Χ	Χ	Х	X	Х	Χ
Penrhys Pilgrimage Way	✓	Χ	X	Х	Х	X	Х	✓
Cistercian Way	✓	Χ	Χ	Χ	Х	X	Х	✓
Glamorgan Ridgeway Walk	✓	Χ	Х	Х	Х	Χ	Х	✓
Ogwr Ridgeway Walk	✓	Χ	Χ	Χ	X	Χ	Х	✓
Rhymney Valley Ridgeway Walk	✓	X	X	Χ	X	Х	X	✓



Receptor	Ch 6: Landscape & Visual	Ch 7: Historic Env	Ch 8: Biodiversity	Ch 10: Water Env	CH 12: Traffic & Transport	CH13: Noise	Ch 15 : Shadow Flicker	Ch 16: Socio economics
Capital Walk - Cardiff	✓	Х	X	Х	Х	Χ	Х	✓
NCN4	✓	Χ	Χ	Χ	X	X	Χ	\checkmark
NCN881	✓	Χ	Χ	X	Χ	X	X	✓
NCN47	✓	Χ	Χ	X	X	Χ	X	✓
Pontypridd Golf Club	✓	Χ	X	X	X	X	X	✓
Rhondda Golf Course	✓	Χ	Χ	X	X	Χ	X	\checkmark
Open Access Land and PRoW Within 5km	✓	X	X	X	X	X	Χ	✓
Open access Land between 5km-10km	✓	Χ	Χ	X	X	X	X	✓
Langton Court Farm	Χ	Χ	Χ	✓	Χ	X	✓	X
Tyler-winder Farm	X	Χ	Χ	✓	Χ	✓	✓	Χ
Glyn	X	Χ	Χ	✓	X	✓	✓	Χ
Rhiw-garn-fach	Χ	Χ	Χ	✓	X	✓	✓	Χ
Rhiw-garn-fawr	X	Χ	X	✓	X	Χ	✓	Χ
Llan	X	Χ	Χ	✓	Χ	✓	X	Χ
Home Farm	X	X	Χ	Χ	Χ	✓	✓	Χ



Receptor	Ch 6: Landscape & Visual	Ch 7: Historic Env	Ch 8: Biodiversity	Ch 10: Water Env	CH 12: Traffic & Transport	CH13: Noise	Ch 15 : Shadow Flicker	Ch 16: Socio economics
Cefn-coed farm	Х	Χ	X	Х	Х	✓	✓	Х
Brookland Bungalow	X	Χ	Χ	X	X	✓	✓	Χ
Henllys	Χ	Χ	Χ	Χ	X	✓	✓	Χ
Craig Crescent Trebanog	Χ	Χ	Χ	X	X	✓	✓	Χ
Concorde Drive, Tonyrefail	Χ	Χ	Χ	X	X	✓	✓	Χ
Plas-Rhiwinder	X	Χ	Χ	X	X	✓	✓	Χ
Tre-boeth Farm	Χ	Χ	Χ	Χ	X	✓	✓	Χ
Mountain View	Χ	Χ	Χ	X	X	✓	✓	Χ
Rackett Cottages	Χ	Χ	Χ	X	X	✓	✓	Χ
Twin Pines	Χ	Χ	Χ	X	X	✓	✓	Χ
Rheolau Terrace	Χ	Χ	Χ	Χ	X	✓	✓	Χ
Glynfach	Χ	Χ	Χ	X	X	✓	✓	Χ
Kensington Drive	Χ	Χ	Χ	Χ	X	✓	✓	Χ
Gwaun Bedw	Χ	Χ	X	X	X	✓	✓	Χ
Ty-draw Farm	Χ	Χ	X	X	X	✓	✓	Χ
Langton Court Cottage	Χ	Χ	Χ	X	Χ	✓	✓	Χ
Porth	✓	X	Χ	✓	✓	X	Х	✓



Receptor	Ch 6: Landscape & Visual	Ch 7: Historic Env	Ch 8: Biodiversity	Ch 10: Water Env	CH 12: Traffic & Transport	CH13: Noise	Ch 15 : Shadow Flicker	Ch 16: Socio economics
Trebanog	✓	Χ	Х	✓	✓	X	Х	Х
Trehaford	✓	Χ	Χ	✓	✓	X	Χ	Χ
Church Village	✓	Χ	Χ	✓	X	X	Χ	Χ
Tonyrefail	✓	Χ	Χ	X	X	✓	✓	✓
Nant Gelliwion Woodland SSSI	X	X	✓	✓	X	X	X	Χ
Rhos Tonyrefail SSSI	Χ	Χ	✓	✓	Χ	Χ	Χ	Χ
Mynydd y Glyn SiNC	Χ	Χ	✓	✓	Χ	X	Χ	Χ
Mynydd Gelliwion and Gellwion Slopes SINC	X	X	✓	✓	Χ	Χ	Χ	Χ
Bronwydd Woods SINC	Χ	Χ	✓	✓	Χ	X	Χ	X
Trebanog Slopes SINC	Χ	Χ	✓	✓	Χ	Χ	Χ	Χ
The Glyn SINC	Χ	Χ	✓	✓	Χ	X	Χ	Х
Tonyrefail East SINC	Χ	Χ	✓	✓	Χ	X	Χ	X
Coed Castellau SINC	Χ	Χ	✓	✓	Χ	X	Χ	X
Nant Gelliwion /Waun Castellau SINC	Χ	X	✓	✓	X	Χ	Χ	Χ



17.7.10 The receptors considered in this assessment are therefore:

Landscape/Visual and Environment Receptors:

- A4233 (LVIA and Traffic and Transport);
- A4119 (LVIA and Traffic and Transport);
- A4058 (LVIA and Traffic and Transport);
- PRoW RH|ANT|75/1 (LVIA and Socio economics);
- PRoW RH|ANT181/1 (LVIA and Socio economics);
- PRoW 331/75/1 (LVIA and Socio economics);
- PRoW331/112/1 (LVIA and Socio economics);
- PRoW 331/113/1 (LVIA and Socio economics);
- Graigwen, Pontypridd (LVIA and Historic Environment);
- Penrhys Pilgrimage Way (LVIA and Socio economics);
- Cistercian Way (LVIA and Socio economics);
- Glamorgan Ridgeway Walk (LVIA and Socio economics);
- Ogwr Ridgeway Walk (LVIA and Socio economics);
- Rhymney Valley Ridgeway Walk (LVIA and Socio economics);
- Capital Walk Cardiff (LVIA and Socio economics);
- NCN4 (LVIA and Socio economics);
- NCN881 (LVIA and Socio economics);
- NCN47 (LVIA and Socio economics);
- Pontypridd Golf Club (LVIA and Socio economics);
- Rhondda Golf Course (LVIA and Socio economics);
- Open Access Land and PRoW Within 5km (LVIA and Socio economics); and
- Open access Land between 5km-10km (LVIA and Socio economics).

Human/Residential Receptors

- Langton Court Farm (Water Environment and Shadow Flicker);
- Tyler-winder Farm (Water Environment, Noise and Shadow Flicker);
- Glyn (Water Environment, Noise and Shadow Flicker);
- Rhiw-garn-fach (Water Environment, Noise and Shadow Flicker);
- Rhiw-garn-fawr (Water Environment, Noise and Shadow Flicker);
- Llan (Water Environment and Noise);
- Home Farm (Noise and Shadow Flicker);
- Cefn-coed farm (Noise and Shadow Flicker);



- Brookland Bungalow (Noise and Shadow Flicker);
- Henllys (Noise and Shadow Flicker);
- Craig Crescent Trebanog (Noise and Shadow Flicker);
- Concorde Drive, Tonyrefail (Noise and Shadow Flicker);
- Plas-Rhiwinder (Noise and Shadow Flicker);
- Tre-boeth Farm (Noise and Shadow Flicker);
- Mountain View (Noise and Shadow Flicker);
- Rackett Cottages (Noise and Shadow Flicker);
- Twin Pines (Noise and Shadow Flicker);
- Rheolau Terrace (Noise and Shadow Flicker);
- Glynfach (Noise and Shadow Flicker);
- Kensington Drive (Noise and Shadow Flicker);
- Gwaun Bedw (Noise and Shadow Flicker);
- Ty-draw Farm (Noise and Shadow Flicker);
- Langton Court Cottage (Noise and Shadow Flicker);
- Porth (LVIA, Water Environment, Traffic and Transport and Socio economics);
- Trebanog (LVIA, Water Environment and Traffic and Transport);
- Trehaford (LVIA, Water Environment, Traffic and Transport and Socio economics);
- Church Village (LVIA and Water Environment); and
- Tonyrefail (LVIA, Water Environment, Traffic and Transport and Socio economics).

Ecological Receptors

- Nant Gelliwion Woodland SSSI (Biodiversity and Water Environment);
- Rhos Tonyrefail SSSI (Biodiversity and Water Environment);
- Mynydd y Glyn SiNC (Biodiversity and Water Environment);
- Mynydd Gelliwion and Gellwion Slopes SINC (Biodiversity and Water Environment);
- Bronwydd Woods SINC (Biodiversity and Water Environment);
- Trebanog Slopes SINC (Biodiversity and Water Environment);
- The Glyn SINC (Biodiversity and Water Environment);
- Tonyrefail East SINC (Biodiversity and Water Environment);
- Coed Castellau SINC (Biodiversity and Water Environment); and
- Nant Gelliwion /Waun Castellau SINC (Biodiversity and Water Environment).



Likely significant effects

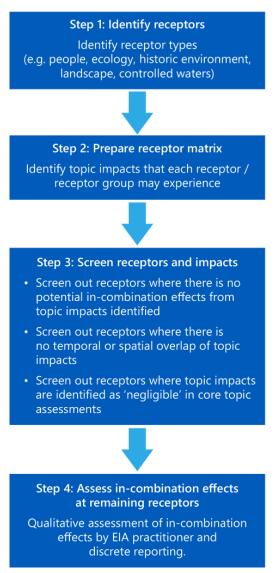
The purpose of EIA is to identify and assess any likely significant effects that are material to the decision-making process. In order to maintain proportionality, and in line with the EIA Regulations, this assessment therefore concentrates on where significant inter-related cumulative effects are likely to arise between topics considered in this ES.

17.8 Assessment methodology

- National policy guidance requires that all relevant effects should be considered objectively. However, existing policy guidance presently fails to provide advice on how such an objective assessment should be carried out.
- There is no established, robust methodology for quantitatively assessing complex cross-topic inter-related effects and assigning a level of significance to them, as methodologies and criteria vary across environmental aspects. Therefore, the assessment of inter-related effects between topics is qualitative, relying on professional judgement as to how individual effects would interact.
- 17.8.3 The methodology adopted for this assessment is summarised in **Graphic 17.2** and is outlined in detail in the remainder of this section.



Graphic 17.2 Illustrative example of the spatial scope and study area for an example receptor



- 17.8.4 Common receptors for environmental topics have been identified (see **Section 17.7**), and consideration given to whether the aspect effects on any common receptors are likely to combine. This has identified:
 - the common receptor(s) from the individual topic assessments;
 - the impact source pathways that can affect the common receptor(s);
 - the potential effects on the identified common receptor(s); and
 - the inter-related effects across the construction, operation and maintenance and decommissioning phases where appropriate.
- 17.8.5 It should be noted that some elements of the assessment inherently consider inter-related effects. For example, biodiversity assessment of effects takes into account the potential for multiple impacts affecting particular features such as disturbance effects on faunal receptors resulting from noise and vibration, visual disturbance and lighting. Where this is the case, this is described within the individual environmental topic chapter.



17.9 Assessment of inter-related effects

Overview

- The assessment of inter-related cumulative effects has focused on those receptors where potential significant effects have been predicted in respect of at least two or more topics and/or where the technical assessments have shown that potential individual effects are nearing the thresholds of established national criteria.
- 17.9.2 **Table 17.3** sets out where significant effects, or effects close to the threshold of significance, have been identified for each common receptor identified in **Table 17.2**.



Table 17.3 Common receptors and significance of identified effects



Receptor	Ch 6: Landscape & Visual	Ch 7: Historic Env	Ch 8: Biodiversity	Ch 10: Water E	nv	CH 12: Traffic & Transport	CH13: Noise	Ch 15 : Shadow Flicker	Ch 16: Socio economics
A4233	**	X	Х	X	X		X	Х	X
A4119	Χ	X	Χ	Χ	Χ		X	X	X
A4058	**	X	Χ	Χ	Χ		Χ	Χ	Χ
PRoW RH ANT 75/1	**	X	Χ	Χ	Χ		X	X	Χ
PRoW RH ANT181/1	**	X	Χ	Χ	Χ		Χ	X	X
PRoW RH ANT 998/1	**	X	Χ	Χ	Χ		X	X	X
PRoW RH ANT 94/2	**	X	Χ	Χ	Χ		X	X	Χ
PRoW RH ANT 999/1	**	X	Χ	Χ	Χ		X	Χ	X
PRoW 331/75/1	Χ	X	Χ	Χ	Χ		Χ	Χ	Χ
PRoW331/112/1	Χ	X	Χ	Χ	Χ		Χ	Χ	X
PRoW 331/113/1	Χ	X	Χ	Χ	Χ		Χ	Χ	Χ
Graigwen, Pontypridd	Χ	X	Χ	Χ	Χ		X	Χ	X
Porth	**	X	Χ	Χ	Χ		X	X	Χ
Trebanog	Χ	X	Χ	Χ	X		X	X	X
Trehaford	**	X	Χ	Χ	X		Χ	X	X
Church Village	Х	X	Х	Χ	Х		Х	Х	X
Tonyrefail	**	Χ	Χ	X	Χ		Χ	Χ	Χ



Receptor	Ch 6: Landscape & Visual	Ch 7: Historic Env	Ch 8: Biodiversity	Ch 10: Water E	nv	CH 12: Traffic & Transport	CH13: Noise	Ch 15 : Shadow Flicker	Ch 16: Socio economics
Penrhys Pilgrimage Way	**		Х	X	X		Х	X	Х
Cistercian Way	**		Χ	Χ	X		X	Χ	X
Glamorgan Ridgeway Walk	**		X	X	X		X	X	Χ
Ogwr Ridgeway Walk	**		Χ	Χ	X		Χ	X	Χ
Rhymney Valley Ridgeway Walk	**		Χ	Χ	X		X	X	Х
Capital Walk - Cardiff	**		Χ	Χ	X		Χ	Χ	Χ
NCN4	**		Χ	Χ	X		Χ	Χ	Χ
NCN881	**		Χ	Χ	Χ		Χ	Χ	Χ
NCN47	**		Χ	Χ	Χ		Χ	Χ	X
Pontypridd Golf Club	**		Χ	Χ	Χ		Χ	Χ	Χ
Rhondda Golf Course	**		Χ	Χ	X		Χ	Χ	Χ
Open Access Land and PRoW Within 5km	**		X	X	X		X	X	X
Open access Land between 5km-10km	**		Χ	X	X		Χ	Χ	Х
Langton Court Farm	Χ	X	Χ	Χ	X		Χ	Χ	Χ
Tyler-winder Farm	X	Χ	Χ	X	Χ		Χ	Χ	Χ



Receptor	Ch 6: Landscape & Visual	Ch 7: Historic Env	Ch 8: Biodiversity	Ch 10: Water E	inv	CH 12: Traffic & Transport	CH13: Noise	Ch 15 : Shadow Flicker	Ch 16: Socio economics
Glyn	X	X	X	X	X		*	X	X
Rhiw-garn-fach	Χ	X	Χ	Χ	X		Χ	Χ	Х
Rhiw-garn-fawr	Χ	X	Χ	Χ	Χ		Χ	Χ	X
Llan	Χ	X	Χ	Χ	X		Χ	Χ	X
Home Farm	Χ	X	Χ	X	X		•	Χ	X
Cefn-coed farm	Χ	X	Χ	X	X		X	X	Х
Brookland Bungalow	Χ	X	Χ	Χ	X		Χ	Χ	X
Henllys	Χ	X	Χ	Χ	X		Χ	Χ	Χ
Craig Crescent Trebanog	X	X	X	X	Χ		X	Χ	X
Concorde Drive, Tonyrefail	X	X	Χ	X	X		X	Χ	Χ
Plas-Rhiwinder	X	X	Χ	Χ	X		X	Χ	Χ
Tre-boeth Farm	Χ	X	Χ	X	X		X	X	Х
Mountain View	Χ	X	Χ	Χ	X		Χ	Χ	Χ
Rackett Cottages	Χ	X	X	X	X		Х	Χ	Х
Twin Pines	Χ	X	Χ	Χ	X		Χ	Χ	Χ
Rheolau Terrace	Х	X	Х	X	Х		Х	Х	Х
Glynfach	Χ	Χ	Χ	Χ	Χ		Χ	Χ	Χ



Receptor	Ch 6: Landscape & Visual	Ch 7: Historic Env	Ch 8: Biodiversity	Ch 10: Water E	nv	CH 12: Traffic & Transport	CH13: Noise	Ch 15 : Shadow Flicker	Ch 16: Socio economics
Kensington Drive	X	X	X	Х	Х		Х	X	Х
Gwaun Bedw	Χ	X	Χ	Χ	Χ		Χ	Χ	X
Ty-draw Farm	Χ	X	Χ	Χ	Χ		Χ	X	X
Langton Court Cottage	Χ	X	Χ	Χ	Χ		Χ	X	X
Nant Gelliwion Woodland SSSI	Χ	X	Χ	Χ	X		X	X	X
Rhos Tonyrefail SSSI	Χ	X	Χ	Χ	Χ		Χ	X	X
Mynydd y Glyn SiNC	Χ	X	Χ	Χ	Χ		Χ	X	X
Mynydd Gelliwion and Gellwion Slopes SINC	Χ	X	X	X	X		X	X	X
Bronwydd Woods SINC	Χ	X	Χ	Χ	Χ		Χ	X	X
Trebanog Slopes SINC	Χ	X	Χ	Χ	Χ		Χ	X	X
The Glyn SINC	Χ	X	Χ	Χ	Χ		Χ	Χ	X
Tonyrefail East SINC	Χ	X	Χ	Χ	X		Χ	X	X
Coed Castellau SINC	Χ	X	Χ	Χ	X		Χ	Χ	X
Nant Gelliwion /Waun Castellau SINC	Χ	X	X	X	Χ		Х	Χ	Х



Assessment

The technical assessments (**Chapters 6-16**) in the ES have identified potential effects on common receptors as a result of the Proposed Development, as summarised in **Table 17.3**. The table shows that 0 common receptors are anticipated to experience more than one significant effect or effect close to the threshold of significance.

17.10 Significance Conclusion

- The assessment of inter-related cumulative effects has considered whether any of the individual environmental topic effects resulting from the Proposed Development could combine to create effects that are significant, on common receptors between technical topics. The assessment focused on those receptors where significant effects have been predicted in respect of at least two or more topics and/or where the technical assessments have shown that potential individual effects are nearing the thresholds of established national criteria.
- 17.10.2 It has been concluded that there would be no inter-related cumulative effects.