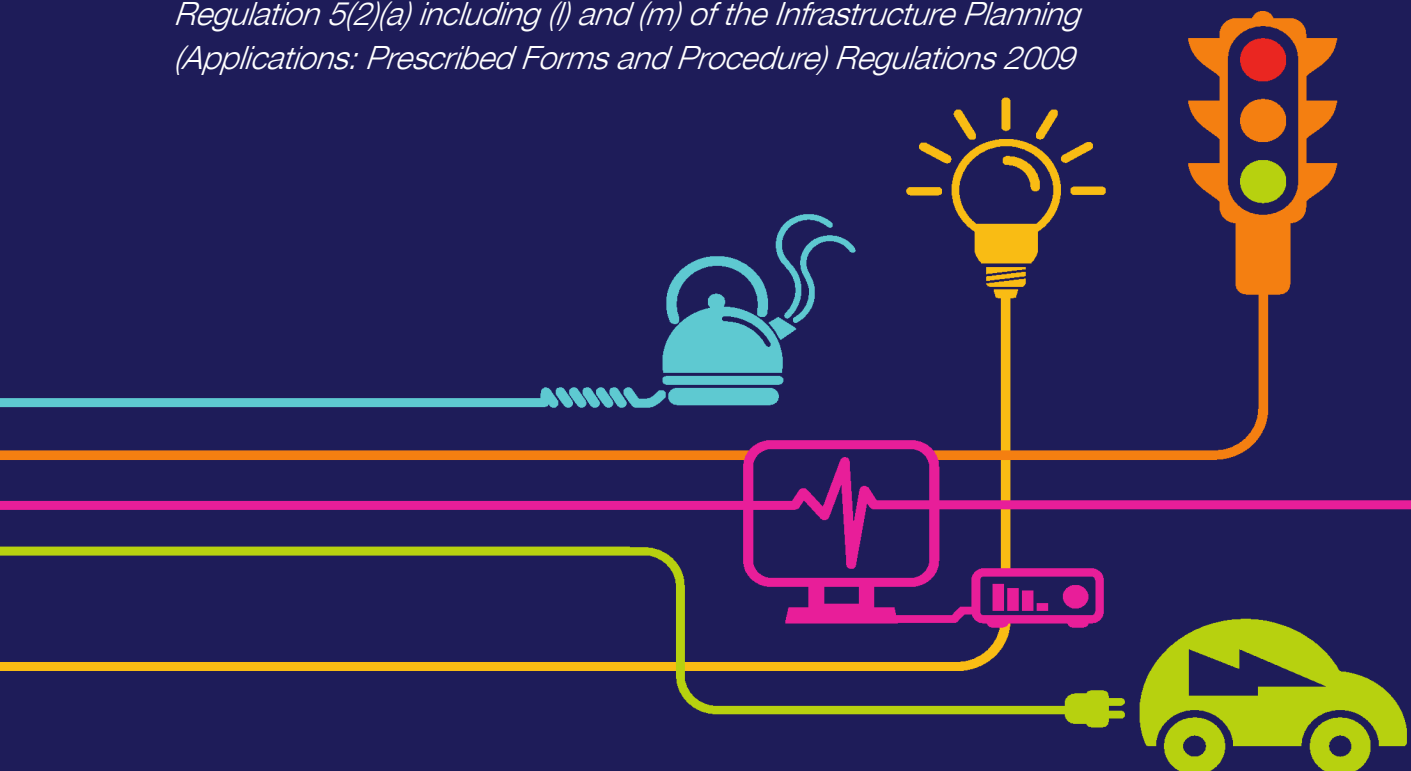


DOCUMENT 5.22

Environmental Statement Chapter 22 Summary of Residual Effects

National Grid (North Wales Connection Project)

*Regulation 5(2)(a) including (l) and (m) of the Infrastructure Planning
(Applications: Prescribed Forms and Procedure) Regulations 2009*





North Wales Connection Project

Volume 5

Document 5.22 Chapter 22 Summary of Residual Effects

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Final September 2018

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Document Control			
Document Properties			
Organisation	AECOM		
Author	Charlotte Clinton		
Approved by	Nigel Pilkington		
Title	Environmental Statement Chapter 22		
Document Reference	Document 5.22		
Version History			
Date	Version	Status	Description/Changes
September 2018	Rev A	Final	Final for submission

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1 Introduction

1.1 INTRODUCTION

- 1.1.1 This Chapter provides a summary of the residual environmental effects that are likely to result from the implementation of the Proposed Development, a description of which is provided in Chapter 3 Description of the Proposed Development (**Document 5.3**) and Chapter 4 Construction, Operation, Maintenance and Decommissioning of the Proposed Development (**Document 5.4**). This summary of Residual Effects draws on the chapters shown in Table 22.1 below:

Table 22.1 Technical Chapters of the Environmental Statement (Document 5)		
Document Reference	Chapter of ES	Title
5.7	7	Landscape Assessment
5.8	8	Visual Assessment
5.9	9	Ecology and Nature Conservation
5.10	10	Historic Environment
5.11	11	Geology, Hydrogeology and Ground Conditions
5.12	12	Water Quality, Resources and Flood Risk
5.13	13	Traffic & Transport
5.14	14	Air Quality
5.15	15	Construction Noise & Vibration
5.16	16	Operational Noise
5.17	17	Socio Economics
5.18	18	Agriculture

- 1.1.2 As explained in Chapter 6 EIA Methodology and Basis of Assessment (**Document 5.6**), the residual effects of the Proposed Development are those that remain following the application of the committed mitigation, full details of

which are included in section 9 of each of the technical Chapters (**Documents 5.7 to 5.18**). In particular, the iterative design process has allowed the Proposed Development to evolve in response to feedback from consultation, and environmental and technical investigations. Significant effects are those that generally have a moderate or greater adverse/beneficial effect¹. Mitigation has primarily been developed to address the potentially significant adverse effects; however commitments are also made to reduce effects that are considered to be minor or negligible.

1.1.3 The Environmental Impact assessment (EIA) has demonstrated that, wherever possible, environmental effects associated with the construction, operation maintenance and decommissioning of the Proposed Development have been avoided or reduced. However, the technical chapters listed below have concluded that there will be residual likely significant effects remaining after the application of committed mitigation:

- Landscape (significant temporary effects during construction and during operational years 1 and 15),
- Visual (significant temporary effects during construction and during operational years 1 and 15);
- ecology (significant temporary and long term loss of habitat of one receptor);
- historic environment (significant temporary effects on two receptors and operational effects on six receptors);
- traffic & transport (significant temporary effects on one receptor), and
- construction noise & vibration (on residential properties and other facilities).

1.1.4 Sections 2.1 to 2.12 below provide tables summarising the findings of the EIA, and summarises the residual effects, identifying their significance. The approach to the assessment of significance is outlined in Chapter 6 EIA Methodology and Basis of Assessment (**Document 5.6**) and the specific approach for each technical assessment is described in section 4 of each of the technical chapters (**Documents 5.7 to 5.18**). A non-technical summary of the findings of the EIA is provided in the Non-Technical Summary (**Document 5.0**).

¹ In Chapter 16 Operational Noise (**Document 5.16**) moderate effects have been assessed as not significant.

2 Summary of Residual Effects

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2.1 LANDSCAPE ASSESSMENT

2.1.1 Summary of Landscape Assessment (**Document 5.7**) residual effects are presented in Table 22.2

Table 22.2 Summary of Landscape Assessment Residual Effects						
Resource/Receptor		Sensitivity	Potential effects	Reinstatement and Mitigation Measures ² (in addition to the CEMP measures set out in Document 7.4)	Magnitude	Residual Effect
Landscape Elements	Tree Cover	High	Effects of construction	Reinstatement as shown on Figure 7.4.1.1 (Document 7.4.1.1) and mitigation planting as illustrated on the following figures: <ul style="list-style-type: none"> Figure 7.12 (Document 5.7.1.13) Figure 7.13 (Document 5.7.1.13) Figure 7.14 (Document 5.7.1.13) Figure 7.15 (Document 5.7.1.13) Figure 7.16 (Document 5.7.1.13) 	Medium	Moderate adverse (Significant)
			Effects of operation	As above	Year 1: Medium Year 15: Negligible	Year 1: Moderate adverse (Significant) Year 15: Negligible (Not significant)
	Field Boundaries	High	Effects of construction Removal during construction for construction access tracks and bellmouths	Landscape mitigation planting as illustrated on the following figures: <ul style="list-style-type: none"> Figure 7.14 (Document 5.7.1.13) Figure 7.15 (Document 5.7.1.13) Figure 7.16 (Document 5.7.1.13) 	Low	Minor adverse (Not significant)
			Effects of operation	As above	Year 1: Low Year 15: Negligible	Year 1: Minor adverse (Not significant) Year 15: Negligible (Not significant)

² Enhancement measures are not included in this table, but could have mitigating effects. Refer to the Enhancement Strategy (**Document 7.13**) for further information.

Table 22.2 Summary of Landscape Assessment Residual Effects

Resource/Receptor		Sensitivity	Potential effects	Reinstatement and Mitigation Measures ² (in addition to the CEMP measures set out in Document 7.4)	Magnitude	Residual Effect
	Landform	Low (with localised areas of high sensitivity) – in relation to 400 kV OHL	Effects of construction	Re-contouring as illustrated on the following figures: <ul style="list-style-type: none"> Figure 7.14 (Document 5.7.1.13) Figure 7.15 (Document 5.7.1.13) Figure 7.16 (Document 5.7.1.13) 	Low (attributed to THH/CSEC and substation)	Minor adverse (Not significant)
		Medium – in relation to THH/CSEC and substation	Effects of operation	As above	Year 1: Low Year 15: Low	Year 1: Minor adverse (Not significant) Year 15: Minor adverse (Not significant)
VSAAs	Mynydd Bodafon (YNSMNVS004)	High	Effects of construction	Not directly affected by the Proposed Development so no reinstatement required.	Low	Minor adverse (Not significant)
			Effects of operation		Year 1: Low Year 15: Low	Year 1: Minor adverse (Not significant) Year 15: Minor adverse (Not significant)
	North-west Drumlins (YNSMNVS008) (North)	Medium (lower to the north-east)	Effects of construction	Reinstatement of hedgerows and tree blocks directly affected by access tracks and located directly under the overhead line. Reinstatement of road boundary treatment affected by bellmouths A3, A4, A5, A5a and A6. Replacement for loss of trees, with trees reinstated and located along boundaries within the Order Limits as shown on Figure 7.4.1.1 (Document 7.4.1.1).	Low	Minor adverse (Not significant)
			Effects of operation		Year 1: Medium-Low Year 15: Medium-Low	Year 1: Minor adverse (Not significant) Year 15: Minor adverse (Not significant)
	North-west Drumlins	Medium (lower to the north-	Effects of construction	Reinstatement of hedgerows and tree blocks directly affected by access tracks and located	Medium-Low	Minor adverse (Not significant)

Table 22.2 Summary of Landscape Assessment Residual Effects

Resource/Receptor		Sensitivity	Potential effects	Reinstatement and Mitigation Measures ² (in addition to the CEMP measures set out in Document 7.4)	Magnitude	Residual Effect
	(YNSMNVS008) (South)	east)	Effects of operation	directly under the overhead line and by bellmouths B8, B9 and B10. Reinstatement of road boundary treatment affected by bellmouth B7. Replacement for loss of trees, with trees reinstated and located along boundaries within the Order Limits as shown on Figure 7.4.1.1 (Document 7.4.1.1).	Year 1: Medium-Low Year 15: Medium-Low	Year 1: Minor adverse (Not significant) Year 15: Minor adverse (Not significant)
	Mynydd Mechell (YNSMNVS009)	Medium-High	Effects of construction	Reinstatement of hedgerows directly affected by access tracks and bellmouth A10 as shown on Figure 7.4.1.1 (Document 7.4.1.1).	Low	Minor adverse (Not significant)
			Effects of operation		Year 1: Low Year 15: Low	Year 1: Minor adverse (Not significant) Year 15: Minor adverse (Not significant)
	Drumlins with Windfarms (YNSMNVS010)	Medium	Effects of construction	Reinstatement of hedgerows and tree blocks directly affected by access tracks and by bellmouths B1, B2 and B4 as shown on Figure 7.4.1.1 (Document 7.4.1.1). To mitigate loss of trees adjacent to the Sewage Works at Carrog Isa, in Section A (as shown on Figure 7.13 (Document 5.7.1.13)), a corridor would be planted up where an existing low voltage OHL is being removed.	Medium-Low	Minor adverse (Not significant)
			Effects of operation		Year 1: Medium-Low Year 15: Medium-Low	Year 1: Minor adverse (Not significant) Year 15: Minor adverse (Not significant)
	North Coast Hinterland (YNSMNVS011)	High	Effects of construction	Not directly affected by the Proposed Development so no reinstatement required.	Negligible	Negligible (Not significant)
			Effects of operation		Year 1: Negligible Year 15: Negligible	Year 1: Negligible (Not significant) Year 15: Negligible (Not significant)
	Central Smooth Belt	Medium (higher to the east)	Effects of construction	Reinstatement of hedgerows and tree blocks directly affected by access tracks and by	Medium	Moderate adverse (Significant)

Table 22.2 Summary of Landscape Assessment Residual Effects

Resource/Receptor		Sensitivity	Potential effects	Reinstatement and Mitigation Measures ² (in addition to the CEMP measures set out in Document 7.4)	Magnitude	Residual Effect
	(YNSMNVS012)		Effects of operation	bellmouths B11-B13, C1, C2, C4-C8, C9, C10, D1 and D2. Replacement for loss of trees, as shown on Figure 7.4.1.1 (Document 7.4.1.1). Planting of a copse adjacent to the B5110 in Section C (as shown on Figure 7.13 (Document 5.7.1.13)) to mitigate the loss of trees on the opposite side of the road. Replanting of a clearing within Gylched Covert in Section D to mitigate loss of vegetation, (as shown on Figure 7.13 (Document 5.7.1.13)). The Proposed Development would not remove ground flora from under the OHL alignment, only vegetation which is required to be removed for clearances to the proposed conductors.	Year 1: Medium Year 15: Medium-Low	Year 1: Moderate adverse (Significant) Year 15: Minor adverse (Not significant)
	Benllech Hinterland (YNSMNVS014)	Medium-High	Effects of construction	Replacement for loss of trees, as shown on Figure 7.4.1.1 (Document 7.4.1.1).	Low	Minor adverse (Not significant)
			Effects of operation		Year 1: Low Year 15: Negligible	Year 1: Minor adverse (Not significant) Year 15: Negligible (Not significant)
	Eastern Smooth Belt (YNSMNVS017)	Medium-High	Effects of construction	Reinstatement of hedgerows and tree blocks directly affected by access tracks and by bellmouths E3 and E4. Replacement for loss of trees, as shown on Figure 7.4.1.1 (Document 7.4.1.1).	Low	Minor adverse (Not significant)
			Effects of operation		Year 1: Medium Year 15: Medium	Year 1: Moderate adverse (Significant) Year 15: Moderate adverse (Significant)
	South-West Ridges	Medium-High	Effects of construction	Reinstatement of hedgerows and tree blocks directly affected by access tracks and by	Medium-Low	Moderate adverse (Significant)

Table 22.2 Summary of Landscape Assessment Residual Effects

Resource/Receptor		Sensitivity	Potential effects	Reinstatement and Mitigation Measures ² (in addition to the CEMP measures set out in Document 7.4)	Magnitude	Residual Effect
	(YNSMNVS018)		Effects of operation	bellmouths E6, E7, F1 and F1C. Replacement for loss of trees, as shown on Figure 7.4.1.1 (Document 7.4.1.1). Planting around Braint THH/CSEC, in Section F as illustrated on detailed landscape mitigation plan Figure 7.14 (Document 5.7.1.14).	Year 1: Medium Year 15: Medium	Year 1: Moderate adverse (Significant) Year 15: Moderate adverse (Significant)
	Pentraeth Valleys (YNSMNVS022)	Medium-High	Effects of construction	Reinstatement of hedgerows and tree blocks directly affected by access tracks and by bellmouths D3, D4, E1 and E2. Replacement for loss of trees, as shown on Figure 7.4.1.1 (Document 7.4.1.1). An area of planting at Ceint in Section D (as shown on Figure 7.13 (Document 5.7.1.13)) to mitigate for losses of larger trees on the end of a woodland block	Medium-Low	Minor adverse (Not significant)
			Effects of operation		Year 1: Medium-Low Year 15: Medium-Low	Year 1: Minor adverse (Not significant) Year 15: Minor adverse (Not significant)
	Menai Straits Slopes - (YNSMNVS026) (South)	High	Effects of construction	Not directly affected by the Proposed Development so no reinstatement required.	Low	Minor adverse (Not significant)
			Effects of operation		Year 1: Negligible Year 15: Negligible	Year 1: Negligible (Not significant) Year 15: Negligible (Not significant)
	Malltraeth Marsh South Slopes (YNSMNVS027)	Medium-High	Effects of construction	Not directly affected by the Proposed Development so no reinstatement required.	Negligible	Negligible (Not significant)
			Effects of operation		Year 1: Negligible Year 15: Negligible	Year 1: Negligible (Not significant) Year 15: Negligible (Not significant)
	Malltraeth Marsh (YNSMNVS028)	Medium-High	Effects of construction	Not directly affected by the Proposed Development so no reinstatement required.	Negligible	Negligible (Not significant)
			Effects of operation		Year 1: Negligible Year 15: Negligible	Year 1: Negligible (Not significant) Year 15: Negligible (Not significant)

Table 22.2 Summary of Landscape Assessment Residual Effects

Resource/Receptor		Sensitivity	Potential effects	Reinstatement and Mitigation Measures ² (in addition to the CEMP measures set out in Document 7.4)	Magnitude	Residual Effect
	North Coast (YNSMNV035)	High	Effects of construction	Not directly affected by the Proposed Development so no reinstatement required.	Negligible	Negligible (Not significant)
			Effects of operation		Year 1: Negligible Year 15: Negligible	Year 1: Negligible (Not significant) Year 15: Negligible (Not significant)
	Cemlyn (YNSMNV036)	High	Effects of construction	Not directly affected by the Proposed Development so no reinstatement required.	Negligible	Negligible (Not significant)
			Effects of operation		Year 1: Negligible Year 15: Negligible	Year 1: Negligible (Not significant) Year 15: Negligible (Not significant)
	Menai Straits – Mid Section (YNSMNV043)	High	Effects of construction	Not directly affected by the Proposed Development so no reinstatement required.	No change	No effect
			Effects of operation		Year 1: No change Year 15: No change	Year 1: No effect Year 15: No effect
	Llyn Alaw (YNSMNV056)	Medium-High	Effects of construction	Not directly affected by the Proposed Development so no reinstatement required.	Negligible	Negligible (Not significant)
			Effects of operation		Year 1: Low Year 15: Low	Year 1: Minor adverse (Not significant) Year 15: Minor adverse (Not significant)
	Llangefni (YNSMNV059)	Medium	Effects of construction	Not directly affected by the Proposed Development so no reinstatement required.	Low	Minor adverse (Not significant)
			Effects of operation		Year 1: Negligible Year 15: Negligible	Year 1: Negligible (Not significant) Year 15: Negligible (Not significant)
	Llanfair Pwllgwyngyll (YNSMNV062)	Medium-Low	Effects of construction	Not directly affected by the Proposed Development so no reinstatement required.	Low	Minor adverse (Not significant)
			Effects of operation		Year 1: Negligible Year 15: Negligible	Year 1: Negligible (Not significant) Year 15: Negligible (Not significant)

Table 22.2 Summary of Landscape Assessment Residual Effects

Resource/Receptor		Sensitivity	Potential effects	Reinstatement and Mitigation Measures ² (in addition to the CEMP measures set out in Document 7.4)	Magnitude	Residual Effect
	Cemaes (YNSMNVS068)	Medium	Effects of construction	Not directly affected by the Proposed Development so no reinstatement required.	Low	Minor adverse (Not significant)
			Effects of operation		Year 1: Negligible Year 15: Negligible	Year 1: Negligible (Not significant) Year 15: Negligible (Not significant)
	Llanfechell (YNSMNVS069)	Medium	Effects of construction	Not directly affected by the Proposed Development so no reinstatement required.	Low	Minor adverse (Not significant)
			Effects of operation		Year 1: Low Year 15: Low	Year 1: Minor adverse (Not significant) Year 15: Minor adverse (Not significant)
	Llanerchymedd (YNSMNVS070)	Medium	Effects of construction	Not directly affected by the Proposed Development so no reinstatement required.	Low	Minor adverse (Not significant)
			Effects of operation		Year 1: Negligible Year 15: Negligible	Year 1: Negligible (Not significant) Year 15: Negligible (Not significant)
	Gaerwen (YNSMNVS078)	Medium-Low	Effects of construction	Not directly affected by the Proposed Development so no reinstatement required.	Negligible	Negligible (Not significant)
			Effects of operation		Year 1: Negligible Year 15: Negligible	Year 1: Negligible (Not significant) Year 15: Negligible (Not significant)
	Wylfa Power Station (YNSMNVS086)	Low	Effects of construction		Medium-Low	Minor adverse (Not significant)
			Effects of operation		Year 1: Low Year 15: Low	Year 1: Minor adverse (Not significant) Year 15: Minor adverse (Not significant)
	Parys Mountain (YNSMNVS087)	High	Effects of construction	Not directly affected by the Proposed Development so no reinstatement required.	Negligible	Negligible (Not significant)

Table 22.2 Summary of Landscape Assessment Residual Effects

Resource/Receptor		Sensitivity	Potential effects	Reinstatement and Mitigation Measures ² (in addition to the CEMP measures set out in Document 7.4)	Magnitude	Residual Effect
			Effects of operation		Year 1: Negligible Year 15: Negligible	Year 1: Negligible (Not significant) Year 15: Negligible (Not significant)
	A55 Corridor (YNSMNV091)	Low	Effects of construction	Replacement for loss of trees, as shown on Figure 7.4.1.1 (Document 7.4.1.1).	Medium-Low	Minor adverse (Not significant)
			Effects of operation		Year 1: Low Year 15: Low	Year 1: Minor adverse (Not significant) Year 15: Minor adverse (Not significant)
	Bangor (GWNDDVS002)	Medium	Effects of construction	Not directly affected by the Proposed Development so no reinstatement required.	Negligible	Negligible (Not significant)
			Effects of operation		Year 1: Negligible Year 15: Negligible	Year 1: Negligible (Not significant) Year 15: Negligible (Not significant)
	Vaynol Estate (GWNDDVS005)	High	Effects of construction	Not directly affected by the Proposed Development so no reinstatement required.	Negligible	Negligible (Not significant)
			Effects of operation		Year 1: Negligible Year 15: Negligible	Year 1: Negligible (Not significant) Year 15: Negligible (Not significant)
	Bethel (Between Clynog and Bangor) (GWNDDVS006)	Medium-High	Effects of construction	Reinstatement of hedgerows and tree blocks directly affected by access tracks and by bellmouths F3, F5-F11 and F14. Replacement for loss of trees, as shown on Figure 7.4.1.1 (Document 7.4.1.1). Planting around Tŷ Fodol THH/CSEC, in Section F as per detailed landscape mitigation plan on Figure 7.15 (Document 5.7.1.15); and planting around Pentir Substation extension in Section F to mitigate the loss of existing screening as per detailed landscape mitigation plan found on Figure 7.16 (Document 5.7.1.16).	Medium	Moderate adverse (Significant)
			Effects of operation		Year 1: Medium Year 15: Medium-Low	Year 1: Moderate adverse (Significant) Year 15: Moderate adverse (Significant)

Table 22.2 Summary of Landscape Assessment Residual Effects

Resource/Receptor		Sensitivity	Potential effects	Reinstatement and Mitigation Measures ² (in addition to the CEMP measures set out in Document 7.4)	Magnitude	Residual Effect
	Waen-Pentir (GWNDDVS011)	Medium-High	Effects of construction	Not directly affected by the Proposed Development so no reinstatement required.	Low	Minor adverse (Not significant)
			Effects of operation		Year 1: Low Year 15: Negligible	Year 1: Minor adverse (Not significant) Year 15: Negligible (Not significant)
	Cefn-du (GWNDDVS012)	High	Effects of construction	Not directly affected by the Proposed Development so no reinstatement required.	Low	Minor adverse (Not significant)
			Effects of operation		Year 1: Low Year 15: Negligible	Year 1: Minor adverse (Not significant) Year 15: Negligible (Not significant)
	Y Felinheli (GWNDDVS025)	Medium	Effects of construction	Not directly affected by the Proposed Development so no reinstatement required.	Negligible	Negligible (Not significant)
			Effects of operation		Year 1: Negligible Year 15: Negligible	Year 1: Negligible (Not significant) Year 15: Negligible (Not significant)
National Park	Snowdonia	High	Effects of construction	Not directly affected by the Proposed Development so no reinstatement required.	Negligible	Negligible (Not significant)
			Effects of operation		Year 1: Negligible Year 15: Negligible	Year 1: Negligible (Not significant) Year 15: Negligible (Not significant)
AONB	Anglesey	High	Effects of construction	Not directly affected by the Proposed Development so no reinstatement required.	Low	Minor adverse (Not significant)
			Effects of operation		Year 1: Low Year 15: Low	Year 1: Minor adverse (Not significant) Year 15: Minor adverse (Not significant)
SLA	Mynydd Mechell & Surrounds	Medium-High	Effects of construction	None	Low	Minor adverse (Not significant)

Table 22.2 Summary of Landscape Assessment Residual Effects

Resource/Receptor		Sensitivity	Potential effects	Reinstatement and Mitigation Measures ² (in addition to the CEMP measures set out in Document 7.4)	Magnitude	Residual Effect
			Effects of operation	None	Year 1: Low Year 15: Low	Year 1: Minor adverse (Not significant) Year 15: Minor adverse (Not significant)
	Parys Mountain & Slopes	High	Effects of construction	Not directly affected by the Proposed Development so no reinstatement required.	Negligible	Negligible (Not significant)
			Effects of operation		Year 1: Negligible Year 15: Negligible	Year 1: Negligible (Not significant) Year 15: Negligible (Not significant)
	Parciau Estatelands	High	Effects of construction	Not directly affected by the Proposed Development so no reinstatement required.	Negligible	Negligible (Not significant)
			Effects of operation		Year 1: Low Year 15: Low	Year 1: Minor adverse (Not significant) Year 15: Minor adverse (Not significant)
	Malltraeth Marsh & Surrounds	Medium-high (higher to the north-east)	Effects of construction	Not directly affected by the Proposed Development so no reinstatement required.	Negligible	Negligible (Not significant)
			Effects of operation		Year 1: Negligible Year 15: Negligible	Year 1: Negligible (Not significant) Year 15: Negligible (Not significant)
	Southern Anglesey Estatelands	High	Effects of construction	Reinstatement of hedgerows and tree blocks directly affected by access tracks and by bellmouths F1, F1C and F2. Replacement for loss of trees, as shown on Figure 7.4.1.1 (Document 7.4.1.1). Planting around Braint THH/CSEC, in Section F as illustrated on detailed landscape mitigation plan Figure 7.14 (Document 5.7.1.14).	Medium-Low	Moderate adverse (Significant)
			Effects of operation		Year 1: Medium Year 15: Medium-Low	Year 1: Moderate adverse (Significant) Year 15: Moderate adverse (Significant)
	Menai	High	Effects of construction	Not directly affected by the Proposed Development so no reinstatement required.	Negligible	Negligible (Not significant)

Table 22.2 Summary of Landscape Assessment Residual Effects

Resource/Receptor		Sensitivity	Potential effects	Reinstatement and Mitigation Measures ² (in addition to the CEMP measures set out in Document 7.4)	Magnitude	Residual Effect
			Effects of operation		Year 1: Negligible Year 15: Negligible	Year 1: Negligible (Not significant) Year 15: Negligible (Not significant)
	Bangor Mountain	Medium-High	Effects of construction	Not directly affected by the Proposed Development so no reinstatement required.	Negligible	Negligible (Not significant)
			Effects of operation		Year 1: Low Year 15: Low	Year 1: Minor adverse (Not significant) Year 15: Minor adverse (Not significant)
	North-western Fringes of Snowdonia	High	Effects of construction	Not directly affected by the Proposed Development so no reinstatement required.	Low	Minor adverse (Not significant)
			Effects of operation		Year 1: Low Year 15: Negligible	Year 1: Minor adverse (Not significant) Year 15: Negligible (Not significant)
Heritage Coast	North Anglesey Coast	High (reduced around Wylfa Head)	Effects of construction	Not directly affected by the Proposed Development so no reinstatement required.	Negligible	Negligible (Not significant)
			Effects of operation		Year 1: Negligible Year 15: Negligible	Year 1: Negligible (Not significant) Year 15: Negligible (Not significant)

2.2 VISUAL ASSESSMENT

2.2.1 Summary of Visual Assessment (**Document 5.8**) residual effects are presented in Table 22.3

Table 22.32 Summary of Visual Assessment Residual Effects					
Resource/ Receptor	Sensitivity	Potential Effects	Reinstatement and Mitigation Measures ³ (in addition to the CEMP measures set out in Document 7.4)	Magnitude	Residual Effect
Communities					
Llanbadrig	High	Effects of construction	No specific mitigation identified for this receptor. Not directly affected by the Proposed Development so no reinstatement required.	Low	Minor adverse (not significant)
		Effects during operation		Year 1: Low Year 15: Low	Year 1: Minor adverse (not significant) Year 15 : Minor adverse (not significant)
Bull Bay	High	Effects of construction	No specific mitigation identified for this receptor. Not directly affected by the Proposed Development so no reinstatement required.	No change	No effect
		Effects during operation		Year 1: No change Year 15: No change	Year 1: No effect Year 15: No effect
Cemaes	High	Effects of construction	Reinstatement of trees and hedgerows directly affected by access tracks towards the south-west edge of the community.	Low (with localised areas of medium)	Minor adverse (not significant) with locally moderate adverse (significant)
		Effects during operation		Year 1: Low (with localised areas of medium) Year 15: Low (with localised areas of medium)	Year 1: Minor adverse (not significant) with locally moderate adverse (significant) Year 15: Minor adverse (not significant) with locally moderate adverse (significant)
Tregele	High	Effects of construction	Reinstatement of trees and hedgerows directly affected by access tracks towards the north-east edge of the community.	Medium	Moderate adverse (significant)
		Effects during operation		Year 1: Medium Year 15: Medium	Year 1: Moderate adverse (significant) Year 15: Moderate adverse (significant)
Amlwch	High	Effects of construction	No specific mitigation identified for this receptor. Not directly affected by the Proposed Development so no reinstatement required.	Negligible	Negligible (not significant)
		Effects during operation		Year 1: Negligible Year 15: Negligible	Year 1: Negligible (not significant) Year 15: Negligible (not significant)
Llanfairynghornwy	High	Effects of construction	No specific mitigation identified for this receptor. Not directly affected by the Proposed Development so no reinstatement required.	Low	Minor (not significant)
		Effects during operation		Year 1: Low Year 15: Low	Year 1: Minor adverse (not significant) Year 15 : Minor adverse (not significant)

³ Enhancement measures are not included in this table, but could have mitigating effects. Refer to the Enhancement Strategy (**Document 7.13**) for further information.

Table 22.32 Summary of Visual Assessment Residual Effects

Resource/ Receptor	Sensitivity	Potential Effects	Reinstatement and Mitigation Measures ³ (in addition to the CEMP measures set out in Document 7.4)	Magnitude	Residual Effect
Bodewryd	High	Effects of construction	Reinstatement of trees and hedgerows directly affected by access tracks on the southern edge of the community. Landscape mitigation planting at Carrog Isa adjacent the sewage works as illustrated on the Figure 7.13 (Document 5.7.1.13).	Low (with localised areas of medium)	Minor adverse (not significant) (with localised areas of moderate (significant))
		Effects during operation		Year 1: Low (with localised areas of medium-low) Year 15: Low (with localised areas of medium-low)	Year 1: Minor adverse (not significant) Year 15 : Minor adverse (not significant)
Llanfechell	High	Effects of construction	No specific mitigation identified for this receptor. Not directly affected by the Proposed Development so no reinstatement required.	Medium-Low (with localised areas of medium)	Minor adverse (not significant) with locally moderate adverse (significant)
		Effects during operation		Year 1: Medium-Low Year 15: Medium-Low	Year 1: Minor adverse (not significant) Year 15 : Minor adverse (not significant)
Mynydd Mechell	High	Effects of construction	No specific mitigation identified for this receptor. Not directly affected by the Proposed Development so no reinstatement required.	Low	Minor (not significant)
		Effects during operation		Year 1: Low Year 15: Low	Year 1: Minor adverse (not significant) Year 15 : Minor adverse (not significant)
Carreglefn	High	Effects of construction	Reinstatement of trees and hedgerows directly affected by access tracks and bellmouth A10.	Low	Minor adverse (not significant)
		Effects during operation		Year 1: Medium-Low Year 15: Medium-Low	Year 1: Minor adverse (not significant) Year 15 : Minor adverse (not significant)
Llanryhddlad	High	Effects of construction	No specific mitigation identified for this receptor. Not directly affected by the Proposed Development so no reinstatement required.	Negligible	Negligible (not significant)
		Effects during operation		Year 1: Negligible Year 15: Negligible	Year 1: Negligible (not significant) Year 15: Negligible (not significant)
Rhosgoch & Four Crosses	High	Effects of construction	Reinstatement of hedgerows directly affected by access tracks and directly under the overhead line. Reinstatement of hedgerows at bellmouths B1, B2 and B4.	Medium	Moderate adverse (significant)
		Effects during operation		Year 1: Medium Year 15: Medium	Year 1: Moderate adverse (significant) Year 15: Moderate adverse (significant)
Penysarn	High	Effects of construction	No specific mitigation identified for this receptor. Not directly affected by the Proposed Development so no reinstatement required.	Low	Minor adverse (not significant)
		Effects during operation		Year 1: Low Year 15: Low	Year 1: Minor adverse (not significant) Year 15 : Minor adverse (not significant)
Rhosybol	High	Effects of construction	Reinstatement of hedgerows directly affected	Medium	Moderate adverse (significant)

Table 22.32 Summary of Visual Assessment Residual Effects

Resource/ Receptor	Sensitivity	Potential Effects	Reinstatement and Mitigation Measures ³ (in addition to the CEMP measures set out in Document 7.4)	Magnitude	Residual Effect
		Effects during operation	by access tracks and directly under the overhead line. Reinstatement of hedgerows at bellmouths B5, B8 and B9 (at B7 there is no existing vegetation present).	Year 1: Medium Year 15: Medium	Year 1: Moderate adverse (significant) Year 15: Moderate adverse (significant)
Llanbabo & Llŷn Alaw	High	Effects of construction	No specific mitigation identified for this receptor. Not directly affected by the Proposed Development so no reinstatement required.	Low	Minor adverse (not significant)
		Effects during operation		Year 1: Low Year 15: Low	Year 1: Minor adverse (not significant) Year 15 : Minor adverse (not significant)
Capel Parc & Penygraig	High	Effects of construction	No specific mitigation identified for this receptor. Not directly affected by the Proposed Development so no reinstatement required.	Low	Minor adverse (not significant)
		Effects during operation		Year 1: Low Year 15: Low	Year 1: Minor adverse (not significant) Year 15 : Minor adverse (not significant)
Dulas	High	Effects of construction	No specific mitigation identified for this receptor. Not directly affected by the Proposed Development so no reinstatement required.	Negligible	Negligible (not significant)
		Effects during operation		Year 1: Negligible Year 15: Negligible	Year 1: Negligible (not significant) Year 15: Negligible (not significant)
Llanerchymedd	High	Effects of construction	No specific mitigation identified for this receptor. Not directly affected by the Proposed Development so no reinstatement required.	Low	Minor (not significant)
		Effects during operation		Year 1: Low Year 15: Low	Year 1: Minor adverse (not significant) Year 15 : Minor adverse (not significant)
Llandyfrydog	High	Effects of construction	Reinstatement of hedgerows directly affected by access tracks and directly under the overhead line. Reinstatement of hedgerows at bellmouths B10, B11, B12 and B13. Replacement for loss of trees with trees located along boundaries within the Order Limits.	Low (with localised areas of medium)	Minor adverse (not significant) with locally moderate adverse (significant)
		Effects during operation		Year 1: Medium Year 15: Medium	Year 1: Moderate adverse (significant) Year 15: Moderate adverse (significant)
Mynydd Bodafon	High	Effects of construction	No specific mitigation identified for this receptor. Not directly affected by the Proposed Development so no reinstatement required.	Low	Minor adverse (not significant)
		Effects during operation		Year 1: Medium-Low Year 15: Medium-Low	Year 1: Minor adverse (not significant) Year 15 : Minor adverse (not significant)

Table 22.32 Summary of Visual Assessment Residual Effects

Resource/ Receptor	Sensitivity	Potential Effects	Reinstatement and Mitigation Measures ³ (in addition to the CEMP measures set out in Document 7.4)	Magnitude	Residual Effect
Parciau & Llanaligo	High	Effects of construction	No specific mitigation identified for this receptor. Not directly affected by the Proposed Development so no reinstatement required.	No change	No effect
		Effects during operation		Year 1: No change Year 15: No change	Year 1: No effect Year 15: No effect
Hebron & Maenaddwyn	High	Effects of construction	Reinstatement of hedgerows directly affected by access tracks and directly under the overhead line. Reinstatement of hedgerows at bellmouths C1 and C2.	Medium	Moderate adverse (significant)
		Effects during operation		Year 1: Medium Year 15: Medium	Year 1: Moderate adverse (significant) Year 15: Moderate adverse (significant)
Capel Coch	High	Effects of construction	Reinstatement of hedgerows directly affected by access tracks and directly under the overhead line. Reinstatement of hedgerows at bellmouths C4 and C5 (C3 does not have existing vegetation). Replacement for loss of trees at bellmouth C5 reinstated in situ and along the road boundary within the Order Limits. Replacement for loss of trees with trees located along boundaries within the Order Limits.	Low (with localised areas of medium)	Minor adverse (not significant) with locally moderate adverse (significant)
		Effects during operation		Year 1: Medium Year 15: Medium	Year 1: Moderate adverse (significant) Year 15: Moderate adverse (significant)
Brynteg	High	Effects of construction	No specific mitigation identified for this receptor. Not directly affected by the Proposed Development so no reinstatement required.	Negligible	Negligible (not significant)
		Effects during operation		Year 1: Negligible Year 15: Negligible	Year 1: Negligible (not significant) Year 15: Negligible (not significant)
Benllech	High	Effects of construction	No specific mitigation identified for this receptor. Not directly affected by the Proposed Development so no reinstatement required.	No change	No effect
		Effects during operation		Year 1: No change Year 15: No change	Year 1: No effect Year 15: No effect
Llynfaes	High	Effects of construction	No specific mitigation identified for this receptor. Not directly affected by the Proposed Development so no reinstatement required.	Negligible	Negligible (not significant)
		Effects during operation		Year 1: Negligible Year 15: Negligible	Year 1: Negligible (not significant) Year 15: Negligible (not significant)
Llanbedrgoch	High	Effects of construction	No specific mitigation identified for this receptor. Not directly affected by the Proposed Development so no reinstatement required.	Negligible	Negligible (not significant)
		Effects during operation		Year 1: Negligible Year 15: Negligible	Year 1: Negligible (not significant) Year 15: Negligible (not significant)

Table 22.32 Summary of Visual Assessment Residual Effects

Resource/ Receptor	Sensitivity	Potential Effects	Reinstatement and Mitigation Measures ³ (in addition to the CEMP measures set out in Document 7.4)	Magnitude	Residual Effect
Cefniwrch	High	Effects of construction	Reinstatement of trees and hedgerows directly affected by access tracks and bellmouths. Landscape mitigation planting as illustrated on Figure 7.13 (Document 5.7.1.13) to mitigate for loss of woodland copse.	Medium	Moderate (significant)
		Effects during operation		Year 1: Medium Year 2: Medium	Year 1: Moderate (significant) Year 15: Moderate (significant)
Rhosmeirch	High	Effects of construction	No specific mitigation identified for this receptor. Not directly affected by the Proposed Development so no reinstatement required.	Medium-Low	Minor adverse (not significant)
		Effects during operation		Year 1: Medium-Low Year 15: Medium-Low	Year 1: Minor adverse (not significant) Year 15: Minor adverse (not significant)
Pentraeth	High	Effects of construction	No specific mitigation identified for this receptor. Not directly affected by the Proposed Development so no reinstatement required.	Negligible	Negligible (not significant)
		Effects during operation		Year 1: Negligible Year 15: Negligible	Year 1: Negligible (not significant) Year 15: Negligible (not significant)
Bodffordd	High	Effects of construction	No specific mitigation identified for this receptor. Not directly affected by the Proposed Development so no reinstatement required.	Negligible	Negligible (not significant)
		Effects during operation		Year 1: Negligible Year 15: Negligible	Year 1: Negligible (not significant) Year 15: Negligible (not significant)
Talwrn	High	Effects of construction	Reinstatement of hedgerows directly affected by access tracks and directly under the overhead line. Reinstatement of hedgerows at bellmouths C10 (just outside community) and D1 (D2 does not have existing vegetation). Replacement for loss of trees (some located just outside community area but would still benefit) with trees reinstated in the same positions and located along boundaries within the Order Limits. Landscape mitigation planting as illustrated on Figure 7.13 (Document 5.7.1.13) to mitigate for loss of trees within Gylched Covert.	Low (with localised areas of medium)	Minor adverse (not significant) with locally moderate adverse (significant)
		Effects during operation		Year 1: Medium-Low (with localised areas of medium) Year 15: Medium-Low (with localised areas of medium)	Year 1: Minor adverse (not significant) with locally moderate adverse (significant) Year 15: Minor adverse (not significant) with locally moderate adverse (significant)
Llangefni	High	Effects of construction	Reinstatement of hedgerows affected by	Low	Minor adverse (not significant)

Table 22.32 Summary of Visual Assessment Residual Effects

Resource/ Receptor	Sensitivity	Potential Effects	Reinstatement and Mitigation Measures ³ (in addition to the CEMP measures set out in Document 7.4)	Magnitude	Residual Effect
		Effects during operation	access tracks on the eastern edge of the community. Would also benefit from the reinstatement of trees within the community of Talwrn at Gylched Covert.	Year 1: Low Year 15: Low	Year 1: Minor adverse (not significant) Year 15: Minor adverse (not significant)
Rhostrehwfa	High	Effects of construction	No specific mitigation identified for this receptor. Not directly affected by the Proposed Development so no reinstatement required.	Low	Minor adverse (not significant)
		Effects during operation		Year 1: Low Year 15: Low	Year 1: Minor adverse (not significant) Year 15: Minor adverse (not significant)
Penmynydd	High	Effects of construction	Reinstatement of hedgerows directly affected by access tracks and directly under the overhead line. Reinstatement of hedgerows at bellmouths D4, E1, E2. Replacement for loss of tree at bellmouth E2 with trees reinstated in same location and along the road boundary within the Order Limits. Replacement for loss of trees with trees located along boundaries within the Order Limits.	Low (with localised areas of medium)	Minor adverse (not significant) with locally moderate adverse (significant)
		Effects during operation		Year 1: Low (with localised areas of medium-low) Year 15: Low (with localised areas of medium-low)	Year 1: Minor adverse (not significant) Year 15: Minor adverse (not significant)
Llangristiolus	High	Effects of construction	No specific mitigation identified for this receptor. Not directly affected by the Proposed Development so no reinstatement required.	Negligible	Negligible (not significant)
		Effects during operation		Year 1: Negligible Year 15: Negligible	Year 1: Negligible (not significant) Year 15: Negligible (not significant)
Pentre Berw	High	Effects of construction	No specific mitigation identified for this receptor. Not directly affected by the Proposed Development so no reinstatement required.	Medium-Low	Minor adverse (not significant)
		Effects during operation		Year 1: Medium-Low Year 15: Medium-Low	Year 1: Minor adverse (not significant) Year 15: Minor adverse (not significant)
Star	High	Effects of construction	Reinstatement of hedgerows directly affected by access tracks and directly under the overhead line. Reinstatement of hedgerows at bellmouths E3 and E4. Replacement for loss of tree at bellmouth E4 with trees reinstated in same location and along the road boundary within the Order Limits. Replacement for loss of trees with trees	Medium-Low (with localised areas of medium)	Minor adverse (not significant) with locally moderate adverse (significant)
		Effects during operation		Year 1: Medium-Low (with localised areas of medium-high) Year 15: Medium-Low (with localised areas of medium-high)	Year 1: Minor adverse (not significant) with locally major adverse (significant) Year 15: Minor adverse (not significant) with locally major adverse (significant)

Table 22.32 Summary of Visual Assessment Residual Effects

Resource/ Receptor	Sensitivity	Potential Effects	Reinstatement and Mitigation Measures ³ (in addition to the CEMP measures set out in Document 7.4)	Magnitude	Residual Effect
			located along boundaries within the Order Limits. Would benefit from the Landscape mitigation planting as illustrated on Figure 7.14 (Document 5.7.1.14) to mitigate the effects of Braint THH & CSEC. Use of low height pylons has helped to reduce the effects on views from this receptor.		
Gaerwen	High	Effects of construction	Reinstatement of hedgerows directly affected by access tracks to the eastern edge of community.	Low	Minor adverse (not significant)
		Effects during operation		Year 1: Low Year 15: Low	Year 1: Minor adverse (not significant) Year 15: Minor adverse (not significant)
Menai Bridge	High	Effects of construction	No specific mitigation identified for this receptor. Not directly affected by the Proposed Development so no reinstatement required.	Negligible	Negligible (not significant)
		Effects during operation		Year 1: Negligible Year 15: Negligible	Year 1: Negligible (not significant) Year 15: Negligible (not significant)
Llanfairpwll	High	Effects of construction	No specific mitigation identified for this receptor. Not directly affected by the Proposed Development so no reinstatement required.	Medium-Low	Minor adverse (not significant)
		Effects during operation		Year 1: Low Year 15: Low	Year 1: Minor adverse (not significant) Year 15: Minor adverse (not significant)
Llanddaniel Fab	High	Effects of construction	Reinstatement of hedgerows directly affected by access tracks. Reinstatement of hedgerows at bellmouths E7 and F1. Replacement for loss of trees with trees located along boundaries within the Order Limits. Landscape mitigation planting as illustrated on Figure 7.14 (Document 5.7.1.14) to mitigate the effects of Braint THH & CSEC.	Medium	Moderate adverse (significant)
		Effects during operation		Year 1: Medium Year 15: Medium-Low	Year 1: Moderate adverse (significant) Year 15: Minor adverse (not significant)
Llangaffo	High	Effects of construction	No specific mitigation identified for this receptor. Not directly affected by the Proposed Development so no reinstatement required.	Negligible	Negligible (not significant)
		Effects during operation		Year 1: Negligible Year 15: Negligible	Year 1: Negligible (Not significant) Year 15: Negligible (Not significant)

Table 22.32 Summary of Visual Assessment Residual Effects

Resource/ Receptor	Sensitivity	Potential Effects	Reinstatement and Mitigation Measures ³ (in addition to the CEMP measures set out in Document 7.4)	Magnitude	Residual Effect
Brynsiencyn	High	Effects of construction	No specific mitigation identified for this receptor. Not directly affected by the Proposed Development so no reinstatement required.	Negligible	Negligible (not significant)
		Effects during operation		Year 1: Negligible Year 15: Negligible	Year 1: Negligible (not significant) Year 15: Negligible (not significant)
Bangor	High	Effects of construction	No specific mitigation identified for this receptor. Not directly affected by the Proposed Development so no reinstatement required.	Negligible	Negligible (not significant)
		Effects during operation		Year 1: Negligible Year 15: Negligible	Year 1: Negligible (not significant) Year 15: Negligible (not significant)
Glasinfryn	High	Effects of construction	No specific mitigation identified for this receptor. Not directly affected by the Proposed Development so no reinstatement required.	No change	No effect
		Effects during operation		Year 1: No change Year 15: No change	Year 1: No effect Year 15: No effect
Pentir	High	Effects of construction	Reinstatement of hedgerows directly affected by access tracks and directly under the overhead line. Reinstatement of hedgerows at bellmouths F3, F10, F11, F6, F7, F8, F9, and a tree area at bellmouth F14. Replacement for loss of trees at bellmouth F6 reinstated in same location and along the road boundary within the Order Limits. Replacement for loss of trees with trees located along boundaries within the Order Limits. Landscape mitigation planting as illustrated on Figure 7.15 (Document 5.7.1.15) to mitigate the effects of Tŷ Fodol THH & CSEC. Landscape mitigation planting as illustrated on Figure 7.16 (Document 5.7.1.16) to mitigate the effects of the extension to Pentir Substation.	Medium (with localised areas of medium-high)	Moderate adverse (significant) with locally major adverse (significant)
		Effects during operation		Year 1: Medium Year 15: Medium-Low	Year 1: Moderate adverse (significant) with locally major adverse (significant) Year 15: Minor adverse (not significant) with locally major adverse (significant)
Y Felinheli	High	Effects of construction	No specific mitigation identified for this receptor. Not directly affected by the Proposed Development so no reinstatement required.	Negligible	Negligible (not significant)
		Effects during operation		Year 1: Negligible Year 15: Negligible	Year 1: Negligible (not significant) Year 15: Negligible (not significant)

Table 22.32 Summary of Visual Assessment Residual Effects

Resource/ Receptor	Sensitivity	Potential Effects	Reinstatement and Mitigation Measures ³ (in addition to the CEMP measures set out in Document 7.4)	Magnitude	Residual Effect
Bethel	High	Effects of construction	No specific mitigation identified for this receptor. Not directly affected by the Proposed Development so no reinstatement required.	Negligible	Negligible (not significant)
		Effects during operation		Year 1: Negligible Year 15: Negligible	Year 1: Negligible (not significant) Year 15: Negligible (not significant)
Rhiwlas	High	Effects of construction	No specific mitigation identified for this receptor. Not directly affected by the Proposed Development so no reinstatement required. Would benefit from landscape mitigation planting as illustrated on Figure 7.16 (Document 5.7.1.16) to mitigate the effects of the extension to Pentir Substation.	Medium	Moderate adverse (significant)
		Effects during operation		Year 1: Medium-Low Year 15: Negligible	Year 1: Minor adverse (not significant) Year 15: Negligible (not significant)
Penisa'r Waun	High	Effects of construction	No specific mitigation identified for this receptor. Not directly affected by the Proposed Development so no reinstatement required.	No change	No effect
		Effects during operation		Year 1: No change Year 15: No change	Year 1: No effect Year 15: No effect
Private Views					
Private views from residential properties within study area Option A: 756 properties Option B: 757 Refer to RVAA Appendix 8.3 (Document 5.8.2.3) for results for individual properties.	High	Effects of construction	No specific mitigation, but properties identified as having significant effects (major or moderate) would potentially benefit from the Voluntary Residential Planting Scheme described in the Enhancement Strategy (Document 7.13). Some properties benefit from the landscape mitigation planting for Braint THH & CSEC, Tŷ Fodol THH & CSEC and Pentir Substation Extension as illustrated on the following figures: <ul style="list-style-type: none">Figure 7.14 (Document 5.7.1.14)Figure 7.15 (Document 5.7.1.15)Figure 7.16 (Document 5.7.1.16)	No change: 2 properties Negligible: 185 properties Low/Medium-Low: 506 properties Medium: 59 properties (60 properties for Option B) Medium-High: 4 properties	No effect: 2 properties Negligible (not significant): 185 properties Minor adverse (not significant): 506 properties Moderate adverse (significant): 59 properties (60 properties for Option B) Major adverse (significant): 4 properties
		Effects during operation		No change: 2 properties Negligible: 186 properties Low/Medium-Low: 407 properties Medium: 139 properties Medium-High: 22 properties (23 properties for Option B)	No effect: 2 properties Negligible (not significant): 186 properties Minor adverse (not significant): 407 properties Moderate adverse (significant): 139 properties Major adverse (significant): 22 properties (23 properties for Option B)

Table 22.32 Summary of Visual Assessment Residual Effects

Resource/ Receptor	Sensitivity	Potential Effects	Reinstatement and Mitigation Measures ³ (in addition to the CEMP measures set out in Document 7.4)	Magnitude	Residual Effect
Public Rights of Way					
Wales Coast Path	High	Effects of construction	No specific mitigation identified for this receptor.	Low	Minor adverse (not significant)
		Effects during operation		Year 1: Low Year 15: Low	Year 1: Minor adverse (not significant) Year 15: Minor adverse (not significant)
Local Public Rights of Way 73 no. PRoW within 1 km Refer to Appendix 8.4 (Document 5.8.2.4) for results for individual PRoW.	Medium	Effects of construction	No specific mitigation, but some PRoW benefit from the reinstatement planting and landscape mitigation planting for Braint THH & CSEC, Tŷ Fodol THH & CSEC and Pentir Substation Extension as illustrated on the following figures: <ul style="list-style-type: none">Figure 7.14 (Document 5.7.1.14)Figure 7.15 (Document 5.7.1.15)Figure 7.16 (Document 5.7.1.16)	No change: 1 PRoW Negligible: 6 PRoW Low/Medium-Low: 49 PRoW Locally Medium: 1 PRoW Medium: 16 PRoW	No effect: 1 PRoW Negligible (not significant): 6 PRoW Minor adverse (not significant): 49 PRoW Minor adverse (not significant) with locally moderate adverse (significant)): 1 PRoW Moderate adverse (significant) : 16 PRoW
		Effects during operation		Year 1 & Year 15: No change: 1 PRoW Negligible: 3 PRoW Low/Medium-Low: 48 PRoW Locally Medium: 10 PRoW Medium: 11 PRoW	Year 1 & Year 15: No effect: 1 PRoW Negligible (not significant): 3 PRoW Minor adverse (not significant): 48 PRoW Minor adverse (not significant) with locally moderate adverse (significant)): 10 PRoW Moderate adverse (significant) : 11 PRoW
Cycle Routes					
NCR 5	High	Effects of construction	No specific mitigation identified for this receptor but would benefit from reinstatement of bellmouths.	Low (with localised areas of medium)	Minor adverse (not significant) with locally moderate adverse (significant)
		Effects during operation		Year 1: Low Year 15: Low	Year 1: Minor adverse (not significant) Year 15: Minor adverse (not significant)
NCR 8 (Lôn Las Cymru)	High	Effects of construction	No specific mitigation identified for this receptor but would benefit from reinstatement of bellmouths.	Low (with localised areas of medium)	Minor adverse (not significant) with locally moderate adverse (significant)
		Effects during operation		Year 1: Low Year 15: Low	Year 1: Minor adverse (not significant) Year 15: Minor adverse (not significant)
NCR 566	High	Effects of construction	No specific mitigation identified for this receptor but would benefit from reinstatement	Medium-low (with localised areas of medium)	Minor adverse (not significant) with locally moderate adverse (significant)

Table 22.32 Summary of Visual Assessment Residual Effects

Resource/ Receptor	Sensitivity	Potential Effects	Reinstatement and Mitigation Measures ³ (in addition to the CEMP measures set out in Document 7.4)	Magnitude	Residual Effect
		Effects during operation	of bellmouths.	Year 1: Medium-Low Year 15: Medium-Low	Year 1: Minor adverse (not significant) Year 15: Minor adverse (not significant)
Nico LCR	Medium	Effects of construction	No specific mitigation identified for this receptor but would benefit from reinstatement of bellmouths.	Low (with localised areas of medium)	Minor adverse (not significant) with locally moderate adverse (significant)
		Effects during operation		Year 1: Medium-Low Year 15: Medium-Low	Year 1: Minor adverse (not significant) Year 15: Minor adverse (not significant)
Hebog LCR	Medium	Effects of construction	No specific mitigation identified for this receptor but would benefit from reinstatement of bellmouths.	Low (with localised areas of medium)	Minor adverse (not significant) with locally moderate adverse (significant)
		Effects during operation		Year 1: Low Year 15: Low	Year 1: Minor adverse (not significant) Year 15: Minor adverse (not significant)
Giach LCR	Medium	Effects of construction	No specific mitigation identified for this receptor. Not directly affected by the Proposed Development.	Negligible	Negligible (not significant)
		Effects during operation		Year 1: Negligible Year 15: Negligible	Year 1: Negligible (not significant) Year 15: Negligible (not significant)
Promoted Viewpoints					
Viewpoint near Gaerwen	High	Effects of construction	Reinstatement of bellmouth and access tracks including hedgerows and tree planting.	High	Major adverse (significant)
		Effects during operation		Year 1: Medium-high Year 15: Medium-High	Year 1: Major adverse (significant) Year 15: Major adverse (significant)
Viewpoint on the A5	High	Effects of construction	No specific mitigation identified for this receptor. Not directly affected by the Proposed Development.	No change	No effect
		Effects during operation		Year 1: No change Year 15: No change	Year 1: No effect Year 15: No effect
Cae Glan Mor	High	Effects of construction	No specific mitigation identified for this receptor. Not directly affected by the Proposed Development.	No change	No effect
		Effects during operation		Year 1: No change Year 15: No change	Year 1: No effect Year 15: No effect
Tourist Attractions					
Bryn Celli Ddu	High	Effects of construction	No specific mitigation identified for this receptor, although use of low height pylons has helped to reduce the effects on views from this receptor.	Low	Minor adverse (not significant)
		Effects during operation		Year 1: Medium-Low Year 15: Medium-Low	Year 1: Minor adverse (not significant) Year 15: Minor adverse (not significant)

Table 22.32 Summary of Visual Assessment Residual Effects

Resource/ Receptor	Sensitivity	Potential Effects	Reinstatement and Mitigation Measures ³ (in addition to the CEMP measures set out in Document 7.4)	Magnitude	Residual Effect
Plas Newydd	High	Effects of construction	No specific mitigation identified for this receptor.	Negligible	Negligible (not significant)
		Effects during operation		Year 1: Negligible Year 15: Negligible	Year 1: Negligible (not significant) Year 15: Negligible (not significant)
Menai Strait	High	Effects of construction	No specific mitigation identified for this receptor.	No change	No effect
		Effects during operation		Year 1: No change Year 15: No change	Year 1: No effect Year 15: No effect
Roads & Rail					
Roads Refer to Appendix 8.5 (Document 5.8.2.5) for results for individual roads.		Effects of construction	None	Negligible: 8 Roads Low: 24 Roads Medium-Low: 9 Roads Medium: 11	Negligible (not significant): 8 Roads Minor adverse (not significant): 33 Roads Moderate adverse (significant): 11 Roads
		Effects during operation	No specific mitigation, but some roads benefit from the landscape mitigation planting for Braint THH & CSEC, Tŷ Fodol THH & CSEC and Pentir Substation Extension as illustrated on the following figures: <ul style="list-style-type: none">Figure 7.14 (Document 5.7.1.14)Figure 7.15 (Document 5.7.1.15)Figure 7.16 (Document 5.7.1.16)	Year 1: Negligible: 9 Roads Low: 21 Roads Medium-Low: 19 Medium: 3 Year 15: Negligible: 9 Roads Low: 22 Roads Medium-Low: 20 Roads Medium: 1 Road	Year 1: Negligible (not significant): 9 Roads Minor adverse (not significant): 40 Roads Moderate adverse (significant): 3 Road Year 15: Negligible (not significant): 9 Roads Minor adverse (not significant): 42 Roads Moderate adverse (significant): 1 Road
Rail	Low	Effects of construction	None	Negligible	Negligible
		Effects during operation	None	Year 1: Negligible Year 15: Negligible	Year 1: Negligible (Not significant) Year 15: Negligible (Not significant)

2.3 ECOLOGY AND NATURE CONSERVATION

2.3.1 Summary of Ecology and Nature Conservation (**Document 5.9**) residual effects are presented in Table 22.4

Table 22.4 Summary of Ecology and Nature Conservation Residual Effects					
Resource/Receptor	Value	Potential effects and sensitivity	Mitigation	Residual Effect	Significance
Designated Sites					
Corsydd Mon / Anglesey Fens SAC; Corsydd Môn a Llyn / Anglesey and Llyn Fens Ramsar Cors Erddreiniog SSSI and NNR	International	Direct loss of habitat Low sensitivity	CEMP measures In addition to the measures set out in Chapter 11, Geology, Hydrogeology and Ground Conditions (Document 5.11), Chapter 12, Water Quality, Resources and Flood Risk (Document 5.12), Chapter 13, Traffic and Transport (Document 5.13), and Chapter 14, Air Quality (Document 5.14), the following additional measures would be implemented: <ul style="list-style-type: none"> Where habitat within the designated sites is required to be removed/managed due to conductor swing, this would be done with care to avoid damaging ground habitats, such as by soft felling the trees and avoiding taking vehicles on the designated site where possible. The permanent drainage in effect during the operation of the Proposed Development would be designed to maintain the existing hydrological regime. 	During construction, maintenance and decommissioning: Low During operation: Very Low	Negligible (not significant)
		Hydrological alteration Low sensitivity		During construction, maintenance and decommissioning: Low During operation: Very Low	Negligible (not significant)
	National	Temporary disturbance/ displacement/ degradation – changes in air quality Low sensitivity		During construction, maintenance and decommissioning: Low	Negligible (not significant)
		Temporary disturbance/ displacement/ degradation Temporary indirect disturbance Low sensitivity		During construction, maintenance and decommissioning: Low During operation: Very Low	Negligible (not significant)
Eryri/Snowdonia SAC	International	Temporary disturbance/ displacement/ degradation – changes in air quality Very Low sensitivity	CEMP measures. The measures set out in Chapter 13, Traffic and Transport (Document 5.13), and Chapter 14, Air Quality (Document 5.14) would be implemented.	During construction, maintenance and decommissioning: Very Low	Negligible (not significant)

Table 22.4 Summary of Ecology and Nature Conservation Residual Effects

Resource/Receptor	Value	Potential effects and sensitivity	Mitigation	Residual Effect	Significance
				During operation: No effects	
Tre'r Gof SSSI	National	Temporary disturbance /displacement/degradation Low sensitivity	CEMP measures. The measures set out in Chapter 11, Geology, Hydrogeology and Ground Conditions (Document 5.11), Chapter 12, Water Quality, Resources and Flood Risk (Document 5.12), Chapter 13, Traffic and Transport (Document 5.13), and Chapter 14, Air Quality (Document 5.14) would be implemented.	During construction, maintenance and decommissioning: Very Low During operation: No effects	Negligible (not significant)
Llyn Alaw SSSI	National	Temporary disturbance/ displacement/degradation Low sensitivity	CEMP measures. The measures set out in Chapter 11, Geology, Hydrogeology and Ground Conditions (Document 5.11), Chapter 12, Water Quality, Resources and Flood Risk (Document 5.12), Chapter 13, Traffic and Transport (Document 5.13), and Chapter 14, Air Quality (Document 5.14) would be implemented.	During construction, maintenance and decommissioning: Very Low During operation: No effects	Negligible (not significant)
Caeau Talwrn SSSI	National	Temporary disturbance/ displacement/degradation Low sensitivity	CEMP measures. The measures set out in Chapter 11, Geology, Hydrogeology and Ground Conditions (Document 5.11), Chapter 12, Water Quality, Resources and Flood Risk (Document 5.12), Chapter 13, Traffic and Transport (Document 5.13), and Chapter 14, Air Quality (Document 5.14) would be implemented.	During construction, maintenance and decommissioning: Low/Very Low During operation: No effects	Negligible (not significant)
		Hydrological alteration Low sensitivity		During construction, maintenance and decommissioning: Very Low During operation: No effects	Negligible (not significant)
SSSIs Indirect Effects only Cors Ddyga (inc Malltraeth Marsh); Coedydd Afon Menai	National	Temporary disturbance/ displacement/degradation through changes in air quality Low sensitivity	CEMP measures. The measures set out in Chapter 11, Geology, Hydrogeology and Ground Conditions (Document 5.11), Chapter 12, Water Quality, Resources and Flood Risk (Document 5.12), Chapter 13, Traffic and Transport (Document 5.13), and Chapter 14, Air Quality (Document 5.14) would be implemented.	During construction, maintenance and decommissioning: Low	Negligible (not significant)
		Temporary disturbance/		During construction,	Negligible (not

Table 22.4 Summary of Ecology and Nature Conservation Residual Effects

Resource/Receptor	Value	Potential effects and sensitivity	Mitigation	Residual Effect	Significance
		displacement/degradation through changes in water quality Low sensitivity		maintenance and decommissioning: Very Low	significant)
Gylched Covert CWS	County	Direct loss of habitat Medium sensitivity	<p>CEMP measures.</p> <p>In addition to the measures set out in Chapter 11, Geology, Hydrogeology and Ground Conditions (Document 5.11), Chapter 12, Water Quality, Resources and Flood Risk (Document 5.12), Chapter 13, Traffic and Transport (Document 5.13), and Chapter 14, Air Quality (Document 5.14), the following additional measures would be implemented:</p> <ul style="list-style-type: none"> The existing seed bank in the woodland top soil would be maintained through being stored separately from soils of other habitats. Mitigation planting included within the gap in the west side of the woodland. Mitigation planting mixes would be tailored to the existing CWS and Annex 1 of the Habitats Directive woodland community for both the replacement woodland planting, and the planting beneath the OHL, including scrub habitat, to provide good connectivity to other woodland blocks in the locations available. These would comprise native species of local provenance where possible and tailored to support LBAP targets where possible Future habitat management of Gylched Covert in line with maintaining and improved the quality of this CWS woodland (maintaining this W8e community where possible) to be agreed as part of the draft DCO (Document 2.1). Outline of this is provided in the BMS (Document 7.7), but full details would be provided in a management plan. 	During construction, operation and maintenance decommissioning: Medium During decommissioning: Minor	Moderate Adverse (significant) Minor Adverse (not significant)
		Temporary disturbance/displacement/degradation Low sensitivity		During construction, maintenance and decommissioning: Very Low During operation: No effects	Negligible (not significant)
		Severance and fragmentation through permanent loss of habitat Low sensitivity		During construction, maintenance and decommissioning: Low	Negligible (not significant)
		Changes to water quality or hydrological alteration Low sensitivity		During construction, maintenance and decommissioning: Low During operation: No effects	Negligible (not significant)
CWS Coed Nant Y Garth.	County	Direct loss of cCWS/CWS habitat <i>Pentir Substation</i> Medium sensitivity <i>Other sites</i>	<p>CEMP measures.</p> <p>In addition to the measures set out in Chapter 11, Geology, Hydrogeology and Ground Conditions (Document 5.11), Chapter 12, Water Quality, Resources and Flood Risk (Document 5.12), Chapter 13, Traffic and Transport (Document</p>	During construction, operation, maintenance and decommissioning: Low	<i>Pentir Substation</i> Minor Adverse (not significant) <i>Other sites</i>

Table 22.4 Summary of Ecology and Nature Conservation Residual Effects

Resource/Receptor	Value	Potential effects and sensitivity	Mitigation	Residual Effect	Significance
cCWS Coed Rhos-fawr; Pentir Substation; Coed Ty'n-llwyn.		Low sensitivity	<p>5.13), and Chapter 14, Air Quality (Document 5.14), the following additional measures would be implemented:</p> <ul style="list-style-type: none"> Habitat replacement of CWS/cCWS habitats and improvement where appropriate in quality and mix of species, maintaining existing seed bank in top soil, in particular for areas of ancient woodland. Mitigation planting would ensure no net loss of trees, with as much replacement planting as possible within the Order Limits. Maintain existing seed bank and soil type by storage of the top soil of each grassland habitat kept separate to that of other habitat. Avoid use of weed killer on these top soil areas where appropriate, with hand pulling of weeds being considered. Seed mixes would comprise native species, and would be of mixes appropriate to each grassland type in each location. Mitigation planting mixes would be tailored to the existing habitats, including scrub habitat, to provide good connectivity to other woodland blocks in the locations available. These would comprise native species of local provenance where possible. Management of the ancient woodland section of the Pentir Substation cCWS where it falls within the Order Limits to maintain and improve the quality of this cCWS woodland. This would be tailored to support LBAP targets where possible. Maintain existing drainage on completion where the drainage mitigation area falls within the cCWS Coed Ty'n-llwyn. 		Negligible (not significant)
		Temporary disturbance/ displacement/degradation through pollution Low sensitivity		During construction, maintenance, operation and decommissioning: Low	Negligible (not significant)
		Severance and fragmentation Low sensitivity		During construction, operation, maintenance and decommissioning: Low	Negligible (not significant)
CWS Maen Eyr,	County	Temporary disturbance/ displacement/degradation through air quality Low sensitivity	CEMP measures. The measures set out in Chapter 11, Geology, Hydrogeology and Ground Conditions (Document 5.11), Resources and Flood Risk Chapter 12 (Document 5.12), Chapter 13, Traffic and	During construction, maintenance and decommissioning: Low	Negligible (not significant)

Table 22.4 Summary of Ecology and Nature Conservation Residual Effects

Resource/Receptor	Value	Potential effects and sensitivity	Mitigation	Residual Effect	Significance
Tir Pori Talwrn,	County	Changes to water quality or hydrology alteration Low sensitivity	Transport (Document 5.13), and Chapter 14, Air Quality (Document 5.14) would be implemented.	During construction, maintenance and decommissioning: Low	Negligible (not significant)
CWS Arfordir Mynydd y Wylfa - Trwyn Penrhyn; Afon Wygyr; Coed Cefn-Du; Graigfryn and Rhostir; Ponciau; Cors Tregarnedd Fawr; Coed Pont Ladi-wen; Fodol Ganol; Railway cuttings (Treborth).		Temporary disturbance/ displacement/ degradation through air quality and water quality Low sensitivity	CEMP measures. The measures set out in Chapter 11, Geology, Hydrogeology and Ground Conditions (Document 5.11), Chapter 12, Water Quality, Resources and Flood Risk (Document 5.12), Chapter 13, Traffic and Transport (Document 5.13), and Chapter 14, Air Quality (Document 5.14) would be implemented.	During construction, maintenance and decommissioning: Low During operation: No effects	Negligible (not significant)
cCWS Parc Nant-y-garth; Coed Tyddyn Badyn; Glan-rhyd reservoir; Vaynol Park woodlands and lake; Parc Menai woodlands; Coed Pant-y-cyff;	County	Temporary disturbance/ displacement/ degradation through air quality and water quality Low sensitivity	CEMP measures. The measures set out in Chapter 11, Geology, Hydrogeology and Ground Conditions (Document 5.11), Chapter 12, Water Quality, Resources and Flood Risk (Document 5.12), Chapter 13, Traffic and Transport (Document 5.13), and Chapter 14, Air Quality (Document 5.14) would be implemented.	During construction, maintenance and decommissioning: Low During operation: No effects	Negligible (not significant)

Table 22.4 Summary of Ecology and Nature Conservation Residual Effects

Resource/Receptor	Value	Potential effects and sensitivity	Mitigation	Residual Effect	Significance
Treborth Road Woodlands; Rhydau Duon; Felin Hen & Cycle Track; Cororion Rough; Parc Lon Isaf; Parc Siambragwynion; Coed Rhos Uchaf					
Habitats					
Ancient Woodland, and Plantation Ancient Woodland	County	Direct loss of habitat Medium sensitivity	<p>CEMP measures.</p> <p>In addition to the measures set out in Chapter 7, Landscape Assessment (Document 5.7), Chapter 11, Geology, Hydrogeology and Ground Conditions (Document 5.11), Chapter 12, Water Quality, Resources and Flood Risk (Document 5.12), and Chapter 14, Air Quality (Document 5.14), the following additional measures would be implemented:</p> <ul style="list-style-type: none"> • The importance of protecting ancient woodland would be highlighted in tool box talks given to construction staff. • Replacement of loss with woodland habitat where appropriate, including use of top-soil with existing seed bank from lost areas, as well as allowing natural regeneration. • Replacement planting of trees on previously planted areas of ancient woodland to include native species suitable for ancient woodlands, and to provide good shelter and food sources for notable species. • Management of the ancient woodland section of the Pentir Substation cCWS, where it falls within the Order Limits, to maintain and improve the quality of this cCWS 	During construction, operation, maintenance and decommission: Low	Minor Adverse (not significant)
		Temporary disturbance/ displacement/degradation through potential impacts from dust/emission and pollution Low sensitivity		During construction, maintenance and decommission: Low	Negligible (not significant)
		Severance and fragmentation Low sensitivity		During construction, operation, maintenance and decommission: Low	Negligible (not significant)

Table 22.4 Summary of Ecology and Nature Conservation Residual Effects

Resource/Receptor	Value	Potential effects and sensitivity	Mitigation	Residual Effect	Significance
			woodland. This would be tailored to support LBAP targets where possible. Outline details of this are provided in the BMS (Document 7.7), but full details would be provided in a management plan.		
Non-ancient Broadleaved Woodland, Mixed Plantation woodland and Coniferous Plantation (see Annex 1 section for woodland types which fall under this category).	Local	Direct loss of habitat Medium sensitivity	CEMP measures. In addition to the measures set out in Chapter 7, Landscape Assessment (Document 5.7), Chapter 11, Geology, Hydrogeology and Ground Conditions (Document 5.11), Chapter 12, Water Quality, Resources and Flood Risk (Document 5.12), and Chapter 14, Air Quality (Document 5.14), the following additional measures would be implemented: <ul style="list-style-type: none"> Habitat replacement and improvement where appropriate. Maintaining existing seed bank in top soil of woodland by keeping it separate from topsoil of other habitats. Where trees and woodland would be lost beneath the OHL, replacement planting would be located as close to that lost as possible, with alternative planting in these areas to include scrub in order to prevent fragmentation, provide food sources for notable species of wildlife, and good connectivity to other woodland blocks. Landscape mitigation planting would ensure no net loss of trees, with as much of the replacement planting as possible being within the Order Limits. Planting mixes would comprise native species, and designed to provide good shelter and food sources for notable species. This would be tailored to support BAP targets where possible. 	During construction, operation, maintenance and decommissioning: Low	Negligible (not significant)
		Temporary disturbance/ displacement/ degradation through potential impacts from pollution and dust Low sensitivity		During construction, maintenance and decommissioning: Low	Negligible (not significant)
		Severance and fragmentation through temporary and permanent loss Low sensitivity		During construction, operation, maintenance and decommissioning: Low	Negligible (not significant)
Improved Grassland and Arable	Site Level	Direct loss of habitat Low sensitivity	CEMP measures. In addition to the measures set out in Chapter 14, Air Quality (Document 5.14), the following additional measures would be implemented: <ul style="list-style-type: none"> Habitat replacement and improvement where appropriate. 	During construction, operation, maintenance and decommissioning: Very Low	Negligible (Not significant)
		Temporary disturbance/		During construction,	Negligible (not

Table 22.4 Summary of Ecology and Nature Conservation Residual Effects

Resource/Receptor	Value	Potential effects and sensitivity	Mitigation	Residual Effect	Significance
		displacement/ degradation through potential changes from pollution and dust Very Low sensitivity		maintenance and decommissioning: Very Low	significant)
		Severance and fragmentation Low sensitivity		During construction, operation, maintenance and decommissioning: Very Low	Negligible (not significant)
Marshy Grassland, Semi-Improved Neutral, Poor and Acid Grassland, and Unimproved Grassland	County for MG5 and M23b, Local for all others	Direct loss of habitat Low sensitivity	<p>CEMP measures.</p> <p>In addition to the measures set out in Resources and Flood Risk Chapter 12 (Document 5.12) and Chapter 14, Air Quality (Document 5.14), the following additional measures would be implemented:</p> <ul style="list-style-type: none"> • Maintain existing seed bank and soil type by storage of top soil of each grassland habitat kept separate to that of others where appropriate. Avoid use of weed killer on these top soil areas during construction where appropriate, with hand pulling of weeds being considered. • Habitat replacement and improvement where appropriate. • Seed mixes would comprise native species, and would be of mixes appropriate to each grassland type. • Protect habitats during installation of the pilot wire where this occurs outside of main areas of works including those areas protected by the Schedule of Environmental Commitments (Document 7.4.2.1). 	During construction, operation, maintenance and decommissioning: Low	MG5 and M23b and unimproved Minor Adverse (not significant) All others Negligible (not Significant)
		Temporary disturbance/ displacement/degradation through potential changes from pollution and dust Low sensitivity		During construction, maintenance and decommissioning: Low	MG5 and M23b and unimproved Minor Adverse (not significant) All others Negligible (not Significant)
		Severance and fragmentation through temporary loss Low sensitivity		During construction, operation, maintenance and decommissioning: Low	Negligible (not Significant)
		Hydrological alteration through working within and adjacent to areas of marshy grassland Low sensitivity		During construction, operation, maintenance and decommissioning: Low	Negligible (not Significant)

Table 22.4 Summary of Ecology and Nature Conservation Residual Effects

Resource/Receptor	Value	Potential effects and sensitivity	Mitigation	Residual Effect	Significance
Scrub	Local	Direct loss of habitat Low sensitivity	<p>CEMP measures.</p> <p>In addition to the measures set out in Chapter 7, Landscape Assessment (Document 5.7) and Chapter 14, Air Quality (Document 5.14), the following additional measures would be implemented:</p> <ul style="list-style-type: none"> Habitat replacement and improvement where appropriate. Use of scrub and short tree species within the landscape mitigation planting where woodland habitat is fragmented due to the OHL to maintain connectivity and provide continued cover. Replacement planting to comprise mixes of native species, and designed to provide good shelter and food sources for notable species. 	During construction, operation, maintenance and decommissioning: Very Low	Negligible (not significant)
		Temporary disturbance/ displacement/ degradation through potential changes from pollution and dust Low sensitivity		During construction, maintenance and decommissioning: Very Low	Negligible (not significant)
		Severance and fragmentation Low sensitivity		During construction, operation, maintenance and decommissioning: Very Low	Negligible (not significant)
Acid Dry Dwarf Shrub Heath	County	Direct loss of habitat Medium sensitivity	<p>CEMP measures.</p> <p>In addition to the measures set out in Chapter 12, Water Quality, Resources and Flood Risk (Document 5.12) and Chapter 14, Air Quality (Document 5.14), the following additional measures would be implemented:</p> <ul style="list-style-type: none"> Habitat replacement and improvement where appropriate. If required, seed mixes would comprise native species of local provenance where possible, and would be of a mix appropriate to this habitat. Natural regeneration is the preference for recolonisation of areas temporarily affected, but planting/seeding may be required to assist regeneration or for new areas of permanent planting. Ensure heathland top soil is kept separate from top soil of other habitats. If presence of species which are sensitive to correct orientations are identified through pre-construction surveys then scattered boulders would be carefully moved to outside of the area of works under a watching 	During construction and decommissioning: Low	Minor Adverse (not significant)
		Temporary disturbance/ displacement/ degradation through potential changes from pollution and dust Low sensitivity		During construction, operation, maintenance and decommissioning: Low	Negligible (not significant)

Table 22.4 Summary of Ecology and Nature Conservation Residual Effects

Resource/Receptor	Value	Potential effects and sensitivity	Mitigation	Residual Effect	Significance
			brief by the ECoW and should be laid in the same orientation as existing.		
Ruderal	Local	Direct loss of habitat Very Low sensitivity	CEMP measures. In addition to the above, specific measures required include: <ul style="list-style-type: none"> Habitat replacement and improvement where appropriate, which may be through allowed natural regeneration. 	During construction, operation, maintenance and decommissioning: Very Low	Negligible (not significant)
		Temporary disturbance/ displacement/ degradation through potential changes from pollution and dust Very Low sensitivity		During construction, maintenance and decommissioning: Very Low	Negligible (not significant)
		Severance and fragmentation Very Low sensitivity		During construction, maintenance and decommissioning: Very Low	Negligible (not significant)
Important and Non-Important hedgerows	<i>Important hedgerows</i> County <i>Non-Important hedgerows</i> Local	Direct temporary loss of habitat Low sensitivity	CEMP measures. In addition to the measures set out in Chapter 7, Landscape Assessment (Document 5.7) and Chapter 14, Air Quality (Document 5.14), the following additional measures would be implemented: <ul style="list-style-type: none"> Habitat replacement and improvement where appropriate. Maintain existing seed bank for hedgerows in separate top soil spoils heaps. Plant hedgerows along the inside of the visibility splays to minimise the gaps where safe to do so. Cut back hedgerows on visibility splays to above ground level to maintain/protect the hedgerow and ground flora, allowing them to grow back on completion. Protect hedgerows from damage during construction such as through installing scaffolding and when passing 	During construction, maintenance and decommissioning: Low	<i>Important hedgerows</i> Minor Adverse (not significant) <i>Non-Important hedgerows</i> Negligible (not significant)
		Direct permanent loss of habitat Low sensitivity		Operation: Very Low	Negligible (not significant)
		Temporary disturbance/ displacement/ degradation of hedgerows through potential changes from pollution and dust Low sensitivity		During construction, maintenance and decommissioning: Very Low	Negligible (not significant)
		Severance and fragmentation through temporary loss		During construction, maintenance and	<i>Important hedgerows</i> Minor Adverse (not

Table 22.4 Summary of Ecology and Nature Conservation Residual Effects

Resource/Receptor	Value	Potential effects and sensitivity	Mitigation	Residual Effect	Significance
		Low sensitivity	<p>the pilot wire over the hedgerow.</p> <ul style="list-style-type: none"> Replace defunct and species-poor hedgerows with intact and species-rich hedgerows with trees, to replace and improve connectivity. Hedgerows included within the landscape planting scheme of the THH /CSEC areas. Replace all cloddiau. 	decommissioning: Low	significant) <i>Non-Important hedgerows</i> Negligible (not significant)
		Severance and fragmentation through permanent loss Low sensitivity		Operation: Very Low	Negligible (not significant)
Ponds	Local	Direct loss of habitat Low sensitivity	<p>CEMP measures.</p> <p>In addition to the measures set out in Chapter 11, Geology, Hydrogeology and Ground Conditions (Document 5.11) and Chapter 12, Water Quality, Resources and Flood Risk (Document 5.12), the following additional measures would be implemented:</p> <ul style="list-style-type: none"> Replacement of Pond A254 at Braint THH following construction as part of the landscape mitigation. Mitigation planting in this area will avoid fully surrounding this habitat and overshading. Although created as part of the drainage mitigation (SuDS), the new ponds would be planted/ allowed to colonise naturally with aquatic vegetation. 	During construction: Low	Negligible (not significant)
		Temporary disturbance/ displacement/degradation through potential changes to water quality. Low sensitivity		During construction, maintenance and decommissioning: Very Low	Negligible (not significant)
		Hydrological alteration where construction works occur adjacent to ponds. Low sensitivity		During construction, maintenance and decommissioning: Very Low	Negligible (not significant)
Watercourses - streams/rivers and drains	Streams/ rivers	Direct temporary loss of habitat. Low sensitivity	<p>CEMP measures.</p> <p>In addition to the measures set out in Chapter 11, Geology, Hydrogeology and Ground Conditions (Document 5.11) and Chapter 12, Water Quality, Resources and Flood Risk (Document 5.12), the following additional measures would be implemented:</p> <ul style="list-style-type: none"> Inclusion of importance of protection of watercourses within tool box talks. Reinstatement of the habitat on removal of the temporary crossings to maintain the existing course and watercourse habitat and bed. Replacement of temporary loss of habitat through 	During construction, maintenance and decommissioning: Very Low	Negligible (not significant)
	County Drains	Temporary disturbance/ displacement/ degradation Low sensitivity		During construction, maintenance and decommissioning: Very Low	Negligible (not significant)
	Local	Severance and fragmentation Low sensitivity		During construction, maintenance and decommissioning: Very Low	Negligible (not significant)

Table 22.4 Summary of Ecology and Nature Conservation Residual Effects

Resource/Receptor	Value	Potential effects and sensitivity	Mitigation	Residual Effect	Significance
		Hydrological alteration where construction works occurs adjacent to watercourses. Low sensitivity	planting or natural regeneration or improved where appropriate, including the bed, morphology and in channel functioning of the watercourse.	During construction, maintenance and decommissioning: Very Low	Negligible (not significant)
Annex 1 of the Habitats Directive Habitats					
W8e Woodland <i>Fraxinus excelsior-Acer campestre-Mercurialis perennis</i> Brynddu and Gylched Covert W6 and 6d Alnus glutinosa-Urtica dioica Carrog Isa and Pentreheulyn	County	Direct loss of habitat (Gylched Covert) (removed) Medium sensitivity	CEMP measures. In addition to the measures set out in Chapter 7, Landscape Assessment (Document 5.7), Chapter 11, Geology, Hydrogeology and Ground Conditions (Document 5.11), Chapter 12, Water Quality, Resources and Flood Risk (Document 5.12), and Chapter 14, Air Quality (Document 5.14), the following additional measures would be implemented: <ul style="list-style-type: none"> Habitat replacement and improvement where appropriate, maintaining existing seed bank in top soil of woodland. Where trees and woodland would be lost beneath the OHL, replacement planting would be located as close to that lost as possible, with alternative planting in these areas to include scrub in order to prevent fragmentation, provide food sources for notable species of wildlife, and good connectivity to other woodland blocks. Landscape mitigation planting would ensure no net loss of trees, with as much replacement planting as possible within the Order Limits. Planting would occur within Gylched Covert and Carrog Isa woodlands. Planting mixes would be tailored to the existing CWS and Annex 1 communities and comprise native species of local provenance where possible. This would be tailored to help support LBAP targets where possible. Management of Gylched Covert in line with maintaining this W8e community. 	During construction, operation, maintenance and decommissioning: Low	Minor Adverse (not significant)
		Temporary disturbance/displacement/degradation through potential changes from pollution and dust Low sensitivity		During construction, maintenance and decommissioning: Low	Negligible (not significant)
		Severance and Fragmentation Low sensitivity		During construction, operation, maintenance and decommissioning: Low	Negligible (not significant)
Mire Habitats - M24 <i>Cirsio-Molinietum</i> fen	County	Direct loss of habitat Medium sensitivity	CEMP measures. In addition to the measures set out in Chapter 12, Water Quality,	During construction, maintenance, and	Minor Adverse (not significant)

Table 22.4 Summary of Ecology and Nature Conservation Residual Effects

Resource/Receptor	Value	Potential effects and sensitivity	Mitigation	Residual Effect	Significance
meadow and M22 <i>Juncus subnodulosus</i> - <i>Cirsium palustre</i> fen- meadow			Resources and Flood Risk (Document 5.12) and Chapter 14, Air Quality (Document 5.14), the following additional measure would be implemented: <ul style="list-style-type: none">Habitat replacement and improvement where appropriate, maintaining existing seed bank in top soil of each type kept separate to that of other habitats.Ensure continuity of hydrological connectivity with this habitat.	decommissioning: Low	
		Temporary disturbance/ displacement/ degradation through potential changes from pollution and dust Low sensitivity		During construction, maintenance, operation and decommissioning: Low	Negligible (not significant)
		Hydrological alteration through working close to M24 <i>Molinia caerulea</i> - <i>Cirsium dissectum</i> fen- meadow Medium sensitivity		During construction, maintenance, and decommissioning: Low	Minor Adverse (not significant)
Species					
Badger	Local	Direct temporary loss of potential foraging habitat and commuting routes. Very Low sensitivity	CEMP measures. In addition to the measures set out in Chapter 15, Construction Noise and Vibration (Document 5.15) and Chapter 16, Operational Noise and Vibration (Document 5.16), the following additional measures would be implemented: <ul style="list-style-type: none">Pre-construction surveys would be required throughout the Proposed Development to ensure no new setts are created. A revised mitigation strategy and a licence from NRW would be required for new setts or changes to the existing situation.Replacement of temporary loss of habitat, improved where appropriate for example replacing with intact hedgerows where defunct hedgerows are temporarily lost, would be of benefit to badger.Trees within the Order Limits through the ravine at Coed Nant Y Garth would be managed to above ground level only and not fully removed where possible but in particular within 30 m of a badger sett.Replacement planting of trees and woodland would be located as close to that lost as possible, with alternative	During construction, operation, maintenance and decommissioning: Low	Negligible (not significant)
		Direct permanent loss of potential foraging and commuting habitat - restricted to the THH/CSECs and the Pentir Substation extension areas. Very Low sensitivity		During construction, maintenance, operation and decommissioning: Low	Negligible (not significant)
		Temporary disturbance/ displacement/ degradation through noise and light disturbance. Medium sensitivity for those at Pentir and Tŷ Fodol THH Low sensitivity for all other locations		During construction, maintenance, and decommissioning: Low	Negligible (not significant)
		Severance and fragmentation through temporary and permanent habitat loss.		During construction, operation, maintenance, and	Negligible (not significant)

Table 22.4 Summary of Ecology and Nature Conservation Residual Effects

Resource/Receptor	Value	Potential effects and sensitivity	Mitigation	Residual Effect	Significance
		Very Low sensitivity	<p>planting in these areas to include scrub in order to prevent fragmentation of habitats or loss of food sources potentially used by badger.</p> <ul style="list-style-type: none"> Landscape planting around the THH/CSECs and Pentir Substation has been designed to improve on existing habitats where possible. The habitats would provide more suitable foraging habitat than the existing, for example hedgerows and scrub. 	decommissioning: Low	
		Operational noise would occur at Pentir Substation due to the shunt rector, from ventilation fans at the THH (only stairwell at Braint), and the OHL. Very Low sensitivity		During operation: Very Low	Negligible (not significant)
		Risk of direct impact such as through collision with construction vehicles or falling into excavations or open trenches, during removal of a sett. Low sensitivity		During construction, maintenance and decommissioning: Very Low	Negligible (not significant)
		Loss or damage to shelter, protection and/or breeding habitat Low sensitivity		During construction: Low	Negligible (not significant)
Water Vole	County	Temporary direct loss of habitat (non breeding). Very Low sensitivity	<p>CEMP measures.</p> <p>In addition to the measures set out in Chapter 11, Geology, Hydrogeology and Ground Conditions (Document 5.11) and Chapter 12, Water Quality, Resources and Flood Risk (Document 5.12), the following additional measures would be implemented:</p> <ul style="list-style-type: none"> Pre-construction surveys. If further burrows were discovered, a revised mitigation strategy could be required and could require a licence from NRW. Vegetation removal/degradation would include staged habitat degradation to encourage water voles stay out of the working area and within suitable remaining habitat. Maintenance of the habitat throughout construction would ensure it remained unsuitable for water voles under the supervision of the ECoW. Consent for the detailed culvert design would be sought from NRW post grant of the DCO, therefore culverts 	During construction, maintenance and decommissioning: Low	Negligible (not significant)
		Temporary disturbance/ displacement/ degradation of breeding or feeding habitat. Low sensitivity		During construction, maintenance and decommissioning: Very Low	Negligible (not significant)
		Severance and fragmentation could occur only temporarily at proposed watercourse crossings. Low sensitivity		During construction, maintenance and decommissioning: Very Low	Negligible (not significant)
		Risk of direct impact through construction vehicles, installation of culverts/bridges or entrapment in open trenches/excavations.		During construction, maintenance and decommissioning: Very Low	Negligible (not significant)

Table 22.4 Summary of Ecology and Nature Conservation Residual Effects

Resource/Receptor	Value	Potential effects and sensitivity	Mitigation	Residual Effect	Significance
		Very Low sensitivity	<p>would be designed to allow the safe passage of water voles.</p> <ul style="list-style-type: none"> No works would be conducted within 3 m of a watercourse unless a crossing is being installed, with a buffer of 5 m required for sections of watercourse found to have presence of water voles prior to construction in addition to that already known. Watching brief by an ECoW would be undertaken during vegetation removal/degradation, reinstating habitats and during maintenance and decommission works. Replacement of temporary loss of habitat through planting or natural regeneration. This includes that the bed, morphology and in channel functioning of the watercourse should be reinstated to at least the existing. 		
		<p>The risk of loss or damage to shelter, protection and/or breeding habitat.</p> <p>Very Low sensitivity</p>		<p>During construction, maintenance and decommissioning:</p> <p>Very Low</p>	Negligible (not significant)
Otter	Local	<p>Temporary direct loss of habitat.</p> <p>Very Low sensitivity</p>	<p>CEMP measures</p> <p>In addition to the measures set out in Chapter 11, Geology, Hydrogeology and Ground Conditions (Document 5.11), Chapter 12, Water Quality, Resources and Flood Risk (Document 5.12), Chapter 15, Construction Noise and Vibration (Document 5.15), and Chapter 16, Operational Noise and Vibration (Document 5.16), the following additional measures would be implemented:</p> <ul style="list-style-type: none"> Pre-construction surveys. If holts / resting places were discovered, a revised mitigation strategy could be required and could require a licence from NRW. Vegetation removal/degradation would include habitat degradation to encourage otter to stay out of the working area and within suitable remaining habitat. Maintenance of the habitat throughout construction would ensure it remained unsuited to otter under the supervision of the ECoW. Watching brief by an ECoW would be undertaken during vegetation removal/degradation, reinstating habitats and during maintenance and decommission works. No works would be conducted within 3 m of a 	<p>During construction, maintenance and decommissioning:</p> <p>Low</p>	Negligible (not significant)
		<p>Temporary disturbance/ displacement/ degradation of foraging and commuting otter habitat.</p> <p>Low to Very Low sensitivity.</p>		<p>During construction, maintenance and decommissioning:</p> <p>Low</p>	Negligible (not significant)
		<p>Severance and fragmentation of potential otter habitat.</p> <p>Very Low sensitivity</p>		<p>During construction, maintenance and decommissioning:</p> <p>Very Low</p>	Negligible (not significant)
		<p>Risk of direct impact such as through collision with construction vehicles installation of culverts/ bridge or entrapment in open trenches/ excavations.</p> <p>Very Low sensitivity</p>		<p>During construction, maintenance and decommissioning:</p> <p>Very Low</p>	Negligible (not significant)

Table 22.4 Summary of Ecology and Nature Conservation Residual Effects

Resource/Receptor	Value	Potential effects and sensitivity	Mitigation	Residual Effect	Significance
			<p>watercourse unless a crossing is being installed, with a buffer of 5 m required for sections of watercourse found to have presence of otter prior to construction in addition to that already known. Larger buffers would apply should and otter resting place or holt be found.</p> <ul style="list-style-type: none"> Replacement of temporary loss of habitat through planting or natural regeneration. This includes that the bed, morphology and in channel functioning of the watercourse should be reinstated to at least the existing. 		
Bats	Local	Direct loss of roosting habitat Low sensitivity	<p>CEMP measures.</p> <p>In addition to the measures set out in Chapter 7, Landscape Assessment (Document 5.7), Chapter 14, Air Quality (Document 4.14), Chapter 15, Construction Noise and Vibration (Document 5.15), and Chapter 16, Operational Noise and Vibration (Document 5.16), the following additional measures would be implemented:</p> <ul style="list-style-type: none"> A European Protection Species Mitigation Licence from NRW would be required prior to the potential loss of one bat roost and possible disturbance of three others. Mitigation required would be replacement as close as possible to the existing roost sites. A European Protected Species Mitigation Licence from NRW would be required should buildings B2 and B4 be affected. Mitigation required would be replacement of these roosts by means of installation of bat boxes within the Order Limits, located as close as possible to the existing roost sites. Habitat replacement and improvement where appropriate. Replanting of woodland near as possible to that lost and creating links between areas of woodland to maintain or improve foraging and commuting corridors/linear features for bats. Where trees and woodland would be lost beneath the OHL, replacement planting would be located as close to that lost, with alternative planting to include scrub in order 	During construction: Low to Very Low	Negligible (not significant)
		Temporary disturbance of roosting habitat Low to Medium sensitivity		During construction, maintenance and decommissioning: Low to Very Low	Negligible (not significant)
		Direct loss of foraging and commuting bat habitat through temporary loss Low sensitivity		During construction, maintenance and decommissioning: Low to Very Low	Negligible (not significant)
		Direct loss of foraging and commuting bat habitat through permanent loss Medium sensitivity to loss of high quality habitat Low sensitivity to loss of poor quality habitat		During operation: Low	<p><i>High quality habitat</i> Minor Adverse (not significant)</p> <p><i>Low quality habitat</i> Negligible (not significant)</p>
		Temporary disturbance/displacement/degradation through noise, light disturbance. Low sensitivity		During construction, maintenance and decommissioning: Low to Very Low	Negligible (not significant)
		Severance and fragmentation of roosting, foraging and commuting bat habitat		During construction, maintenance and decommissioning:	Negligible (not significant)

Table 22.4 Summary of Ecology and Nature Conservation Residual Effects

Resource/Receptor	Value	Potential effects and sensitivity	Mitigation	Residual Effect	Significance
		Low sensitivity	<p>to prevent fragmentation and maintain foraging and commuting corridors features for bats.</p> <ul style="list-style-type: none"> Bat boxes provided would be installed prior to the loss of the roosts (tree removal) and maintained via the BMS and woodland management plans during post development. Replacement of lost woodland within Gylched Covert and the habitat management within the woodland would result in a short term change which would create edge and glade habitats and would improve for foraging and commuting bats. Hedgerows and linear stretches of vegetation would be maintained as lines of scrub where such features are crossed by OHL to maintain or improve foraging and commuting corridors/linear features for bats. Landscape planting for the THH/CSEC and substation designed to improve on existing quality of habitats for bats. Both THH areas are currently improved grassland and although a smaller area of replacement habitat would be provided, the mitigation planting would include woodland, hedgerows scrub and species-rich grassland. All hedgerow, woodland and trees planted and all woodland areas coppiced would be maintained for 5 years. The bat boxes would be monitored by checking annually for five years as part of the bat licence and management plans. 	Low	
		<p>Operational noise and light disturbance to roosting, foraging and commuting bats.</p> <p>Low sensitivity</p>		During operation: Low	Negligible (not significant)
Red Squirrel	County	<p>Direct temporary loss of habitat with the potential to support red squirrel.</p> <p>Low sensitivity</p>	<p>CEMP measures.</p> <p>In addition to the measures set out in Chapter 7, Landscape Assessment (Document 5.7), Chapter 14, Air Quality (Document 4.14), Chapter 15, Construction Noise and Vibration (Document 5.15), and Chapter 16, Operational Noise and Vibration (Document 5.16), the following additional measures would be implemented:</p> <ul style="list-style-type: none"> Pre-construction surveys throughout the Proposed 	During construction, maintenance and decommissioning: Low	Negligible (not significant)
		<p>Direct permanent loss of habitat with the potential to support red squirrel.</p> <p>Medium sensitivity to loss of high</p>		During operation: Low	<i>High quality habitat</i> Minor Adverse (not significant)

Table 22.4 Summary of Ecology and Nature Conservation Residual Effects

Resource/Receptor	Value	Potential effects and sensitivity	Mitigation	Residual Effect	Significance
		quality habitat Very Low sensitivity to loss of poor quality habitat	<p>Development to check the working areas for dreys prior to vegetation removal. No active dreys are known within the Order Limits to date. Discussions would be held with NRW and RSTW should this change prior to any works that could affect an active drey, including if necessary discussion with NRW in order to obtain a licence.</p> <ul style="list-style-type: none"> • Programme of works would include for appropriate timing of clearance of trees, where possible. • Replacement of temporary loss of habitat, improved where appropriate. Replanting of woodland near as possible to that lost and creating stepping stones between areas of woodland where possible. • Where trees and woodland would be lost beneath the OHL, replacement planting would be located as close to that lost, with alternative planting to include scrub in order to prevent fragmentation. • Landscape planting around the THH/CSEC and substation has been designed to improve on existing quality of these habitats for red squirrel where possible. Both Braint and Tŷ Fodol THH areas are currently improved grassland and hedgerows, and although a smaller area of replacement habitat would be provided due to presence of structures, the landscaping would include suitable habitat for red squirrel such as woodland, hedgerows, scrub and species-rich grassland. 		<i>Low quality habitat</i> Negligible (not significant)
		Temporary disturbance/ displacement/ degradation of habitat with the potential to support red squirrel through noise generation and light disturbance Low sensitivity		During construction, maintenance and decommissioning: Low	Negligible (not significant)
		Severance and fragmentation of red squirrel habitat - temporary. Low sensitivity		During construction, maintenance and decommissioning: Low	Negligible (not significant)
		Severance and fragmentation of red squirrel habitat - permanent. Medium sensitivity to loss of high quality habitat Very Low sensitivity to loss of poor quality habitat		During operation: Low	<i>High quality habitat</i> Minor Adverse (not significant) <i>Low quality habitat</i> Negligible (not significant)
		Sensitivity of red squirrel to noise generation. Very Low sensitivity		During operation: Low	During operation: Negligible (not significant)
		Risk of direct impact through collision with vehicles and during removal of trees. Low sensitivity		During construction, maintenance and decommissioning: Low	During construction and operational maintenance: Negligible (not significant)
Brown Hare and Polecat	Local	Direct loss of habitat and temporary removal. Low sensitivity	<p>CEMP measures.</p> <p>In addition to the set out in Chapter 7, Landscape Assessment (Document 5.7), Chapter 14, Air Quality (Document 4.14), Chapter 15, Construction Noise and Vibration (Document 5.15), and Chapter 16, Operational Noise and Vibration (Document</p>	During construction, maintenance and decommissioning: Low	Negligible (not significant)
		Direct permanent loss of habitat.		During operation:	Negligible (not

Table 22.4 Summary of Ecology and Nature Conservation Residual Effects

Resource/Receptor	Value	Potential effects and sensitivity	Mitigation	Residual Effect	Significance
		Low sensitivity	5.16) , the following additional measures would be implemented: <ul style="list-style-type: none"> Pre-construction surveys throughout suitable habitat to check the working areas for presence prior to vegetation removal, in particular for leverets. Stock proof fencing design would not prevent access for mammals such as brown hare for the duration of construction. Programme of works would include for appropriate timing of clearance of vegetation where possible. Replacement of temporary loss of habitat, improved where appropriate. Replanting of woodland near as possible to that lost (e.g. Gylched Covert) and creating stepping stones between areas of woodland. Where trees and woodland would be lost beneath the OHL, replacement planting would be located as close to that lost as possible, with alternative planting in these areas to include scrub in order to prevent fragmentation of habitats. Landscape planting around the THH/CSEC and substation has been designed to improve on existing habitats where possible. Both Braint and Tŷ Fodol THH areas are currently improved grassland and although a smaller area of replacement habitat would be provided due to presence of structures, the landscaping would provide suitable habitat for brown hare and polecat such as woodland, hedgerows, scrub and species-rich grassland. 	Low	significant)
		Risk of temporary disturbance/displacement/degradation of habitats through dust, noise and light disturbance. Low sensitivity		During construction, maintenance and decommissioning: Low	Negligible (not significant)
		Operational noise. Very Low sensitivity		During operation: Very Low	Negligible (not significant)
		Severance and fragmentation of habitat. Low sensitivity		During construction, maintenance and decommissioning: Low	Negligible (not significant)
		Risk of direct impact through ground and vegetation clearance, and collision with vehicles. Low sensitivity		During construction, maintenance and decommissioning: Low	Negligible (not significant)
Great Crested Newt	County	Direct temporary loss of habitat suitable to support GCN. Low sensitivity to loss of high quality habitat Very Low sensitivity to loss of poor quality habitat	CEMP measures. In addition to the set out in Chapter 7, Landscape Assessment (Document 5.7), Chapter 12, Water Quality, Resources and Flood Risk (Document 5.12), Chapter 14, Air Quality (Document 4.14), and Chapter 15, Construction Noise and Vibration (Document 5.15), the following additional measures would be implemented:	During construction, maintenance and decommissioning: Low	Negligible (not significant)
		Direct permanent loss of habitat able		During operation:	Negligible (not

Table 22.4 Summary of Ecology and Nature Conservation Residual Effects

Resource/Receptor	Value	Potential effects and sensitivity	Mitigation	Residual Effect	Significance
		to support GCN. Very Low sensitivity	<ul style="list-style-type: none"> Pre-construction GCN surveys on ponds within 250 m of the Proposed Development to check the populations prior to construction. European protected species mitigation licences would be secured from NRW to enable GCN fencing to be installed where working areas only fall within 250 m of known GCN ponds. Stage strimming and pit fall traps would be used to clear GCN. Investigation of the use of gated sections within a long stretch of GCN fencing to allow dispersal. Hand searches and watching brief by an ECoW would be undertaken during vegetation removal and working in key habitats in mitigation areas. Replacement of temporary loss of habitat or improved. Replanting of woodland and scrub near as possible to that lost and creating stepping stones between areas of woodland and rebuilding of cloddiau to facilitate movement of GCN. Where trees and woodland are lost beneath the OHL, replacement planting would be located as close to that lost as possible, with alternative to include scrub in order to prevent fragmentation. Landscape planting around the THH/CSEC and substation has been designed to improve on existing habitats where possible, and include SuDS. 	Very Low	significant)
		Risk of temporary disturbance/displacement/degradation of habitats suitable to support GCN due to dust and through noise and light disturbance. Very Low sensitivity		During construction, maintenance and decommissioning: Low	Negligible (not significant)
		Severance and fragmentation of habitat that supports, or is able to support GCN due to temporary fencing and loss of habitats. Low sensitivity		During construction, maintenance and decommissioning: Low	Negligible (not significant)
		Severance and fragmentation of habitat that supports, or is able to support GCN due to temporary fencing and loss of habitats. Very Low sensitivity		During operation: Very Low	Negligible (not significant)
		Risk of direct impact through ground and vegetation clearance, and run over with vehicles. Low sensitivity		During construction maintenance and decommissioning: Low	Negligible (not significant)
Other Amphibians	Local	Direct temporary loss of habitat. Low sensitivity	CEMP measures. In addition to the set out in Chapter 7, Landscape Assessment (Document 5.7), Chapter 12, Water Quality, Resources and Flood Risk (Document 5.12), Chapter 14, Air Quality (Document 4.14), and Chapter 15, Construction Noise and Vibration (Document 5.15), the following additional measures would be implemented: <ul style="list-style-type: none"> GCN specific European protected species mitigation would benefit other amphibian species in these areas. Habitat replacement and improvement where appropriate, 	During construction maintenance and decommissioning: Low	Negligible (not significant)
		Direct permanent loss of habitat. Low sensitivity		During operation: Low	Negligible (not significant)
		Risk of temporary disturbance/displacement/degradation of habitats. Low sensitivity		During construction maintenance and decommissioning:	Negligible (not significant)

Table 22.4 Summary of Ecology and Nature Conservation Residual Effects

Resource/Receptor	Value	Potential effects and sensitivity	Mitigation	Residual Effect	Significance
			for example replacing with intact hedgerows where defunct hedgerows are temporarily lost. . Replanting of woodland and scrub near as possible to that lost and creating stepping stones between areas of woodland. Rebuilding of cloddiau.	Low	
		Severance and fragmentation of habitat throughout the Proposed Development including where fencing would be installed as part of the GCN mitigation areas. Low sensitivity	<ul style="list-style-type: none"> Avoidance of loss if possible/replacement if loss would be unavoidable, of Pond A254 at Braint THH following construction as part of the landscape mitigation. Mitigation planting in this area would avoid fully surrounding and overshadowing this habitat. 	During construction maintenance and decommissioning: Low	Negligible (not significant)
		Severance and fragmentation of habitat. Very Low sensitivity	<ul style="list-style-type: none"> Where trees and woodland are lost beneath the OHL, replacement planting would be located as close to that lost as possible, with alternative to include scrub suitable for other amphibians in order to prevent fragmentation. 	During operation: Very Low	Negligible (not significant)
		Risk of direct impact through ground and vegetation clearance, and run over with vehicles. Low sensitivity	<ul style="list-style-type: none"> Landscape planting around the THH/CSEC and substation has been designed to improve on the suitability of existing habitats of other amphibians where possible, and include installation of SuDS. Hibernacula and refuges would be created along the edges of woodland such as Gylched covert, Pentir CWS (where within the Order Limits), and within the THH/CSEC sites. 	During construction maintenance and decommissioning: Low	Negligible (not significant)
Reptiles	Local	Direct temporary loss of habitat and loss or damage to shelter, protection and/or breeding habitat. Medium sensitivity to loss of high quality potential habitat Very Low sensitivity to loss of poor quality potential habitat	CEMP measures. In addition to the set out in Chapter 7, Landscape Assessment (Document 5.7), Chapter 12, Water Quality, Resources and Flood Risk (Document 5.12), Chapter 14, Air Quality (Document 4.14), Chapter 15, Construction Noise and Vibration (Document 5.15), and Chapter 16, Operational Noise and Vibration (Document 5.16), the following additional measures would be implemented: <ul style="list-style-type: none"> Pre-construction reptile surveys would be required in the high quality areas of potential habitat that would be directly affected within the Order Limits, to establish if there is a change in the reptile species present and their estimated populations. 	During construction, maintenance and decommissioning: Low	<i>High quality potential habitat</i> Minor Adverse (not significant) <i>Low quality potential habitat</i> Negligible (not significant)
		Direct permanent loss of habitat able to support reptiles and loss or damage to shelter, protection and/or breeding habitat. Medium sensitivity to loss of high		Operation: Low	<i>High quality potential habitat</i> Minor Adverse (not significant)

Table 22.4 Summary of Ecology and Nature Conservation Residual Effects

Resource/Receptor	Value	Potential effects and sensitivity	Mitigation	Residual Effect	Significance
		quality potential habitat Low sensitivity to loss of poor quality potential habitat	<ul style="list-style-type: none"> Vegetation removal would include staged habitat degradation to encourage reptiles to vacate the area and move towards suitable areas of retained habitat where presence of reptiles has been confirmed. Maintenance of the habitat degraded would be undertaken throughout construction to ensure that it remained unsuitable for reptiles under the supervision of an ECoW. Hand searches and watching brief would be undertaken by an ECoW during vegetation removal and when working in key habitats. This would also include when dismantling of cloddiau, and when replacing them following completion of construction works. Replacement of temporary loss of habitat suitable for reptiles, improved where possible, for example replacing with intact hedgerows where defunct hedgerows are temporarily lost. Rebuilding of cloddiau. Where trees and woodland would be lost beneath the OHL, replacement planting would be located as close to that lost as possible, with alternative to include scrub in order to prevent fragmentation. Landscape planting for the THH, CSEC and substation is designed to improve on existing habitats. Hibernacula and refugia would be created within edges of woodland such as Gylched covert, Pentir cCWS (where within the Order Limits), and within the THH/CSEC sites. 		<i>Low quality potential habitat</i> Negligible (not significant)
		Risk of temporary disturbance/ displacement/ degradation of habitats suitable to support reptiles through dust, and noise and light disturbance. Low sensitivity		During construction, , maintenance and decommissioning: Low During operation: Very Low	Negligible (not significant)
		Severance and fragmentation of habitat. Low sensitivity		During construction, maintenance and decommissioning: Low	Negligible (not significant)
		Risk of direct impact through ground and vegetation clearance and run over by vehicles. Low sensitivity		During construction, maintenance and decommissioning: Low	Negligible (not significant)
Terrestrial Invertebrates (butterflies, damselflies and dragonflies)	Local	Direct temporary loss of habitat and loss or damage to shelter, protection and/or breeding habitat. Low sensitivity	CEMP measures. In addition to the set out in Chapter 7, Landscape Assessment (Document 5.7), Chapter 12, Water Quality, Resources and Flood Risk (Document 5.12), Chapter 14, Air Quality (Document 4.14), Chapter 15, Construction Noise and Vibration (Document 5.15), and Chapter 16, Operational Noise and Vibration (Document 5.16), the following additional measures would be implemented: <ul style="list-style-type: none"> Habitat replacement and improvement where possible 	During construction, maintenance and decommissioning: Low	Negligible (not significant)
		Direct permanent loss of habitat able to support terrestrial invertebrates and loss or damage to shelter, protection and/or breeding habitat. Low sensitivity		Construction and operation: Low	Negligible (not significant)

Table 22.4 Summary of Ecology and Nature Conservation Residual Effects

Resource/Receptor	Value	Potential effects and sensitivity	Mitigation	Residual Effect	Significance
		Risk of temporary disturbance/displacement/degradation of habitats suitable to support terrestrial invertebrates. Low sensitivity	<p>suitable for terrestrial invertebrates, for example replacing with intact hedgerows where defunct hedgerows are temporarily lost. Replanting of woodland as near as possible to that lost (e.g. Gylched Covert CWS and Pentir Substation cCWS) and creating stepping stones between areas of woodland where possible.</p> <ul style="list-style-type: none"> Where trees and woodland would be lost beneath the OHL, replacement planting would be located as close to that lost, with alternative planting to include scrub in order to prevent fragmentation. Landscape planting around the THH/CSEC and substation has been designed to improve on existing habitats where possible. Both Braint and Tŷ Fodol THH areas are currently mainly improved grassland and although a smaller area of replacement habitat would be provided due to presence of structures, the landscaping would provide suitable habitat for terrestrial invertebrates such as woodland, hedgerows, scrub and species-rich grassland as well as SuDs. 	During construction, maintenance and decommissioning: Low	Negligible (not significant)
		Severance and fragmentation of habitat. Low sensitivity		During construction, maintenance and decommissioning: Low	Negligible (not significant)
		Risk of direct impact through ground and vegetation clearance. Low sensitivity		During construction, maintenance and decommissioning: Low	Negligible (not significant)
Aquatic Invertebrates	Local	Temporary direct loss of habitat. Low sensitivity	<p>CEMP measures.</p> <p>In addition to the set out in Chapter 11, Geology, Hydrogeology and Ground Conditions (Document 5.11) and Chapter 12, Water Quality, Resources and Flood Risk (Document 5.12), the following additional measures would be implemented:</p> <ul style="list-style-type: none"> Consent for the detailed culvert design would be sought from NRW post grant of the DCO, therefore culverts would be designed to allow the safe passage of aquatic invertebrates. Replacement of temporary loss of aquatic invertebrate habitat through planting or natural regeneration. This includes that the bed, morphology and in channel functioning and design of the watercourse would be reinstated to at least the existing. 	During construction, maintenance and decommissioning: Low	Negligible (not significant)
		Temporary disturbance/displacement/ degradation where works are located in close proximity to watercourses. Low sensitivity		During construction, maintenance and decommissioning: Low	Negligible (not significant)
		Severance and fragmentation of aquatic invertebrate habitat. Very Low sensitivity		During construction, maintenance and decommissioning: Low	Negligible (not significant)
		Risk of direct harm through habitat		During construction,	Negligible (not

Table 22.4 Summary of Ecology and Nature Conservation Residual Effects

Resource/Receptor	Value	Potential effects and sensitivity	Mitigation	Residual Effect	Significance
		clearance and crossing installation. Low sensitivity		maintenance and decommissioning: Low	significant)
Freshwater Fish	County	Temporary direct loss of habitat used by fish for foraging, shelter and/or breeding and direct harm during removal of habitat. Medium sensitivity within sensitive seasons or habitats Low sensitivity outside sensitive seasons or habitats	CEMP measures. In addition to the set out in Chapter 11, Geology, Hydrogeology and Ground Conditions (Document 5.11), Chapter 12, Water Quality, Resources and Flood Risk (Document 5.12) and Chapter 15, Construction Noise and Vibration (Document 5.15), the following additional measures would be implemented: <ul style="list-style-type: none">Pre-construction fish habitat surveys may be required on watercourses crossing points throughout the Proposed Development to assess the importance of working areas prior to construction. If suitable habitat were discovered at that time on watercourses with known populations of fish, a revised mitigation strategy could be required, which could amend the permitted location/ method of construction activities.Consent for the detailed culvert design would be sought from NRW post grant of the DCO, therefore culverts would be designed to allow the safe passage of fish.Watching brief by an ECoW would be undertaken during vegetation removal/degradation, and crossing installation, reinstating habitats potentially suitable for freshwater fish and during maintenance and decommission works.Replacement of temporary loss of fish habitat through reinstatement of channel sediments, planting of bankside habitat or natural regeneration. This includes the reinstatement of the bed, morphology and in channel functioning of the watercourse to at least the existing condition.	During construction, maintenance and decommissioning: Low	Minor Adverse (not significant) within sensitive seasons or habitats Negligible (not significant) outside sensitive seasons or habitats
		Temporary disturbance/ displacement/ degradation of fish habitat. Medium sensitivity		During construction, maintenance and decommissioning: Low	Minor Adverse (not significant)
		Severance and fragmentation of fish habitat. Low sensitivity		During construction, maintenance and decommissioning: Low	Negligible (not significant)
		Risk of direct harm through habitat clearance and crossing installation. Medium sensitivity within sensitive seasons or habitats Low sensitivity outside sensitive seasons or habitats		During construction, maintenance and decommissioning: Low	Minor Adverse (not significant) within sensitive seasons or habitats Negligible (not significant) outside sensitive seasons or habitats
Overall Ornithology Potential Ecological Effects of the Proposed Development					
Whooper swan	National	Collision with the OHL where it passes through Section B of the	CEMP measures. In addition to the above, specific measures required include:	During operation: Low	Minor Adverse (not significant)

Table 22.4 Summary of Ecology and Nature Conservation Residual Effects

Resource/Receptor	Value	Potential effects and sensitivity	Mitigation	Residual Effect	Significance
		proposed development, with the greatest potential for collision to occur where whooper swan have been recorded regularly flying been a roost at Llyn Alaw and a feeding area close to the proposed development (between pylons 4AP032 and 4AP034): Medium sensitivity	<ul style="list-style-type: none"> Phasing of work in the area of Bryn Dyfrydog (between pylons 4AP032 and 4AP034) so that vegetation clearance, establishment of working areas and habitat restoration as much as possible are completed outside of the months September – April. Where work cannot be avoided during this period, a watching brief by an experienced ornithologist would be undertaken to monitor potential impacts on whooper swan which would record vigilance levels of foraging birds and flight/startle responses using standard methods to record percentage time feeding/preening/observing and if applicable recording triggers to flight responses including proximity to source; temporary exclusion zones would be imposed on work should adverse impacts be detected. 		
		Temporary habitat loss due to access tracks and working areas where the OHL is installed through an area of wet grassland in Section B: Low sensitivity		During construction maintenance and decommissioning: Low	Negligible (not significant)
		Temporary disturbance and displacement from a regularly used feeding area near Bryn Dyfrydog (Section B): Low sensitivity		During construction, maintenance and decommissioning: Low	Negligible (not significant)
Mute Swan	Local	Collision with OHL, particularly in Section B, where the route passes closest to Llyn Alaw: Low sensitivity	None proposed.	During operation: Very Low	Negligible (not significant)
Greenland White-fronted Goose	County	Collision with OHL, particularly in Section B, where the route passes closest to Llyn Alaw during the operation of the Proposed Development; Low sensitivity	None proposed.	During operation: Very Low	Negligible (not significant)
Greylag Goose	Local	Direct habitat loss from feeding areas during construction and decommissioning of the Proposed Development: Low sensitivity	CEMP measures.	During construction and decommissioning: Low	Negligible (not significant)
		Collision with the proposed OHL		During operation:	Minor adverse (not

Table 22.4 Summary of Ecology and Nature Conservation Residual Effects

Resource/Receptor	Value	Potential effects and sensitivity	Mitigation	Residual Effect	Significance
		during operation of the Proposed Development: Low sensitivity		Medium	significant)
		Temporary disturbance and displacement from feeding areas: Low sensitivity		During construction and maintenance: Low	Negligible (not significant)
Shelduck	Local	Collision with the proposed OHL: Low sensitivity	None proposed.	During operation: Very Low	Negligible (not significant)
Mallard	Local	Collision with the proposed OHL: Low sensitivity	CEMP measures.	During operation: Medium	Minor Adverse (not significant)
		Temporary disturbance or displacement of birds from breeding and feeding habitats: Low sensitivity		During construction, maintenance and decommissioning: Low	Negligible (not significant)
Shoveler	Local	Collision with the proposed OHL: Low sensitivity	None proposed	During operation: Very Low	Negligible (not significant)
Wigeon	Local	Collision with the proposed OHL: Low sensitivity	CEMP measures.	During operation: Very Low	Negligible (not significant)
		Temporary disturbance or displacement of birds from breeding and feeding habitats: Low sensitivity		During construction, operation, maintenance and decommissioning: Low	Negligible (not significant)
Teal	Local	Collision with the proposed OHL: Low sensitivity	CEMP measures. In addition to the above, specific measures required include: <ul style="list-style-type: none"> Phase work so that vegetation clearance, establishment of working areas and habitat restoration within 500 m of 	During operation: Low	Negligible (not significant)

Table 22.4 Summary of Ecology and Nature Conservation Residual Effects

Resource/Receptor	Value	Potential effects and sensitivity	Mitigation	Residual Effect	Significance
		Temporary disturbance or displacement of birds from breeding and feeding habitats: Low sensitivity	inland waterbodies at Wylfa, Bryn Dyfrydog and Cors Erddreiniog are completed outside of the breeding bird season (March – September for most bird species). Where this is not possible all potential breeding habitat to be removed would be checked by an experienced ornithologist prior to removal to ensure that teal are not breeding. This would ensure compliance with the Wildlife and Countryside Act 1981 (as amended). This would ensure compliance with the Wildlife and Countryside Act 1981 (as amended).	During construction, operation, maintenance and decommissioning: Low	Negligible (not significant)
Tufted Duck	Local	Collision with the proposed OHL: Low sensitivity	None proposed.	During operation: Very Low	Negligible (not significant)
Gadwall	Local	Collision with the proposed OHL: Low sensitivity	None proposed.	During operation: Very Low	Negligible (not significant)
Cormorant	Local	Collision with the proposed OHL: Low sensitivity	None proposed.	During operation: Low	Negligible (not significant)
Little Egret	Local	Collision with the proposed OHL: Low sensitivity	None proposed.	During operation: Low	Negligible (not significant)
Grey Heron	Local	Direct habitat loss at breeding sites: Medium sensitivity	CEMP measures. In addition to the above, specific measures required include: <ul style="list-style-type: none"> Phase work so that vegetation clearance, establishment of working areas and habitat restoration are completed outside of the grey heron breeding season (February – July). Where this is not possible all potential breeding habitat to be removed would be checked by an experienced ornithologist prior to removal to ensure that grey heron are not breeding. This would ensure compliance with the Wildlife and Countryside Act 1981 (as amended). This would ensure compliance with the Wildlife and Countryside Act 1981 (as amended). Working areas set up at the onset of construction should be strictly adhered to in order to prevent additional losses 	During construction, maintenance and decommissioning: Very Low	Negligible (not significant)
		Temporary disturbance and displacement from the nest at Wylfa: Low sensitivity		During construction, operation, maintenance and decommissioning: Very Low	Negligible (not significant)
		Collision with the proposed OHL: Medium sensitivity		During operation: Low	Minor adverse (not significant)

Table 22.4 Summary of Ecology and Nature Conservation Residual Effects

Resource/Receptor	Value	Potential effects and sensitivity	Mitigation	Residual Effect	Significance
			of breeding habitat. ECoW to advise operations during the construction phase and temporary exclusion zones imposed on work should a high likelihood of impacts be detected.		
Red Kite	Local	Collision with the proposed OHL: Medium sensitivity	None proposed.	During operation: Very Low	Negligible (not significant)
Marsh Harrier	Local	Collision with the proposed OHL: Medium sensitivity	None proposed.	During operation: Very Low	Negligible (not significant)
Hen Harrier	Local	Collision with the proposed OHL: Medium sensitivity	None proposed.	During operation: Very Low	Negligible (not significant)
Kestrel	Local	Temporary habitat loss at possible breeding sites: Low sensitivity	CEMP measures. In addition to the above, specific measures required include: <ul style="list-style-type: none"> Phase work so that vegetation clearance, establishment of working areas and habitat restoration are completed outside of the breeding bird season (March – September). Where this is not possible all potential breeding habitat to be removed would be checked by an experienced ornithologist prior to removal to ensure that kestrel are not breeding. This would ensure compliance with the Wildlife and Countryside Act 1981 (as amended). Working areas set up at the onset of construction should be strictly adhered to in order to prevent additional losses of breeding habitat. ECoW to advise operations during the construction phase and temporary exclusion zones imposed on work should a high likelihood of impacts be detected. 	During construction, maintenance and decommissioning: Very Low	Negligible (not significant)
		Permanent habitat losses from nesting areas: Low sensitivity		During operation: Very Low	Negligible (not significant)
		Temporary disturbance and displacement from nests: Low sensitivity		During construction, operation, maintenance and decommissioning: Low	Negligible (not significant)
		Destruction and / or damage of the nests: Moderate sensitivity		No impact	No impact
		Collision with the proposed OHL: Very Low sensitivity		During operation: Medium	Negligible (not significant)
Hobby	Local	Collision with the proposed OHL: Very Low sensitivity	None proposed.	During operation: Low	Negligible (not significant)

Table 22.4 Summary of Ecology and Nature Conservation Residual Effects

Resource/Receptor	Value	Potential effects and sensitivity	Mitigation	Residual Effect	Significance
Peregrine falcon	Local	Collision with the proposed OHL: Very Low sensitivity	None proposed.	During operation: Medium	Negligible (not significant)
Merlin	Local	Collision with the proposed OHL: Low sensitivity	None proposed.	During operation: Low	Negligible (not significant)
Lapwing	County	Temporary habitat loss at possible breeding sites: Very Low sensitivity	CEMP measures. In addition to the above, specific measures required include: <ul style="list-style-type: none"> Phase work so that vegetation clearance within the Order Limits where the Proposed Development passes the southern end of Cors Erddreiniog is completed and working areas are established outside of the breeding bird season (March – September). Where this is not possible all potential breeding habitat to be removed would be checked by an experienced ornithologist prior to removal to ensure that lapwing are not breeding. This would ensure compliance with the Wildlife and Countryside Act 1981 (as amended). This would ensure compliance with the Wildlife and Countryside Act 1981 (as amended). Working areas set up at the onset of construction should be strictly adhered to in order to prevent additional loss of breeding and wintering bird habitat. ECoW to advise operations during the construction phase and temporary exclusion zones imposed on work should a high likelihood of impacts be detected. 	During construction, decommissioning and maintenance: Very Low	Negligible (not significant)
		Potential for destruction/damage of nests: Moderate sensitivity		During construction, decommissioning and maintenance: No impact	No impact
		Collision with the proposed OHL: Low sensitivity		During operation: Very Low	Negligible (not significant)
		Disturbance and displacement of wintering and breeding birds: Low sensitivity		During construction, operation, maintenance and decommissioning : Very Low	Negligible (not significant)
Curlew	County	Potential for destruction/damage of nests, which could occur near Cors Erddreiniog (Section C): Moderate sensitivity	CEMP measures. In addition to the above, specific measures required include: <ul style="list-style-type: none"> Pre – construction survey of the very small number of potential breeding sites within section C within 800 m of the Order Limits and visual and noise screening measures put in place around working areas adjacent to any active nests that are found. Phase work so that vegetation clearance within the Order 	During construction, maintenance and decommissioning: Very Low	Negligible (not significant)
		Temporary habitat loss at possible breeding sites which could occur near Cors Erddreiniog (Section C): Very Low sensitivity		During construction, maintenance and decommissioning: Very Low	Negligible (not significant)

Table 22.4 Summary of Ecology and Nature Conservation Residual Effects

Resource/Receptor	Value	Potential effects and sensitivity	Mitigation	Residual Effect	Significance
		Direct loss of foraging habitat, which could occur at feeding areas close to Cemaes (Section A), Llyn Alaw (Section B) and Cors Erddreiniog (Section C): Very Low sensitivity	<p>Limits where they pass the southern end of Cors Erddreiniog is completed and working areas are established outside of the breeding bird season (March – September) in areas that support breeding curlew. Where this is not possible all potential breeding habitat to be removed would be checked by an experienced ornithologist prior to removal to ensure that curlew are not breeding. This would ensure compliance with the Wildlife and Countryside Act 1981 (as amended).</p> <ul style="list-style-type: none"> Reinstatement of habitats removed for temporary access tracks and working areas. Working areas set up at the onset of construction should be strictly adhered to in order to prevent additional loss of breeding and wintering bird habitat. ECoW to advise operations during the construction phase and temporary exclusion zones imposed on work should a high likelihood of impacts be detected. 	During construction, maintenance and decommissioning: Very Low	Negligible (not significant)
		Collision with the proposed OHL, which could occur anywhere but would be most likely to occur where significant curlew activity has been recorded on feeding areas near Cemaes (Section A), Llyn Alaw (Section B) and Cors Erddreiniog (Section C): Low sensitivity		During operation: Low	Negligible (not significant)
		Disturbance / displacement of wintering and breeding birds, which would be restricted to feeding areas near Cemaes (Section A), Llyn Alaw (Section B) and Cors Erddreiniog (Section C): Low sensitivity		During construction, operation, maintenance and decommissioning: Very Low	Negligible (not significant)
Snipe	Local	Disturbance/ displacement of wintering birds from feeding areas: Low sensitivity	<p>CEMP measures.</p> <p>In addition to the above, specific measures required include:</p> <ul style="list-style-type: none"> Phase work so that vegetation clearance within the Order Limits where they pass the southern end of Cors Erddreiniog is completed and working areas are established outside of the breeding bird season (March – September) in areas that support habitat suitable for breeding snipe and where snipe have been reported as breeding. If this is not possible all potential breeding habitat to be removed from these areas would be checked by an experienced ornithologist prior to removal to ensure that snipe are not breeding. This would ensure compliance with the Wildlife and Countryside Act 1981 	During construction, operation, maintenance and decommissioning: Medium	Negligible (not significant)
		Losses of foraging habitat Very Low sensitivity		During construction, maintenance and decommissioning: Low	Negligible (not significant)
		Collision with the proposed OHL: Low sensitivity		During operation: Low	Negligible (not significant)

Table 22.4 Summary of Ecology and Nature Conservation Residual Effects

Resource/Receptor	Value	Potential effects and sensitivity	Mitigation	Residual Effect	Significance
			<p>(as amended). This would ensure compliance with the Wildlife and Countryside Act 1981 (as amended).</p> <ul style="list-style-type: none"> Working areas set up at the onset of construction should be strictly adhered to in order to prevent additional loss of breeding and wintering bird habitat. ECoW to advise operations during the construction phase and temporary exclusion zones imposed on work should a high likelihood of impacts be detected. Reinstatement of habitats removed for temporary access tracks and working areas. 		
Barn Owl	County	Destruction of nests: High sensitivity	<p>CEMP measures.</p> <p>In addition to the above, specific measures required include:</p> <ul style="list-style-type: none"> Pre-construction survey of potential breeding sites within 100 m of the Order Limits and visual and noise screening measures put in place around working areas adjacent to any active nests or roosts that are found. Vegetation management/clearance at Tŷ Fodol would be completed outside of the breeding season (March – September), and where possible, the establishment of working areas; Where landowner access can be agreed, for each confirmed nest site within 100 m of the Order Limits, at least one pair of barn owl box would be installed, in advance of all site clearance and construction work, in an undisturbed location to be determined by the ECoW appointed by National Grid. This measure is not relied on within the assessment. Working areas set up at the onset of construction would be strictly adhered to in order to prevent additional loss of breeding and wintering bird habitat. ECoW to advise operations during the construction phase and temporary exclusion zones imposed on work should a high likelihood of impacts be detected. 	During construction, maintenance, operation and decommissioning: No impact	No impact
		Temporary habitat loss at possible breeding sites: Very Low sensitivity		During construction, maintenance and decommissioning: Very Low	Negligible (not significant)
		Disturbance/displacement of birds at breeding sites and / or roosts: Medium sensitivity		During construction, operation, maintenance and decommissioning: Very Low	Negligible (not significant)

Table 22.4 Summary of Ecology and Nature Conservation Residual Effects

Resource/Receptor	Value	Potential effects and sensitivity	Mitigation	Residual Effect	Significance
Chough	County	Collision with the proposed OHL in Section A only: Low sensitivity	None proposed.	During operation: Very Low	Negligible (not significant)
Woodland Breeding Bird Assemblage (Passerines of High Conservation Concern) – Wylfa	County	Potential for destruction/damage of nests during the breeding season: High sensitivity	CEMP measures. In addition to the above, specific measures required include: <ul style="list-style-type: none"> Phase work in this area so that vegetation clearance, establishment of working areas and habitat restoration are completed outside of the breeding bird season (March – September for most bird species). Where this is not possible all potential breeding habitat to be removed would be checked by an experienced ornithologist prior to removal to ensure that no active nests are present prior to removal. This would ensure compliance with the Wildlife and Countryside Act 1981 (as amended). Woodland habitat planting within the Order Limits to replace woodland lost. Working areas set up at the onset of construction would be strictly adhered to in order to prevent additional loss of breeding bird habitat. ECoW to advise operations during the construction phase and temporary exclusion zones imposed on work should a high likelihood of impacts be detected. 	During construction, maintenance and decommissioning: No impact	No impact
		Direct losses of foraging and breeding habitat: High sensitivity		During construction, operation, maintenance and decommissioning: Short-term: Low Long-term: Very Low	Short-term: Minor Adverse (not significant) Long-term: Negligible (not significant)
		Temporary disturbance / displacement of breeding birds: Medium/High sensitivity		During construction, maintenance and decommissioning: Low	Minor Adverse (not significant)
Woodland Breeding Bird Assemblage (Passerines of High Conservation) – Gylched Covert	Local	Potential for destruction/ damage of nests during the breeding season: High sensitivity	CEMP measures. <ul style="list-style-type: none"> Phase work in this area so that vegetation clearance, establishment of working areas and habitat restoration are completed outside of the breeding bird season (March – September for most bird species). Where this is not possible all potential breeding habitat to be removed would be checked by an experienced ornithologist prior to removal to ensure that that no active nests are present prior to removal. This would ensure compliance with the Wildlife and Countryside Act 1981 (as amended). Woodland habitat planting within the Order Limits to replace woodland lost where possible. 	During construction, maintenance and decommissioning: No impact	No impact
		Direct losses of foraging and breeding habitat: High sensitivity		During construction, operation, maintenance and decommissioning: Short term: Low Long term:	Short term: Minor Adverse (Not Significant) Long term: Negligible (not significant)

Table 22.4 Summary of Ecology and Nature Conservation Residual Effects

Resource/Receptor	Value	Potential effects and sensitivity	Mitigation	Residual Effect	Significance
			<ul style="list-style-type: none"> Working areas set up at the onset of construction would be strictly adhered to in order to prevent additional loss of breeding bird habitat. ECoW to advise operations during the construction phase and temporary exclusion zones imposed on work should a high likelihood of impacts be detected. Future habitat management of Gylched Covert in line with maintaining and improved the quality of this CWS woodland to be agreed as part of the draft DCO (Document 2.1). Outline of this is provided in the BMS (Document 7.7), but full details would be provided in a management plan. 	Very Low	
		Disturbance/ displacement of breeding birds: Medium/High sensitivity		During construction, maintenance and decommissioning: Low	Minor Adverse (not significant)
Farmland and Hedgerow Breeding Bird Assemblage (Passerines of High Conservation Concern) – Braint Tunnel Head House/Cable Sealing End Compound	Local	Direct loss of foraging and breeding habitat on a temporary basis as a result of the construction compound and associated access tracks: High sensitivity	CEMP measures. In addition to the above, specific measures required include: <ul style="list-style-type: none"> Phase work in this area so that vegetation clearance, establishment of working areas and habitat restoration are completed outside of the breeding bird season (March – September for most bird species). Where habitat cannot be removed during this period it would be checked prior to removal by an experienced ornithologist to ensure that no active nests are present prior to removal. This would ensure compliance with the Wildlife and Countryside Act 1981 (as amended). Reinstatement of all hedgerow and grassland habitats removed to accommodate the temporary construction/decommission compound and working areas other than where there is permanent infrastructure. Replacement of hedgerows lost permanently to ensure no net loss of hedgerow habitat within the Order Limits. Planting of hedgerows around the perimeter of the Braint Tunnel Compound and THH/CSEC to provide a net habitat gain and/or to offset hedgerow losses elsewhere. Working areas set up at the onset of construction would be strictly adhered to in order to prevent additional loss of breeding bird habitat. ECoW to advise operations during 	During construction, maintenance and decommissioning: Very Low	Negligible (not significant)
		Direct permanent loss of habitat resulting from the construction and operation of the THH/CSEC and associated access tracks: Low sensitivity		During operation: Low	Negligible (not significant)
		Disturbance / displacement of breeding birds: Medium sensitivity		During construction, maintenance and decommissioning: Low	Minor Adverse (not significant)
		Potential for destruction/damage of nests: High sensitivity		During construction, maintenance and decommissioning: No impact	No impact

Table 22.4 Summary of Ecology and Nature Conservation Residual Effects

Resource/Receptor	Value	Potential effects and sensitivity	Mitigation	Residual Effect	Significance
			the construction phase and temporary exclusion zones imposed on work should a high likelihood of impacts be detected.		
Farmland Scrub and Hedgerow Breeding Bird Assemblage (Passerines of High Conservation Concern) – Tŷ Fodol Tunnel Head House / Cable Sealing End Compound	Local	Direct loss of foraging and breeding habitat on a temporary basis as a result of the construction compound and associated access tracks: Low sensitivity	<p>CEMP measures.</p> <p>In addition to the above, specific measures required include:</p> <ul style="list-style-type: none"> Phase work in this area so that vegetation clearance, establishment of working areas and habitat restoration are completed outside of the breeding bird season (March-September for most bird species). Where habitat cannot be removed during this period it would be checked prior to removal by an experienced ornithologist to ensure that no active nests are present prior to removal. This would ensure compliance with the Wildlife and Countryside Act 1981 (as amended). Full reinstatement of all hedgerow and grassland habitats removed to accommodate the construction compound and working areas. Replacement of hedgerows lost permanently to ensure no net loss of hedgerow habitat. Planting of hedgerows around the perimeter of the THH/CSEC to provide a net habitat gain and / or to offset hedgerow losses elsewhere. <p>Working areas set up at the onset of construction should be strictly adhered to in order to prevent additional loss of breeding and wintering bird habitat. ECoW to advise operations during the construction phase and temporary exclusion zones imposed on work should a high likelihood of impacts be detected.</p>	During construction and decommissioning: Very Low	Negligible (not significant) Minor Positive effect (not significant) in the long term with planting
		Direct permanent loss of habitat: Medium sensitivity		During operation: Very Low	Negligible (not significant)
		Temporary disturbance / displacement of breeding birds: Medium sensitivity		During construction, maintenance and decommissioning: Low	Minor Adverse (not significant)
		Potential for destruction/damage of nests: High sensitivity		During construction, maintenance and decommissioning: No impact	No impact
Woodland Breeding Bird Assemblage (Passerines of High Conservation Concern) – Pentir Substation	County	Potential for destruction / damage of nests: High sensitivity	<p>CEMP measures.</p> <p>In addition to the above, specific measures required include:</p> <ul style="list-style-type: none"> Phase work in this area so that vegetation clearance, establishment of working areas and habitat restoration are completed outside of the breeding bird season (March – September for most bird species). Where habitat 	During construction and decommissioning. No impact	No impact
		Direct permanent loss of habitat: Medium sensitivity		During operation: Low	Minor Adverse (not significant)

Table 22.4 Summary of Ecology and Nature Conservation Residual Effects

Resource/Receptor	Value	Potential effects and sensitivity	Mitigation	Residual Effect	Significance
		Temporary disturbance / displacement of breeding birds: Very Low sensitivity	<p>cannot be removed during this period it would be checked prior to removal by an experienced ornithologist to ensure that no active nests are present prior to removal. This would ensure compliance with the Wildlife and Countryside Act 1981 (as amended). Full reinstatement or replacement of all woodland, hedgerow, dry dwarf shrub heath and grassland habitats removed or managed to accommodate the temporary construction compounds, temporary access and working areas, other than where there is permanent infrastructure.</p> <ul style="list-style-type: none"> Replacement of hedgerows lost permanently within the Order Limits to ensure no net loss of hedgerow habitat. Planting of hedgerows where there are currently none around the perimeter of the substation, on field boundaries and along the edges of access tracks to provide a net habitat gain and/or to offset hedgerow losses elsewhere. Planting of additional woodland over land that is currently improved pasture and subject to compulsory land acquisition. Working areas set up at the onset of construction should be strictly adhered to in order to prevent additional loss of breeding bird habitat. ECoW to advise operations during the construction phase and temporary exclusion zones imposed on work should a high likelihood of impacts be detected. 	During construction, operation, maintenance and decommissioning: Low	Negligible (not significant)
		Direct loss of foraging and breeding habitat on a temporary basis as a result of the construction compound, scaffold working areas, bridge working areas and access tracks: Low sensitivity		During construction and decommissioning: Low	Negligible (not significant)
Waterfowl utilising Menai Strait marine and inter-tidal habitat within the Order Limits	Local	Minor emissions of drilling mud and bentonite to the water column during occurrences of blow – out: Low sensitivity	CEMP measures.	During construction: Very Low	Negligible (not significant)
Farmland/Hedgerow Breeding Bird Assemblage (Passerines of High	County	Temporary disturbance/displacement of breeding birds: Low sensitivity	<p>CEMP measures.</p> <p>In addition to the above, specific measures required include:</p> <ul style="list-style-type: none"> Phase work so that vegetation clearance, establishment of working areas and habitat restoration are completed 	During construction, maintenance and decommissioning: Very Low	Negligible (not significant)

Table 22.4 Summary of Ecology and Nature Conservation Residual Effects

Resource/Receptor	Value	Potential effects and sensitivity	Mitigation	Residual Effect	Significance
Conservation Concern) – Order Limits		Potential for destruction / damage of nests: High sensitivity	outside of the breeding bird season (March – September for most bird species). Where habitat cannot be removed during this period it would be checked prior to removal by an experienced ornithologist to ensure that no active nests are present prior to removal. This would ensure compliance with the Wildlife and Countryside Act 1981 (as amended).	During construction and decommissioning: No impact	No impact
		Permanent loss of foraging and nesting habitat: Medium sensitivity	<ul style="list-style-type: none">Full reinstatement or replacement of all woodland, scrub hedgerow, grassland, wetland, hedgerow and grassland habitats removed or managed to accommodate the temporary construction compounds, temporary access and working areas.	During construction, operation, maintenance and decommissioning: Low	Minor Adverse (not significant)
		Temporary loss of foraging and nesting habitat: Low sensitivity	<ul style="list-style-type: none">Replacement of hedgerows lost permanently to ensure no net loss of hedgerow habitat and planting of an additional 3,893 m2 of woodland in areas other than the THH/CSECs or Gylched Covert.Habitat reinstatement and replacement to be initiated upon completion of works in a given section or area of the Proposed Development. Where possible, new habitat creation should occur in advance of or at the same time as construction work.Working areas set up at the onset of construction should be strictly adhered to in order to prevent additional loss of breeding bird habitat. ECoW to advise operations during the construction phase and temporary exclusion zones imposed on work should a high likelihood of impacts be detected.	During construction and decommissioning: Very Low	Negligible (not significant)
Designated Sites for Birds					
<u>Dyfi Estuary SPA</u>	International	Collision of interest features (Greenland White – Fronted Goose) with proposed OHL: Low sensitivity	Mitigation by design – proposed OHL will be close to and alongside the existing.	During operation: only: Very low	Negligible (not significant)
<u>Liverpool Bay SPA</u>	International	Collision of interest features (Cormorant only) with proposed OHL:	Mitigation by design – proposed OHL will be close to and alongside the existing.	During operation: only:	Negligible (not significant)

Table 22.4 Summary of Ecology and Nature Conservation Residual Effects

Resource/Receptor	Value	Potential effects and sensitivity	Mitigation	Residual Effect	Significance
		Low sensitivity		Very low	
<u>Lavan Sands and Conwy Bay SPA</u>	International	No effects			
<u>Puffin Island SPA</u>	International	Collision of interest features (Cormorant only) with proposed OHL: Low sensitivity	Mitigation by design – proposed OHL will be close to and alongside the existing.	During operation: only: Very low	Negligible (not significant)
<u>Cemlyn Bay SSSI;</u>	National	Collision of interest features (Mallard only) with proposed OHL: Low sensitivity	Mitigation by design – proposed OHL will be close to and alongside the existing.	During operation: only: Very Low	Negligible (not significant)
	National	Temporary disturbance or displacement of mallard from feeding habitats within and adjacent to the Proposed Development: Low sensitivity	CEMP measures	During construction, maintenance and decommissioning: Very Low	Negligible (not significant)
<u>Llyn Alaw SSSI;</u>	National	Collision of whooper swan with the proposed OHL: Medium sensitivity	Mitigation by design – proposed OHL will be close to and alongside the existing.	During operation: Low	Minor Adverse (not significant)
		Temporary loss of foraging habitat for whooper swan: Low sensitivity	CEMP measures	During construction, maintenance and decommissioning: Low	Negligible (not significant)
		Temporary disturbance and displacement of whooper swan: Low sensitivity	CEMP measures Phasing of work in the area of Bryn Dyfrydog (between pylons 4AP032 and 4AP034) so that vegetation clearance, establishment of working areas and habitat restoration as much as possible are completed outside of the months September – April. Where work cannot be avoided during this period, a watching brief by an experienced ornithologist would be undertaken to monitor potential impacts on whooper swan which would record vigilance levels of foraging birds and flight/startle responses using standard methods to record percentage time feeding/preening/observing and, if applicable, recording triggers to flight responses including proximity to source. Temporary	During construction, maintenance and decommissioning: Low	Negligible (not significant)

Table 22.4 Summary of Ecology and Nature Conservation Residual Effects

Resource/Receptor	Value	Potential effects and sensitivity	Mitigation	Residual Effect	Significance
			exclusion zones would be imposed on work should adverse impacts be detected.		
		Collision of Teal with the proposed OHL: Low sensitivity	Mitigation by design – proposed OHL will be close to and alongside the existing.	During operation: only: Low	Negligible (not significant)
		Temporary disturbance and displacement of Teal: Low sensitivity	CEMP measures Phase work so that vegetation clearance, establishment of working areas and habitat restoration within 500 m of inland waterbodies at Wylfa, Bryn Dyfrydog and Cors Erddreiniog are completed outside of the breeding bird season (March – September for most bird species). Where this is not possible all potential breeding habitat to be removed would be checked by an experienced ornithologist prior to removal to ensure that no active nests are present prior to removal. This would ensure compliance with the Wildlife and Countryside Act 1981 (as amended).	During construction, maintenance and decommissioning: Low	Negligible (not significant)
		Collision of Wigeon with the proposed OHL: Low sensitivity	Mitigation by design – proposed OHL will be close to and alongside the existing.	During operation: only: Very Low	Negligible (not significant)
		Temporary disturbance and displacement of Wigeon: Low sensitivity	CEMP measures	During construction, maintenance and decommissioning: Very Low	Negligible (not significant)
		Collision of Mallard with the proposed OHL: Low sensitivity	Mitigation by design – proposed OHL will be close to and alongside the existing.	During operation: only: Medium	Minor Adverse (not significant)
		Temporary disturbance and displacement of Mallard: Low sensitivity	CEMP measures	During construction, maintenance and decommissioning: Low	Negligible (not significant)
		Collision of Shoveler with the proposed OHL Low sensitivity	Mitigation by design – proposed OHL will be close to and alongside the existing.	During operation: only: Very Low	Negligible (not significant)

Table 22.4 Summary of Ecology and Nature Conservation Residual Effects

Resource/Receptor	Value	Potential effects and sensitivity	Mitigation	Residual Effect	Significance
		Collision of breeding and overwintering tufted duck with the proposed OHL: Low sensitivity	Mitigation by design – proposed OHL will be close to and alongside the existing.	During operation: only: Very Low	Negligible (not significant)
		Collision of Curlew with the proposed OHL: Low sensitivity	Mitigation by design – proposed OHL will be close to and alongside the existing.	During operation: only: Low	Negligible (not significant)
		Collision of Lapwing with the proposed OHL: Low sensitivity	Mitigation by design – proposed OHL will be close to and alongside the existing.	During operation: only: Low	Negligible (not significant)
<u>Malltraeth Marsh (Cors Ddyga) SSSI;</u>	National	Collision of Lapwing with the proposed OHL: Low sensitivity	Mitigation by design – proposed OHL will be close to and alongside the existing.	During operation: only: Very Low	Negligible (not significant)
<u>Cors Tregarnedd Fawr CWS</u>	County	Collision of Lapwing with the proposed OHL: Low sensitivity	Mitigation by design – proposed OHL will be close to and alongside the existing.	During operation: only: Very Low	Negligible (not significant)
<u>Cemlyn NWWTR.</u>	County	Collision of Black – headed gull with the proposed OHL: Low sensitivity	Mitigation by design – proposed OHL will be close to and alongside the existing.	During operation: only: Low	Negligible (not significant)
		Temporary disturbance and displacement of Black – headed gull: Low sensitivity	CEMP measures	During construction, maintenance and decommissioning: Low	Negligible (not significant)
Overall Marine Ecological Effects of the Proposed Development					
Menai Strait Conwy Bay SAC	International	Habitat loss and/or degradation Low sensitivity	Mitigation by design (DM) (Tunnel depth and tunnelling technique) and commitment CEMP Measures e.g. WE511 relating to the control of blowout.	During construction: Low	Negligible (Not significant)

Table 22.4 Summary of Ecology and Nature Conservation Residual Effects

Resource/Receptor	Value	Potential effects and sensitivity	Mitigation	Residual Effect	Significance
<p>LLeyn Peninsular and the Sarnau SAC</p> <p>North Anglesey Marine cSAC</p> <p>West Wales Marine cSAC</p> <p>Cardigan Bay SAC</p>	International	<p>Displacement of individuals</p> <p>Low sensitivity</p> <p>Disorientation of individuals</p> <p>Low sensitivity</p>	<p>Mitigation by design (DM) (Tunnel depth- Policy Statement (NPS) EN-3 which states that a cable housed in a tunnel greater than 1.5m or more below the seabed should provide sufficient mitigation from the effects of EMF).</p> <p>CEMP measures NV33 relating to reduction in noise and vibration.</p> <p>CEMP measure BNC28 relating to the surveillance of marine mammals and setting up exclusion zones.</p>	During operation: Low	Negligible (Not significant)
<p>Afon Gwyrfaï a Llyn Cwellyn SAC:</p> <p>Atlantic salmon</p> <p>Otter</p>	International	<p>Habitat loss and contamination</p> <p>Low sensitivity</p> <p>Disturbance of individuals or direct effects</p> <p>Low sensitivity</p> <p>Disorientation of individuals</p> <p>Low sensitivity</p>	<p>Mitigation by design (DM) (Tunnel depth and tunnelling technique) and commitment to CEMP measures e.g. WE511 relating to the control of blowout.</p> <p>Mitigation by design (DM) (Tunnel depth- Policy Statement (NPS) EN-3 which states that a cable housed in a tunnel greater than 1.5m or more below the seabed should provide sufficient mitigation from the effects of EMF). CEMP measures NV32 relating to reduction in noise and vibration. CEMP measure BNC28 relating to deflecting fish away from noise injury zones.</p>	During construction and operation: Low	Negligible (Not significant)
Porth Glannau SSSI	National	No potential effects.			
<p>Priority intertidal habitats and species;</p> <p>Priority subtidal habitats and species;</p> <p>Other intertidal habitats and species; and</p> <p>Other subtidal habitats and species</p>	<p>National</p> <p>Local</p>	<p>Habitat loss and contamination</p> <p>Low sensitivity</p>	<p>Mitigation by design (DM) (Tunnel depth and tunnelling technique) and commitment to CEMP Measures, e.g. WE511 relating to the control of blowout.</p>	During construction: Low	Negligible (Not significant)
Shellfish	National	Habitat contamination	Mitigation by design (DM) (Tunnel depth and tunnelling technique) and commitment to CEMP Measures, e.g. WE511	During construction:	Negligible (Not significant)

Table 22.4 Summary of Ecology and Nature Conservation Residual Effects

Resource/Receptor	Value	Potential effects and sensitivity	Mitigation	Residual Effect	Significance
		Low sensitivity	relating to the control of blowout.	Low	significant)
Marine mammals	International	Disturbance of individuals Low sensitivity	Mitigation by design (DM) (Tunnel depth- Policy Statement (NPS) EN-3 which states that a cable housed in a tunnel greater than 1.5m or more below the seabed should provide sufficient mitigation from the effects of EMF). CEMP measures NV32 relating to reduction in noise and vibration and BNC28 relating to the surveillance of marine mammals and setting up exclusion zones.	During operation: Low	Negligible (Not significant)
Migratory fish	International /National	Habitat loss and contamination Low sensitivity Disturbance of individuals Low sensitivity	Mitigation by design (DM) (Tunnel depth and tunnelling technique) and commitment to CEMP Measures. Mitigation by design (DM) (Tunnel depth- Policy Statement (NPS) EN-3 which states that a cable housed in a tunnel greater than 1.5m or more below the seabed should provide sufficient mitigation from the effects of EMF).	During construction: Medium/Low During operation: Low	Negligible/Minor Adverse (Not significant)
Marine fish	National/ Local	Disorientation of individuals Medium/Low sensitivity	CEMP measures NV32 relating to reduction in noise and vibration. BNC28 relating to deflecting fish away from noise injury zones.		

2.4 HISTORIC ENVIRONMENT

2.4.1 Summary of Historic Environment (**Document 5.10**) residual effects are presented in Table 22.5

Table 22.5 Summary of Historic Environment Residual Effects					
Receptor	Value	Potential Effects and Sensitivity	Mitigation	Residual Effect	Significance
HE1	Low	Loss of archaeological remains due to construction.	None.	Low	Negligible (Not Significant)
HE2	Low	Loss of archaeological remains due to construction.	Identified elements of this area of archaeological interest are excluded from the construction area and fencing and signage will be used to ensure their protection.	Very Low	Negligible (Not Significant)
HE3	Low	Loss of archaeological remains due to construction.	None.	Very Low	Negligible (Not Significant)
HE4	Medium	Loss of archaeological remains due to construction.	Identified elements of this area of archaeological interest, including the full extent of the enclosure, are excluded from the construction area and fencing and signage will be used to ensure their protection.	Very Low	Negligible (Not Significant)
HE5	Low	Loss of archaeological remains due to construction.	None.	Very Low	Negligible (Not Significant)
HE6	Low	Loss of archaeological remains due to construction.	Identified elements of this area of archaeological interest, including much of the identified enclosure, are excluded from the construction area and fencing and signage will be used to ensure their protection.	Very Low	Negligible (Not Significant)
HE7	Low	Loss of archaeological remains due to construction.	Identified elements of this area of archaeological interest, including the identified enclosure, are excluded from the construction area and fencing and signage will be	Very Low	Negligible (Not Significant)

Table 22.5 Summary of Historic Environment Residual Effects

Receptor	Value	Potential Effects and Sensitivity	Mitigation	Residual Effect	Significance
			used to ensure their protection.		
HE8	Negligible	Loss of archaeological remains due to construction.	None.	None	None
HE9	Low	Loss of archaeological remains due to construction.	The well will be avoided by any required drainage.	None	None
HE10	Low	Loss of archaeological remains due to construction.	Much of the identified area of archaeological interest is excluded from the construction area and fencing and signage will be used to ensure their protection.	Very Low	Negligible (Not Significant)
HE11	Low	Loss of archaeological remains due to construction.	None.	Very Low	Negligible (Not Significant)
HE12	Low	Loss of archaeological remains due to construction.	None.	Very Low	Negligible (Not Significant)
HE13	Medium	Loss of archaeological remains due to construction.	None.	Low	Minor (Not Significant)
HE14	High	Loss of archaeological remains due to construction.	This asset has legal protection and fencing and signage would be used to ensure that there would be no disturbance to this asset.	None	None
HE15	Low	Loss of archaeological remains due to construction.	None.	Low	Negligible (Not Significant)
HE16	Low	Loss of archaeological remains due to construction.	None.	Low	Negligible (Not Significant)
HE17	Low	Loss of archaeological remains due to construction.	None.	None	None
HE18	Low	Loss of archaeological remains due to construction.	None.	Low	Negligible (Not Significant)
HE19	Low	Loss of archaeological remains due to construction.	None.	Low	Negligible (Not Significant)
HE20	Low	Loss of archaeological remains due to construction.	None.	Low	Negligible (Not Significant)
HE21	Medium	Loss of archaeological remains due to construction.	Disturbance to the enclosure would be avoided if possible but flexibility in pylon and access track may result in some disturbance.	Medium	Minor (Not Significant)
HE22	Negligible	Loss of archaeological remains due to construction.	None.	Low	Negligible (Not Significant)

Table 22.5 Summary of Historic Environment Residual Effects

Receptor	Value	Potential Effects and Sensitivity	Mitigation	Residual Effect	Significance
HE23	Low	Loss of archaeological remains due to construction.	The asset will be avoided by access track if possible.	Low	Negligible (Not Significant)
HE24	Medium	Loss of archaeological remains due to construction.	Much of the identified area of archaeological interest is excluded from the construction area and fencing and signage will be used to ensure their protection.	Very Low	Negligible (Not Significant)
HE25	Medium	Loss of archaeological remains due to construction.	Avoidance of areas of the apparently most sensitive area of archaeological interest will be considered in the location of the construction compound.	Low	Minor (Not Significant)
HE26	Medium	Loss of archaeological remains due to construction.	The asset will be avoided by access track if possible.	Low	Minor (Not Significant)
HE27	Negligible	Loss of archaeological remains due to construction.	None.	Low	Negligible (Not Significant)
HE28	Low	Loss of archaeological remains due to construction.	None.	Low	Negligible (Not Significant)
HE29	Negligible	Loss of archaeological remains due to construction.	None.	High	Negligible (Not Significant)
HE30	Negligible	Loss of archaeological remains due to construction.	None.	Low	Negligible (Not Significant)
HE31	Low	Loss of archaeological remains due to construction.	None	High	Minor (not significant)
HE32	Negligible	Loss of archaeological remains due to construction.	Located on the edge of the Order Limits and will be avoided.	None	None
HE33	Medium	Loss of archaeological remains due to construction.	None	Medium	Minor (Not Significant)
HE34	Medium	Loss of archaeological remains due to construction.	Disturbance will be avoided if possible.	Low	Minor (not significant)
HE35	Medium	Removal of sections of field boundary to enable access track construction.	Where extant historic field boundaries are cut through for access tracks then the length of section to be removed will be limited so far as possible. Field boundaries will be re-	Very Low	Negligible (Not Significant)

Table 22.5 Summary of Historic Environment Residual Effects

Receptor	Value	Potential Effects and Sensitivity	Mitigation	Residual Effect	Significance
			instated following removal of the access track.		
Cemaes Mill Grade II Listed Building (LB 5344)	Medium	Change in setting during construction	No further measures available	Very Low	Negligible (Not Significant)
		Change in setting during operation	No further measures available	Low	Minor (Not Significant)
Barrow Cemetery, Carrog (HER 34897)	Medium	Change in setting during construction	No further measures available	Very Low	Negligible (Not Significant)
		Change in setting during operation	No further measures available	Very Low	Negligible (Not Significant)
Standing Stones Scheduled Monument (AN 030)	High	Change in setting during construction	No further measures available	Low	Minor (Not Significant)
		Change in setting during operation	No further measures available	Low	Minor (Not Significant)
Standing Stone 410 m North of Church Scheduled Monument (AN 080)	High	Change in setting during construction	No further measures available	Low	Minor (Not Significant)
		Change in setting during operation	No further measures available	Medium	Moderate (Significant)
Llanfechell Conservation Area	Medium	Change in setting during construction	No further measures available	Very Low	Negligible (Not Significant)
		Change in setting during operation	No further measures available	Very Low	Negligible (Not Significant)
Church of St Mechell Grade Listed II*Building and Rectory Grade Listed II Building (LB 5383, 5384)	High	Change in setting during construction	No measures required	None	None (Not Significant)
		Change in setting during operation	No further measures available	Very Low	Negligible (Not Significant)
Bryn Ddu Grade II Listed Building (LB 25171)	High	Change in setting during construction	No measures required	None	None
		Change in setting during operation	No further measures available	Very Low	Negligible (Not Significant)
Pen-y-Morwyd Round Barrow Scheduled Monument (AN 110)	High	Change in setting during construction	No further measures available	Very Low	Negligible (Not Significant)
		Change in setting during operation	No further measures available	Low	Minor (Not Significant)
Llifad, Carreglefn Scheduled Monument (AN 079)	High	Change in setting during construction	No further measures available	Very Low	Negligible (Not Significant)
		Change in setting during operation	No further measures available	Low	Minor (Not Significant)
Church of St Peirio Grade II Listed Building (LB 5349)	High	Change in setting during construction	No measures required	None	None
		Change in setting during operation	No further measures available	Very Low	Negligible (Not Significant)
Dovecote at Plas Bodewryd Grade II Listed Building (LB 16575)	High	Change in setting during construction	No measures required	None	None
		Change in setting during operation	No further measures available	Very Low	Negligible (Not Significant)
Church of St Mary Grade II Listed Building (LB 5348)	High	Change in setting during construction	No further measures available	Low	Minor (Not Significant)
		Change in setting during operation	No further measures available	Low	Minor (Not Significant)

Table 22.5 Summary of Historic Environment Residual Effects

Receptor	Value	Potential Effects and Sensitivity	Mitigation	Residual Effect	Significance
Bodewryd Standing Stone Scheduled Monument (AN 078)	High	Change in setting during construction	No measures required	None	None
		Change in setting during operation	No further measures available	Very Low	Negligible (Not Significant)
Capel Mwd (Capel Newydd) and attached cottage Grade II Listed Building (LB 5740)	High	Change in setting during construction	No measures required	None	None
		Change in setting during operation	No further measures available	Very Low	Negligible (Not Significant)
Melin Esgob Grade II Listed Building (LB 24834)	High	Change in setting during construction	No measures required	None	None
		Change in setting during operation	No further measures available	Very Low	Negligible (Not Significant)
Maen Chwyf Scheduled Monument (AN 076)	High	Change in setting during construction	No measures required	None	None
		Change in setting during operation	No further measures available	Very Low	Negligible (Not Significant)
Llys Einion Standing Stone Scheduled Monument (AN 077)	High	Change in setting during construction	No measures required	None	None
		Change in setting during operation	No further measures available	Very Low	Negligible (Not Significant)
Listed buildings in Llandyfrydog; Church of St Tyfrydog Grade II* Listed Building and Ty Mawr (LB 5360, 5362)	High	Change in setting during construction	No further measures available	Very Low	Negligible (Not Significant)
		Change in setting during operation	No further measures available	Low	Minor (Not Significant)
Rectory and agricultural range Grade II Listed Buildings (LB 24840, 24829)	High	Change in setting during construction	No further measures available	Low	Minor (Not Significant)
		Change in setting during operation	No further measures available	High	Moderate (Significant)
Carreg Leidr Scheduled Monument (AN 067)	High	Change in setting during construction	No measures required	None	None
		Change in setting during operation	No further measures available	Very Low	Negligible (Not Significant)
Clorach-fawr Grade II Listed Building (LB 24830)	High	Change in setting during construction	No further measures available	Very Low	Negligible (Not Significant)
		Change in setting during operation	No further measures available	Low	Minor (Not Significant)
Clorach-bach Grade II Listed Building (LB 24831)	High	Change in setting during construction	No further measures available	Very Low	Negligible (Not Significant)
		Change in setting during operation	No further measures available	Low	Minor (Not Significant)
Listed buildings in Maenaddwyn; Former Post Office and Ty Newydd Grade II Listed Building (LB 5391, 5392)	High	Change in setting during construction	No measures required	None	None
		Change in setting during operation	No further measures available	Low	Minor (Not Significant)
Church of St Michael Grade II Listed Building (LB 5390)	High	Change in setting during construction	No further measures available	Low	Minor (Not Significant)
		Change in setting during operation	No further measures available	High	Moderate (Significant)
Maen Addwyn Scheduled Monument (AN 069)	High	Change in setting during construction	No further measures available	Low	Minor (Not Significant)
		Change in setting during operation	No further measures available	Medium	Moderate (Significant)

Table 22.5 Summary of Historic Environment Residual Effects

Receptor	Value	Potential Effects and Sensitivity	Mitigation	Residual Effect	Significance
Llech Golman Scheduled Monument (AN 070)	High	Change in setting during construction	No further measures available	Very Low	Negligible (Not Significant)
		Change in setting during operation	No further measures available	Low	Minor (Not Significant)
Farmstead, Cae-leci (HER 55959)	Low	Change in setting during construction	No measures required	None	None
		Change in setting during operation	No further measures available	Low	Negligible (Not Significant)
Melin Llidiart Grade II Listed Building (LB 5389)	High	Change in setting during construction	No further measures available	Very Low	Negligible (Not Significant)
		Change in setting during operation	No further measures available	Very Low	Negligible (Not Significant)
Plas Tregayan: Grade II Listed Building (LB 5404)	High	Change in setting during construction	No measures required	None	None
		Change in setting during operation	No further measures available	Very Low	Negligible (Not Significant)
Melin Llanddyfnan (Pen y fan) Grade II Listed Building (LB 26722)	High	Change in setting during construction	No further measures available	Very Low	Negligible (Not Significant)
		Change in setting during operation	No further measures available	Very Low	Negligible (Not Significant)
Hendre Howell Grade II Listed Building (LB 5338)	High	Change in setting during construction	No further measures available	Low	Minor (Not Significant)
		Change in setting during operation	No further measures available	Low	Minor (Not Significant)
Hut Circles, Cefn Poeth Bach (HER 29840)	Medium	Change in setting during construction	No further measures available	Very Low	Negligible (Not Significant)
		Change in setting during operation	No further measures available	Very Low	Negligible (Not Significant)
Hirdre-Faig Standing Stone Scheduled Monument (AN 155)	High	Change in setting during construction	No further measures available	Low	Minor (Not Significant)
		Change in setting during operation	No further measures available	Low	Minor (Not Significant)
Plas Penmynydd Grade II* Listed Building (LB 5447)	High	Change in setting during construction	No measures required	None	None
		Change in setting during operation	No measures required	None	None
Anglesey Column Grade II* Listed Building (LB 5432)	High	Change in setting during construction	No measures required	None	None
		Change in setting during operation	No measures required	None	None
Statue of Nelson on shore of Menai Strait Grade II Listed Building (LB 5491)	High	Change in setting during construction	No measures required	None	None
		Change in setting during operation	No measures required	None	None
Church of St. Mary, Llanfairpwll Grade II Listed Building (LB 19659)	High	Change in setting during construction	No measures required	None	None
		Change in setting during operation	No measures required	None	None
Hen Felin Grade II Listed Building (LB 19658)	High	Change in setting during construction	No measures required	None	None
		Change in setting during operation	No measures required	None	None

Table 22.5 Summary of Historic Environment Residual Effects

Receptor	Value	Potential Effects and Sensitivity	Mitigation	Residual Effect	Significance
Britannia Tubular Bridge Grade II Listed Building (LB 5488, 3674)	High	Change in setting during construction	No measures required	None	None
		Change in setting during operation	No measures required	None	None
Llwyn-onn Farm: Grade II Listed Building (LB 19750)	High	Change in setting during construction	No further measures available	High	Moderate (Significant)
		Change in setting during operation	No further measures available	Low	Minor (Not Significant)
Bryn-Celli-Ddu Burial Chamber Scheduled Monument (AN 002)	Very High	Change in setting during construction	No further measures available	Very Low	Minor (Not Significant)
		Change in setting during operation	No further measures available	Low	Moderate (Significant)
Tyddyn-Bach Standing Stone Scheduled Monument (AN 084)	High	Change in setting during construction	No further measures available	Very Low	Negligible (Not Significant)
		Change in setting during operation	No further measures available	Low	Minor (Not Significant)
Bryn-Celli-Ddu Standing Stone Scheduled Monument (AN 085)	High	Change in setting during construction	No further measures available	Very Low	Negligible (Not Significant)
		Change in setting during operation	No further measures available	Very Low	Negligible (Not Significant)
Plas Newydd Grade I Registered Park and Garden (RPG GD48)	High	Change in setting during construction	No further measures available	Very Low	Negligible (Not Significant)
		Change in setting during operation	No further measures available	Very Low	Negligible (Not Significant)
Plas Newydd Grade I Listed Building (LB 5462)	High	Change in setting during construction	No further measures available	Very Low	Negligible (Not Significant)
		Change in setting during operation	No further measures available	Very Low	Negligible (Not Significant)
Listed buildings at entrance to Plas Newydd; Grand Lodge of Plas Newydd, with Entrance Archways, Grade II Listed Buildings (LB 5458, 5457)	High	Change in setting during construction	No further measures available	Low	Minor (Not Significant)
		Change in setting during operation	No measures required	None	None
Aberbraint Grade II* Listed Building (LB 5430) and Aberbraint Lodge Grade II Listed Building (LB 5468)	High	Change in setting during construction	No measures required	None	None
		Change in setting during operation	No measures required	None	None
Pen yr Allt Grade II Listed Building (LB 5465)	High	Change in setting during construction	No further measures available	Low	Minor (Not Significant)
		Change in setting during operation	No measures required	None	None
1-3 Tyddyn Pwyth Grade II Listed Buildings (LB 5466, 19670, 19671)	High	Change in setting during construction	No further measures available	Low	Minor (Not Significant)
		Change in setting during operation	No further measures available	Very Low	Negligible (Not Significant)
1-2 Victoria Cottages Grade II Listed Buildings (LB 5467, 19672)	High	Change in setting during construction	No further measures available	Low	Minor (Not Significant)
		Change in setting during operation	No further measures available	Very Low	Negligible (Not Significant)
Church of St. Edwen Grade II Listed	High	Change in setting during construction	No measures required	None	None

Table 22.5 Summary of Historic Environment Residual Effects

Receptor	Value	Potential Effects and Sensitivity	Mitigation	Residual Effect	Significance
Building (LB 19743)		Change in setting during operation	No measures required	None	None
Plas Coch Grade II* Listed Building (LB 19736)	High	Change in setting during construction	No measures required	None	None
		Change in setting during operation	No further measures available	Very Low	Negligible (Not Significant)
The Old Cutter Grade II Listed Building (LB 19735)	High	Change in setting during construction	No measures required	None	None
		Change in setting during operation	No measures required	None	None
Castell Gwylan Grade II Listed Building (LB 19744)	High	Change in setting during construction	No measures required	None	None
		Change in setting during operation	No measures required	None	None
Vaynol Park Grade I Registered Park and Garden, including other listed buildings Grade II Listed Building (RPG GD52)	High	Change in setting during construction	No further measures available	Very Low	Negligible (Not Significant)
		Change in setting during operation	No further measures available	Very Low	Negligible (Not Significant)
Vaynol Old Hall Grade I Listed Building and Walls to inner and outer gardens Grade II Listed Building (LB 4166, 18924)	High	Change in setting during construction	No further measures available	Very Low	Negligible (Not Significant)
		Change in setting during operation	No further measures available	Very Low	Negligible (Not Significant)
Vaynol Hall Grade I Listed Building (LB 4173)	High	Change in setting during construction	No further measures available	Very Low	Negligible (Not Significant)
		Change in setting during operation	No further measures available	Very Low	Negligible (Not Significant)
Garden seat in SW garden of Vaynol Hall Grade II Listed Building (LB 18911)	High	Change in setting during construction	No measures required	None	None
		Change in setting during operation	No measures required	None	None
Boundary Wall to Vaynol Park, Main Entrance and Grand Lodge Grade II Listed Buildings (LB 4199, 4200, 18910, 18344)	High	Change in setting during construction	No measures required	None	None
		Change in setting during operation	No measures required	None	None
Bryntirion Grade II* Listed Building (LB 14924)	High	Change in setting during construction	No further measures available	Very Low	Negligible (Not Significant)
		Change in setting during operation	No further measures available	Very Low	Negligible (Not Significant)
Fodol Ganol Enclosed Hut Group Scheduled Monument (CN 175)	High	Change in setting during construction	No further measures available	Low	Minor (Not Significant)
		Change in setting during operation	No further measures available	Low	Minor (Not Significant)
Coed Nant-y-garth, standing stone Scheduled Monument (CN 375)	High	Change in setting during construction	No further measures available	Medium	Moderate (Significant)
		Change in setting during operation	No further measures available	Medium	Moderate (Significant)
Gors y Brithdir Enclosed Hut Group and Ancient Fields Scheduled Monument (CN203)	High	Change in setting during construction	No further measures available	Low	Minor (Not Significant)
		Change in setting during operation	No further measures available	Low	Minor (Not Significant)

Table 22.5 Summary of Historic Environment Residual Effects					
Receptor	Value	Potential Effects and Sensitivity	Mitigation	Residual Effect	Significance
Tŷ'n Llwyn Farm and farm buildings Grade II Listed Buildings (LB 83283, 83284, 83281, 83282, 83169, 83280, 83170, 83279, 83285)	High	Change in setting during construction	No further measures available	Low	Minor (Not Significant)
		Change in setting during operation	No further measures available	Very Low	Negligible (Not Significant)

2.5 GEOLOGY, HYDROGEOLOGY AND GROUND CONDITIONS

2.5.1 Summary of Geology, Hydrogeology and Ground Conditions (**Document 5.11**) residual effects are presented in Table 22.6

Table 22.6 Summary of Geology, Hydrogeology & Ground Conditions Residual Effects					
Resource/Receptor	Value	Potential Effects and Sensitivity	Mitigation	Residual Effect	Significance
Soils	Low	Pollution of soils due to chemical spillages and leaks	GP51, GP61, AE15, WE21, WE23, WE55, R1, R3	Low	Negligible (Not Significant)
Soils	Low	Reduction of soil quality during handling and storage	Soil Management Plan (SM12) (Document 7.10) –	Low	Negligible (Not Significant)
Soils	Low	Reduction of soil quality due to construction traffic	Soil Management Plan (SM12) (Document 7.10)	Low	Negligible (Not Significant)
Soils	Low	Importation of contaminated aggregates posing a risk to underlying soils	GP814 Outline Waste Management Plan (Document 7.11), CL26	Low	Negligible (Not Significant)
Soils	Low	Dewatering leading to changes to soil hydrology	CL11 & WE23	Medium	Negligible (Not Significant)
Geology	Low to High	Ground pollution due to chemical spillages and leaks	GP51, GP61, AE15, WE21, WE23, WE55, R1, R3	Low	Negligible (Not Significant)
Geology	Low to High	Importation of contaminated aggregates posing a potential risk to underlying geology	GP814 Outline Waste Management Plan (Document 7.11) & CL26	Low	Negligible (Not Significant)
Geology	Low to High	Foundations of pylons and other structures creating a preferential pathway for contaminants to migrate	CL11, CL21, CL22 CL24 WE22 & WE23	Low	Negligible (Not Significant)
Geology	Low to High	Requirement to remove spoil from tunnelling operations posing a potential risk to geology	Outline Waste Management Plan (Document 7.11), CL21	Low	Negligible (Not Significant)
Geology	Low to High	Requirement to remove spoil from construction of pylons and OHL	GP814 Outline Waste Management Plan (Document 7.11)	Low	Negligible (Not Significant)
Groundwater	Medium to very High	Groundwater pollution due to chemical spillages and leaks	GP51, GP61, AE15, WE21, WE23, WE55, R1, R3	Low	Negligible (Not Significant)
Groundwater	Medium to very High	Reduction of groundwater levels due to construction traffic	, CL11, WE23, WE55 & Soil Management Plant (SM12)	Low	Negligible (Not Significant)

Table 22.6 Summary of Geology, Hydrogeology & Ground Conditions Residual Effects

Resource/Receptor	Value	Potential Effects and Sensitivity	Mitigation	Residual Effect	Significance
Groundwater	Medium to very High	Importation of contaminated aggregates posing a potential risk to underlying groundwater	GP814 Outline Waste Management Plan (Document 7.11), CL26	Low	Negligible (Not Significant)
Groundwater	High	Disturbance of former underground coal mine workings posing a potential risk to groundwater	CL11, CL21 WE23 & WE55	Low	Negligible (Not Significant)
Groundwater	Medium to High	Requirement for dewatering, reducing flow to groundwater abstractions and surface water bodies	CL11, WE23. WE41 & WE59	Medium	Minor Adverse (Not Significant)
Groundwater	Very High	Requirement for dewatering, reducing quality or levels of groundwater supporting sites protected under European and UK habitat legislation, such as a RAMSAR Site or a SSSI.	CL11, WE23, WE41 & WE59	Low	Negligible (Not Significant)
Groundwater	Medium to very High	Requirement to remove spoil from tunnelling operations posing a potential risk to groundwater	CL11, WE23 & WE55	Low	Negligible (Not Significant)
Groundwater	Medium to very High	Requirement to remove spoil from construction of pylons and OHL	GP814 Outline Waste Management Plan (Document 7.11), CL11, CL21, CL22. WE23 & WE55	Low	Negligible (Not Significant)
Groundwater	Medium to very High	Foundations of pylons and other structures creating a preferential pathway for contaminants to migrate during operation	CL11, CL21, CL22, CL24 WE23 & WE55	Low	Negligible (Not Significant)
Groundwater	Medium	Importation of backfill material for tunnel shafts during decommissioning posing a potential risk to groundwater quality	Outline Waste Management Plan (Document 7.11), CL26	Low	Negligible (Not Significant)
Human Health	N/A	Pollution due to chemical spillages and leaks posing risk to construction workers	GP42, GP44, GP51, GP61, AE15	N/A	Negligible (Not Significant)
Human Health	N/A	Disturbance of potentially contaminated soils, sediments and waters posing a risk to construction workers	GP42, GP44, GP82, GP811, AE13, AE14, AE15, CL11, CL21, CL22, CL26 and Soil Management Plan (SM12)	N/A	Negligible (Not Significant)
Human Health	N/A	Importation of contaminated aggregates posing a potential risk to human health	Outline Waste Management Plan (Document 7.11) and CL26	N/A	Negligible (Not Significant)

Table 22.6 Summary of Geology, Hydrogeology & Ground Conditions Residual Effects

Resource/Receptor	Value	Potential Effects and Sensitivity	Mitigation	Residual Effect	Significance
Human Health	N/A	Disturbance of former underground coal mine workings posing a potential risk to construction workers	CL11, CL21 and CL22	N/A	Negligible (Not Significant)
Human Health	N/A	Requirement to remove spoil from tunnelling operations posing a potential risk to human health	Outline Waste Management Plan (Document 7.11), CL11 and CL21	N/A	Negligible (Not Significant)
Human Health	N/A	Requirement to remove spoil from construction of pylons and OHL	Outline Waste Management Plan (Document 7.11), CL11 and CL21	N/A	Negligible (Not Significant)
Human Health	N/A	Importation of backfill material for tunnel shafts posing a potential risk to human health during decommissioning	Outline Waste Management Plan (Document 7.11) and CL26	N/A	Negligible (Not Significant)

2.6 WATER QUALITY, RESOURCES AND FLOOD RISK

2.6.1 Summary of Water Quality, Resources and Flood Risk (**Document 5.12**) residual effects are presented in Table 22.7

Table 22.7 Summary of Water Quality, Resources and Flood Risk Residual Effects

Resource/Receptor	Sensitivity Value	Potential Effects	Control Mitigation Measures (CMMs) & Site specific measures ⁴	Residual Effect	Significance
<i>The Aquatic Environment – Freshwater Designated Sites</i>					
Tre'r Gof SSSI	Very High	Changes in water quality through mobilisation of sediment	WE11, WE31, WE41 - WE43, WE51 – WE56, FM12 – FM13	No measurable Impact Overall – Very Low during Construction, Maintenance and Decommissioning Phases No Effects during Operation Phase	Negligible (not significant) during Construction, Maintenance and Decommissioning Phases No Effects (not significant) during Operation Phase
		Changes in watercourse morphology	WE11, WE31, WE41 -WE43, WE51 – WE56, FM12 – FM13		
		Changes in water quality through accidental contamination	WE21 – WE23		
		Changes in patterns and rates of infiltration	WE41, WE43, WE51 – WE56		
		Changes in river baseflow from dewatering	WE41, WE43, WE51 – WE56		
		Surface water flow obstruction	FM13		
Llyn Alaw SSSI, DrWPA	High	Changes in water quality through mobilisation of sediment	WE11, WE31, WE41, WE43, WE51 – WE56, FM12 – 14	No measurable impact Overall – Very Low during Construction, Maintenance and Decommissioning Phases No Effects during Operation Phase	Negligible (not significant) during Construction, Maintenance and Decommissioning Phases No Effects (not significant) during Operation Phase
		Changes in water quality through accidental contamination	WE21 – WE23		
		Changes in watercourse morphology	WE11, WE31, WE41, WE43, WE51 – WE56, FM12 – 14		
		Changes in river baseflow arising from dewatering	WE41, WE43, WE51 – WE56		
		Changes in patterns and rates of infiltration	WE41, WE43, WE51 – WE56		
		Surface water flow obstruction	FM13		
		Fluvial flow impedance	FM14		
Cors Erddreiniog (Anglesey Fens SAC/SSSI)	Very High	Changes in water quality through mobilisation of sediment	WE11, WE31, WE41, WE43, WE51 – WE56, FM12 – FM13, Schedule of Environmental Commitments, Site specific DMP measures including Cors Erddreiniog	No measurable impact Overall – Very Low during Construction,	Negligible (not significant) during Construction, Maintenance and

⁴ Detailed within the CEMP (**Document 7.4**)

Table 22.7 Summary of Water Quality, Resources and Flood Risk Residual Effects

Resource/Receptor	Sensitivity Value	Potential Effects	Control Mitigation Measures (CMMs) & Site specific measures ⁴	Residual Effect	Significance
			DMP (DCO Requirement 7)	Maintenance and Decommissioning Phases No Effects during Operation Phase	Decommissioning Phases No Effects (not significant) during Operation Phase
		Changes in water quality through accidental contamination	WE21 – WE23		
		Changes in patterns and rates of infiltration	WE41, WE43, WE51 – WE56, specific DMP measures		
		Changes in river baseflow arising from dewatering	WE41, WE43, WE51 – WE56, specific DMP measures		
		Surface water flow obstruction	FM13		
Caeau Talwrn SSSI & Corsydd Mon/Anglesey Fens SAC	Very High	Changes in water quality through mobilisation of sediment	WE11, WE31, WE41, WE43, WE51 – WE56, FM12 – 14, Site specific measures for track drainage design (DCO Requirement 6)	No Measurable Impact Overall – Very Low during Construction, Maintenance and Decommissioning Phases No Effects during Operation Phase	Negligible (not significant) during Construction, Maintenance and Decommissioning Phases No Effects (not significant) during Operation Phase
		Changes in water quality through accidental contamination	WE21 – WE23		
		Changes in watercourse morphology	WE11, WE31, WE41, WE43, WE51 – WE56, FM12 – 14		
		Changes in river baseflow arising from dewatering	WE41, WE43, WE51 – WE56		
		Changes in patterns and rates of infiltration	WE41, WE43, WE51 – WE56		
		Surface water flow obstruction	FM13		
		Fluvial flow impedance	FM14		
Cors Tregarnedd Mawr Wildlife Site and Malltraeth Marshes SSSI	Medium/ High	Changes in water quality through mobilisation of sediment	WE11, WE31, WE41, WE43, WE51 – WE56, FM12 – FM14	No Measurable Impact Overall – Very Low during Construction, Maintenance and Decommissioning Phases No Effects during Operation Phase	Negligible (not significant) during Construction, Maintenance and Decommissioning Phases No Effects (not significant) during Operation Phase
		Changes in water quality through accidental contamination	WE21 – WE23		
		Changes in watercourse morphology	WE11, WE31, WE41, WE43, WE51 – WE56, FM12 – FM14		
		Changes in river baseflow arising from dewatering	WE41, WE43, WE51 – WE56		
		Changes in patterns and rates of infiltration	WE41, WE43, WE51 – WE56		
		Surface water flow obstruction	FM13		
		Fluvial flow impedance	FM14		

Table 22.7 Summary of Water Quality, Resources and Flood Risk Residual Effects

Resource/Receptor	Sensitivity Value	Potential Effects	Control Mitigation Measures (CMMs) & Site specific measures ⁴	Residual Effect	Significance
Y Fenai a Bae Conwy/ Menai Strait and Conwy Bay SAC	Very High	Changes in water quality through mobilisation of sediment	WE11, WE31, WE41, WE43, WE51 – WE56, WE59, FM12 – FM14	No Measurable Impact Overall – Very Low during Construction, Maintenance and Decommissioning Phases No Effects during Operation Phase	Negligible (not significant) during Construction, Maintenance and Decommissioning Phases No Effects (not significant) during Operation Phase
		Changes in water quality through accidental contamination	WE21 – WE23, WE510		
		Changes in watercourse morphology	WE11, WE31, WE41, WE43, WE51 – WE56, WE59, FM12 – FM14		
		Changes in river baseflow arising from dewatering	WE41 - WE43, WE51 – WE56		
		Changes in patterns and rates of infiltration	WE41 - WE43, WE51 – WE56		
		Surface water flow obstruction	FM13		
		Fluvial flow impedance	FM14		
		Risk of pollution to coastal waters from tunnel blowout	WE511		
The Aquatic Environment – WFD Water Bodies					
Non reportable WFD Water body adjacent to the Irish Sea GB110102059160	High	Changes in water quality through mobilisation of sediment	WE11, WE31, WE41, WE43, WE51 – WE56, FM12 – FM14	No Measurable Impact Overall – Low during Construction Maintenance and Decommissioning Phases No Effects during Operation Phase	Negligible (not significant) during Construction Maintenance and Decommissioning Phases No Effects (not significant) during Operation Phase
		Changes in water quality through accidental contamination	WE21 – WE23		
		Changes in river baseflow arising from dewatering	WE41, WE43, WE51 – WE56		
		Changes in patterns and rates of infiltration	WE41, WE43, WE51 – WE56		
		Surface water flow obstruction	FM13		
		Fluvial flow impedance	FM14		
Non reportable WFD Water body adjacent to the Irish Sea GB110102059160	High	Changes in watercourse morphology	WE11, WE31, WE41, WE43, WE51 – WE56, FM12 – FM14	Transient but no short-term/ permanent change to WFD Status short-term Overall – Low during Construction Phase and Decommissioning Phase Very Low during and Maintenance Phases No Effects during	Minor (not significant) during Construction Phase and Decommissioning Phases Negligible (not significant) during Maintenance Phases No Effects (not significant) during Operation Phase

Table 22.7 Summary of Water Quality, Resources and Flood Risk Residual Effects

Resource/Receptor	Sensitivity Value	Potential Effects	Control Mitigation Measures (CMMs) & Site specific measures ⁴	Residual Effect	Significance
				Operation Phase	
Afon Wygyr GB110102059170	Medium (construction)	Changes in water quality through mobilisation of sediment	WE11, WE31, WE41, WE43, WE51 – WE56, FM12 – FM14	No Measurable Impact Overall – Very Low during Construction, Maintenance and Decommissioning Phases No Effects during Operation Phase	Negligible (not significant) during Construction, Maintenance and Decommissioning Phases No Effects during Operation Phase
	High (operation, maintenance and decommissioning)	Changes in water quality through accidental contamination	WE21 – WE23		
		Changes in river baseflow arising from dewatering	WE41, WE43, WE51 – WE56		
		Changes in patterns and rates of infiltration	WE41, WE43, WE51 – WE56		
		Surface water flow obstruction	FM13		
		Fluvial flow impedance	FM14		
Afon Wygyr GB110102059170	Medium (construction) High (operation, maintenance and decommissioning)	Changes in watercourse morphology	WE11, WE31, WE41, WE43, WE51 – WE56, FM12 – FM14	Transient but no short-term/ permanent change to WFD Status Overall – Low during Construction Phase and Decommissioning Phase Very Low during and Maintenance Phases No Effects during Operation Phase	Negligible (not significant) during Construction, Maintenance Phases Minor (not significant) during Decommissioning Phase No Effects during Operation Phase
Alaw - upstream Llyn Alaw GB110102058982	High	Changes in water quality through mobilisation of sediment	WE11, WE31, WE41, WE43, WE51 – WE56, FM12 – FM14	No Measurable Impact Overall – Very Low during Construction, Maintenance and Decommissioning Phases No Effects during Operation Phase	Negligible (not significant) during Construction, Maintenance and Decommissioning Phases No Effects during Operation Phase
		Changes in water quality through accidental contamination	WE21 – WE23		
		Changes in river baseflow arising from dewatering	WE41, WE43, WE51 – WE56		
		Changes in patterns and rates of infiltration	WE41, WE43, WE51 – WE56		
		Surface water flow obstruction	FM13		
		Fluvial flow impedance	FM14		

Table 22.7 Summary of Water Quality, Resources and Flood Risk Residual Effects

Resource/Receptor	Sensitivity Value	Potential Effects	Control Mitigation Measures (CMMs) & Site specific measures ⁴	Residual Effect	Significance
Alaw - upstream Llyn Alaw GB110102058982	High	Changes in watercourse morphology	WE11, WE31, WE41, WE43, WE51 – WE56, FM12 – FM14	Transient but no short-term/ permanent change to WFD Status Overall – Low during Construction and Decommissioning Phases Very Low during Maintenance Phase No Effects during Operation Phase	Minor (not significant) during Construction and Decommissioning Phases Negligible (not significant) during Maintenance Phase No Effects during Operation Phase
Llyn Alaw Reservoir GB31032538	Medium (construction)	Changes in water quality through mobilisation of sediment	WE11, WE31, WE41, WE43, WE51 – WE56, FM12 – FM14	No Measurable Impact Overall – Very Low during Construction, Maintenance and Decommissioning Phases No Effects during Operation Phase	Negligible (not significant) during Construction, Maintenance and Decommissioning Phases No Effects during Operation Phase
	High (operation, maintenance and decommissioning)	Changes in water quality through accidental contamination	WE21 – WE23		
		Changes in river baseflow arising from dewatering	WE41, WE43, WE51 – WE56		
		Changes in patterns and rates of infiltration	WE41, WE43, WE51 – WE56		
		Surface water flow obstruction	FM13		
		Fluvial flow impedance	FM14		
Llyn Alaw Reservoir GB31032538	Medium (construction) High (operation, maintenance and decommissioning)	Changes in watercourse morphology	WE11, WE31, WE41, WE43, WE51 – WE56, FM12 – FM14	Transient but no short-term/ permanent change to WFD Status Overall – Low during Construction & Decommissioning Phases Very Low during Maintenance Phase No Effects during Operation Phase	Negligible (not significant) during Construction, Operation, and Maintenance Phases Minor (not significant) during Decommissioning Phase No Effects during Operation Phase
Goch Dulas	Medium	Changes in water quality through mobilisation of sediment	WE11, WE31, WE41, WE43, WE51 –	No Measurable Impact	Negligible (not significant)

Table 22.7 Summary of Water Quality, Resources and Flood Risk Residual Effects

Resource/Receptor	Sensitivity Value	Potential Effects	Control Mitigation Measures (CMMs) & Site specific measures ⁴	Residual Effect	Significance
GB110102059000	(construction)		WE56, FM12 – FM14	Overall – Very Low during Construction, Maintenance and Decommissioning Phases No Effects during Operation Phase	during Construction, Maintenance and Decommissioning Phases No Effects during Operation Phase
	High (operation, maintenance and decommissioning)	Changes in water quality through accidental contamination	WE21 – WE23		
		Changes in river baseflow arising from dewatering	WE41, WE43, WE51 – WE56		
		Changes in patterns and rates of infiltration	WE41, WE43, WE51 – WE56		
		Surface water flow obstruction	FM13		
		Fluvial flow impedance	FM14		
Goch Dulas GB110102059000	Medium (construction) High (operation, maintenance and decommissioning)	Changes in watercourse morphology	WE11, WE31, WE41, WE43, WE51 – WE56, FM12 – FM14	Transient but no short-term/ permanent change to WFD Status Overall – Low during Construction & Decommissioning Phase Very Low during Maintenance Phases No Effects during Operation Phase	Negligible (not significant) during Construction, and Maintenance Phase Minor (not significant) during Decommissioning Phase No Effects during Operation Phase
Cefni (Cefni Reservoir West) GB110102058790	High	Changes in water quality through mobilisation of sediment	WE11, WE31, WE41, WE43, WE51 – WE56, FM12 – FM14	No Measurable Impact Overall – Very Low Construction, Maintenance and Decommissioning Phases	Negligible (not significant) during Construction, Maintenance and Decommissioning Phases
		Changes in water quality through accidental contamination	WE21 – WE23		
		Changes in river baseflow arising from dewatering	WE41, WE43, WE51 – WE56		
		Changes in patterns and rates of infiltration	WE41, WE43, WE51 – WE56		
		Surface water flow obstruction	FM13		
Cefni (Cefni Reservoir West) GB110102058790	High	Changes in watercourse morphology	WE11, WE31, WE41, WE43, WE51 – WE56, FM12 – FM14	Transient but no short-term/ permanent change to WFD Status Overall – Low during Construction & Decommissioning	Negligible (not significant) during Construction and Maintenance Phases Minor (not significant) during Decommissioning Phase

Table 22.7 Summary of Water Quality, Resources and Flood Risk Residual Effects

Resource/Receptor	Sensitivity Value	Potential Effects	Control Mitigation Measures (CMMs) & Site specific measures ⁴	Residual Effect	Significance
				Phase Very Low during Maintenance Phases No Effects during Operation Phase	No Effects during Operation Phase
Cefni (Cefni Reservoir East) GB110102058780	High	Changes in water quality through mobilisation of sediment	WE11, WE31, WE41, WE43, WE51 – WE56, FM12 – FM14	No Measurable Impact Overall – Very Low during Construction, Maintenance and Decommissioning Phases No Effects during Operation Phase	Negligible (not significant) during Construction, Maintenance and Decommissioning Phases No Effects during Operation Phase
		Changes in water quality through accidental contamination	WE21 – WE23		
		Changes in river baseflow arising from dewatering	WE41, WE43, WE51 – WE56		
		Changes in patterns and rates of infiltration	WE41, WE43, WE51 – WE56		
		Surface water flow obstruction	FM13		
		Fluvial flow impedance	FM14		
Cefni (Cefni Reservoir East) GB110102058780	High	Changes in watercourse morphology	WE11, WE31, WE41, WE43, WE51 – WE56, FM12 – FM14	Transient but no short-term/ permanent change to WFD Status Overall – Low during Construction & Decommissioning Phase Very Low during Maintenance Phases No Effects during Operation Phase	Minor (not significant) during Construction & Decommissioning Phase and Negligible (not significant) during Maintenance Phase No Effects during Operation Phase
Lligwy GB110102059070	High	Changes in water quality through mobilisation of sediment	WE11, WE31, WE41, WE43, WE51 – WE56, FM12 – FM13	No Measurable Impact Overall – Very Low during Construction, Maintenance and Decommissioning Phases No Effects during Operation Phase	Negligible (not significant) during Construction, Maintenance and Decommissioning Phases No Effects during Operation Phase
		Changes in water quality through accidental contamination	WE21 – WE23		
		Changes in river baseflow arising from dewatering	WE41, WE43, WE51 – WE56		
		Changes in patterns and rates of infiltration	WE41, WE43, WE51 – WE56		
		Surface water flow obstruction	FM13		

Table 22.7 Summary of Water Quality, Resources and Flood Risk Residual Effects

Resource/Receptor	Sensitivity Value	Potential Effects	Control Mitigation Measures (CMMs) & Site specific measures ⁴	Residual Effect	Significance
Ceint to Cefni Reservoir GB110102058770	Medium (construction)	Changes in water quality through mobilisation of sediment	WE11, WE31, WE41, WE43, WE51 – WE56, FM12 – FM14	No Measurable Impact Overall – Very Low during Construction, Maintenance and Decommissioning Phases No Effects during Operation Phase	Negligible (not significant) during Construction, Maintenance and Decommissioning Phases No Effects during Operation Phase
	High (operation, maintenance and decommissioning)	Changes in water quality through accidental contamination	WE21 – WE23		
		Changes in river baseflow arising from dewatering	WE41, WE43, WE51 – WE56		
		Changes in patterns and rates of infiltration	WE41, WE43, WE51 – WE56		
		Surface water flow obstruction	FM13		
		Fluvial flow impedance	FM14		
Ceint to Cefni Reservoir GB110102058770	Medium (construction)	Changes in watercourse morphology	WE11, WE31, WE41, WE43, WE51 – WE56, FM12 – FM14	Transient but no short-term/ permanent change to WFD Status	Negligible (not significant) during Construction and Maintenance Phases Minor (not significant) during Decommissioning Phase No Effects during Operation Phase
	High (operation maintenance and decommissioning)			Overall – Low during Construction & Decommissioning Phases Very Low during Maintenance Phase No Effects during Operation Phase	
Ceint GB110102058940	Medium (construction)	Changes in water quality through mobilisation of sediment	WE11, WE31, WE41, WE43, WE51 – WE56, FM12 – FM14	No Measurable Impact Overall – Very Low	Negligible (not significant) during Construction, Operation, Maintenance and Decommissioning Phases
	High (operation)	Changes in water quality through accidental contamination	WE21 – WE23		
		Changes in river baseflow arising from dewatering	WE41, WE43, WE51 – WE56		
		Changes in patterns and rates of infiltration	WE41, WE43, WE51 – WE56		
		Surface water flow obstruction	FM13		
		Fluvial flow impedance	FM14		

Table 22.7 Summary of Water Quality, Resources and Flood Risk Residual Effects

Resource/Receptor	Sensitivity Value	Potential Effects	Control Mitigation Measures (CMMs) & Site specific measures ⁴	Residual Effect	Significance
Ceint GB110102058940	Medium (construction) High (operation)	Changes in watercourse morphology	WE11, WE31, WE41, WE43, WE51 – WE56, FM12 – FM14	Overall – Low during Construction and Decommissioning Phase Very Low during Operation and Maintenance Phases	Negligible (not significant) during Construction, Operation and Maintenance Phases Minor (not significant) during Decommissioning Phase
Cefni Transitional GB52101010207500	Medium (construction)	Changes in water quality through mobilisation of sediment	WE11, WE31, WE41, WE43, WE51 – WE56, FM12 – FM14	No Measurable Impact Overall – Very Low	Negligible (not significant) during Construction, Operation, Maintenance and Decommissioning Phases
	High (operation)	Changes in water quality through accidental contamination	WE21 – WE23		
		Changes in river baseflow arising from dewatering	WE41, WE43, WE51 – WE56		
		Changes in patterns and rates of infiltration	WE41, WE43, WE51 – WE56		
		Surface water flow obstruction	FM13		
		Fluvial flow impedance	FM14		
Cefni Transitional GB52101010207500	Medium (construction) High (operation)	Changes in watercourse morphology	WE11, WE31, WE41, WE43, WE51 – WE56, FM12 – FM14	Transient but no short- term/ permanent change to WFD Status Overall – Low during Construction & Decommissioning Phases Very Low during and Maintenance Phase No effects during Operational Phase	Negligible (not significant) during Construction and Maintenance Phases Minor (not significant) during Decommissioning Phase No effects during Operational Phase
Non reportable waterbody east of	High	Changes in water quality through mobilisation of sediment	WE11, WE31, WE41, WE43, WE51 – WE56, FM12 – FM13	No Measurable Impact	Negligible (not significant) during Construction,

Table 22.7 Summary of Water Quality, Resources and Flood Risk Residual Effects

Resource/Receptor	Sensitivity Value	Potential Effects	Control Mitigation Measures (CMMs) & Site specific measures ⁴	Residual Effect	Significance
Malltraeth Sands		Changes in water quality through accidental contamination	WE21 – WE23	Overall – Very Low No effects during Operational Phase	Maintenance and Decommissioning Phases No effects during Operational Phase
		Changes in river baseflow arising from dewatering	WE41, WE43, WE51 – WE56		
		Changes in patterns and rates of infiltration	WE41, WE43, WE51 – WE56		
		Surface water flow obstruction	FM12 – FM13		
Braint Lower GB110102058660	Medium (construction)	Changes in water quality through mobilisation of sediment	WE11, WE31, WE41, WE43, WE51 – WE56, FM12 – FM14	No Measurable Impact Overall – Very Low	Negligible (not significant) during Construction, Operation, Maintenance and Decommissioning Phases
	High (operation)	Changes in water quality through accidental contamination	WE21 – WE23		
		Changes in river baseflow arising from dewatering	WE41, WE43, WE51 – WE56		
		Changes in patterns and rates of infiltration	WE41, WE43, WE51 – WE56		
		Surface water flow obstruction	FM13		
		Fluvial flow impedance	FM14		
Braint Lower GB110102058660	Medium (construction) High (operation)	Changes in watercourse morphology	WE11, WE31, WE41, WE43, WE51 – WE56, FM12 – FM14	Transient but no short-term/ permanent change to WFD Status Overall – Low during Construction & Decommissioning Phases Very Low during Maintenance Phase No effects during Operational Phase	Negligible (not significant) during Construction and Maintenance Phases Minor (not significant) during Decommissioning Phase No effects during Operational Phase
Braint Upper GB110102058690	High	Changes in water quality through mobilisation of sediment	WE11, WE31, WE41, WE43, WE51 – WE56, WE59, FM12 – FM14	No Measurable Impact Overall – Very Low	Negligible (not significant) during Construction, Operation, Maintenance and Decommissioning Phases
		Changes in water quality through accidental contamination	WE21 – WE23		
		Changes in river baseflow arising from dewatering	WE41, WE43, WE51 – WE56		
		Changes in patterns and rates of infiltration	WE41, WE43, WE51 – WE56		

Table 22.7 Summary of Water Quality, Resources and Flood Risk Residual Effects

Resource/Receptor	Sensitivity Value	Potential Effects	Control Mitigation Measures (CMMs) & Site specific measures ⁴	Residual Effect	Significance
		Surface water flow obstruction	FM13		
		Fluvial flow impedance	FM14		
		Changes in water quality due to the release of brackish water into the freshwater environment	WE59, WE510, , and an Operational Tunnel Drainage Management measure		
Braint Upper GB110102058690	High	Changes in watercourse morphology	WE11, WE31, WE41, WE43, WE51 – WE56, WE59, FM12 – FM14	No Measurable Impact Overall – Low during Construction & Decommissioning Phase Very Low during Operation and Maintenance Phases	Negligible (not significant) during Operational and Maintenance Phases Minor (not significant) during Construction & Decommissioning Phases
Nant y Garth GB110065058490	High	Changes in water quality through mobilisation of sediment	WE11, WE31, WE41, WE43, WE51 – WE56, WE59, FM12 – FM14	No Measurable Impact Overall – Very Low	Negligible (not significant) during Construction, Operation, Maintenance and Decommissioning Phases
		Changes in water quality through accidental contamination	WE21 – WE23		
		Changes in river baseflow arising from dewatering	WE41, WE43, WE51 – WE56		
		Changes in patterns and rates of infiltration	WE41, WE43, WE51 – WE56		
		Surface water flow obstruction	FM13		
		Fluvial flow impedance	FM14		
Nant y Garth GB110065058490	High	Changes in watercourse morphology	WE11, WE31, WE41, WE43, WE51 – WE56, WE59, FM12 – FM14	No Measurable Impact Overall – Low during Construction & Decommissioning Phase Very Low during Maintenance Phase No effects during Operational Phase	Minor (not significant) during Construction & Decommissioning Phases Negligible (not significant) during Maintenance Phases No effects during Operational Phase
Cegin GB110065058540	Medium	Changes in water quality through mobilisation of sediment	WE11, WE31, WE41, WE43, WE51 – WE56, WE59, FM12 – FM14	Very Low during Construction,	Negligible (not significant) during Construction,

Table 22.7 Summary of Water Quality, Resources and Flood Risk Residual Effects

Resource/Receptor	Sensitivity Value	Potential Effects	Control Mitigation Measures (CMMs) & Site specific measures ⁴	Residual Effect	Significance
	High (operation)	Changes in water quality through accidental contamination	WE21 – WE23	Maintenance and Decommissioning Phases No effects during Operational Phase	Maintenance and Decommissioning Phases No effects during Operational Phase
		Changes in patterns and rates of infiltration	WE41, WE43, WE51 – WE56		
		Surface water flow obstruction	FM13		
Menai Strait (GB681010120000)	High	Changes in water quality through mobilisation of sediment	WE11, WE31, WE41, WE43, WE51 – WE56, WE59, FM12 – FM14	No Measurable Impact Overall – Very Low No effect during Operation Phase	Negligible (not significant) during Construction, Maintenance and Decommissioning Phases No effect during Operation Phase
		Changes in water quality through accidental contamination	WE21 – WE23		
		Changes in patterns and rates of infiltration	WE41, WE43, WE51 – WE56		
		Surface water flow obstruction	FM13		
		Fluvial flow impedance			
		Risk of pollution to coastal waters from tunnel blowout	WE511		
Water Resources – Licensed Abstractions					
Llyn Alaw Reservoir & Cefni Reservoir	Very High	Changes in water quality through mobilisation of sediment	WE11, WE31, WE41, WE43, WE51 – WE56, FM12 – FM14	No Measurable Impact Very Low during Construction, Maintenance and Decommissioning Phases No effects during Operational Phase	Negligible (not significant) during Construction, Maintenance and Decommissioning Phases No effects during Operational Phase
		Changes in water quality through accidental contamination	WE21 – WE23		
		Changes in watercourse morphology	WE11, WE31, WE41, WE43, WE51 – WE56, FM12 – FM14		
		Changes in river baseflow arising from dewatering	WE41, WE43, WE51 – WE56		
		Changes in patterns and rates of infiltration	WE41, WE43, WE51 – WE56		
		Surface water flow obstruction	FM13		
		Fluvial flow impedance	FM14		
Water Resources – Private Water Supplies					
Tyn Llan, Old Rectory S060ILLANE/1	Medium	Changes in water quality through mobilisation of sediment	WE11, WE31, WE41, WE43, WE51 – WE56, FM12 – FM14	No Measurable Impact Very Low during Construction,	Negligible (not significant) during Construction, Maintenance and
		Changes in water quality through accidental	WE21 – WE23		

Table 22.7 Summary of Water Quality, Resources and Flood Risk Residual Effects

Resource/Receptor	Sensitivity Value	Potential Effects	Control Mitigation Measures (CMMs) & Site specific measures ⁴	Residual Effect	Significance
Pandy, Rhosmeirch S060ORHOSM/1 Glan Menai, Holyhead Road S060WHOLYH/1		contamination		Maintenance and Decommissioning Phases No effects during Operational Phase	Decommissioning Phases No effects during Operational Phase
		Changes in watercourse morphology	WE11, WE31, WE41, WE43, WE51 – WE56, FM12 – FM14		
		Changes in river baseflow arising from dewatering	WE41, WE43, WE51 – WE56		
		Changes in patterns and rates of infiltration	WE41, WE43, WE51 – WE56		
		Surface water flow obstruction	FM13		
		Fluvial flow impedance	FM14		
Water Resources – Licensed Discharges					
Llanfachell STW CG0058201 Llanfechell Pumping Station CG0058101	Medium	Changes in watercourse morphology	WE11, WE31, WE41, WE43, WE51 – WE56, FM12 – FM14	No Measurable Impact Very Low during Construction, Maintenance and Decommissioning Phases No effects during Operational Phase	Negligible (not significant) during Construction, Maintenance and Decommissioning Phases No effects during Operational Phase
Flood Risk Receptors					
Third Party Receptors	High, Medium, Low	Surface water flooding (increased runoff)	FM12 – FM14	Overall – No Effects	Negligible (not significant) during Construction, Operation, Maintenance and Decommissioning Phases
		Surface water obstruction			
		Fluvial flow impedance			
		Flood storage displacement			

2.7 TRAFFIC AND TRANSPORT

2.7.1 Summary of Traffic and Transport (**Document 5.13**) residual effects are presented in Table 22.8

Table 22.8 Summary of Traffic and Transport Residual Effects					
Resource/Receptor	Sensitivity Value	Potential Effects.	Mitigation	Residual Effect	Residual Significance
1 A5025 between A5 at Valley Crossroads and Wylfa	Medium	Severance, Fear and Intimidation	No specific mitigation.	Low	Minor (Not Significant)
		Pedestrian Delay, Pedestrian Amenity, Driver Delay	No specific mitigation	Very Low	Negligible (Not Significant)
2 A5 between A55 J3 and Valley Crossroads	Low	Severance, Fear and Intimidation	No specific mitigation	Low	Negligible (Not Significant)
		Pedestrian Delay, Pedestrian Amenity, Driver Delay	No specific mitigation	Very Low	Negligible (Not Significant)
3 UR 4 between B5111 and B2	Medium	Severance, Fear and Intimidation	No specific mitigation	Low	Minor (Not Significant)
		Pedestrian Delay, Pedestrian Amenity, Driver Delay	No specific mitigation	Very Low	Negligible (Not Significant)
4 B5111 between B5110 and B5112	Medium	Severance, Fear and Intimidation	No specific mitigation	Low	Minor (Not Significant)
		Pedestrian Delay, Pedestrian Amenity, Driver Delay	No specific mitigation	Very Low	Negligible (Not Significant)
4.1 B5111 between B5110 and B5112	Medium	Severance, Fear and Intimidation	No specific mitigation	Low	Minor (Not Significant)
		Pedestrian Delay, Pedestrian Amenity, Driver Delay	No specific mitigation	Very Low	Negligible (Not Significant)
5 B5111 between the B5112 and access B8	Medium	Severance, Fear and Intimidation	No specific mitigation	Low	Minor (Not Significant)
		Pedestrian Delay, Pedestrian Amenity, Driver Delay	No specific mitigation	Very Low	Negligible (Not Significant)
6 B5420 between LLR and B5110	Medium	Severance, Fear and Intimidation, Pedestrian Delay	No specific mitigation	Low	Minor (Not Significant)
		Pedestrian Amenity, Driver Delay	No specific mitigation	Very Low	Negligible (Not Significant)
7 Between Llangefni Link Road and Access D4	Medium	Severance, Fear and Intimidation	No specific mitigation	Low	Minor (Not Significant)
		Pedestrian Delay, Pedestrian Amenity, Driver Delay	No specific mitigation	Very Low	Negligible (Not Significant)
7.1 Between Access D4 and Crosses Roundabout	Medium	Severance, Fear and Intimidation	Used as a contingency for OHL traffic in the event that preferred routes are unavailable. The assessed level of traffic on this route is unlikely to be realised, and if it were realised effects on other routes would be reduced.	Low	Negligible (Not Significant)

Table 22.8 Summary of Traffic and Transport Residual Effects

Resource/Receptor	Sensitivity Value	Potential Effects.	Mitigation	Residual Effect	Residual Significance
		Pedestrian Delay, Pedestrian Amenity, Driver Delay	Used as a contingency for OHL traffic in the event that preferred routes are unavailable. The assessed level of traffic on this route is unlikely to be realised, and if it were realised effects on other routes would be reduced.	Very Low	Negligible (Not Significant)
8 Between A55 J6 Llangefni Link Road.	Low	Severance, Fear and Intimidation, Pedestrian Delay	No specific mitigation	Low	Negligible (Not Significant)
		Pedestrian Amenity, Driver Delay	No specific mitigation	Very Low	Negligible (Not Significant)
8.1 Between A5114 via existing carriageway to Llangefni Link Road	Medium	Severance, Fear and Intimidation, Pedestrian Delay	Used as a contingency for OHL traffic in the event that preferred routes are unavailable. The assessed level of traffic on this route is unlikely to be realised, and if it were realised effects on other routes would be reduced.	Low	Negligible (Not Significant)
		Pedestrian Amenity, Driver Delay	Used as a contingency for OHL traffic in the event that preferred routes are unavailable. The assessed level of traffic on this route is unlikely to be realised, and if it were realised effects on other routes would be reduced	Very Low	Negligible (Not Significant)
8.2 LLR between Llangefni Industrial Estate and the B5420	Low	Severance, Fear and Intimidation	No specific mitigation	Medium	Minor (Not Significant)
		Pedestrian Delay	No specific mitigation	Low	Negligible (Not Significant)
		Pedestrian Amenity, Driver Delay	No specific mitigation	Very Low	Negligible (Not Significant)
9 A5025 between A55 J8 to B5420.	Low	Severance, Fear and Intimidation, Pedestrian Delay	Used as a contingency for OHL traffic in the event that preferred routes are unavailable. The assessed level of traffic on this route is unlikely to be realised, and if it were realised effects on other routes would be reduced	Low	Negligible (Not Significant)
		Pedestrian Amenity, Driver Delay	Used as a contingency for OHL traffic in the event that preferred routes are unavailable. The assessed level of traffic on this route is unlikely to be realised, and if it were realised effects on other routes would be reduced	Very Low	Negligible (Not Significant)
11 Unnamed Road	Medium	Severance, Fear and Intimidation	No specific mitigation	Low	Minor (Not Significant)

Table 22.8 Summary of Traffic and Transport Residual Effects

Resource/Receptor	Sensitivity Value	Potential Effects.	Mitigation	Residual Effect	Residual Significance
between Star and access E5		Pedestrian Delay, Pedestrian Amenity, Driver Delay	No specific mitigation	Very Low	Negligible (Not Significant)
11.1 UR between Star Crossroads and Unnamed Road Star	Low	Severance, Fear and Intimidation	No specific mitigation	Low	Negligible (Not Significant)
		Pedestrian Delay, Pedestrian Amenity, Driver Delay	No specific mitigation	Very Low	Negligible (Not Significant)
12 Between A55 J7 and A5.	Low	Severance, Fear and Intimidation, Pedestrian Delay	No specific mitigation	Low	Negligible (Not Significant)
		Pedestrian Amenity, Driver Delay	No specific mitigation	Very Low	Negligible (Not Significant)
13 A5 between A5152 and A55 J7a	Low	Severance, Fear and Intimidation, Pedestrian Delay	No specific mitigation	Low	Negligible (Not Significant)
		Pedestrian Amenity, Driver Delay	No specific mitigation	Very Low	Negligible (Not Significant)
14 Between A5 and access E7	Medium	Severance, Fear and Intimidation	This link is identified as a contingency route for Tunnel construction activity in the event Link 15 were unavailable. The forecast levels of traffic assessed would be unlikely to be experienced.	Medium	Minor (Not Significant)
		Pedestrian Delay, Pedestrian Amenity, Driver Delay	This link is identified as a contingency route for Tunnel construction activity in the event Link 15 were unavailable. The forecast levels of traffic assessed would be unlikely to be experienced.	Very Low	Negligible (Not Significant)
15 Pont Rhonwy Link (PRL)	Low	Severance	No specific mitigation	High	Major (Significant)
		Fear and Intimidation	The link is proposed for closure for the construction period of the Proposed Development, so there would be no general through-traffic which might otherwise have the potential to cause Fear and Intimidation	High	Minor (Not Significant)
		Driver Delay	No specific mitigation	Low	Moderate (Significant)
		Pedestrian Delay, Pedestrian Amenity	No specific mitigation	Very Low	Moderate (Significant)
16 A4080 between A5 at tollgate and F2	Medium	Severance, Fear and Intimidation, Pedestrian Delay	No specific mitigation	Low	Minor (Not Significant)
		Pedestrian Amenity, Driver Delay	No specific mitigation	Very Low	Negligible (Not Significant)
17 A5 Between A55 J8a and A4080	Medium	Severance, Fear and Intimidation, Pedestrian Delay	Contingency Route for tunnelling elements only, in the event that Link 15 were unavailable, so unlikely to be fully used to the level assessed	Low	Minor (Not Significant)

Table 22.8 Summary of Traffic and Transport Residual Effects

Resource/Receptor	Sensitivity Value	Potential Effects.	Mitigation	Residual Effect	Residual Significance
			Results for Tunnelling Scenario 1 would reduce magnitude and significance.		
		Pedestrian Amenity, Driver Delay	Contingency Route for tunnelling elements only, in the event that Link 15 were unavailable, so unlikely to be fully used to the level assessed Results for Tunnelling Scenario 1 would reduce magnitude and significance.	Very Low	Negligible (Not Significant)
18 A487 Between B4547 and A55 J9	Low	Severance, Fear and Intimidation, Pedestrian Delay	No specific mitigation	Low	Negligible (Not Significant)
		Pedestrian Amenity, Driver Delay	No specific mitigation	Very Low	Negligible (Not Significant)
18.1 A4087 Between A55 J10 and A487	Low	Severance, Fear and Intimidation, Pedestrian Delay	Identified as a contingency route substation works at Pentir, OHL works and tunnelling works. Unlikely to be used to the level assessed.	Low	Negligible (Not Significant)
		Pedestrian Amenity, Driver Delay	Identified as a contingency route substation works at Pentir, OHL works and tunnelling works. Unlikely to be used to the level assessed.	Very Low	Negligible (Not Significant)
19 B4547 between A4244 and A487	Low	Severance, Fear and Intimidation	No specific mitigation	Medium	Minor (Not Significant)
		Pedestrian Delay,	No specific mitigation	Low	Negligible (Not Significant)
		Pedestrian Amenity, Driver Delay	No specific mitigation	Very Low	Negligible (Not Significant)
20 A4244/A5 between B4547 And A55 J11	Medium	Severance, Fear and Intimidation Pedestrian Delay	No specific mitigation	Low	Minor (Not Significant)
		Pedestrian Amenity, Driver Delay	No specific mitigation	Very Low	Negligible (Not Significant)
21 Britannia Bridge between A55 J9 and A55 J8a	Low	Severance, Fear and Intimidation Pedestrian Delay,	No specific mitigation	Low	Negligible (Not Significant)
		Pedestrian Amenity, Driver Delay	No specific mitigation	Very Low	Negligible (Not Significant)
22 B5109 between LLR and access D2	High	Severance, Pedestrian Delay, Pedestrian Amenity, Fear and Intimidation, Driver Delay	Light Goods Vehicles Only	Very Low	Minor (Not Significant)
23 Ffordd y Felin between A5025 and Brynddu Road	Medium	Severance, Pedestrian Delay, Pedestrian Amenity, Fear and Intimidation, Driver Delay	Light Goods Vehicles Only	Very Low	Negligible (Not Significant)

Table 22.8 Summary of Traffic and Transport Residual Effects

Resource/Receptor	Sensitivity Value	Potential Effects.	Mitigation	Residual Effect	Residual Significance
24 B5110 between access C8 and UR 19	Medium	Severance, Pedestrian Delay, Pedestrian Amenity, Fear and Intimidation, Driver Delay	Light Goods Vehicles Only	Very Low	Negligible (Not Significant)
25 Brynddu Road Between Ffordd y Felin and access B2	Low	Severance, Pedestrian Delay, Pedestrian Amenity, Fear and Intimidation, Driver Delay	Light Goods Vehicles Only	Very Low	Negligible (Not Significant)
26 B5112 between A55 J5 and B5111	Medium	Severance, Pedestrian Delay, Pedestrian Amenity, Fear and Intimidation, Driver Delay	Light Goods Vehicles Only	Very Low	Negligible (Not Significant)
27 UR 1 between Brynddu Road and UR 4	Medium	Severance, , Fear and Intimidation, Driver Delay	Light Goods Vehicles Only	Low	Minor (Not Significant)
		Pedestrian Amenity, Pedestrian Delay	Light Goods Vehicles Only	Very Low	Negligible (Not Significant)
28 UR8 between B5111 and access B11	Medium	Severance, Pedestrian Amenity, Fear and Intimidation, Driver Delay	Light Goods Vehicles Only	Very Low	Negligible (Not Significant)
29 UR9 between B5111 and access C2	Medium	Severance, Pedestrian Delay, Pedestrian Amenity, Fear and Intimidation, Driver Delay	Light Goods Vehicles Only	Very Low	Negligible (Not Significant)
30 Fodolydd Lane between B4547 and access F3	Low	Severance, Fear and Intimidation, Driver Delay, Pedestrian Amenity	Serves as alternative route for LGVs for tunnelling activities. Preferred route would be via A2444 (Link 20) and B4547 (Link 19) to access F14. The effect would only be realised in the event that Tunnel Scenario 2 and 3 were adopted.	High	Minor (Not Significant)
		Pedestrian Delay	Serves as alternative route for LGVs for tunnelling activities. Preferred route would be via A2444 (Link 20) and B4547 (Link 19) to access F14. The effect would only be realised in the event that Tunnel Scenario 2 and 3 were adopted.	Very Low	Negligible (Not Significant)
31 UR10 between B5111 and access C4	Medium	Severance, Pedestrian Delay, Pedestrian Amenity, Fear and Intimidation, Driver Delay	Light Goods Vehicles Only	Very Low	Negligible (Not Significant)
32 UR 16 between B5420 and access E1	Low	Severance, Pedestrian Delay, Pedestrian Amenity, Fear and Intimidation, Driver Delay	Light Goods Vehicles Only	Very Low	Negligible (Not Significant)
33 UR 19 between	Medium	Severance, ,Fear and Intimidation, Driver Delay	Light Goods Vehicles Only	Low	Minor (Not Significant)

Table 22.8 Summary of Traffic and Transport Residual Effects

Resource/Receptor	Sensitivity Value	Potential Effects.	Mitigation	Residual Effect	Residual Significance
B5110 and access C6		Pedestrian Delay, Pedestrian Amenity	Light Goods Vehicles Only	Very Low	Negligible (Not Significant)
34 Fodolydd Lane between B4547 and access F7 (enabling works only)	Low	Severance, Fear and Intimidation Pedestrian Delay, Pedestrian Amenity, Driver Delay	Enabling works route only	Very Low	Negligible (Not Significant)
35 UR 3 between Brynddu Road and access A9	Low	Severance, Fear and Intimidation, Driver Delay	Light Goods Vehicles Only	Low	Negligible (Not Significant)
		Pedestrian Delay, Pedestrian Amenity	Light Goods Vehicles Only	Very Low	Negligible (Not Significant)
36 North of J7 between A55 and access E5A	Low	Severance, Fear and Intimidation	No specific mitigation	Medium	Minor (Not Significant)
		Driver Delay	No specific mitigation	Low	Negligible (Not Significant)
		Pedestrian Amenity, Pedestrian Delay	No specific mitigation	Very Low	Negligible (Not Significant)
Ysgol Gynradd Llanfachraeth	High	Severance, Fear and Intimidation, Pedestrian Delay, Pedestrian Amenity	Routeing of HGVs along sections of highway links where schools are present would be avoided, if necessary, during typical pick up and drop off periods. Once the road improvements proposed for Wylfa Newydd Power Station are in place effects would be reduced.	Low	Minor (Not Significant)
Rhosmeirch Playing Fields	High	Severance, Fear and Intimidation, Pedestrian Delay, Pedestrian Amenity	None required	Low	Minor (Not Significant)
Ysgol Gymuned Llanerchymedd	High	Severance, Fear and Intimidation, Pedestrian Delay, Pedestrian Amenity	Severance effects would only occur during school hours and during the school term. Whilst it is acknowledged that the school is not directly accessed via Link 4.1, it is likely that the footways on this link would be used during pick up and drop off periods. In order to reduce the effect of severance and as outlined in the OCTMP (Document 7.5), routeing of HGVs along sections of highway links where schools/colleges are present would be avoided, if necessary, during typical pick up and drop off periods.	Low	Minor (Not Significant)
Coleg Menai Llangefni	High	Severance, Fear and Intimidation, Pedestrian Delay,	Effects would only occur during school hours	Low	Minor (Not Significant)

Table 22.8 Summary of Traffic and Transport Residual Effects

Resource/Receptor	Sensitivity Value	Potential Effects.	Mitigation	Residual Effect	Residual Significance
		Pedestrian Amenity	and during the school term. Whilst it is acknowledged that the school is not directly accessed via Link 4.1, it is likely that the footways on this link would be used during pick up and drop off periods. In order to reduce the effect of severance and as outlined in the OCTMP (Document 7.5), routing of HGVs along sections of highway links where schools/colleges are present would be avoided, if necessary, during typical pick up and drop off periods.		
Sant Tysilio Nursing Home	High	Severance, Fear and Intimidation	No specific mitigation required	Low	Minor (Not Significant)
		Pedestrian Delay, Pedestrian Amenity	No specific mitigation required	Very Low	Negligible (Not Significant)
Ysgol Gynradd Cemaes	High	Severance, Fear and Intimidation, Pedestrian Delay, Pedestrian Amenity	No specific mitigation required	Low	Minor (Not Significant)
NCR 566 (affected by Highway Link Ref 1)	Medium	Public Rights of Way	No specific mitigation required	Low	Minor (Not Significant)
NCR 566 (affected by Highway Link Ref 4)	Medium	Public Rights of Way	No specific mitigation required	Low	Minor (Not Significant)
NCR5 (affected by Highway Link Ref 5)	Medium	Public Rights of Way	No specific mitigation required	Low	Minor (Not Significant)
NCR 566 (affected by Highway Link Ref 7)	Medium	Public Rights of Way	No specific mitigation required	Low	Minor (Not Significant)
NCR 566 (affected by Highway Link Ref 7.1)	Medium	Public Rights of Way	Relevant highway link identified as a Contingency Route for construction traffic to OHL compound, unlikely to be fully used to the level assessed	Low	Minor (Not Significant)
NCR 8 (affected by Link Ref 11.1)	Medium	Public Rights of Way	Relevant highway link identified as a Contingency Route for construction traffic to OHL compound, unlikely to be fully used to the level assessed	Low	Minor (Not Significant)
NCR 8 (affected by	Medium	Public Rights of Way	Relevant highway link identified as a	Low	Minor (Not Significant)

Table 22.8 Summary of Traffic and Transport Residual Effects

Resource/Receptor	Sensitivity Value	Potential Effects.	Mitigation	Residual Effect	Residual Significance
Link Ref 14)			Contingency Route for tunnelling elements only, so unlikely to be fully used to the level assessed Results for Tunnelling Scenario 2 would reduce magnitude and significance.		
Wales Coast Path (affected by Link Ref 16)	High	Public Rights of Way	Relevant highway link identified as a Contingency Route for tunnelling elements only, so unlikely to be fully used to the level assessed Results for Tunnelling Scenario 2 would reduce magnitude and significance. Short, managed diversion (less than 5 minutes additional journey time) as specified in the PRow Management Plan (Document 7.6)	Minor	Minor (Not Significant)
Pentir Rhif 111 (affected by Link Ref 19)	Medium	Public Rights of Way	No specific mitigation	Low	Minor (Not Significant)

2.8 AIR QUALITY

2.8.1 Summary of Air Quality (**Document 5.14**) residual effects are presented in Table 22.9

Table 22.9 Summary of Air Quality Residual Effects					
Resource/ Receptor	Value	Potential Effects and Sensitivity	Mitigation	Residual Effect	Significance
Human Health Sensitive Receptors	High	Increase in exposure to pollutant concentrations due to emissions from construction traffic and emergency generator emissions at High sensitive receptors, such as residential dwellings.	Measures AE21	Very Low to Medium	Not Significant Medium magnitude impact predicted to occur at limited locations where total pollutant concentrations (including the impact of the Proposed Development) are so low that there is no risk of the air quality objective values being exceeded.
	High	Increase in exposure to short term concentrations of PM ₁₀ from construction activity. In line with the IAQM guidance applied to the assessment, the sensitivity of Sections range from Low to High, depending on the number of receptors located close to the Order Limits in each Section.	Measures AE11, AE12, AE13, AE14 and AE15	Negligible to Low	Not Significant
Ecologically Sensitive Receptors		Increase in exposure to pollutant concentrations and deposition rates due to emissions from construction traffic and emergency generator emissions at High sensitive internationally designated sites.	Measures AE21	Screened as Insignificant	Not Significant
Dust sensitive receptors	High	Increase in dust concentrations at High amenity and ecologically sensitive locations, including residential properties and internationally designated conservation sites.	Measures AE11, AE12, AE13, AE14 and AE15	Negligible to Low	Not Significant

2.9 CONSTRUCTION NOISE AND VIBRATION

2.9.1 Summary of Construction Noise and Vibration (**Document 5.15**) residual effects are presented in Table 22.10

Table 22.10 Summary of Construction Noise and Vibration Residual Effects					
Resource / Receptor	Sensitivity	Potential effects	Mitigation	Residual Effect	Significance
Patients in hospitals / hospices etc. – defined as a ‘vulnerable subgroup’ with very high or continuous rates of occupancy.	High	Noise from construction of pylons, conductor stringing and dismantling of existing pylons.	CEMP Measures: GP11, GP21-GP27, NV11, NV12, NV13, NV14, NV21, NV22.	Very Low	Minor / Negligible (not significant)
		Noise from construction of access tracks.	CEMP Measures: GP11, GP21-GP27, NV11, NV13, NV14.	Very Low	Negligible (Not significant)
		Noise from traffic on access tracks.	CEMP Measures: GP11, GP21-GP27, NV11, NV12, NV13, NV14, NV41.	Very Low	Minor (Not significant)
		Noise from traffic on construction traffic routes.	None specified.	Very Low	Minor (Not significant)
		All above.	CEMP Measures: GP11, GP21-GP27, NV11, NV12, NV13, NV14, NV21, NV22, NV41.	Very Low	Minor / Negligible (Not significant)
Residential, hotels, hostels, B&Bs, caravans and chalets, places of worship, education facilities, hospitals and healthcare facilities, community facilities.	Medium	Noise from instatement of construction compounds and works therein.	CEMP Measures: GP11, GP21-GP27, NV11, NV12, NV13, NV14, NV41.	Low / Very Low	Minor / Negligible (Not significant)
		Noise and vibration from construction of access tracks.	CEMP Measures: GP11, GP21-GP27, NV11, NV13, NV14.	Very Low	Negligible (Not significant)
		Noise and vibration from construction of pylons, conductor stringing and dismantling of existing pylons.	CEMP Measures: GP11, GP21-GP27, NV11, NV12, NV13, NV14, NV21, NV22.	High / Medium / Low / Very Low	Major (1) (Significant) / Moderate (26) (Significant) / Minor / Negligible (Not significant)
		Noise from works in construction compounds for the tunnel.	CEMP Measures: GP11, GP21-GP27, NV11, NV12, NV13, NV14, NV31, NV32, NV33, NV34, NV35, NV39, NV40, NV41. Mitigation Measures: <ul style="list-style-type: none"> Generators to be used in enabling works will be to a low noise specification. Ventilation plant for the tunnel will be fitted with silencers if required to ensure the noise levels on the surface are low. 	Low / Very Low	Minor / Negligible (Not significant)

Table 22.10 Summary of Construction Noise and Vibration Residual Effects

Resource / Receptor	Sensitivity	Potential effects	Mitigation	Residual Effect	Significance
			<ul style="list-style-type: none"> During shaft construction and tunnelling works, construction plant to be used during the night-time will be enclosed as required to construct in accordance with the agreed noise limits – see Appendix 15.4 (Document 5.15.2.4). A solid hoarding of 2.4 m will be erected around the perimeter of the tunnel construction compounds. During tunnelling works a 2 m shunt wall positioned on three sides around the temporary soil storage area. 		
		Noise and vibration from underground tunnelling works.	CEMP Measures: NV36, NV37, NV38, NV39, NV40, NV41.	Low / Very Low	Minor / Negligible (Not significant)
		Noise from traffic on access tracks.	CEMP Measures: GP11, GP21- GP27, NV11, NV12, NV13, NV14, NV41.	Medium / Low / Very Low	Moderate (1) (Significant) / Minor / Negligible (Not significant)
		Noise from traffic on construction traffic routes.	None specified.	Low / Very Low	Minor / Negligible (Not significant)
		All above.	CEMP Measures: GP11, GP21-GP27, NV11, NV12, NV13, NV14, NV21, NV22, NV31, NV32, NV33, NV34, NV35, NV36, NV37, NV38. NV39, NV40, NV41. Mitigation Measures: <ul style="list-style-type: none"> Generators to be used in enabling works will be to a low noise specification. Ventilation plant for the tunnel will be fitted with silencers if required to ensure the noise levels on the surface are low. During shaft construction and tunnelling works, construction plant to be used during the night-time will be enclosed as required 	Medium / Low / Very Low	Major (1) (Significant) / Moderate (27) (Significant) / Minor / Negligible (Not significant)

Table 22.10 Summary of Construction Noise and Vibration Residual Effects

Resource / Receptor	Sensitivity	Potential effects	Mitigation	Residual Effect	Significance
			<p>to construct in accordance with the agreed noise limits – see Appendix 15.4 (Document 5.15.2.4).</p> <ul style="list-style-type: none"> A solid hoarding of 2.4 m will be erected around the perimeter of the tunnel construction compounds. During tunnelling works a 2 m shunt wall positioned on three sides around the temporary soil storage area. 		
Area used primarily for leisure activities, including Public Rights of Way (PRoW), sports facilities, visitor attractions, sites of historic or cultural importance, businesses (e.g. offices).	Low	Noise from instatement of construction compounds and works therein.	CEMP Measures: GP11, GP21-GP27, NV11, NV12, NV13, NV14, NV41.	Low / Very Low	Negligible (Not significant)
		Noise and vibration from construction of access tracks.	CEMP Measures: GP11, GP21-GP27, NV11, NV13, NV14.	Very Low	Negligible (Not significant)
		Noise and vibration from construction of pylons, conductor stringing and dismantling of existing pylons.	CEMP Measures: GP11, GP21-GP27, NV11, NV12, NV13, NV14, NV21, NV22.	Medium / Low / Very Low	Minor / Negligible (Not significant)
		Noise from works in Construction compounds for the tunnel.	<p>CEMP Measures: GP11, GP21-GP27, NV11, NV12, NV13, NV14, NV31, NV32, NV33, NV34, NV35, NV39, NV40, NV41.</p> <p>Mitigation Measures:</p> <ul style="list-style-type: none"> Generators to be used in enabling works will be to a low noise specification. Ventilation plant for the tunnel will be fitted with silencers if required to ensure the noise levels on the surface are low. During shaft construction and tunnelling works, construction plant to be used during the night-time will be enclosed as required 	Low / Very Low	Negligible (Not significant)

Table 22.10 Summary of Construction Noise and Vibration Residual Effects

Resource / Receptor	Sensitivity	Potential effects	Mitigation	Residual Effect	Significance
			<p>to construct in accordance with the agreed noise limits – see Appendix 15.4 (Document 5.15.2.4).</p> <ul style="list-style-type: none"> A solid hoarding of 2.4 m will be erected around the perimeter of the tunnel construction compounds. During tunnelling works a 2 m shunt wall positioned on three sides around the temporary soil storage area. 		
		Noise and vibration from underground tunnelling works.	CEMP Measures: NV36, NV37, NV38, NV39, NV40, NV41.	Very Low	Negligible (Not significant)
		Noise from traffic on access tracks.	CEMP Measures: GP11, GP21-GP27, NV11, NV12, NV13, NV14, NV41.	Medium / Very Low	Minor / Negligible (Not significant)
		Noise from traffic on construction traffic routes.	None specified	Low / Very Low	Negligible(Not significant)
		All above.	<p>CEMP Measures: GP11, GP21-GP27, NV11, NV12, NV13, NV14, NV21, NV22, NV31, NV32, NV33, NV34, NV35, NV36, NV37, NV38, NV39, NV40, NV41.</p> <p>Mitigation Measures:</p> <ul style="list-style-type: none"> Generators to be used in enabling works will be to a low noise specification. Ventilation plant for the tunnel will be fitted with silencers if required to ensure the noise levels on the surface are low. During shaft construction and tunnelling works, construction plant to be used during the night-time will be enclosed as required to construct in accordance with the agreed noise limits – see Appendix 15.4 	Medium / Low / Very Low	Minor / Negligible (Not significant)

Table 22.10 Summary of Construction Noise and Vibration Residual Effects

Resource / Receptor	Sensitivity	Potential effects	Mitigation	Residual Effect	Significance
			(Document 5.15.2.4). <ul style="list-style-type: none"> A solid hoarding of 2.4 m will be erected around the perimeter of the tunnel construction compounds. During tunnelling works a 2 m shunt wall positioned on three sides around the temporary soil storage area. 		
All other areas such as those used primarily for industrial or agricultural purposes.	Very Low	Noise from instatement of construction compounds and works therein.	CEMP Measures: GP11, GP21-GP27, NV11, NV12, NV13, NV14.	Low / Very Low	Negligible (Not significant)
		Noise and vibration from construction of access tracks.	CEMP Measures: GP11, GP21-GP27, NV11, NV13, NV14.	Very Low	Negligible (Not significant)
		Noise and vibration from construction of pylons, conductor stringing and dismantling of existing pylons.	CEMP Measures: GP11, GP21-GP27, NV11, NV12, NV13, NV14, NV21, NV22.	Low / Very Low	Negligible (Not significant)
		Noise from works in Construction compounds for the tunnel.	CEMP Measures: GP11, GP21-GP27, NV11, NV12, NV13, NV14, NV31, NV32, NV33, NV34, NV35, NV39, NV40. Mitigation Measures: <ul style="list-style-type: none"> Air overpressure during blasting would be controlled to ensure appropriate limits are not exceeded, nominally 120 dB (Lin) at the nearest dwellings. Generators to be used in enabling works will be to a low noise specification. Ventilation plant for the tunnel will be fitted with silencers if required to ensure the noise levels on the surface are low. During shaft construction and tunnelling 	Low / Very Low	Negligible (Not significant)

Table 22.10 Summary of Construction Noise and Vibration Residual Effects

Resource / Receptor	Sensitivity	Potential effects	Mitigation	Residual Effect	Significance
			<p>works, construction plant to be used during the night-time will be enclosed as required to construct in accordance with the agreed noise limits – see Appendix 15.4 (Document 5.15.2.4).</p> <ul style="list-style-type: none"> A solid hoarding of 2.4 m will be erected around the perimeter of the tunnel construction compounds. During tunnelling works a 2 m shunt wall positioned on three sides around the temporary soil storage area. 		
		Noise from traffic on access tracks.	CEMP Measures: GP11, GP21-GP27, NV11, NV12, NV13, NV14.	Very Low	Negligible (Not significant)
		Noise from traffic on construction traffic routes.	None specified.	Low / Very Low	Negligible (Not significant)
		All above.	<p>CEMP Measures: GP11, GP21-GP27, NV11, NV12, NV13, NV14, NV21, NV22, NV31, NV32, NV33, NV34, NV35 NV36, NV37, NV38. NV39, NV40.</p> <p>Mitigation Measures:</p> <ul style="list-style-type: none"> Air overpressure during blasting would be controlled to ensure appropriate limits are not exceeded, nominally 120 dB (Lin) at the nearest dwellings. Generators to be used in enabling works will be to a low noise specification. Ventilation plant for the tunnel will be fitted with silencers. During shaft construction and tunnelling works, construction plant to be used during the night-time will be enclosed as required to construct in accordance with the agreed 	Low / Very Low	Negligible (Not significant)

Table 22.10 Summary of Construction Noise and Vibration Residual Effects					
Resource / Receptor	Sensitivity	Potential effects	Mitigation	Residual Effect	Significance
			<p>noise limits – see Appendix 15.4 (Document 5.15.2.4).</p> <ul style="list-style-type: none"> • A solid hoarding of 2.4 m will be erected around the perimeter of the tunnel construction compounds. • During tunnelling works a 2 m shunt wall positioned on three sides around the temporary soil storage area. 		

2.10 OPERATIONAL NOISE

2.10.1 Summary of Operational Noise (**Document 5.16**) residual effects are presented in Table 22.11

Table 22.11 Summary of Operational Noise Residual Effects						
Receptor	Sensitivity	Potential Effects	Mitigation	Magnitude of Impact	Effect	Residual Effect
Primary Assessment - OHL and CSECs – Option A						
Dymchwa R1/01193	Medium	Conductor Noise	Mitigation by design: - configuration is one of the quietest conductor bundle formations that can be deployed on the NG transmission system that meets the rating requirements - Pylon siting & route alignment has been designed to minimise operational noise - Appropriate insulator type will be installed to reduce audible noise, consideration will be given to inclusion of hydrophobic coatings. Potential for noise increase from contamination or damage of conductors during handling and stringing will be mitigated by rigorous quality assurance by appointed contractor by means of following National Grid's suite of technical specifications and codes of practice. Additional quality controls during procurement, manufacturing and transportation will also be followed.	Medium in dry noise conditions	Moderate in dry noise conditions	Moderate (Not significant)
Tyn Cae R2/00027	Medium	Conductor Noise		Low in dry noise conditions	Moderate in dry noise conditions	Moderate (Not significant)
Pen Yr Orsedd R2/00076	Medium	Conductor Noise		Medium in dry noise conditions	Moderate in dry noise conditions	Moderate (Not significant)
Dafarn Dyweirch R2/00171	Medium	Conductor Noise		Medium in dry noise conditions	Moderate in dry noise conditions	Moderate (Not significant)
Dryll R2/00353	Medium	Conductor Noise		Medium in dry noise conditions	Moderate in dry noise conditions	Moderate (Not significant)
Bryn Goleu Caravan Receptor R2/13706	Medium	Conductor Noise		Medium in wet and dry noise conditions	Moderate in wet and dry noise conditions	Moderate (Not significant)
Ysgol Ty Mawr R3/00259	Medium	Conductor Noise		Low in dry noise conditions	Moderate in dry noise conditions	Moderate (Not significant)
Pen Llain R3/00271	Medium	Conductor Noise		Low in dry noise conditions	Moderate in dry noise conditions	Moderate (Not significant)
Cae Fabli Annexe_1 R3/00277	Medium	Conductor Noise		Low in wet and dry noise conditions	Moderate in wet and dry noise conditions	Moderate (Not significant)
Cae Fabli R3/00280	Medium	Conductor Noise		Low in wet noise conditions and Medium in dry noise conditions	Moderate in wet and dry noise conditions	Moderate (Not significant)
Cae Fabli Annexe_1 R3/00289	Medium	Conductor Noise		Low in wet and dry noise conditions	Moderate in dry noise conditions	Moderate (Not significant)

Table 22.11 Summary of Operational Noise Residual Effects

Receptor	Sensitivity	Potential Effects	Mitigation	Magnitude of Impact	Effect	Residual Effect
Maen Goch R3/13295	Medium	Conductor Noise		Low in wet noise conditions and Medium in dry noise conditions	Moderate in wet and dry noise conditions	Moderate (Not significant)
Maen Eyr R3/00351	Medium	Conductor Noise		Medium in dry noise conditions	Moderate in dry noise conditions	Moderate (Not significant)
Madryn R4/01479	Medium	Conductor Noise		Low in dry noise conditions	Moderate in dry noise conditions	Moderate (Not significant)
Primary Assessment - OHL and CSECs – Option B*						
*As above, with the exception of the below receptors						
Dolydd Newydd R4/01483	Medium	Conductor Noise	As above	Low in wet and dry noise conditions	Moderate in wet and dry noise conditions	Moderate (Not significant)
Secondary Assessment –(LOD) OHL and CSECs – Option A & B*						
*Receptors where an increase in significance of effect has been identified						
Llety, Cemaes Bay R1/00152	Medium	Conductor Noise	As above	Medium in wet and dry noise conditions	Moderate in wet and dry noise conditions	Moderate (Not significant)
DymchwaR1/01193	Medium	Conductor Noise		Medium in wet and dry noise conditions	Moderate in wet and dry noise conditions	Moderate (Not significant)
Trigfa R2/00029	Medium	Conductor Noise		Medium in dry noise conditions	Moderate in dry noise conditions	Moderate (Not significant)
Maen Goch R3/13295	Medium	Conductor Noise		Medium in wet and dry noise conditions	Moderate in wet and dry noise conditions	Moderate (Not significant)
Dolfeirig R5/02649	Medium	Conductor Noise		Medium in wet noise conditions	Moderate in wet noise conditions	Moderate (Not significant)
Dryll R2/00353	Medium	Conductor Noise		Medium in wet and dry noise conditions	Moderate in wet and dry noise conditions	Moderate (Not significant)
Madryn R4/01479	Medium	Conductor Noise		Medium in wet and dry noise conditions	Moderate in wet and dry noise conditions	Moderate (Not significant)
Tŷ Fodol THH						
Garth Bach R5/07284	Medium	Ventilation fan and stairwell fan	Mitigation by appropriate design and louvre orientation.	Medium in realistic worst case	Moderate	Moderate (Not significant)

Table 22.11 Summary of Operational Noise Residual Effects						
Receptor	Sensitivity	Potential Effects	Mitigation	Magnitude of Impact	Effect	Residual Effect
		noise	Equipment, including fans, would be selected based on the noise emissions sufficient to meet the committed noise levels at receptors, with the application of attenuators as required for the tunnel and stairwell ventilation fans.	operating conditions		
Lleiflor R5/07322	Medium	Ventilation fan and stairwell fan noise		Medium in realistic worst case operating conditions	Moderate	Moderate (Not significant)

2.11 SOCIO ECONOMICS

2.11.1 Summary of Socio-Economics (**Document 5.17**) residual effects are presented in Table 22.12 to Table 22.14

Table 22.12 Summary of Socio-Economic (Amenity) Residual Effects						
Potential effects	Receptors	Receptor-based significance	Overall significance for Study Area	Mitigation	Residual Effect for Study Area	Significant/Not significant
Community amenity effects	50 communities	<u>Construction</u> 13 communities assessed as having minor adverse effects, 37 communities assessed as having negligible effects. <u>Operation</u> 10 communities assessed as having minor adverse effects, 39 communities assessed as having negligible effects. One community was not within the study area during operation.	Not significant	None required	N/A	Not significant
Amenity effects on PRowS	11 PRowS are part of the Wales Coast Path, 4 PRowS connect to the Wales Coast Path, and 2 are NCRs	<u>Construction</u> 10 PRow assessed as having minor adverse effects, 7 PRow assessed as having negligible effects. <u>Operation</u> 17 PRow assessed as having negligible effects.	Not significant	None required	N/A	Not significant
	178 'other' footpaths	<u>Construction</u> 2 footpaths assessed as having minor adverse effects, 176 footpaths assessed as having negligible effects. <u>Operation</u> 178 footpaths assessed as having negligible effects.	Not significant	None required	N/A	Not significant

Table 22.12 Summary of Socio-Economic (Amenity) Residual Effects

Potential effects	Receptors	Receptor-based significance	Overall significance for Study Area	Mitigation	Residual Effect for Study Area	Significant/Not significant
Amenity effects on tourist attractions and recreational resources	37 receptors within 10 km	<p><u>Construction</u></p> <p>7 receptors assessed as having negligible effects, 30 are not in the study area.</p> <p><u>Operation</u></p> <p>4 receptors assessed as having minor adverse effects, 17 assessed as having negligible effects, 16 are not in the study area.</p>	Not significant	None required	N/A	Not significant
Amenity effects on commercial receptors (tourism businesses)	63 tourism businesses	<p><u>Construction</u></p> <p>2 businesses were assessed as having moderate effects, 11 were assessed as having minor adverse effects, 42 were assessed as having negligible effects, 8 were not in study area.</p> <p><u>Operation</u></p> <p>3 businesses were assessed as having major effects, 10 were assessed as having moderate effects, 5 were assessed as having minor adverse effects, 14 were assessed as having negligible effects and 31 were not in study area.</p>	<p>A total of 2 out of 63 businesses (3%) would experience significant effects during construction.</p> <p>A total of 13 out of 63 businesses (21%) would experience significant effects during operation.</p> <p>Although individual receptors could experience a significant effect, in the context of the overall study area (63 receptors), effects are assessed as not significant.</p>	None required	N/A	Not significant
Amenity effects on commercial receptors (non-tourism businesses)	130 non-tourism businesses	<p><u>Construction</u></p> <p>3 businesses assessed as having minor adverse effects, 87 assessed as having negligible effects and 40 are not in study area.</p> <p><u>Operation</u></p> <p>4 businesses assessed as having minor adverse effects, 23 assessed as having negligible effects and 103 are not in study area.</p>	Not significant	None required	N/A	Not significant

Table 22.13 Summary of Socio-Economic (Land Use) Residual Effects

Potential effects	Key receptors	Sensitivity	Mitigation	Residual Magnitude	Significance
Land-take and access (non-agricultural land)	There are no land use effects that could result in a temporary or permanent restriction or change to the current use of land, and there is no severance of access.	N/A	N/A	N/A	Not significant

Table 22.14 Summary of Socio-economic (Wider Effects) Residual Effects

Potential effects	Key receptors	Sensitivity	Mitigation	Assessment	Significance
Pressure on supply of tourism accommodation	Tourism accommodation sector	N/A	N/A	The peak construction workforce would take up 5.4% of bed spaces in hotels, guest houses and Bed and Breakfasts, and 3.7% of bed spaces in self-catering. Only 3.3% of available caravan and camping bed spaces would be taken up. It is concluded that workers would not place significant demand on the existing tourism accommodation stock within the TTWA.	Not significant
Pressure on supply of private rented accommodation	Accommodation in the PRS	N/A	N/A	As a worst case it is assumed that 100 workers would take up accommodation in the PRS. On the basis of two workers per household, these 100 workers would take up 5.0% of the available headroom in Anglesey and Gwynedd. No significant effect on the PRS is expected.	Not significant
Change in visitor numbers or visitor behaviour	Tourism sector economy	N/A	N/A	The potential for a significant effect on visitor numbers and behaviour is recognised but it is considered unlikely that this effect would be realised. No significant effect on visitor numbers is expected.	Not significant
Adverse and beneficial employment effects	Local economy	N/A	N/A	The total number of direct and indirect jobs created during construction is estimated to be 28. Considering that total employment in Anglesey and Gwynedd is in the region of 85,000, this new job creation would constitute 0.033% of total employment. No significant effect on employment is expected.	Not significant
Adverse and beneficial expenditure effects	Local economy	N/A	N/A	The additional supply chain benefits and expenditure on tourism accommodation amount to an estimated £63 million over the five-year construction period. Given that the combined GVA for Anglesey and Gwynedd is in the region of £3.3 billion per annum, this represents a 1.9% increase in GVA in any single year during construction. The effect on economic growth is assessed as not significant.	Not significant

2.12 AGRICULTURE

2.12.1 Summary of Agriculture (**Document 5.18**) residual effects are presented in Table 22.15

Table 22.15 Summary of Agricultural Residual Effects					
Resource/Receptor	Sensitivity	Potential effects and sensitivity	Mitigation	Residual Effect	Significance
BMV Agricultural Land	N/A	Permanent loss of BMV agricultural land.	Extent of the study area and placement of temporary and permanent infrastructure designed to minimise the impact to BMV land as far as practicable in balance with the constraint priorities identified by other disciplines.	N/A	Not Significant
Soil Resources (damage)	High	Damage to organic rich peaty soils (Adventurers 1) which are prone to erosion and susceptible to loss.	The Outline SMP (Document 7.10) which forms part of the CEMP (Document 7.4) sets out standard best practice working methods and mitigation measures for handling, excavation, storage and reinstatement of soils and peat. The SMP is based upon measures such as those set out in Defra's Construction Code of Practice for the Sustainable Use of Soils on Construction Sites (Ref 18.1). As relocating temporary or permanent infrastructure from an area of low or medium sensitivity soils into an area of these high sensitivity soils would increase the significance of the residual effect from negligible to minor adverse, an environmental commitment has been made, to restrict works in these areas. Further details are provided in the Schedule of Environmental Commitments (Document 7.4.2.1).	Negligible	Minor adverse - Not Significant
	Medium	Damage to erosion prone soils (Eardiston 1 and Wick 1)	The Outline SMP (Document 7.10) which forms part of the CEMP (Document 7.4) sets out standard best practice working methods and mitigation measures for handling, excavation, storage and reinstatement of soils and peat. The SMP is based upon measures such as those set out in Defra's Construction Code of Practice for the Sustainable Use of Soils on Construction Sites (Ref 18.1).	Negligible	Negligible - Not Significant
	Low	Damage to soils which are not prone to erosion and susceptible to loss	The Outline SMP (Document 7.10) which forms part of the CEMP (Document 7.4) sets out standard best practice working methods and mitigation measures for handling, excavation, storage and reinstatement of soils and peat. The SMP is based upon measures such as those set out in Defra's Construction Code of Practice for the Sustainable Use of Soils on Construction Sites (Ref 18.1).	Negligible	Negligible - Not Significant

Table 22.15 Summary of Agricultural Residual Effects

Resource/Receptor	Sensitivity	Potential effects and sensitivity	Mitigation	Residual Effect	Significance
Soil Resources (loss)	High	Loss of soil resource caused by poor soil removal, handling and storage; or unauthorised export; may result in the impairment of the remaining soils' function, quality and resilience. This effect also comprises such changes as reduction of topsoil depth. Additionally, unregulated soil loss increases the potential for disease and pathogen transfer between different areas of agricultural land (a biosecurity risk).	The Outline SMP (Document 7.10) which forms part of the CEMP (Document 7.4) sets out standard best practice working methods and mitigation measures for handling, excavation, storage and reinstatement of soils and peat. The SMP is based upon measures such as those set out in Defra's Construction Code of Practice for the Sustainable Use of Soils on Construction Sites (Ref 18.1).	Negligible	Minor adverse - Not Significant
	Medium			Negligible	Negligible - Not Significant
	Low			Negligible	Negligible - Not Significant
Agricultural Landholding	Medium	The loss of agricultural land from a landholding may place restrictions on normal agricultural practices within that landholding.	The Outline SMP (Document 7.10) which forms part of the CEMP (Document 7.4) sets out standard best practice working methods and mitigation measures for handling, excavation, storage and reinstatement of soils and peat. The SMP is based upon measures such as those set out in Defra's Construction Code of Practice for the Sustainable Use of Soils on Construction Sites (Ref 18.1). National Grid would ensure that Agricultural Liaison Officers (ALO) maintain communication with farmers/landowners to ensure their needs are understood before, during and after construction.	Negligible	Negligible - Not Significant
Agri-Environment Schemes	Medium	In the absence of appropriate mitigation measures for soil handling and storage, there is the potential for the quality of land reinstatement to fall short of the requirements which would allow AES eligibility to be reinstated. Therefore, the potential impact to AES in the absence of mitigation is the permanent loss of compliance/eligibility.	Temporary loss of eligibility cannot be mitigated. The Outline SMP (Document 7.10) which forms part of the CEMP (Document 7.4) sets out standard best practice working methods and mitigation measures for handling, excavation, storage and reinstatement of soils and peat. The SMP is based upon measures such as those set out in Defra's Construction Code of Practice for the Sustainable Use of Soils on Construction Sites (Ref 18.1). The implementation of these measures would ensure that the land is restored to a standard where it is eligible for the same level of AES as before construction.	Negligible	Minor adverse - Not Significant
	Low			Negligible	Negligible - Not Significant
Agricultural Land Drainage	Medium	In the absence of appropriate mitigation measures, there is the potential for the loss of function of agricultural land drainage.	A DMP will be produced prior to construction as set out in the CEMP (Document 7.4). The implementation of a DMP will ensure that the agricultural land drainage is restored to function as before construction.	Negligible	Negligible - Not Significant