



LLYR

LLYR FLOATING OFFSHORE WIND PROJECT

**Llŷr 1 Floating Offshore Wind Farm
Environmental Statement
Volume 2: Chapter 32 – Residual Effects
August 2024**

Prepared by: Llŷr Floating Wind Ltd



**FLOVENTIS
ENERGY**



Document Status

<u>Version</u>	<u>Authored by</u>	<u>Reviewed by</u>	<u>Approved by</u>	<u>Date</u>
FINAL	AECOM	AECOM	AECOM	August 2024

Approval for Issue

Prepared by AECOM
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Acronyms and abbreviations

Acronym or abbreviation	Definition	Acronym or abbreviation	Definition
BMV	Best, Most Versatile	PCNP	Pembrokeshire Coast National Park
db	Decibels	PRN	Primary Record Number
EIA	Environmental Impact Assessment	PTS	Permeant Threshold Shift
ES	Environmental Statement	SAC	Special Area of Conservation
EMF	Electromagnetic Field	SAR	Search and Rescue
FLOWW	Fishing Liaison with Offshore Wind and Wet Renewables	SCA	Seascape Character Area
GCR	Geological Conservation Review	SPA	Special Protected Area
GVA	Gross Value Added	SSC	Suspended Sediment Concentration
HDD	Horizontal Direct Drilling	SSSI	Site of Special Scientific Interest
INNS	Invasive Non- Native Species	UXO	Unexploded Ordnance
LCA	Landscape Character Area	WTG	Wind Turbine Generator
MSZ	Mineral Safeguarding Zones	WFD	Water Framework Directive
OfECC	Offshore Export Cable Corridor		

Glossary of project terms

Term	Definition
The Applicant	The developer of the Project, Llŷr Floating Wind Limited.
Array	All wind turbine generators, inter array cables, mooring lines, floating sub-structures and supporting subsea infrastructure within the Array Area, as defined, when considered collectively, excluding the offshore export cable(s).
Array Area	The area within which the wind turbine generators, inter array cables, mooring lines, floating sub-structures and supporting subsea infrastructure will be located.
Floventis Energy	A joint venture company between Cierco Ltd and SBM Offshore Ltd of which Llŷr Floating Wind Limited is a wholly owned subsidiary.
Landfall	The location where the offshore export cable(s) from the Array Area, as defined, are brought onshore and connected to the onshore export cables (as defined) via the transition joint bays.



Llŷr 1	The proposed Project, for which the Applicant is applying for Section 36 and Marine Licence consents. Including all offshore and onshore infrastructure and activities, and all project phases.
Marine Licence	A licence required under the Marine and Coastal Access Act 2009 for marine works which is administered by Natural Resources Wales (NRW) Marine Licensing Team on behalf of the Welsh Ministers.
Offshore Development Area	The footprint of the offshore infrastructure and associated temporary works, comprised of the Array Area and the Offshore Export Cable Corridor, as defined, that forms the offshore boundary for the S36 Consent and Marine Licence application.
Offshore Export Cable	The cable(s) that transmit electricity produced by the WTGs to landfall.
Offshore Export Cable Corridor (OfECC)	The area within which the offshore export cable circuit(s) will be located, from the Array Area to the Landfall.
Onshore Development Area	The footprint of the onshore infrastructure and associated temporary works, comprised of the Onshore Export Cable Corridor and the Onshore Substation, as defined, and including new access routes and visibility splays, that forms the onshore boundary for the planning application.
Onshore Export Cable(s)	The cable(s) that transmit electricity from the landfall to the onshore substation.
Onshore Export Cable Corridor (OnECC)	The area within which the onshore export cable circuit(s) will be located.
proposed Project	All aspects of the Llŷr 1 development (i.e. the onshore and offshore components).
Onshore Substation	Located within the Onshore Development Area, converts high voltage generated electricity into low voltage electricity that can be used for the grid and domestic consumption.
Section 36 consent	Consent to construct and operate an offshore generating station, under Section 36 (S.36) of the Electricity Act 1989. This includes deemed planning permission for onshore works.



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32. RESIDUAL EFFECTS

32.1 Introduction

1. This chapter of the Environmental Statement (ES) summarises all potential effects of the proposed Project as well as the significant residual effects of the proposed Project. Residual effects are defined as those effects that remain following the implementation of embedded and additional mitigation measures. Residual effects and mitigation measures are discussed in full in the relevant technical **Chapters 7 to 28**.
2. Each technical chapter contains detailed consideration of both the beneficial and adverse residual effects identified as likely to arise from the proposed Project. The criteria applied to define the significance of residual effects are defined within **Chapter 5: EIA Approach and Methodology** with further detail provided within the individual technical chapters. Where technical chapters have deviated from this standard methodology, this is explained in the respective chapters and justification for the deviation provided (for example to align with industry-standard guidance for that discipline).
3. The assessment has been undertaken by AECOM. Further details of the proposed Project Team's competency are provided in **Appendix 1A: Statement of Competence**.
4. The Environmental Impact Assessment (EIA) for the proposed Project has been undertaken in parallel with the design process and development of the embedded and additional measures mitigation identified within technical **Chapters 7 to 28**.
5. Following the initial assessment of impacts, potential project specific mitigation measures (in addition to the embedded mitigation already considered) are identified. These additional mitigation measures aim to further reduce the impact of the proposed Project on potential effects that are classified as significant - 'Major' or 'Moderate'
6. All embedded and additional mitigation measures associated with the proposed Project are listed in **Appendix 32A: Mitigation Register**.
7. The significant effects listed within the technical chapters of this ES (**Chapters 7 to 28**) are described with reference to the scale of effect (i.e., moderate or major, as defined in **Chapter 5: EIA Approaches and Methodology**) and whether this is significant or not, and the nature of the effect (i.e., adverse, negligible or beneficial). Negligible and minor (adverse and beneficial) effects are considered not significant.
8. A summary for each topic of the identified residual construction effects are presented in **Table 32-1**, residual operational effects in **Table 32-2** and residual decommissioning effects in **Table 32-3**.
9. Based on the results of the EIA undertaken against the reasonable worst-case scenario and reported in this ES, the proposed Project is predicted to result in a limited number of significant adverse effects. These are listed in **Table 32-4**.



32.2 Summary of residual construction effects

Table 32-1. A summary of the nature and significance of the residual construction effects of the proposed Project

ES Chapter	Receptor	Residual Effect	Residual Significance of Effect
Chapter 7: Landscape and Visual	Pembrokeshire Coast National Park (PCNP) (and Heritage Coast)	Impacts on landscape character	Minor Adverse / Not Significant
	Castlemartin / Merrion Ranges Landscape Character Area (LCA), Angle Peninsula LCA and Freshwater West / Brownslade Burrows LCA		Minor Adverse / Not Significant
	Southern Haven Developed LCA and Southern Haven Industrial Fringe LCA		Negligible Adverse / Not Significant
	Southern Haven Mudflats LCA		Negligible Adverse / Not Significant
	Hundleton and Lamphey LCA		Minor Adverse / Not Significant
	Viewpoints A and E	Impacts on visual amenity	Moderate Adverse / Significant
	Viewpoint B		Minor Adverse / Not Significant
	Viewpoint C		Negligible Adverse / Not Significant
	Viewpoints D, G, H and I		Minor Adverse / Not Significant
	Viewpoint F		Moderate Adverse / Significant
	Pembroke Coast Path		Minor Adverse / Not Significant



ES Chapter	Receptor	Residual Effect	Residual Significance of Effect
Chapter 7: Landscape and Visual – Cumulative Effects	Hundleton and Lamphey LCA Southern Haven Mudflats LCA PCNP Freshwater West/Brownslade Burrows LCA	Impacts on landscape character	Minor Adverse / Not Significant
	Viewpoint B Viewpoint C Viewpoint E Viewpoint F Viewpoint G	Impacts on visual amenity	Minor / Negligible Adverse / Not Significant
Chapter 8: Terrestrial Ecology	Limestone Coast of South West Wales / Arfordir Calchfaen De Orllewin Cymru SAC	None – all impacts avoided through the utilisation of HDD techniques	Negligible Adverse / Not Significant
	Pembrokeshire Marine / Sir Benfro Forol SAC	Habitat loss, severance and fragmentation Disturbance to foraging and commuting bats	Minor Adverse / Not Significant
	Castlemartin Coast SPA	Habitat loss Disturbance to breeding chough	Negligible Adverse / Not Significant
	West Wales Marine / Corllewin Cymru Foral SAC	None – no works required in proximity to SPA	Negligible Adverse / Not Significant
	Pembrokeshire Bat Sites and Bosherton Lakes / Safleoedd Ystlum Sir Benfro a Llynnoedd Bosherton SAC	Habitat loss, severance and fragmentation Disturbance to foraging and commuting bats	Minor Adverse / Not Significant
	Skomer, Skokholm and the Seas off Pembrokeshire / Sgomer, Sgogwm a moroedd Benfro SPA	None – no works required in proximity to SPA	Negligible Adverse / Not Significant
	Stackpole SSSI	Habitat loss, severance and fragmentation Disturbance to foraging and commuting bats	Negligible Adverse / Not Significant



ES Chapter	Receptor	Residual Effect	Residual Significance of Effect
	Stackpole Courtyard Flats and Walled Garden SSSI	Habitat loss, severance and fragmentation Disturbance to foraging and commuting bats	Negligible Adverse / Not Significant
	Park House Outbuildings, Stackpole SSSI	Habitat loss, severance and fragmentation Disturbance to foraging and commuting bats	Negligible Adverse / Not Significant
	Habitats	Damage and destruction	Minor Adverse / Not Significant
	Notable plants	Damage and destruction of suitable habitat	Minor Adverse / Not Significant
	Fungi and Bryophytes	Damage and destruction of suitable habitat	Minor Adverse / Not Significant
	Terrestrial Invertebrates	None – suitable habitat within the onshore development area is limited	Negligible Adverse / Not Significant
	Great crested newt and other amphibians	Temporary habitat loss and fragmentation Killing of individuals	Negligible Adverse / Not Significant
	Reptiles	Temporary habitat loss and fragmentation Killing of individuals	Negligible Adverse / Not Significant
	Birds (excluding chough)	None – works to be timed to avoid breeding bird season or implement species-specific buffers should breeding birds be identified during pre-works surveys	Negligible Adverse / Not Significant
	Chough	None – works to avoid impacts to breeding birds through the implementation of works exclusion zones	Negligible Adverse / Not Significant
	Hazel dormouse	Temporary habitat loss and fragmentation Killing and disturbance of individuals	Minor Adverse / Not Significant



ES Chapter	Receptor	Residual Effect	Residual Significance of Effect
	Water vole	None – water vole considered extinct from Wales, minimal suitable habitat present within the onshore development area	Negligible Adverse / Not Significant
	Badger	Temporary loss of foraging habitat Disturbance to badgers in a sett Destruction and damage to badger setts	Minor Adverse / Not Significant
	Bats	Temporary and permanent loss of foraging and commuting habitat through the removal and illumination of hedgerows. Disturbance to bats potentially roosting in structures and trees within and adjacent to the onshore development area	Minor Adverse / Not Significant
	Otter	Disturbance to otter within a holt Disturbance to foraging and commuting otter within a watercourse	Minor Adverse / Not Significant
	Other SPIs	Killing individuals	Negligible Adverse / Not Significant
	INNPS	Spread throughout the proposed Project and to adjacent areas	Negligible Adverse / Not Significant
Chapter 8: Terrestrial Ecology – Cumulative Effects	Bat	Temporary and permanent loss of habitat and linear features in combination with proposed Project Erebus, Project Valorous and Greenlink project development.	Minor Adverse / Not Significant



ES Chapter	Receptor	Residual Effect	Residual Significance of Effect
	Hazel Dormouse	Killing and disturbance of dormice in combination with proposed Project Erebus, Project Valorous and Greenlink project development.	Moderate Adverse / Significant
Chapter 9: Historic Environment and Cultural Heritage	Cross PRN 7931	Ground-breaking works	Neutral ¹ / Not Significant
	Cross PRN 7932	Ground-breaking works	Neutral ¹ / Not Significant
	House / farmstead A1	Ground-breaking works	Slight Adverse ¹ / Not Significant
	Strip fields A2	Ground-breaking works	Slight Adverse ¹ / Not Significant
	WWII Enclosures A3	Ground-breaking works	Slight Adverse ¹ / Not Significant
	WWII Buildings A4	Ground-breaking works	Slight Adverse ¹ / Not Significant
	Boundary Ditch A8	Ground-breaking works	Slight Adverse ¹ / Not Significant
	Linear feature A11	Ground-breaking works	Slight Adverse ¹ / Not Significant
	Linear feature A12	Ground-breaking works	Slight Adverse ¹ / Not Significant
	Defended Enclosure PRN 3244	Ground-breaking works	Slight Adverse ¹ / Not Significant
	Modern weapons pit PRN 33440	Ground-breaking works	Slight Adverse ¹ / Not Significant

¹Assessment methodology deviates from the standard methodology outlined in Chapter 5. Please see **Section 9.4.2, Chapter 9** for full description and justification



ES Chapter	Receptor	Residual Effect	Residual Significance of Effect
	Post medieval Gravel Pit PRN 54716	Ground-breaking works	Slight Adverse ¹ / Not Significant
	Round Barrows PRN 48371	Ground-breaking works	Slight Adverse ¹ / Not Significant
	Archaeological Potential	Ground-breaking works	Slight Adverse ¹ / Not Significant
	Cropmark PRN 13059	Ground-breaking works	Slight Adverse ¹ / Not Significant
	Findspot PRN 3073	Ground-breaking works	Slight Adverse ¹ / Not Significant
	Flint Working Site PRN 3103	Ground-breaking works	Slight Adverse ¹ / Not Significant
	Mesolithic Findspot PRN 12223	Ground-breaking works	Slight Adverse ¹ / Not Significant
	Neolithic Findspot PRN 3075	Ground-breaking works	Slight Adverse ¹ / Not Significant
	Neolithic midden PRN 7592	Ground-breaking works	Slight Adverse ¹ / Not Significant
	WWII Defence; Anti-Aircraft Defence Site PRN 55454	Ground-breaking works	Slight Adverse ¹ / Not Significant
	WWII Defence PRN 55453	Ground-breaking works	Slight Adverse ¹ / Not Significant
	Flint Scatter PRN 11383	Ground-breaking works	Slight Adverse ¹ / Not Significant



ES Chapter	Receptor	Residual Effect	Residual Significance of Effect
	Enclosure A6	Ground-breaking works	Slight Adverse ¹ / Not Significant
	Bronze Age Barrow A7	Ground-breaking works	Slight Adverse ¹ / Not Significant
	Blacksmith's Workshop PRN 17879	Ground-breaking works	Slight Adverse ¹ / Not Significant
	Early medieval market PRN 125588	Ground-breaking works	Slight Adverse ¹ / Not Significant
	Devil's Quoit Chamber PE020	Ground-breaking works	Slight Adverse ¹ / Not Significant
	Standing Stone PRN 7591	Ground-breaking works	Slight Adverse ¹ / Not Significant
	Round barrow PRN 3079	Ground-breaking works	Slight Adverse ¹ / Not Significant
	Round barrow re-use 3080	Ground-breaking works	Slight Adverse ¹ / Not Significant
	Gravel Bay anti-aircraft battery PE494	Impact through change to setting	Slight Adverse ¹ / Not Significant
	Ricket Cart House LB 17166	Impact through change to setting	Slight Adverse ¹ / Not Significant
	Lookout tower LB 17167	Impact through change to setting	Slight Adverse ¹ / Not Significant
	Rhoscrowther HLCA 341	Impact through change to setting	Slight Adverse ¹ / Not Significant



ES Chapter	Receptor	Residual Effect	Residual Significance of Effect
Chapter 9: Historic Environment and Cultural Heritage– Cumulative Effects	Prehistoric Boundary Ditch A8	Groundbreaking impacts in combination with the proposed Greenlink project.	Neutral ¹ / Not Significant
Chapter 10: Water Environment	Pembroke River / Milford Haven Inner transitional WFD Water body	Pollution of surface water from excess fine sediment and chemical spillage risk	Slight Adverse ² / Not Significant
	Milford Haven Waterway / Dyfrffordd Aberdaugleddau / Angle Bay / Milford Haven Outer WFD Water body		Slight Adverse ² / Not Significant
	Freshwater West / Pembrokeshire South WFD coastal water body		Slight Adverse ² / Not Significant
	Goldborough Pill West		Slight Adverse ² / Not Significant
	Ordinary Watercourse: T05a		Slight Adverse ² / Not Significant
	Ordinary Watercourses: WC12, T12a		Slight Adverse ² / Not Significant
	Ordinary Watercourses with associated abstraction license: T07a/A13, WC04/A3, WC07/A12		Slight Adverse ² / Not Significant
	Ordinary Watercourses with online ponds and associated abstraction licenses: WC05/P6/P7/P8/A4/A5, WC06/P9/A8, WC07/P18/P19/A18/A15		Slight Adverse ² / Not Significant

² Assessment methodology deviates from the standard methodology outlined in Chapter 5. Please see **Section 10.4.3, Chapter 10** for full description and justification



ES Chapter	Receptor	Residual Effect	Residual Significance of Effect
	T07c/P11/A10		
	Ordinary Watercourses with online ponds but no licensed abstractions: WC04/P5 , WC06/P10, T07b/P14, WC14/P20, T07a/P15, T07c/P12/P13		Slight Adverse ² / Not Significant
	Discrete Pond Feature: P32		Slight Adverse ² / Not Significant
	Surface water users – Licenced water abstractions: A3, A4, A5, A8, A10, A11, A12, A13, A15, A18.		Slight Adverse ² / Not Significant
	Castlemartin Corse GWDTE	Pollution of groundwater from construction chemical spillage risk	Slight Adverse ² / Not Significant
	Carboniferous Black Rock Subgroup and Gully Oolite Formation Principal Aquifer		Slight Adverse ² / Not Significant
	Avon Group Limestone/ Secondary A Aquifer		Slight Adverse ² / Not Significant
	Ridgeway Conglomerate / Secondary A Aquifer		Slight Adverse ² / Not Significant
	Skrinkle Sandstone / Secondary A Aquifer		Slight Adverse ² / Not Significant
	Milford Haven Group formations / Secondary A Aquifer		Slight Adverse ² / Not Significant
	Aber Mawr Shale / Secondary B Aquifer		Slight Adverse ² / Not Significant
	Ludlow Rocks Formation / Secondary B Aquifer		Slight Adverse ² / Not Significant



ES Chapter	Receptor	Residual Effect	Residual Significance of Effect
	Superficial Marine Beach Deposit (sand), Blown Sand (sand) and Alluvium (clay, silt, sand and gravel) – Secondary A Aquifer		Slight Adverse ² / Not Significant
	Superficial Raised Beach Deposits (sand and gravel) and Alluvium Deposits (clay, silt, sand and gravel) – Secondary A Aquifer		Slight Adverse ² / Not Significant
	Superficial Tidal Flat Deposits (sand, silt and clay) – Secondary undifferentiated		Slight Adverse ² / Not Significant
	Ordinary Watercourse: T05a	Temporary impacts on surface water resources from temporary changes in hydrology	Slight Adverse ² / Not Significant
	Ordinary Watercourses: WC12, T12a		Slight Adverse ² / Not Significant
	Ordinary Watercourses with associated abstraction license: WC07/A12		Slight Adverse ² / Not Significant
	Ordinary Watercourses with online ponds and associated abstraction licenses: WC05/P6/P7/P8/A4/A5, WC06/P9/A8, T07c/P12/P13, T07b/P14, WC14/P20		Slight Adverse ² / Not Significant
	Goldborough Pill West		Slight Adverse ² / Not Significant
	Surface water users – Licenced water abstractions: A3, A4, A5, A8, A10, A11, A12, A13, A15, A18.		Slight Adverse ² / Not Significant
	Goldborough Pill West (two tributaries)		Slight Adverse ² / Not Significant



ES Chapter	Receptor	Residual Effect	Residual Significance of Effect
	Ordinary Watercourses: WC05, T05a, WC06, T07c, T07b, WC14, WC07, WC12 and T12a.	Temporary Impacts on the hydromorphology of watercourses from open cut watercourse crossings and temporary vehicle access	Slight Adverse ² / Not Significant
	Castlemartin Corse GWDTE	Impacts on groundwater and baseflow to watercourses from dewatering of temporary excavations or changes in groundwater flow	Slight Adverse ² / Not Significant
	Carboniferous Black Rock Subgroup and Gully Oolite Principal Aquifer		Slight Adverse ² / Not Significant
	Avon Group Limestone/ Secondary A Aquifer		Slight Adverse ² / Not Significant
	Ridgeway Conglomerate / Secondary A Aquifer		Slight Adverse ² / Not Significant
	Skrinkle Sandstone / Secondary A Aquifer		Slight Adverse ² / Not Significant
	Milford Haven Group formations / Secondary A Aquifer		Slight Adverse ² / Not Significant
	Aber Mawr Shale / Secondary B Aquifer		Slight Adverse ² / Not Significant
	Ludlow Rocks Formation / Secondary B Aquifer		Slight Adverse ² / Not Significant
	Superficial Marine Beach Deposit (sand), Blown Sand (sand) and Alluvium (clay, silt, sand and gravel) – Secondary A Aquifer		Slight Adverse ² / Not Significant
	Superficial Raised Beach Deposits (sand and gravel) and Alluvium Deposits (clay, silt, sand and gravel) – Secondary A Aquifer		Slight Adverse ² / Not Significant



ES Chapter	Receptor	Residual Effect	Residual Significance of Effect
	Avon Group Limestone/ Secondary A Aquifer	Temporary changes in flood risk from changes in surface water runoff	Slight Adverse ² / Not Significant
	Superficial Tidal Flat Deposits (sand, silt and clay) – Secondary undifferentiated		Slight Adverse ² / Not Significant
	Construction Workers		Slight Adverse ² / Not Significant
	Surrounding Residential Areas		Slight Adverse ² / Not Significant
Chapter 10: Water Environment– Cumulative Effects	Pembroke River / Milford Haven Inner transitional WFD Water body Milford Haven Waterway / Dyfrffordd Aberdaugleddau / Angle Bay / Milford Haven Outer WFD Water body Freshwater West / Pembrokeshire South WFD coastal water body Goldborough Pill West Ordinary Watercourse: T05a Ordinary Watercourses: WC12, T12a Ordinary Watercourses with associated abstraction license: T07a/A13, WC04/A3, WC07/A12	Pollution of surface water from excess fine sediment and chemical spillage risk	Slight Adverse ² / Not Significant



ES Chapter	Receptor	Residual Effect	Residual Significance of Effect
	<p>Ordinary Watercourses with online ponds and associated abstraction licenses: WC05/P6/P7/P8/A4/A5, WC06/P9/A8, WC07/P18/P19/A18/A15</p> <p>T07c/P11/A10</p> <p>Ordinary Watercourses with online ponds but no licensed abstractions: WC04/P5 , WC06/P10, T07b/P14, WC14/P20, T07a/P15, T07c/P12/P13</p> <p>Discrete Pond Feature: P32</p> <p>Surface water users – Licenced water abstractions: A3, A4, A5, A8, A10, A11, A12, A13, A15, A18.</p>		
	<p>Castlemartin Corse GWDTE</p> <p>Carboniferous Black Rock Subgroup and Gully Oolite Formation Principal Aquifer</p> <p>Avon Group Limestone/ Secondary A Aquifer</p> <p>Ridgeway Conglomerate / Secondary A Aquifer</p> <p>Skrinkle Sandstone / Secondary A Aquifer</p> <p>Milford Haven Group formations / Secondary A Aquifer</p> <p>Aber Mawr Shale / Secondary B Aquifer</p>	<p>Pollution of groundwater from construction chemical spillage risk</p>	<p>Slight Adverse² / Not Significant</p>



ES Chapter	Receptor	Residual Effect	Residual Significance of Effect
	<p>Ludlow Rocks Formation / Secondary B Aquifer</p> <p>Superficial Marine Beach Deposit (sand), Blown Sand (sand) and Alluvium (clay, silt, sand and gravel) – Secondary A Aquifer</p> <p>Superficial Raised Beach Deposits (sand and gravel) and Alluvium Deposits (clay, silt, sand and gravel) – Secondary A Aquifer</p> <p>Superficial Tidal Flat Deposits (sand, silt and clay) – Secondary undifferentiated</p>		
	<p>Ordinary Watercourse: T05a</p> <p>Ordinary Watercourses: WC12, T12a</p> <p>Ordinary Watercourses with associated abstraction license: WC07/A12</p> <p>Ordinary Watercourses with online ponds and associated abstraction licenses: WC05/P6/P7/P8/A4/A5, WC06/P9/A8, T07c/P12/P13, T07b/P14, WC14/P20</p> <p>Goldborough Pill West</p>	<p>Temporary impacts on surface water resources from temporary changes in hydrology</p>	<p>Slight Adverse² / Not Significant</p>
	<p>Goldborough Pill West (two tributaries)</p> <p>Ordinary Watercourses: WC05, T05a, WC06, T07c, T07b, WC14, WC07, WC12 and T12a.</p>	<p>Temporary Impacts on the hydromorphology of watercourses from open cut watercourse crossings and temporary vehicle access</p>	<p>Slight Adverse² / Not Significant</p>



ES Chapter	Receptor	Residual Effect	Residual Significance of Effect
	Castlemartin Corse GWDTE Carboniferous Black Rock Subgroup and Gully Oolite Principal Aquifer Avon Group Limestone/ Secondary A Aquifer Ridgeway Conglomerate / Secondary A Aquifer Skrinkle Sandstone / Secondary A Aquifer Milford Haven Group formations / Secondary A Aquifer Aber Mawr Shale / Secondary B Aquifer Ludlow Rocks Formation / Secondary B Aquifer Superficial Marine Beach Deposit (sand), Blown Sand (sand) and Alluvium (clay, silt, sand and gravel) – Secondary A Aquifer Superficial Raised Beach Deposits (sand and gravel) and Alluvium Deposits (clay, silt, sand and gravel) – Secondary A Aquifer Avon Group Limestone/ Secondary A Aquifer Superficial Tidal Flat Deposits (sand, silt and clay) – Secondary undifferentiated	Impacts on groundwater and baseflow to watercourses from dewatering of temporary excavations or changes in groundwater flow	Slight Adverse ² / Not Significant
	Construction Workers	Temporary changes in flood risk from changes in surface water runoff	Slight Adverse ² / Not Significant



ES Chapter	Receptor	Residual Effect	Residual Significance of Effect
	Surrounding Residential Areas		
Chapter 11: Geology and Hydrogeology	Freshwater West (North) GCR	Temporary measurable changes to geological feature / designation attributes, quality, or vulnerability and minor loss of, or alteration to, key characteristics, features, or elements.	Minor Adverse / Not Significant
	MSZ – defined by the Pembrokeshire Coast National Park Local Development Plan – sand and gravel – between Freshwater West Beach and Valero refinery		Minor Adverse / Not Significant
	MSZ – defined by the Pembrokeshire Coast National Park Local Development Plan hardrock – south of former tank farm		Minor Adverse / Not Significant
	MSZ – defined by the Pembrokeshire Coast National Park Local Development Plan – hardrock – northeast of Freshwater West beach		Minor Adverse / Not Significant
	MSZ – defined by the Pembrokeshire County Council Local Development Plan – sand and gravel – at Pembroke Power Station		Minor Adverse / Not Significant
	MSZ – defined by the Pembrokeshire County Council Local Development Plan – hardrock – eastern portion of the Onshore Development Area		Minor Adverse / Not Significant
	Human Health, Groundwater, Surface Water, Ecological Receptors		Minor Adverse / Not Significant
Chapter 11: Geology and	Broomhill Burrows SSSI Freshwater West (North) GCR	Impact on geological designated sites in combination with the proposed Project Erebus, Project Valorous and Greenlink developments.	Minor Adverse / Not Significant



ES Chapter	Receptor	Residual Effect	Residual Significance of Effect
Hydrogeology– Cumulative Effects	Geological receptors	Temporary sterilisation of the MSZ resource during construction works (from construction compounds, for example), which may result in cumulative effects on this receptor, in combination with proposed Project Erebus, Project Valorous and Greenlink developments.	Minor Adverse / Not Significant
	Geological receptors	Temporary impacts during construction from ground disturbance or where groundwater controls may inadvertently mobilise contamination or create preferential pathways, in combination with proposed Project Erebus, Project Valorous and Greenlink developments.	Minor Adverse / Not Significant
Chapter 12: Agriculture and Soils	BMV agricultural land	Temporary loss of ‘Best, Most Versatile’ (BMV) agricultural land	Minor Adverse / Not Significant
		Permanent loss of BMV agricultural land	Negligible Adverse / Not Significant
	Soil resources	Loss of or damage to soil resources	Negligible Adverse / Not Significant
Chapter 13: Traffic and Transport	B4320 & Goldborough Road	Increased Traffic Flows	Minor Adverse / Not Significant
	Pedestrian Traffic School	Severance	Minor Adverse / Not Significant
	Pedestrian Traffic School	Fear and Intimidation	Minor Adverse / Not Significant



ES Chapter	Receptor	Residual Effect	Residual Significance of Effect
	Pedestrian, Cycle & Vehicle traffic	Accident and Road Safety	Minor Adverse / Not Significant
	Pedestrian & Cycle Traffic School	Pedestrian and Cycle Amenity	Minor Adverse / Not Significant
	Pedestrian & Cycle Traffic	Pedestrian and Cycle Delay	Minor Adverse / Not Significant
	Vehicle traffic	Driver Delay	Minor Adverse / Not Significant
Chapter 13: Traffic and Transport– Cumulative Effects	A4139 B4319 B4320	Increased traffic flows in combination with proposed Project Erebus, Project Valorous and Greenlink developments.	Minor / Negligible Adverse / Not Significant
	A4139 Pedestrian Traffic School	Severance in combination with in combination with proposed Project Erebus, Project Valorous and Greenlink developments.	Minor Adverse / Not Significant
	All traffic and transport receptors	Accidents and road safety	Minor Adverse / Not Significant
	All traffic and transport receptors	Pedestrian and Cycle Amenity	Minor Adverse / Not Significant
	All traffic and transport receptors	Pedestrians and Cycle Delay	Minor Adverse / Not Significant
	All traffic and transport receptors	Driver Delay	Minor Adverse / Not Significant
Chapter 14: Air Quality	Residential Properties	Fugitive emissions of dust and particulate matter	Low to Medium Adverse / Not Significant



ES Chapter	Receptor	Residual Effect	Residual Significance of Effect
Chapter 14: Air Quality– Cumulative Effects	Residential Properties	Construction dust if simultaneous works are undertaken on more than one project, where the 250 m zones of potential influence for construction dust overlap.	Low to Medium Adverse / Not Significant
Chapter 15: Noise and Vibration	R16	Noise generated from daytime cable trenching works	Minor Adverse / Not Significant
	R2, R12, R16	Noise generated from daytime cable trenching works	Minor Adverse / Not Significant
	R1, R3, R4, R5, R6, R7, R8, R9, R10, R14, R15	Noise generated from daytime cable trenching works	Negligible Adverse / Not Significant
	R5	HDD noise at night	Moderate Adverse / Significant
	R4, R6, R7, R8	HDD noise at night	Minor Adverse / Not Significant
	R1, R2, R3, R9, R12, R14, R15, R16	HDD noise at night	Negligible Adverse / Not Significant
	R16	Noise generated from daytime substation construction activities	Minor Adverse / Not Significant
	R1, R2, R3, R4, R5, R6, R7, R8, R9, R12, R14, R15	Noise generated from daytime substation construction activities	Negligible Adverse / Not Significant
	R16	Vibration generated from daytime cable trenching works	Minor Adverse / Not Significant
R1, R2, R3, R4, R5, R6, R7, R8, R9, R12, R14, R15	Vibration generated from daytime cable trenching works	Negligible Adverse / Not Significant	



ES Chapter	Receptor	Residual Effect	Residual Significance of Effect
	All construction receptors	Vibration generated from HDD works	Negligible Adverse / Not Significant
	R1, R2, R3, R4, R5, R6, R7, R8, R9, R12, R14, R15	Vibration generated from daytime substation construction works	Negligible Adverse / Not Significant
	R16	Vibration generated from daytime substation construction works	Minor Adverse / Not Significant
	All construction receptors	Noise generated by construction traffic	Negligible Adverse / Not Significant
Chapter 15: Noise and Vibration– Cumulative Effects	Noise receptors	Noise and vibration impacts- dependent on the exact works taking place at each location at any one time.	Minor Adverse / Not Significant
	All constructions receptors	Construction traffic noise increase dependent on the exact works taking place at each location at any one time.	Negligible Adverse / Not Significant
Chapter 16: Socio-economics, Recreation and Tourism	Labour force in Pembrokeshire	Employment creation	Moderate Beneficial / Significant
	Housing in the Study Area	Effects of Construction Employment on the Local Housing Market	Minor Adverse / Not Significant
	Labour force in Pembrokeshire	Skills and Training	Minor Beneficial / Not Significant
	Population of the Study Area	Recreation amenities	Minor Adverse / Not Significant
	Population of the Study Area	Access to Public Rights of Way or other Paths	Minor Adverse / Not Significant



ES Chapter	Receptor	Residual Effect	Residual Significance of Effect
Chapter 16: Socio-economics, Recreation and Tourism– Cumulative Effects	Labour force in Pembrokeshire	Cumulative impact on the economy (Full Time Equivalents (FTEs) and Gross Value Added (GVA) in combination with proposed Project Erebus, Project Valorous and Greenlink projects.	Moderate Beneficial / Significant
	Housing in the Study Area	Cumulative impact of construction workforce on local housing market in combination with proposed Project Erebus, Project Valorous and Greenlink projects.	Moderate Adverse / Significant
	Recreational Amenities	Cumulative impact on disruption to recreational amenities in combination with proposed Project Erebus, Project Valorous and Greenlink projects.	Minor Adverse / Not Significant
	Population of the Study Area	Cumulative impact on Public Rights of Way or other paths	Minor Adverse / Not Significant
Chapter 17: Physical Environment	No sensitive Physical Environment receptors	Potential increases in SSC and associated changes to seabed substrate.	Although this residual effect has no corresponding Physical Environment receptor the potential pathway of this effect may exist for other topics.
	No sensitive Physical Environment receptors.	Potential changes to sediment transport system by changes in wave and current climate	Although this residual effect has no corresponding Physical Environment receptor the potential pathway of this effect may exist for other topics.



ES Chapter	Receptor	Residual Effect	Residual Significance of Effect
	Annex I sandbanks within and around the OfECC (Turbot Bank and St Gowan Shoal), and the seabed areas within the Pembrokeshire Marine SAC, West Wales Marine SAC and the Skomer, Skokholm and the Seas off Pembrokeshire SPA	Potential changes to the morphology of the seabed	Minor Adverse / Not Significant
	The coast at the landfall within the Broomhill Burrows SSSI (Freshwater West).	Potential changes in morphology of the coast.	Minor Adverse / Not Significant
Chapter 17: Physical Environment– Cumulative Effects	No sensitive Physical Environment receptors	Potential cumulative increases in SSC and associated changes in bed level during construction (pathway)	Although this residual effect has no corresponding Physical Environment receptor the potential pathway of this effect may exist for other topics.
Chapter 18: Marine Water and Sediment Quality	Marine water and sediment quality within the Study Area	Changes in turbidity	Minor Adverse / Not Significant
		Release of contaminants from sediments	Minor Adverse / Not Significant
		Release of bacteria from sediments	Minor Adverse / Not Significant
		Risk of pollution events	Minor Adverse / Not Significant
		Drilling fluid leaks	Minor Adverse / Not Significant
Chapter 18: Marine Water and	Marine water and sediment quality within the Study Area	Cumulative effects of changes in turbidity, release of contaminants and bacteria from sediments	Minor Adverse / Not Significant



ES Chapter	Receptor	Residual Effect	Residual Significance of Effect
Sediment Quality– Cumulative Effects		Cumulative effects of pollution events (including drilling fluid leaks)	Minor Adverse / Not Significant
Chapter 19: Benthic Ecology	Sublittoral Sands and Gravels	Temporary loss and physical disturbance to benthic habitats and species	Negligible / Not Significant
	Annex I Reefs Annex I Sandbanks Sublittoral Sands and Gravels Other HOPI	Temporary increase in suspended sediment concentration (SSC) and sediment deposition leading to contaminant mobilisation, turbidity and smothering effects	Negligible / Not Significant
	Benthic habitats and species	Impact of changes to marine water quality from the use of HDD drilling fluids	Minor / Not Significant
	Benthic habitats and species	Impact of changes in marine water quality from accidental leaks and spills from vessels, including loss of fuel oils	Minor / Not Significant
	Benthic habitats and species	Introduction and spread of INNS via vessel hull or ballast water and the placement of cable and scour protection during construction	Negligible / Not Significant
	Chapter 19: Benthic Ecology – Cumulative Effects	Sublittoral Sands and Gravels	Temporary loss and physical disturbance to benthic habitats and species
Annex I Reefs Annex I Sandbanks Sublittoral Sands and Gravels Other HOPI		Temporary increase in suspended sediment concentration (SSC) and sediment deposition leading to contaminant mobilisation, turbidity and smothering effects	Minor Not Significant
Benthic habitats and species		Impact of changes to marine water quality from the use of HDD drilling fluids and from accidental	Minor Not Significant



ES Chapter	Receptor	Residual Effect	Residual Significance of Effect
		leaks and spills from vessels, including loss of fuel oils	
	Benthic habitats and species	Introduction and spread of INNS via vessel hull or ballast water and the placement of cable and scour protection during construction	Negligible Not Significant
Chapter 20: Fish and Shellfish Ecology	Herring Sandeel	Temporary direct loss and physical disturbance to fish habitats	Minor Not Significant
	Shellfish Other marine fish		Negligible Not Significant
	Herring Sandeel	Temporary physical disturbance to fish and shellfish habitats and species from increased suspended sediment concentrations (SSC) and sediment deposition	Minor Not Significant
	Diadromous fish Shellfish Other marine fish		Negligible Not Significant
	Fish and shellfish	Changes to marine water quality from the mobilisation of contaminants	Negligible Not Significant
	Fish and shellfish	Changes to marine water quality from the use of drilling fluids at HDD break-out points	Negligible Not Significant
	Fish and shellfish	Changes to marine water quality as a result of accidental leaks and spills from vessels, including loss of fuel oils	Negligible Not Significant
	Marine fish	Underwater noise and vibration effects	Minor Not Significant



ES Chapter	Receptor	Residual Effect	Residual Significance of Effect
	Fish and shellfish		Negligible Not Significant
Chapter 20: Fish and Shellfish Ecology – Cumulative Effects	Herring Sandeel Shellfish	Temporary Direct Loss and Physical Disturbance to Fish Habitats	Minor Not Significant
	Herring Sandeel Shellfish Diadromous fish Other marine fish	Temporary Physical Disturbance to Fish and Shellfish Habitats and Species from Increased Suspended Sediment Concentrations (SSC) and Sediment Deposition	Minor Not Significant
	Fish and shellfish	Impact from Changes to Marine Water Quality from the Use of Drilling Fluids at HDD Break-Out Points	Negligible Not Significant
	Fish and shellfish	Underwater Noise and Vibration	Minor Not Significant
Chapter 21: Marine Mammals	All marine mammals	PTS-onset risk from pre-construction geophysical survey	Negligible Adverse / Not Significant
	All marine mammals	Disturbance risk from pre-construction geophysical surveys	Negligible Adverse / Not Significant
	Common dolphin Bottlenose dolphin Harbour porpoise Grey seal	PTS-onset risk from UXO Clearance	Negligible Adverse / Not Significant
	Minke whale	PTS-onset risk from UXO Clearance	Minor Adverse / Not Significant



ES Chapter	Receptor	Residual Effect	Residual Significance of Effect
	All marine mammals	Disturbance risk from UXO Clearance	Negligible Adverse / Not Significant
	All marine mammals	PTS-onset risk from Impact piling	Negligible Adverse / Not Significant
	Harbour porpoise Grey seal Bottlenose dolphin Minke whale	Disturbance risk from impact piling	Negligible Adverse / Not Significant
	Common dolphin		Negligible Minor Adverse / Not Significant
	Common dolphin Bottlenose dolphin Harbour porpoise Grey seal	PTS-onset risk from 'other' construction activities	Negligible Adverse / Not Significant
	Minke whale		Negligible Adverse / Not Significant
	Minke whale	PTS-onset risk from 'other' construction activities	Negligible / Minor Adverse / Not Significant
	All marine mammals	Disturbance risk from 'other' construction activities	Negligible Adverse / Not Significant
	All marine mammals	PTS-onset risk from vessel activity	Negligible Adverse / Not Significant
	All marine mammals	Disturbance risk from vessel activity	Negligible Adverse / Not Significant
	Grey seals (only)	Disturbance risk from airborne sound and visual disturbance	Negligible Adverse / Not Significant



ES Chapter	Receptor	Residual Effect	Residual Significance of Effect
	All marine mammals	Collision with Project vessels	Minor Adverse / Not Significant
	All marine mammals	Accidental pollution or contamination	Minor Adverse / Not Significant
	All marine mammals	Indirect effects from impacts to prey species	Negligible Adverse / Not Significant
Chapter 21: Marine Mammals– Cumulative Effects	All marine mammals	Cumulative disturbance arising from underwater noise during construction of offshore renewable energy projects.	Minor Adverse / Not Significant
	All marine mammals	The potential for Disturbance from Vessel Activity During Pre-Construction and Construction	Minor / Negligible Adverse / Not Significant
Chapter 22: Ornithology	All ornithological receptors	Disturbance and/or displacement associated with vessels and other offshore activities	Minor Adverse / Not Significant
	All ornithological receptors	Effects of underwater sound on diving seabirds	Negligible Adverse / Not Significant
	All ornithological receptors	Indirect effects due to changes in habitat and/ or prey availability and distribution.	Negligible Adverse / Not Significant
Chapter 22: Ornithology– Cumulative Effects	All ornithological receptors	Cumulative disturbance and/or displacement associated with vessels and other offshore activities	Minor Adverse / Not Significant
	All ornithological receptors	Cumulative effects of underwater noise on diving seabirds	Minor Adverse / Not Significant
	All ornithological receptors	Cumulative indirect effects due to changes in habitat and/ or prey availability and distribution.	Negligible Adverse / Not Significant



ES Chapter	Receptor	Residual Effect	Residual Significance of Effect
Chapter 23: Seascape and Landscape Visual	PCNP (and Heritage Coasts)	Impacts on seascape and landscape character	Minor Adverse / Not Significant
	All Seascape Character Area (SCA) and LCA in detailed assessment	Potential residual effects from construction of the proposed Project will be similar or less than those related to operation and will be short in duration and temporary in nature.	Minor Adverse / Not Significant
	Viewpoints 01 - 03, 05 - 08, 11 and 12	Visual impact resulting from WTGs Potential residual effects from construction of the proposed Project will be similar or less than those related to operation and will be short in duration and temporary in nature.	Minor Adverse / Not Significant
	Viewpoints 04 and 09		Minor Adverse / Not Significant
	Viewpoint 10		Minor Adverse / Not Significant
	Viewpoint 12		Negligible Adverse / Not Significant
	Viewpoints 13 and 14		Negligible Adverse / Not Significant
	Viewpoints N1 and N2		Night-time visual impact resulting from aviation lighting on WTGs.
	Viewpoint N3	Potential residual effects from construction of the proposed Project will be similar or less than those related to operation and will be short in duration and temporary in nature.	Minor Adverse / Not Significant
Chapter 23: Seascape and Landscape Visual– Cumulative Effects	Seascape and Landscape Visual receptors	It is considered that cumulative impacts and effects from construction of the proposed Project in addition to that of the identified cumulative schemes would be similar to or less than those	Not Significant



ES Chapter	Receptor	Residual Effect	Residual Significance of Effect
		relating to operation and maintenance. The considerable distance of the majority of activity from the coast, the small additional part of the expansive seascape it would occupy, the existing context of commercial shipping as a characteristic of the seascape and views, the temporary nature and short duration would all contribute to a reduced impression of additional change and no potential for significant cumulative effects.	
Chapter 24: Marine Archaeology	CA6 / CA1025	Direct impacts on known wrecks and high potential geophysical anomalies (offshore)	Negligible Adverse / Not Significant
	CA2	Direct impacts on known wreck (Freshwater West)	Negligible Adverse / Not Significant
	CA8-CA12	Direct impacts on palaeo-environmental deposits (Freshwater West)	Negligible Adverse / Not Significant
	CA1026	Direct impacts on medium potential geophysical anomalies	Negligible Adverse / Not Significant
	CA1029	Direct impacts on medium potential geophysical anomalies	Negligible Adverse / Not Significant
	N/A	Direct impacts on palaeo-environmental deposits (offshore)	Negligible Adverse / Not Significant
	CA6 / CA1025	Indirect impacts on known wrecks and high potential geophysical anomalies (offshore)	Negligible Adverse / Not Significant
	CA2	Indirect impacts on known wreck (Freshwater West)	Negligible Adverse / Not Significant



ES Chapter	Receptor	Residual Effect	Residual Significance of Effect
	CA8-CA12	Indirect impacts on palaeo-environmental deposits (Freshwater West)	Negligible Adverse / Not Significant
	CA1026	Indirect impacts on medium potential geophysical anomalies	Negligible Adverse / Not Significant
	CA1029	Indirect impacts on medium potential geophysical anomalies	Negligible Adverse / Not Significant
	N/A	Indirect impacts on palaeo-environmental deposits (offshore)	Negligible Adverse / Not Significant
Chapter 24: Marine Archaeology– Cumulative Effects	N/A	Cumulative direct impacts on palaeo-environmental deposits (offshore)	Negligible / Minor Beneficial / Not Significant
	CA8- CA12	Cumulative direct impacts on palaeo-environmental deposits (Freshwater West)	Negligible / Adverse / Not Significant
	CA2 CA6 / CA1025	Cumulative direct impacts on known wreck sites	Negligible / Adverse / Not Significant
	N/A	Cumulative indirect impacts on palaeo-environmental deposits (offshore)	Negligible / Adverse / Not Significant
Chapter 25: Shipping and Navigation	All third-party vessels	Vessel displacement	Adverse / Tolerable with Mitigation ³ / Not Significant
	All third-party vessels	Increased third-party vessel collision risk	Adverse / Tolerable with Mitigation ³ / Not Significant
	All third-party vessels	Third-party with project vessel collision risk	Adverse / Tolerable with Mitigation ³ / Not Significant

³ Assessment methodology deviates from the standard methodology outlined in Chapter 5. Please see **Section 25.4.2, Chapter 25** for full description and justification



ES Chapter	Receptor	Residual Effect	Residual Significance of Effect
	All third-party vessels	Reduced access to local ports and harbours	Adverse / Broadly Acceptable ³ / Not Significant
Chapter 25: Shipping and Navigation– Cumulative Effects	All third-party vessels	Vessel Displacement	Minor Adverse / Tolerable with Mitigation ³ / Not Significant
	All third-party vessels	Increased Third-Party Vessel to Vessel Collision Risk	Serious Adverse / Tolerable with Mitigation ³ / Not Significant
	All third-party vessels	Increased Third-Party to Project Vessel Collision Risk	Serious Adverse / Tolerable with Mitigation ³ / Not Significant
	All third-party vessels	Creation of Vessel to Structure Allision Risk	Moderate Adverse / Tolerable with Mitigation ³ / Not Significant
	All third-party vessels	Reduced Access to Local Ports and Harbours	Broadly Acceptable / Tolerable with Mitigation ³ / Not Significant
	All third-party vessels	Anchor Interaction with Mooring Lines or Subsea Cables	Minor Adverse / Broadly Acceptable ³ / Not Significant
	All third-party vessels	Reduction of Emergency Response Capability Including SAR	Serious Adverse / Tolerable with Mitigation ³ / Not Significant
	UK potting	Reduction in access to, or exclusion from established fishing grounds	Minor Adverse / Not Significant



ES Chapter	Receptor	Residual Effect	Residual Significance of Effect
Chapter 26: Commercial Fisheries	UK netting		Minor Adverse / Not Significant
	UK hooked gear		Minor Adverse / Not Significant
	UK beam trawl		Negligible Adverse / Not Significant
	UK dredge		Negligible Adverse / Not Significant
	Belgian beam trawl		Negligible Adverse / Not Significant
	French demersal otter trawl		Negligible Adverse / Not Significant
	Irish demersal otter trawl		Negligible Adverse / Not Significant
	UK potting	Displacement leading to gear conflict and increased fishing pressure on adjacent grounds	Minor Adverse / Not Significant
	UK netting		Minor Adverse / Not Significant
	UK hooked gear		Minor Adverse / Not Significant
	UK beam trawl		Negligible Adverse / Not Significant
	UK dredge		Negligible Adverse / Not Significant



ES Chapter	Receptor	Residual Effect	Residual Significance of Effect
	Belgian beam trawl		Negligible Adverse / Not Significant
	French demersal otter trawl		Negligible Adverse / Not Significant
	Irish demersal otter trawl		Negligible Adverse / Not Significant
	UK potting	Displacement or disruption of commercially important fish and shellfish resources	Minor Adverse / Not Significant
	UK netting		Minor Adverse / Not Significant
	UK hooked gear		Minor Adverse / Not Significant
	UK beam trawl		Negligible Adverse / Not Significant
	UK dredge		Negligible Adverse / Not Significant
	Belgian beam trawl		Negligible Adverse / Not Significant
	French demersal otter trawl		Negligible Adverse / Not Significant
	Irish demersal otter trawl		Negligible Adverse / Not Significant
	UK potting		Minor Adverse / Not Significant



ES Chapter	Receptor	Residual Effect	Residual Significance of Effect
	UK netting	Increased vessel traffic associated with the proposed Project within fishing grounds leading to interference with fishing activity	Minor Adverse / Not Significant
	UK hooked gear		Minor Adverse / Not Significant
	UK beam trawl		Minor Adverse / Not Significant
	UK dredge		Minor Adverse / Not Significant
	Belgian beam trawl		Minor Adverse / Not Significant
	French demersal otter trawl		Minor Adverse / Not Significant
	Irish demersal otter trawl		Minor Adverse / Not Significant
	UK potting	Additional steaming to alternative fishing grounds for vessels that would otherwise fish within the proposed Project area	Minor Adverse / Not Significant
	UK netting		Minor Adverse / Not Significant
	UK hooked gear		Minor Adverse / Not Significant
	UK beam trawl		Negligible Adverse / Not Significant
	UK dredge		Negligible Adverse / Not Significant



ES Chapter	Receptor	Residual Effect	Residual Significance of Effect
	Belgian beam trawl		Negligible Adverse / Not Significant
	French demersal otter trawl		Negligible Adverse / Not Significant
	Irish demersal otter trawl		Negligible Adverse / Not Significant
Chapter 26: Commercial Fisheries– Cumulative Effects	UK potting	Cumulative reduction in, or loss of access to, established fishing grounds	Minor / Moderate Adverse / Significant
	UK netting		Minor Adverse / Not Significant
	UK hooked gear		Minor Adverse / Not Significant
	UK beam trawl		Negligible Adverse / Not Significant
	UK dredge		Negligible Adverse / Not Significant
	Belgian beam trawl		Negligible Adverse / Not Significant
	French demersal otter trawl		Negligible Adverse / Not Significant
	Irish demersal otter trawl		Negligible Adverse / Not Significant
	UK potting		Minor / Moderate Adverse / Significant



ES Chapter	Receptor	Residual Effect	Residual Significance of Effect
	UK netting	Cumulative displacement leading to gear conflict and increased fishing pressure on established fishing grounds.	Minor Adverse / Not Significant
	UK hooked gear		Minor Adverse / Not Significant
	UK beam trawl		Negligible Adverse / Not Significant
	UK dredge		Negligible Adverse / Not Significant
	Belgian beam trawl		Negligible Adverse / Not Significant
	French demersal otter trawl		Negligible Adverse / Not Significant
	Irish demersal otter trawl		Negligible Adverse / Not Significant
	UK potting	Displacement or disruption of commercially important fish and shellfish resources	Minor Adverse / Not Significant
	UK netting		Minor Adverse / Not Significant
	UK hooked gear		Minor Adverse / Not Significant
	UK beam trawl		Negligible Adverse / Not Significant
	UK dredge		Negligible Adverse / Not Significant



ES Chapter	Receptor	Residual Effect	Residual Significance of Effect
	Belgian beam trawl		Negligible Adverse / Not Significant
	French demersal otter trawl		Negligible Adverse / Not Significant
	Irish demersal otter trawl		Negligible Adverse / Not Significant
Chapter 27: Aviation and Radar	N/A	N/A	N/A
Chapter 28: Other Sea Users	Recreational boaters	Disruption to marine recreational users	Negligible Adverse / Not Significant
	Recreational fishing		Negligible Adverse / Not Significant
	Other recreational activities		Negligible / Minor Adverse / Not Significant
	Oil and gas operations	Disruption to other sea users and offshore infrastructure	Negligible / Minor Adverse / Not Significant
	Renewable energy developments		Negligible / Minor Adverse / Not Significant
	Subsea cables		Negligible / Minor Adverse / Not Significant
	Marine dredge and disposal sites		Negligible / Minor Adverse / Not Significant
	Aggregate extraction		Negligible Adverse / Not Significant



ES Chapter	Receptor	Residual Effect	Residual Significance of Effect
	Military practice areas		Negligible Adverse / Not Significant
	Cable and pipeline asset owners	Unplanned event resulting in risk of damage to, or interference with, a third-party asset	Minor Adverse / Not Significant
Chapter 28: Other Sea Users– Cumulative Effects	Recreational boaters Recreational fishing Other recreational activities	Cumulative effects of disruption to marine tourism and recreation in combination with proposed Project Erebus and Whitecross developments	Minor Adverse / Not Significant
	Oil and gas operations Renewable energy developments Subsea cables Marine dredge and disposal sites Aggregate extraction Military practice areas	Cumulative effects of disruption to Other Sea Users and offshore infrastructure from increased vessel traffic in combination with proposed Project Erebus and Whitecross developments	Minor Adverse / Not Significant
	Cable and pipeline asset owners	Cumulative effects of damage to or interference with a third-party asset in combination with proposed Project Erebus, Greenlink and Whitecross developments	Minor Adverse / Not Significant



32.3 Summary of residual operational effects

Table 32-2. A summary of the nature and significance of the residual operational effects of the proposed Project

ES Chapter	Receptor	Description Residual Effect	Residual Significance of Effect
Chapter 7: Landscape and Visual	PCNP (and Heritage Coast)	Impacts on landscape character	Negligible (adverse) Not Significant
	Castlemartin/Merrion Ranges LCA, Angle Peninsula LCA and Freshwater West/Brownslade Burrows LCA		Negligible (adverse) Not Significant
	Southern Haven Developed LCA and Southern Haven Industrial Fringe LCA		Negligible (adverse) Not Significant
	Southern Haven Mudflats LCA		Negligible (adverse) Not Significant
	Hundleton and Lamphey LCA		Minor (adverse) Not Significant
	Viewpoint A	Impacts on visual amenity	Negligible Adverse / Not Significant
	Viewpoint B		Minor Adverse / Not Significant
	Viewpoint C		Negligible Adverse / Not Significant
	Viewpoints D, G, H and I		Minor Adverse / Not Significant
	Viewpoint E		Minor Adverse / Not Significant at year 15 of operation
	Viewpoint F		Minor Adverse / Not Significant at year 15 of operation
	Pembroke Coast Path		Negligible Adverse / Not Significant
	All landscape and visual receptors	Impacts on landscape character	Minor Adverse / Not Significant



ES Chapter	Receptor	Description Residual Effect	Residual Significance of Effect
Chapter 7: Landscape and Visual – Cumulative Effects	Viewpoints A to C Viewpoint E	Impacts on visual amenity	Minor Adverse / Not Significant
Chapter 8: Terrestrial Ecology	Limestone Coast of South West Wales / Arfordir Calchfaen De Orllewin Cymru SAC	None – all impacts avoided through the utilisation of HDD techniques	Negligible Adverse / Not Significant
	Pembrokeshire Marine / Sir Benfro Forol SAC	Habitat loss, severance and fragmentation Disturbance to foraging and commuting bats	Minor Adverse / Not Significant
	Castlemartin Coast SPA	Habitat loss Disturbance to breeding chough	Negligible Adverse / Not Significant
	West Wales Marine / Corllewin Cymru Foral SAC	None – no works required in proximity to SPA	Negligible Adverse / Not Significant
	Pembrokeshire Bat Sites and Bosherton Lakes / Safleoedd Ystlum Sir Benfro a Llynnoedd Bosherton SAC	Habitat loss, severance and fragmentation Disturbance to foraging and commuting bats	Minor Adverse / Not Significant
	Skomer, Skokholm and the Seas off Pembrokeshire / Sgomer, Sgogwm a moroedd Benfro SPA	None – no works required in proximity to SPA	Negligible Adverse / Not Significant
	Stackpole SSSI	Habitat loss, severance and fragmentation Disturbance to foraging and commuting bats	Negligible Adverse / Not Significant
	Stackpole Courtyard Flats and Walled Garden SSSI	Habitat loss, severance and fragmentation Disturbance to foraging and commuting bats	Negligible Adverse / Not Significant
	Park House Outbuildings, Stackpole SSSI	Habitat loss, severance and fragmentation Disturbance to foraging and commuting bats	Negligible Adverse / Not Significant



ES Chapter	Receptor	Description Residual Effect	Residual Significance of Effect
	Bats	Temporary and permanent loss of foraging and commuting habitat through the removal and illumination of hedgerows. Disturbance to bats potentially roosting in structures and trees within and adjacent to the onshore development area	Minor Adverse / Not Significant
	INNPS	Spread throughout the proposed Project and to adjacent areas	Negligible Adverse / Not Significant
Chapter 8: Terrestrial Ecology – Cumulative Effects	Bats	Temporary loss of habitat and linear features related to infrequent maintenance works. This is in combination with proposed Project Erebus, Project Valorous and Greenlink developments.	Negligible Adverse / Not Significant
	Bats	Permeant lighting illumination of hedgerows in combination with proposed Project Erebus, Project Valorous and Greenlink developments.	Minor Adverse / Not Significant
	Hazel Dormouse	Temporary vegetation removal in combination with proposed Project Erebus, Project Valorous and Greenlink developments.	Negligible Adverse / Not Significant
Chapter 9: Historic Environment and Cultural Heritage	Corston Beacon round barrow PE059	Impact through change to setting	Slight Adverse ¹ / Not Significant
	Wallaston round barrows PE064	Impact through change to setting	Slight Adverse ¹ / Not Significant
	Somerton Farmhouse LB 6598	Impact through change to setting	Slight Adverse ¹ / Not Significant
	HCLA Rhoscrowther 341	Impact through change to setting	Slight Adverse ¹ / Not Significant
Chapter 9: Historic Environment and	Dry Burrows Round Barrows PE060 Orielson registered Park & Garden PGW (Dy) 38 (PEM)	Impact through change to setting in combination with the Greenlink and Project Erebus development.	Slight Adverse ¹ / Not Significant

¹ Assessment methodology deviates from the standard methodology outlined in Chapter 5. Please see **Section 9.4.2, Chapter 9** for full description and justification



ES Chapter	Receptor	Description Residual Effect	Residual Significance of Effect
Cultural Heritage– Cumulative Effects	Enclosure and Earthworks at Lewiston Hall PE400 HLCA 431 (Rhoscrowther) Wallaston Round Barrows PE064		
Chapter 10: Water Environment	Milford Haven Waterway / Dyfrffordd Aberdaugleddau / Angle Bay / Milford Haven Outer WFD water body	Impacts on surface water quality from diffuse run-off and foul water post-secondary treatment from the Onshore Substation.	Slight Adverse ² / Not Significant
	Ordinary Watercourses with associated abstraction license: WC07/A12		Slight Adverse ² / Not Significant
	Ordinary Watercourses with online ponds and associated abstraction licenses: WC07/P18/P19/A18/A15		Slight Adverse ² / Not Significant
	Pembrokeshire Carboniferous Limestone WFD groundwater body (GB41002G206000)	Impacts on groundwater quality from diffuse run-off from the Onshore Substation.	Slight Adverse ² / Not Significant
	Milford Haven Group formations / Secondary A Aquifer		Slight Adverse ² / Not Significant
	Ridgeway Conglomerate / Secondary A Aquifer		Slight Adverse ² / Not Significant
	Pembroke River / Milford Haven Inner transitional WFD Water body		Slight Adverse ² / Not Significant



ES Chapter	Receptor	Description Residual Effect	Residual Significance of Effect
	Milford Haven Waterway / Dyfrffordd Aberdaugleddau / Angle Bay / Milford Haven Outer WFD Water body	Impacts on surface water quality from excess fine sediment or potential accidental spillages during maintenance activities.	Slight Adverse ² / Not Significant
	Freshwater West / Pembrokeshire South WFD coastal water body		Slight Adverse ² / Not Significant
	Goldborough Pill West		Slight Adverse ² / Not Significant
	Ordinary Watercourse: T05a		Slight Adverse ² / Not Significant
	Ordinary Watercourses: WC12, T12a		Neutral Slight Adverse ² / Not Significant
	Ordinary Watercourses with associated abstraction license: T07a/A13, WC04/A3, WC07/A12		Neutral Slight Adverse ² / Not Significant
	Ordinary Watercourses with online ponds and associated abstraction licenses: WC05/P6/P7/P8/A4/A5, WC06/P9/A8, WC07/P18/P19/A18/A15 T07c/P11/A10		Slight Adverse ² / Not Significant
	Ordinary Watercourses with online ponds but no licensed abstractions: WC04/P5 , WC06/P10, T07b/P14, WC14/P20, T07a/P15, T07c/P12/P13		Neutral Slight Adverse ² / Not Significant
	Discrete Pond Feature: P32		Slight Adverse ² / Not Significant
	Surface water users – Licenced water abstractions: A3, A4, A5, A8, A10, A11, A12, A13, A15, A18.	Slight Adverse ² / Not Significant	



ES Chapter	Receptor	Description Residual Effect	Residual Significance of Effect
	Pembrokeshire Carboniferous Limestone WFD groundwater body (GB41002G206000)	Impacts on groundwater quality from potential accidental spillages during maintenance activities	Neutral Slight Adverse ² / Not Significant
	Ridgeway Conglomerate / Secondary A Aquifer		Slight Adverse ² / Not Significant
	Milford Haven Group formations / Secondary A Aquifer		Slight Adverse ² / Not Significant
	Ordinary Watercourses – WC07	Permanent hydromorphological impacts to watercourses from Onshore Substation surface water and foul water post-secondary treatment outfalls.	Slight Adverse ² / Not Significant
	Castlemartin Corse GWDTE	Impacts on surface water and groundwater resources (flows and level)	Slight Adverse ² / Not Significant
	Carboniferous Black Rock Subgroup and Gully Oolite Formation Principal Aquifer		Slight Adverse ² / Not Significant
	Avon Group Limestone/ Secondary A Aquifer		Slight Adverse ² / Not Significant
	Ridgeway Conglomerate / Secondary A Aquifer		Slight Adverse ² / Not Significant
	Skrinkle Sandstone / Secondary A Aquifer		Slight Adverse ² / Not Significant
	Milford Haven Group formations / Secondary A Aquifer		Slight Adverse ² / Not Significant
	Aber Mawr Shale / Secondary B Aquifer		Slight Adverse ² / Not Significant
	Ludlow Rocks Formation / Secondary B Aquifer		Slight Adverse ² / Not Significant
	Superficial Marine Beach Deposit (sand), Blown Sand (sand) and Alluvium (clay,		Slight Adverse ² / Not Significant



ES Chapter	Receptor	Description Residual Effect	Residual Significance of Effect
	silt, sand and gravel) – Secondary A Aquifer	Impacts on the rate and volumes of surface water run-off entering local watercourses and subsequent increase in flood risk.	
	Superficial Raised Beach Deposits (sand and gravel) and Alluvium Deposits (clay, silt, sand and gravel) – Secondary A Aquifer		Slight Adverse ² / Not Significant
	Superficial Tidal Flat Deposits (sand, silt and clay) – Secondary undifferentiated		Slight Adverse ² / Not Significant
	Residential areas in surrounding area		Neutral Adverse ² / Not Significant
	Onshore Substation		Neutral Adverse ² / Not Significant
	Onshore Export Cable		Neutral Adverse ² / Not Significant
Chapter 10: Water Environment– Cumulative Effects	Milford Haven Waterway / Dyfrffordd Aberdaugleddau / Angle Bay / Milford Haven Outer WFD water body Ordinary Watercourses with associated abstraction license: WC07/A12 Ordinary Watercourses with online ponds and associated abstraction licenses: WC07/P18/P19/A18/A15	Impacts on surface water quality from diffuse run-off and foul water post-secondary treatment from the Onshore Substation	Slight Adverse ² / Not Significant
	Pembrokeshire Carboniferous Limestone WFD groundwater body (GB41002G206000)	Impacts on groundwater quality from diffuse run-off from the Onshore Substation	Slight Adverse ² / Not Significant



ES Chapter	Receptor	Description Residual Effect	Residual Significance of Effect
	<p>Milford Haven Group formations / Secondary A Aquifer</p> <p>Ridgeway Conglomerate / Secondary A Aquifer</p>		
	<p>Pembroke River / Milford Haven Inner transitional WFD Water body</p> <p>Milford Haven Waterway / Dyfrffordd Aberdaugleddau / Angle Bay / Milford Haven Outer WFD Water body</p> <p>Freshwater West / Pembrokeshire South WFD coastal water body</p> <p>Goldborough Pill West</p> <p>Ordinary Watercourse: T05a</p> <p>Ordinary Watercourses: WC12, T12a</p> <p>Ordinary Watercourses with associated abstraction license: T07a/A13, WC04/A3, WC07/A12</p> <p>Ordinary Watercourses with online ponds and associated abstraction licenses: WC05/P6/P7/P8/A4/A5, WC06/P9/A8, WC07/P18/P19/A18/A15</p> <p>T07c/P11/A10</p>	<p>Impacts on surface water quality from excess fine sediment or potential accidental spillages during maintenance activities</p>	<p>Slight Adverse² / Not Significant</p>



ES Chapter	Receptor	Description Residual Effect	Residual Significance of Effect
	Ordinary Watercourses with online ponds but no licensed abstractions: WC04/P5 , WC06/P10, T07b/P14, WC14/P20, T07a/P15, T07c/P12/P13 Discrete Pond Feature: P32		
	Pembrokeshire Carboniferous Limestone WFD groundwater body (GB41002G206000) Ridgeway Conglomerate / Secondary A Aquifer Milford Haven Group formations / Secondary A Aquifer	Impacts on groundwater quality from potential accidental spillages during maintenance activities	Slight Adverse ² / Not Significant
	Ordinary Watercourses – WC07	Permanent hydromorphological impacts to watercourses from Onshore Substation surface water and foul water post-secondary treatment outfalls	Slight Adverse ² / Not Significant
	Castlemartin Corse GWDTE Carboniferous Black Rock Subgroup and Gully Oolite Formation Principal Aquifer Avon Group Limestone/ Secondary A Aquifer Ridgeway Conglomerate / Secondary A Aquifer Skrinkle Sandstone / Secondary A Aquifer	Impacts on surface water and groundwater resources (flows and level)	Neutral Adverse ² / Not Significant



ES Chapter	Receptor	Description Residual Effect	Residual Significance of Effect
	<p>Milford Haven Group formations / Secondary A Aquifer</p> <p>Aber Mawr Shale / Secondary B Aquifer</p> <p>Ludlow Rocks Formation / Secondary B Aquifer</p> <p>Superficial Marine Beach Deposit (sand), Blown Sand (sand) and Alluvium (clay, silt, sand and gravel) – Secondary A Aquifer</p> <p>Superficial Raised Beach Deposits (sand and gravel) and Alluvium Deposits (clay, silt, sand and gravel) – Secondary A Aquifer</p> <p>Superficial Tidal Flat Deposits (sand, silt and clay) – Secondary undifferentiated</p>		
	<p>Residential areas in surrounding area</p> <p>Onshore Substation</p> <p>Onshore Export Cable</p>	<p>Impacts on the rate and volumes of surface water run-off entering local watercourses and subsequent increase in flood risk.</p>	<p>Neutral Adverse² / Not Significant</p>
<p>Chapter 11: Geology and Hydrogeology</p>	<p>MSZ – defined by the Pembrokeshire Coast National Park Local Development Plan – sand and gravel – between Freshwater West Beach and Valero refinery</p>	<p>Permanent measurable changes to geological feature/designation attributes, quality, or vulnerability and minor loss of, or alteration to, key characteristics, features, or elements</p>	<p>Minor Adverse / Not Significant</p>



ES Chapter	Receptor	Description Residual Effect	Residual Significance of Effect
	MSZ – defined by the Pembrokeshire Coast National Park Local Development Plan hardrock – south of former tank farm		Minor Adverse / Not Significant
	MSZ – defined by the Pembrokeshire Coast National Park Local Development Plan – hardrock – northeast of Freshwater West beach		Minor Adverse / Not Significant
	MSZ – defined by the Pembrokeshire County Council Local Development Plan – sand and gravel – at Pembroke Power Station		Minor Adverse / Not Significant
	MSZ – defined by the Pembrokeshire County Council Local Development Plan – hardrock – eastern portion of the Onshore Development Area		Minor Adverse / Not Significant
	Human Health, Groundwater, Surface Water, Ecological Receptors		Negligible Beneficial / Not Significant
Chapter 11: Geology and Hydrogeology– Cumulative Effects	Geological receptors	Impact on MSZs in combination with the proposed Project Erebus, Greenlink and Project Valorous developments	Minor Adverse / Not Significant
	Geological receptors	Beneficial impacts associated with remediation if the developments affect contaminated land that results in removal of potential contaminant sources or mitigation, in combination with the proposed Project Erebus, Greenlink and Project Valorous developments	Minor Beneficial / Not Significant



ES Chapter	Receptor	Description Residual Effect	Residual Significance of Effect
Chapter 15: Noise and Vibration	R12, R14, R15, R16, R17	Operational substation noise emissions	Minor Adverse / Not Significant
	R17, R18	Operational substation noise emissions	Negligible Adverse / Not Significant
Chapter 15: Noise and Vibration– Cumulative Effects	Noise receptors	Operational noise emissions from nearby scoped in developments.	Minor Adverse / Not Significant
Chapter 16: Socio-economics, Recreation and Tourism	Labour force in Pembrokeshire	Employment Creation	Minor Beneficial / Not Significant
	Labour force in Pembrokeshire	Skills and Training	Minor Beneficial / Not Significant
Chapter 16: Socio-economics, Recreation and Tourism– Cumulative Effects	Labour force in Pembrokeshire	Cumulative impact on the economy (FTEs and GVA) in combination with proposed Project Erebus, Project Valorous and Greenlink projects.	Moderate Beneficial / Significant
Chapter 17: Physical Environment	No sensitive Physical Environment receptors.	Potential changes to sediment transport system by changes in wave and current climate.	N/A [Potential pathway of effect for other topics]
	Annex I sandbank within and around the OfECC (Turbot Bank and St Gowan Shoal), and the seabed areas within the Pembrokeshire Marine SAC, West Wales Marine SAC and the Skomer, Skokholm and the Seas off Pembrokeshire SPA	Potential changes to the morphology of the seabed (including scour).	Minor Adverse / Not Significant
	The coast at the landfall within the Broomhill Burrows SSSI (Freshwater West).	Potential changes in morphology of the coast.	Minor Adverse / Not Significant



ES Chapter	Receptor	Description Residual Effect	Residual Significance of Effect
	No sensitive Physical Environment receptors.	Potential Increases in SSC (Pathway) Via Cable Repairs/Remediation	N/A [Potential pathway of effect for other topics]
Chapter 17: Physical Environment– Cumulative Effects	No sensitive Physical Environment receptors.	Potential cumulative changes in waves, tides and sediment transport during operation, resulting in impacts to designated areas of seabed and or the coast (receptor)	N/A [Potential pathway of effect for other topics]
Chapter 18: Marine Water and Sediment Quality	Marine water and sediment quality within the Study Area	Changes in turbidity	Minor Adverse / Not Significant
		Release of contaminants from sediments	Minor Adverse / Not Significant
		Release of bacteria from sediments	Minor Adverse / Not Significant
		Risk of pollution events	Minor Adverse / Not Significant
		Drilling fluid leaks	Minor Adverse / Not Significant
Chapter 18: Marine Water and Sediment Quality– Cumulative Effects	Marine water and sediment quality within the Study Area	Cumulative effects related to changes in turbidity, release of contaminants and bacteria from sediments	Minor Adverse / Not Significant
		Cumulative effect of pollution events	Minor Adverse / Not Significant
Chapter 19: Benthic Ecology	Sublittoral Sands and Gravels	Permanent direct loss and physical disturbance to benthic habitats and species	Negligible / Not Significant
	Benthic habitats and species	Temporary increase in SSC and sediment deposition associated with maintenance activities leading to contaminant mobilisation, turbidity and smothering effects	Negligible / Not Significant
	Sublittoral Sands and Gravels	Alteration and/or indirect loss of habitat during the operational lifetime of the proposed Project, including from the introduction of hard substrate resulting in increased heterogeneity and new biological communities.	Minor / Not Significant



ES Chapter	Receptor	Description Residual Effect	Residual Significance of Effect
	Sublittoral Sands and Gravels	Changes to habitats due to on-going scour, changes in hydrodynamics, increased sedimentation and smothering, and abrasions, from the movement of mooring chains	Negligible / Not Significant
	Benthic habitats and species	Disturbance to benthic habitats during planned maintenance and instances of cable failure and excavation	Negligible / Not Significant
	Sublittoral Sands and Gravels	Disturbance to benthic habitats and species due to subsea cable thermal emissions	Negligible / Not Significant
	Sublittoral Sands and Gravels	Effects of electromagnetic field (EMF) emissions	Negligible / Not Significant
	Benthic habitats and species	Introduction and spread of INNS	Negligible / Not Significant
Chapter 19: Benthic Ecology – Cumulative Effects	Sublittoral Sands and Gravels	Permanent direct loss and physical disturbance to benthic habitats and species	Minor / Not Significant
	Sublittoral Sands and Gravels Benthic habitats and species	Alteration to benthic habitats including on-going scour, changes in hydrodynamics, increased sedimentation and smothering, and abrasions from the movement of mooring chains.	Minor / Not Significant
	Sublittoral Sands and Gravels	Effects of electromagnetic field (EMF) emissions	Minor / Not Significant
	Sublittoral Sands and Gravels	Disturbance to benthic habitats and species due to subsea cable thermal emissions	Negligible / Not Significant
	Benthic habitats and species	INNS from presence of infrastructure	Negligible / Not Significant
Chapter 20: Fish and Shellfish Ecology	Herring Sandeel	Permanent direct loss and physical disturbance to fish and shellfish habitats	Minor



ES Chapter	Receptor	Description Residual Effect	Residual Significance of Effect
			Not Significant
	Shellfish Other marine fish		Negligible Not Significant
	Herring and sandeel spawning grounds Shellfish	Increase in thermal emissions from cable operation	Negligible Not Significant
	Diadromous fish Pelagic fish Demersal fish Spawning, eggs, larvae and juvenile fish Shellfish	Effects of electromagnetic field (EMF) emissions	Negligible Not Significant
	Elasmobranchs		Minor Not Significant
	Fish and shellfish	Aggregation of fish and associated effects such as barrier effects, collision and entanglement from the presence of floating offshore structures and associated tethering systems	Negligible Not Significant
	Fish and shellfish	Underwater noise and vibration - Vibration from the rotating machinery in the WTGs, transmitted into the water column	Negligible Not Significant
	Fish and shellfish	Underwater noise and vibration - Metal cable snapping	Negligible Not Significant
	Marine fish	Effects to fish and shellfish from maintenance activities	Minor Not Significant
	Herring Sandeel	Permanent direct loss and physical disturbance to fish and shellfish habitats	Minor Not Significant



ES Chapter	Receptor	Description Residual Effect	Residual Significance of Effect
Chapter 20: Fish and Shellfish Ecology – Cumulative Effects	Shellfish Other marine fish		
	Herring and sandeel spawning grounds Shellfish	Increase in thermal emissions from cable operation	Negligible Not Significant
	Diadromous fish Pelagic fish Demersal fish Spawning, eggs, larvae and juvenile fish Shellfish Elasmobranchs	Effects of electromagnetic field (EMF) emissions	Minor Not Significant
Chapter 21: Marine Mammals	All marine mammals	PTS-onset risk from operational noise	Negligible Adverse / Not Significant
	All marine mammals	Disturbance risk from operational noise	Negligible Adverse / Not Significant
	All marine mammals	Barrier effects	Negligible Adverse / Not Significant
	All marine mammals	Entanglement risk	Negligible Adverse / Not Significant
	All marine mammals	Electromagnetic Field mission risk	Negligible Adverse / Not Significant
	Grey seals (only) All marine mammals	Disturbance risk from airborne sound and visual disturbance Accidental pollution or contamination	Negligible Adverse / Not Significant Minor Adverse / Not Significant
Chapter 21: Marine Mammals– Cumulative Effects	All marine mammals	The potential for cumulative disturbance from vessel activity during Operation and Maintenance	Negligible / Minor Adverse / Not Significant



ES Chapter	Receptor	Description Residual Effect	Residual Significance of Effect
Chapter 22: Ornithology	Guillemot	Disturbance and/or displacement due to the presence of WTGs and associated maintenance activities	Minor Adverse / Not Significant
	Razorbill, puffin, gannet, Manx shearwater, Balearic shearwater		Minor Adverse / Not Significant
	Storm petrel		Minor Adverse / Not Significant
	Kittiwake, lesser black-backed gull, gannet.	Collision risk with WTGs	Minor Adverse / Not Significant
	Balearic shearwater, storm petrel.		Minor Adverse / Not Significant
Chapter 22: Ornithology– Cumulative Effects	All ornithological receptors	Cumulative effects of entanglement with mooring lines and cables	Minor Adverse / Not Significant
		Cumulative effects of the attraction of nocturnal seabirds to project infrastructure lighting	Minor Adverse / Not Significant
		Cumulative effects of the creation of roosting habitat for birds due to presence of floating platforms and associated infrastructure	Minor Adverse / Not Significant
		Cumulative effects of the indirect effects due to changes in habitat and/ or prey availability and distribution.	Minor Adverse / Not Significant
		Disturbance and/or Displacement Due to the Presence of WTGs and Associated Maintenance Activities. Barrier effects due to presence of WTGs	Minor Adverse / Not Significant
		Collision Risk with WTGs	Minor Adverse / Not Significant
Chapter 23: Seascape and Landscape Visual	PCNP (and Heritage Coasts)	Impacts on seascape and landscape character	Minor Adverse / Not Significant
	All SCA and LCA in detailed assessment		Minor Adverse / Not Significant
	Viewpoints 01 - 03, 05 - 08, 11 and 12	Visual impact resulting from WTGs	Minor Adverse / Not Significant
	Viewpoints 04 and 09		Minor Adverse / Not Significant
	Viewpoint 10		Minor Adverse / Not Significant



ES Chapter	Receptor	Description Residual Effect	Residual Significance of Effect
	Viewpoint 12	Night-time visual impact resulting from aviation lighting on WTGs	Negligible Adverse / Not Significant
	Viewpoints 13 and 14		Negligible Adverse / Not Significant
	Viewpoints N1 and N2		Minor Adverse / Not Significant
	Viewpoint N3		Minor Adverse / Not Significant
Chapter 23: Seascape and Landscape Visual– Cumulative Effects	Landscape Designations: PCNP (and Heritage Coasts)	Potential impacts of proposed Project in addition to consented Project Erebus and proposed White Cross, Dragon Energy Park and Project Valorous developments.	Minor Adverse / Not Significant
	Seascape and Landscape Character		Minor Adverse / Not Significant
	Representative viewpoints		Minor Adverse / Not Significant
	Pembrokeshire Coast Path	Potential sequential impacts of proposed Project in addition to consented Project Erebus and proposed White Cross, Dragon Energy Park and Project Valorous developments.	Minor Adverse / Not Significant
	Night-time viewpoints	Potential visual impacts of the proposed Project in addition to the consented Project Erebus and proposed White Cross and Project Valorous developments.	Minor Adverse / Not Significant
Chapter 24: Marine Archaeology	CA6 / CA1025	Direct impacts on known wrecks and high potential geophysical anomalies (offshore)	Negligible Adverse / Not Significant
	CA1026; CA1029	Direct impacts on medium potential geophysical anomalies	Negligible Adverse / Not Significant
	CA2	Direct impacts on known wreck (Freshwater West)	Negligible Adverse / Not Significant



ES Chapter	Receptor	Description Residual Effect	Residual Significance of Effect
	CA8-CA12	Direct impacts on palaeo-environmental deposits (Freshwater West)	Negligible Adverse / Not Significant
	N/A	Direct impacts on palaeo-environmental deposits (offshore)	Negligible Adverse / Not Significant
	CA6 / CA1025	Indirect impacts on known wrecks and high potential geophysical anomalies (offshore)	Negligible Adverse / Not Significant
	CA1026; CA1029	Indirect impacts to marine archaeology and cultural heritage assets	Negligible Adverse / Not Significant
	CA2	Indirect impacts on known wreck (Freshwater West)	Negligible Adverse / Not Significant
	CA8-CA12	Indirect impacts on palaeo-environmental deposits (Freshwater West)	Negligible Adverse / Not Significant
	N/A	Indirect impacts on palaeo-environmental deposits (offshore)	Negligible Adverse / Not Significant
Chapter 24: Marine Archaeology– Cumulative Effects	N/A	Cumulative direct impacts on palaeo-environmental deposits (offshore)	Negligible Adverse / Not Significant
	CA8-CA12	Cumulative direct impacts on palaeo-environmental deposits (Freshwater West)	Negligible Adverse / Not Significant
	N/A	Cumulative indirect impacts on palaeo-environmental deposits (offshore)	Negligible Adverse / Not Significant
Chapter 25: Shipping and Navigation	All third-party vessels	Vessel displacement	Adverse / Tolerable with Mitigation ³ / Not Significant
	All third-party vessels	Increased third-party vessel collision risk	Adverse / Tolerable with Mitigation ³ / Not Significant

³ Assessment methodology deviates from the standard methodology outlined in Chapter 5. Please see **Section 25.4.2, Chapter 25** for full description and justification



ES Chapter	Receptor	Description Residual Effect	Residual Significance of Effect
	All third-party vessels	Third-party with project vessel collision risk	Adverse / Tolerable with Mitigation ³ / Not Significant
	All third-party vessels	Creation of vessel to structure allision risk	Adverse / Tolerable with Mitigation ³ / Not Significant
	All third-party vessels	Reduced access to local ports and harbours	Adverse / Broadly Acceptable ³ / Not Significant
	All third-party vessels	Loss of station	Adverse / Broadly Acceptable ³ / Not Significant
	All third-party vessels	Reduction in under keel clearance due to mooring lines, buoyant inter-array cables, or cable protection	Adverse / Broadly Acceptable ³ / Not Significant
	All third-party vessels	Anchor interaction with mooring lines or subsea cables	Adverse / Broadly Acceptable ³ / Not Significant
	All third-party vessels and emergency responders	Reduction of emergency response capability including Search and Rescue (SAR)	Adverse / Tolerable with Mitigation ³ / Not Significant
	All third-party vessels	Vessel displacement	Adverse / Tolerable with Mitigation ³ / Not Significant
	All third-party vessels	Increased third-party vessel collision risk	Adverse / Tolerable with Mitigation ³ / Not Significant
	All third-party vessels	Third-party with project vessel collision risk	Adverse / Tolerable with Mitigation ³ / Not Significant
	All third-party vessels	Reduced access to local ports and harbours	Adverse / Broadly Acceptable ³ / Not Significant
	All third-party vessels	Vessel Displacement	Minor Adverse / Tolerable with Mitigation ³ / Not Significant



ES Chapter	Receptor	Description Residual Effect	Residual Significance of Effect
Chapter 25: Shipping and Navigation– Cumulative Effects	All third-party vessels	Increased Third-Party Vessel to Vessel Collision Risk	Serious Adverse / Tolerable with Mitigation ³ / Not Significant
	All third-party vessels	Increased Third-Party to Project Vessel Collision Risk	Serious Adverse / Tolerable with Mitigation ³ / Not Significant
	All third-party vessels	Creation of Vessel to Structure Allision Risk	Moderate Adverse / Tolerable with Mitigation ³ / Not Significant
	All third-party vessels	Reduced Access to Local Ports and Harbours	Broadly Acceptable / Tolerable with Mitigation ³ / Not Significant
	All third-party vessels	Anchor Interaction with Mooring Lines or Subsea Cables	Minor Adverse / Broadly Acceptable ³ / Not Significant
	All third-party vessels	Reduction of Emergency Response Capability Including SAR	Serious Adverse / Tolerable with Mitigation ³ / Not Significant
Chapter 26: Commercial Fisheries	UK potting	Reduction in access to, or exclusion from established fishing grounds (array area)	Minor Adverse / Not Significant
	UK netting		Minor Adverse / Not Significant
	UK hooked gear		Minor Adverse / Not Significant
	UK beam trawl		Negligible Adverse / Not Significant
	UK dredge		Negligible Adverse / Not Significant
	Belgian beam trawl		Negligible Adverse / Not Significant



ES Chapter	Receptor	Description Residual Effect	Residual Significance of Effect
	French demersal otter trawl		Negligible Adverse / Not Significant
	Irish demersal otter trawl		Negligible Adverse / Not Significant
	UK potting	Displacement leading to gear conflict and increased fishing pressure on adjacent grounds	Minor Adverse / Not Significant
	UK netting		Minor Adverse / Not Significant
	UK hooked gear		Minor Adverse / Not Significant
	UK beam trawl		Negligible Adverse / Not Significant
	UK dredge		Negligible Adverse / Not Significant
	Belgian beam trawl		Negligible Adverse / Not Significant
	French demersal otter trawl		Negligible Adverse / Not Significant
	Irish demersal otter trawl		Negligible Adverse / Not Significant
	UK potting	Displacement or disruption of commercially important fish and shellfish resources	Minor Adverse / Not Significant
	UK netting		Minor Adverse / Not Significant
	UK hooked gear		Minor Adverse / Not Significant
	UK beam trawl		Negligible Adverse / Not Significant
	UK dredge		Negligible Adverse / Not Significant
	Belgian beam trawl		Negligible Adverse / Not Significant



ES Chapter	Receptor	Description Residual Effect	Residual Significance of Effect
	French demersal otter trawl		Negligible Adverse / Not Significant
	Irish demersal otter trawl		Negligible Adverse / Not Significant
	UK potting	Increased vessel traffic associated with the proposed Project within fishing grounds leading to interference with fishing activity	Minor Adverse / Not Significant
	UK netting		Minor Adverse / Not Significant
	UK hooked gear		Minor Adverse / Not Significant
	UK beam trawl		Minor Adverse / Not Significant
	UK dredge		Minor Adverse / Not Significant
	Belgian beam trawl		Minor Adverse / Not Significant
	French demersal otter trawl		Minor Adverse / Not Significant
	Irish demersal otter trawl		Minor Adverse / Not Significant
	UK potting	Additional steaming to alternative fishing grounds for vessels that would otherwise fish within the proposed Project area	Minor Adverse / Not Significant
	UK netting		Minor Adverse / Not Significant
	UK hooked gear		Minor Adverse / Not Significant
	UK beam trawl		Negligible Adverse / Not Significant
	UK dredge		Negligible Adverse / Not Significant
	Belgian beam trawl		Negligible Adverse / Not Significant
	French demersal otter trawl		Negligible Adverse / Not Significant
	Irish demersal otter trawl		Negligible Adverse / Not Significant
	UK potting		Minor Adverse / Not Significant



ES Chapter	Receptor	Description Residual Effect	Residual Significance of Effect
	UK netting	Physical presence of infrastructure leading to gear snagging	Minor Adverse / Not Significant
	UK hooked gear		Minor Adverse / Not Significant
	UK beam trawl		Minor Adverse / Not Significant
	UK dredge		Minor Adverse / Not Significant
	Belgian beam trawl		Minor Adverse / Not Significant
	French demersal otter trawl		Minor Adverse / Not Significant
	Irish demersal otter trawl		Minor Adverse / Not Significant
Chapter 26: Commercial Fisheries– Cumulative Effects	UK potting	Cumulative reduction in or loss of access to established fishing grounds (array area)	Moderate Adverse / Significant
	UK netting		Minor Adverse / Not Significant
	UK hooked gear		Minor Adverse / Not Significant
	UK beam trawl		Negligible Adverse / Not Significant
	UK dredge		Negligible Adverse / Not Significant
	Belgian beam trawl		Negligible Adverse / Not Significant
	French demersal otter trawl		Negligible Adverse / Not Significant
	Irish demersal otter trawl		Negligible Adverse / Not Significant
	UK potting	Cumulative reduction in or loss of access to established fishing grounds (offshore export cable)	Negligible Adverse / Not Significant
	UK netting		Negligible Adverse / Not Significant
UK hooked gear	Negligible Adverse / Not Significant		



ES Chapter	Receptor	Description Residual Effect	Residual Significance of Effect
	UK beam trawl		Negligible Adverse / Not Significant
	UK dredge		Negligible Adverse / Not Significant
	Belgian beam trawl		Negligible Adverse / Not Significant
	French demersal otter trawl		Negligible Adverse / Not Significant
	Irish demersal otter trawl		Negligible Adverse / Not Significant
	UK potting	Cumulative displacement leading to gear conflict and increased fishing pressure on established fishing grounds	Moderate Adverse / Significant
	UK netting		Minor Adverse / Not Significant
	UK hooked gear		Minor Adverse / Not Significant
	UK beam trawl		Negligible Adverse / Not Significant
	UK dredge		Negligible Adverse / Not Significant
	Belgian beam trawl		Negligible Adverse / Not Significant
	French demersal otter trawl		Negligible Adverse / Not Significant
	Irish demersal otter trawl		Negligible Adverse / Not Significant
	UK potting	Cumulative displacement or disruption of commercially important fish and shellfish resources	Minor Adverse / Not Significant
	UK netting		Minor Adverse / Not Significant
	UK hooked gear		Minor Adverse / Not Significant



ES Chapter	Receptor	Description Residual Effect	Residual Significance of Effect
	UK beam trawl		Negligible Adverse / Not Significant
	UK dredge		Negligible Adverse / Not Significant
	Belgian beam trawl		Negligible Adverse / Not Significant
	French demersal otter trawl		Negligible Adverse / Not Significant
	Irish demersal otter trawl		Negligible Adverse / Not Significant
Chapter 27: Aviation and Radar	Manorbier military ATC radar	Radar clutter	Minor Adverse / Not Significant
	Hartland Point military ATC radar		Minor Adverse / Not Significant
	Cornwall Airport Newquay ATC radar		Minor Adverse / Not Significant
	Burrington en-route radar		Negligible Adverse / Not Significant
	Military low flying	Physical obstruction	Minor Adverse / Not Significant
	Civil aircraft		Minor Adverse / Not Significant
	Helicopter operations		Minor Adverse / Not Significant
Chapter 27: Aviation and Radar– Cumulative Effects	Manorbier and Hartland Primary Surveillance Radar	Cumulative effects of radar clutter	Minor Adverse / Not Significant
	Military low flying	Cumulative effects of physical obstruction	Minor Adverse / Not Significant
	Civil aircraft Helicopter operations		
Chapter 28: Other Sea Users	All recreational activities	Disruption to marine recreational users	Negligible / Minor Adverse / Not Significant



ES Chapter	Receptor	Description Residual Effect	Residual Significance of Effect
	Oil and gas operations	Presence of offshore infrastructure	Negligible / Minor Adverse / Not Significant
	Renewable energy developments		Negligible / Minor Adverse / Not Significant
	Subsea cables		Negligible / Minor Adverse / Not Significant
	Marine dredge and disposal sites		Negligible / Minor Adverse / Not Significant
	Aggregate extraction		Negligible / Minor Adverse / Not Significant
	Military practice areas		Negligible / Minor Adverse / Not Significant
	Cable and pipeline asset owners		Minor Adverse / Not Significant
Chapter 28: Other Sea Users– Cumulative Effects	Recreational boaters Recreational fishing Other recreational activities	Cumulative effects of disruption to marine tourism and recreation	Minor Adverse / Not Significant
	Oil and gas operations Renewable energy developments Subsea cables Marine dredge and disposal sites Aggregate extraction Military practice areas	Cumulative effects of disruption to Other Sea Users and offshore infrastructure from increased vessel traffic	Minor Adverse / Not Significant



ES Chapter	Receptor	Description Residual Effect	Residual Significance of Effect
	Cable and pipeline asset owners	Cumulative effects of damage to or interference with a third-party asset	Minor Adverse / Not Significant

32.4 Summary of residual decommissioning effects

Table 32-3. A summary of the nature and significance of the residual decommissioning effects of the proposed Project

ES Chapter	Receptor	Description Residual Effect	Residual Significance Effect
Chapter 7: Landscape and Visual	Decommissioning residual effects were scoped out of Chapter 7: Landscape and Visual given these residual effects are less than the in construction phase and are short in duration and temporary in nature.		
Chapter 7: Landscape and Visual– Cumulative Effects	Hundleton and Lamphey LCA Southern Haven Mudflats LCA PCNP Freshwater West/Brownslade Burrows LCA	Impacts on landscape character	Minor Adverse / Not Significant
	Viewpoint B Viewpoint C Viewpoint E Viewpoint F Viewpoint G	Impacts on visual amenity	Minor / Negligible Adverse / Not Significant
Chapter 8: Terrestrial Ecology	Limestone Coast of South West Wales / Arfordir Calchfaen De Orllewin Cymru SAC	None – all impacts avoided through the utilisation of HDD techniques	Negligible Adverse / Not Significant



ES Chapter	Receptor	Description Residual Effect	Residual Significance Effect
Chapter 9: Historic Environment and Cultural Heritage	N/A	N/A	N/A
Chapter 10: Water Environment	Pembroke River / Milford Haven Inner transitional WFD Water body	Pollution of surface water from excess fine sediment and chemical spillage risk	Slight Adverse ¹ / Not Significant
	Milford Haven Waterway / Dyfrffordd Aberdaugleddau / Angle Bay / Milford Haven Outer WFD Water body		Slight Adverse ¹ / Not Significant
	Freshwater West / Pembrokeshire South WFD coastal water body		Slight Adverse ¹ / Not Significant
	Goldborough Pill West		Slight Adverse ¹ / Not Significant
	Ordinary Watercourse: T05a		Slight Adverse ¹ / Not Significant
	Ordinary Watercourses: WC12, T12a		Neutral Slight Adverse ¹ / Not Significant
	Ordinary Watercourses with associated abstraction license: T07a/A13, WC04/A3, WC07/A12		Neutral Slight Adverse ¹ / Not Significant
	Ordinary Watercourses with online ponds and associated abstraction licenses: WC05/P6/P7/P8/A4/A5, WC06/P9/A8, WC07/P18/P19/A18/A15 T07c/P11/A10		Slight Adverse ¹ / Not Significant
Ordinary Watercourses with online ponds but no licensed abstractions:	Neutral Slight Adverse ¹ / Not Significant		

¹ Assessment methodology deviates from the standard methodology outlined in Chapter 5. Please see **Section 10.4.3, Chapter 10** for full description and justification



ES Chapter	Receptor	Description Residual Effect	Residual Significance Effect
	WC04/P5 , WC06/P10, T07b/P14, WC14/P20, T07a/P15, T07c/P12/P13		
	Discrete Pond Feature: P32		Slight Adverse ¹ / Not Significant
	Surface water users – Licenced water abstractions: A3, A4, A5, A8, A10, A11, A12, A13, A15, A18.		Slight Adverse ¹ / Not Significant
	Surface water users – Licenced water abstractions: A2, A3, A4, A5, A8, A10, A11, A12, A13, A15, A18.	Temporary impacts on groundwater resources or local water supplies from temporary dewatering of excavations or changes in hydrology.	Slight Adverse ¹ / Not Significant
	Castlemartin Corse GWDTE		Slight Adverse ¹ / Not Significant
	Carboniferous Black Rock Subgroup and Gully Oolite Formation Principal Aquifer		Slight Adverse ¹ / Not Significant
	Avon Group Limestone/ Secondary A Aquifer		Slight Adverse ¹ / Not Significant
	Ridgeway Conglomerate / Secondary A Aquifer		
	Skrinkle Sandstone / Secondary A Aquifer		Slight Adverse ¹ / Not Significant
	Milford Haven Group formations / Secondary A Aquifer		Slight Adverse ¹ / Not Significant
	Aber Mawr Shale / Secondary B Aquifer		Slight Adverse ¹ / Not Significant
	Ludlow Rocks Formation / Secondary B Aquifer		Slight Adverse ¹ / Not Significant
	Superficial Marine Beach Deposit (sand), Blown Sand (sand) and Alluvium (clay,		Slight Adverse ¹ / Not Significant



ES Chapter	Receptor	Description Residual Effect	Residual Significance Effect	
	silt, sand and gravel) – Secondary A Aquifer			
	Superficial Raised Beach Deposits (sand and gravel) and Alluvium Deposits (clay, silt, sand and gravel) – Secondary A Aquifer		Slight Adverse ¹ / Not Significant	
	Superficial Tidal Flat Deposits (sand, silt and clay) – Secondary undifferentiated		Slight Adverse ¹ / Not Significant	
	Groundwater users – Private Water Supplies: PWS03a and PWS03b		Slight Adverse ¹ / Not Significant	
	Construction Workers		Temporary changes in flood risk from changes in surface water runoff.	Slight Adverse ¹ / Not Significant
	Residents and residential areas in surrounding area			Slight Adverse ¹ / Not Significant
Chapter 11: Geology and Hydrogeology	Freshwater West (North) GCR	Temporary measurable changes to geological feature / designation attributes, quality, or vulnerability and minor loss of, or alteration to, key characteristics, features, or elements.	Minor Adverse / Not Significant	
	MSZ – defined by the Pembrokeshire Coast National Park Local Development Plan – sand and gravel – between Freshwater West Beach and Valero refinery		Minor Adverse / Not Significant	
	MSZ – defined by the Pembrokeshire Coast National Park Local Development Plan hardrock – south of former tank farm		Minor Adverse / Not Significant	
	MSZ – defined by the Pembrokeshire Coast National Park Local Development		Minor Adverse / Not Significant	



ES Chapter	Receptor	Description Residual Effect	Residual Significance Effect
	Plan – hardrock – northeast of Freshwater West beach		
	MSZ – defined by the Pembrokeshire County Council Local Development Plan – sand and gravel – at Pembroke Power Station		Minor Adverse / Not Significant
	MSZ – defined by the Pembrokeshire County Council Local Development Plan – hardrock – eastern portion of the Onshore Development Area		Minor Adverse / Not Significant
	Human Health, Groundwater, Surface Water, Ecological Receptors		Minor Adverse / Not Significant
Chapter 11: Geology and Hydrogeology– Cumulative Effects	Broomhill Burrows SSSI Freshwater West (North) GCR	Impact on geological designated sites in combination with the proposed Project Erebus, Project Valorous and Greenlink developments.	Minor Adverse / Not Significant
	Geological receptors	Temporary sterilisation of the MSZ resource during construction works (from construction compounds, for example), which may result in cumulative effects on this receptor, in combination with proposed Project Erebus, Project Valorous and Greenlink developments.	Minor Adverse / Not Significant
	Geological receptors	Temporary impacts during construction from ground disturbance e or where groundwater controls may inadvertently mobilise contamination or create preferential pathways, in combination with proposed	Minor Adverse / Not Significant



ES Chapter	Receptor	Description Residual Effect	Residual Significance Effect
		Project Erebus, Project Valorous and Greenlink developments.	
Chapter 12: Agriculture and Soils	Soil resources	Loss of or damage to soil resources	Negligible Adverse / Not Significant
Chapter 13: Traffic and Transport	N/A	N/A	N/A
Chapter 15: Noise and Vibration	All receptors	Noise generated from daytime decommissioning activities	Minor Adverse / Not Significant
	Noise generated from daytime decommissioning activities	Vibration generated from decommissioning activities	Minor Adverse / Not Significant
	Noise generated from daytime decommissioning activities	Noise generated by decommissioning traffic	Negligible Adverse / Not Significant
Chapter 15: Noise and Vibration– Cumulative Effects	Noise receptors	Noise and vibration impacts- dependent on the exact works taking place at each location at any one time.	Minor Adverse / Not Significant
	Noise receptors	Decommissioning traffic noise increase dependent on the exact works taking place at each location at any one time.	Negligible Adverse / Not Significant
Chapter 16: Socio-economics, Recreation and Tourism	Land force in Pembrokeshire	Employment Creation	Minor Beneficial / Not Significant
Chapter 17: Physical Environment	No sensitive Physical Environment receptors.	Potential increases in SSC and associated changes to seabed substrate.	N/A [Potential pathway of effect for other topics]
	No sensitive Physical Environment receptors.	Potential changes to sediment transport system by changes in wave and current climate	N/A [Potential pathway of effect for other topics]



ES Chapter	Receptor	Description Residual Effect	Residual Significance Effect
	Annex I sandbank within and around the OfECC (Turbot Bank and St Gowan Shoal), and the seabed areas within the Pembrokeshire Marine SAC, West Wales Marine SAC and the Skomer, Skokholm and the Seas off Pembrokeshire SPA	Potential changes to the morphology of the seabed (including scour).	Minor Adverse / Not Significant
	The coast at the landfall within the Broomhill Burrows SSSI (Freshwater West).	Potential changes in morphology of the coast	Minor Adverse / Not Significant
Chapter 18: Marine Water and Sediment Quality	Marine water and sediment quality within the Study Area	Changes in turbidity	Minor Adverse / Not Significant
		Release of contaminants from sediments	Minor Adverse / Not Significant
		Release of bacteria from sediments	Minor Adverse / Not Significant
		Risk of pollution events	Minor Adverse / Not Significant
		Drilling fluid leaks	Minor Adverse / Not Significant
Chapter 18: Marine Water and Sediment Quality– Cumulative Effects	Marine water and sediment quality within the Study Area	Cumulative effects of changes in turbidity, release of contaminants and bacteria from sediments	Negligible Adverse / Not Significant
		Cumulative effects of pollution events	Minor Adverse / Not Significant
Chapter 19: Benthic Ecology	Benthic habitats and species	Temporary physical disturbance to benthic habitats and species	Negligible / Not Significant
	Benthic habitats and species	Temporary increase in SSC	Negligible / Not Significant
	Benthic habitats and species	Spread of INNS during physical disturbance	Negligible / Not Significant
Chapter 19: Benthic Ecology – Cumulative Effects	Benthic habitats and species	Temporary increase in SSC	Minor Not Significant
	Benthic habitats and species	Spread of INNS during physical disturbance	Not Significant



ES Chapter	Receptor	Description Residual Effect	Residual Significance Effect
	Benthic habitats and species	Temporary physical disturbance to benthic habitats and species	Minor / Not Significant
Chapter 20: Fish and Shellfish Ecology	Fish and shellfish	<ul style="list-style-type: none"> - Temporary direct loss and physical disturbance to fish habitats; - Temporary physical disturbance to fish and shellfish habitats and species from increased suspended sediment concentrations (SSC) and sediment deposition; - Changes to marine water quality as a result of accidental leaks and spills from vessels, including loss of fuel oils; and - Underwater noise and vibration. 	Negligible to Minor / Not Significant
Chapter 20: Fish and Shellfish Ecology – Cumulative Effects	Fish and shellfish	<ul style="list-style-type: none"> - Temporary direct loss and physical disturbance to fish habitats; - Temporary physical disturbance to fish and shellfish habitats and species from increased suspended sediment concentrations (SSC) and sediment deposition; - Changes to marine water quality as a result of accidental leaks and spills from vessels, including loss of fuel oils; and - Underwater noise and vibration. 	Minor Not Significant



ES Chapter	Receptor	Description Residual Effect	Residual Significance Effect
Chapter 21: Marine Mammals	All marine mammals	The risk of Auditory injury (PTS-onset) from underwater noise due to the removal of structures, underwater noise due to vessel activity	Negligible Adverse / Not Significant
	All marine mammals	Disturbance risk from vessel activity	Negligible Adverse / Not Significant
	All marine mammals	Accidental pollution or contamination	Negligible Adverse / Not Significant
	All marine mammals	Indirect effects from impacts to prey species	Minor Adverse / Not Significant
Chapter 22: Ornithology	Diving ornithological receptors	Entanglement with mooring lines and cables	Adverse / Not Significant
	Nocturnal ornithological receptors	Attraction of nocturnal seabirds to project infrastructure lighting	Adverse / Not Significant
	Kittiwake, lesser black-backed gull,	Creation of roosting habitat for birds due to presence of floating platforms and associated infrastructure	Adverse / Not Significant
	All ornithological receptors	Indirect effect due to changes in habitat and / or prey availability and distribution	Adverse / Not Significant
Chapter 22: Ornithology– Cumulative Effects	All ornithological receptors	If the same conditions that have been applied to Erebus in relation to decommissioning are applied to the proposed Project (and also to White Cross) then there will be no outstanding risk of significant cumulative effects	Not Significant
Chapter 23: Seascape, Landscape and Visual	PCNP (and Heritage Coasts)	Impacts on seascape and landscape character	Minor Adverse / Not Significant
	All SCA and LCA in detailed assessment	Potential residual effects from decommissioning of the proposed Project will be similar or less than those related to operation and will be short in duration and temporary in nature.	Minor Adverse / Not Significant
	Viewpoints 01 - 03, 05 - 08, 11 and 12	Visual impact resulting from WTGs	Minor Adverse / Not Significant



ES Chapter	Receptor	Description Residual Effect	Residual Significance Effect
	Viewpoints 04 and 09	Potential residual effects from decommissioning of the proposed Project will be similar or less than those related to operation and will be short in duration and temporary in nature.	Minor Adverse / Not Significant
	Viewpoint 10		Minor Adverse / Not Significant
	Viewpoint 12		Negligible Adverse / Not Significant
	Viewpoints 13 and 14		Negligible Adverse / Not Significant
	Viewpoints N1 and N2	Night-time visual impact resulting from aviation lighting on WTGs.	Minor Adverse / Not Significant
	Viewpoint N3	Potential residual effects from decommissioning of the proposed Project will be similar or less than those related to operation and will be short in duration and temporary in nature.	Minor Adverse / Not Significant
Chapter 23: Seascape and Landscape Visual– Cumulative Effects	Seascape and Landscape Visual receptors	It is considered that cumulative impacts and effects from decommissioning of the proposed Project in addition to that of the identified cumulative schemes would be similar to or less than those relating to operation and maintenance. The considerable distance of the majority of activity from the coast, the small additional part of the expansive seascape it would occupy, the existing context of commercial shipping as a characteristic of the seascape and views, the temporary nature and short duration would all contribute to a reduced impression of additional change and no potential for significant cumulative effects.	Not Significant



ES Chapter	Receptor	Description Residual Effect	Residual Significance Effect
Chapter 24: Marine Archaeology	CA6 / CA1025	Direct impacts on known wrecks and high potential geophysical anomalies (offshore)	Negligible Adverse / Not Significant
	CA2	Direct impacts on known wreck (Freshwater West)	Negligible Adverse / Not Significant
	CA8-CA12	Direct impacts on palaeo-environmental deposits (Freshwater West)	Negligible Adverse / Not Significant
	CA1026	Direct impacts on medium potential geophysical anomalies	Negligible Adverse / Not Significant
	CA1029	Direct impacts on medium potential geophysical anomalies	Negligible Adverse / Not Significant
	N/A	Direct impacts on palaeo-environmental deposits (offshore)	Negligible Adverse / Not Significant
	CA6 / CA1025	Indirect impacts on known wrecks and high potential geophysical anomalies (offshore)	Negligible Adverse / Not Significant
	CA2	Indirect impacts on known wreck (Freshwater West)	Negligible Adverse / Not Significant
	CA8-CA12	Indirect impacts on palaeo-environmental deposits (Freshwater West)	Negligible Adverse / Not Significant
	CA1026	Indirect impacts on medium potential geophysical anomalies	Negligible Adverse / Not Significant
	CA1029	Indirect impacts on medium potential geophysical anomalies	Negligible Adverse / Not Significant
	N/A	Indirect impacts on palaeo-environmental deposits (offshore)	Negligible Adverse / Not Significant
	N/A	Cumulative direct impacts on palaeo-environmental deposits (offshore)	Negligible / Minor Beneficial / Not Significant



ES Chapter	Receptor	Description Residual Effect	Residual Significance Effect
Chapter 24: Marine Archaeology– Cumulative Effects	CA8- CA12	Cumulative direct impacts on palaeo-environmental deposits (Freshwater West)	Negligible / Adverse / Not Significant
	CA2 CA6 / CA1025	Cumulative direct impacts on known wreck sites	Negligible / Adverse / Not Significant
	N/A	Cumulative indirect impacts on palaeo-environmental deposits (offshore)	Negligible / Adverse / Not Significant
Chapter 25: Shipping and Navigation	All third-party vessels	Vessel Displacement	Negligible Adverse/ Tolerable with Mitigation ² / Not Significant
	All third-party vessels	Increased Third-Party to Third-Party Vessel Collision Risk	Serious Adverse / Tolerable with Mitigation ² / Not Significant
	All third-party vessels	Third-Party to Project Vessel Collision Risk	Serious Adverse / Tolerable with Mitigation ² / Not Significant
	All third-party vessels	Reduced Access to Local Ports and Harbours	Negligible Adverse / Broadly Acceptable ² / Not Significant
Chapter 25: Shipping and Navigation– Cumulative Effects	All third-party vessels	Vessel Displacement	Minor Adverse / Tolerable with Mitigation ² / Not Significant
	All third-party vessels	Increased Third-Party Vessel to Vessel Collision Risk	Serious Adverse / Tolerable with Mitigation ² / Not Significant

² Assessment methodology deviates from the standard methodology outlined in Chapter 5. Please see **Section 25.4.2, Chapter 25** for full description and justification



ES Chapter	Receptor	Description Residual Effect	Residual Significance Effect
	All third-party vessels	Increased Third-Party to Project Vessel Collision Risk	Serious Adverse / Tolerable with Mitigation ² / Not Significant
	All third-party vessels	Creation of Vessel to Structure Allision Risk	Moderate Adverse / Tolerable with Mitigation ² / Not Significant
	All third-party vessels	Reduced Access to Local Ports and Harbours	Broadly Acceptable / Tolerable with Mitigation ² / Not Significant
	All third-party vessels	Anchor Interaction with Mooring Lines or Subsea Cables	Minor Adverse / Broadly Acceptable ² / Not Significant
	All third-party vessels	Reduction of Emergency Response Capability Including SAR	Serious Adverse / Tolerable with Mitigation ² / Not Significant
Chapter 26: Commercial Fisheries	UK potting	Reduction in access to, or exclusion from established fishing grounds (array area).	Minor Adverse / Not Significant
	UK netting		Minor Adverse / Not Significant
	UK hooked gear		Minor Adverse / Not Significant
	UK beam trawl	As per construction phase. The magnitude of effect is considered to be no greater, and in all probability less, than in the construction phase. Therefore, it is anticipated that any decommissioning impacts would be no greater than that assessed for the construction phase.	Negligible Adverse / Not Significant
	UK dredge		Negligible Adverse / Not Significant
	Belgian beam trawl		Negligible Adverse / Not Significant
	French demersal otter trawl		Negligible Adverse / Not Significant



ES Chapter	Receptor	Description Residual Effect	Residual Significance Effect
	Irish demersal otter trawl		Negligible Adverse / Not Significant
	UK potting	Displacement leading to gear conflict and increased fishing pressure on adjacent grounds.	Minor Adverse / Not Significant
	UK netting		Minor Adverse / Not Significant
	UK hooked gear	As per construction phase. The magnitude of effect is considered to be no greater, and in all probability less, than in the construction phase. Therefore, it is anticipated that any decommissioning impacts would be no greater than that assessed for the construction phase.	Minor Adverse / Not Significant
	UK beam trawl		Negligible Adverse / Not Significant
	UK dredge		Negligible Adverse / Not Significant
	Belgian beam trawl		Negligible Adverse / Not Significant
	French demersal otter trawl		Negligible Adverse / Not Significant
	Irish demersal otter trawl		Negligible Adverse / Not Significant
	UK potting	Displacement or disruption of commercially important fish and shellfish resources.	Minor Adverse / Not Significant
	UK netting		Minor Adverse / Not Significant
	UK hooked gear		Minor Adverse / Not Significant
	UK beam trawl	As per construction phase. The magnitude of effect is considered to be no greater, and in all probability less, than in the construction phase. Therefore, it is anticipated that any decommissioning impacts would be no greater than that assessed for the construction phase.	Negligible Adverse / Not Significant
	UK dredge		Negligible Adverse / Not Significant
	Belgian beam trawl		Negligible Adverse / Not Significant
	French demersal otter trawl		Negligible Adverse / Not Significant



ES Chapter	Receptor	Description Residual Effect	Residual Significance Effect
	Irish demersal otter trawl		Negligible Adverse / Not Significant
	UK potting	Increased vessel traffic associated with the proposed Project within fishing grounds leading to interference with fishing activity.	Minor Adverse / Not Significant
	UK netting		Minor Adverse / Not Significant
	UK hooked gear		Minor Adverse / Not Significant
	UK beam trawl		Minor Adverse / Not Significant
	UK dredge		Minor Adverse / Not Significant
	Belgian beam trawl	As per construction phase. The magnitude of effect is considered to be no greater, and in all probability less, than in the construction phase. Therefore, it is anticipated that any decommissioning impacts would be no greater than that assessed for the construction phase.	Minor Adverse / Not Significant
	French demersal otter trawl		Minor Adverse / Not Significant
	Irish demersal otter trawl		Minor Adverse / Not Significant
	UK potting		Minor Adverse / Not Significant
	UK netting		Minor Adverse / Not Significant
	UK hooked gear	Additional steaming to alternative fishing grounds for vessels that would otherwise fish within the proposed Project area.	Minor Adverse / Not Significant
	UK beam trawl		Negligible Adverse / Not Significant
	UK dredge		Negligible Adverse / Not Significant
	Belgian beam trawl		Negligible Adverse / Not Significant
	French demersal otter trawl		Negligible Adverse / Not Significant
	Irish demersal otter trawl	As per construction phase. The magnitude of effect is considered to be no greater, and in all probability less, than in the construction phase. Therefore, it is anticipated that any decommissioning impacts would be no greater than that assessed for the construction phase.	Negligible Adverse / Not Significant
	UK potting		Minor Adverse / Not Significant



ES Chapter	Receptor	Description Residual Effect	Residual Significance Effect
	UK netting	Physical presence of infrastructure leading to gear snagging	Minor Adverse / Not Significant
	UK hooked gear		Minor Adverse / Not Significant
	UK beam trawl		Minor Adverse / Not Significant
	UK dredge		Minor Adverse / Not Significant
	Belgian beam trawl		Minor Adverse / Not Significant
	French demersal otter trawl		Minor Adverse / Not Significant
	Irish demersal otter trawl		Minor Adverse / Not Significant
Chapter 26: Commercial Fisheries– Cumulative Effects	UK potting	Cumulative reduction in, or temporary loss of access to, established fishing grounds	Moderate Adverse / Significant
	UK netting		Minor Adverse / Not Significant
	UK hooked gear		Minor Adverse / Not Significant
	UK beam trawl		Negligible Adverse / Not Significant
	UK dredge		Negligible Adverse / Not Significant
	Belgian beam trawl		Negligible Adverse / Not Significant
	French demersal otter trawl		Negligible Adverse / Not Significant
	Irish demersal otter trawl		Negligible Adverse / Not Significant
	UK potting	Cumulative displacement leading to gear conflict and increased fishing pressure on adjacent grounds	Moderate Adverse / Significant
	UK netting		Minor Adverse / Not Significant
	UK hooked gear		Minor Adverse / Not Significant
	UK beam trawl		Negligible Adverse / Not Significant



ES Chapter	Receptor	Description Residual Effect	Residual Significance Effect	
	UK dredge		Negligible Adverse / Not Significant	
	Belgian beam trawl		Negligible Adverse / Not Significant	
	French demersal otter trawl		Negligible Adverse / Not Significant	
	Irish demersal otter trawl		Negligible Adverse / Not Significant	
	UK potting	Cumulative displacement or disruption of commercially important fish and shellfish resources	Minor Adverse / Not Significant	
	UK netting		Minor Adverse / Not Significant	
	UK hooked gear		Minor Adverse / Not Significant	
	UK beam trawl		Negligible Adverse / Not Significant	
	UK dredge		Negligible Adverse / Not Significant	
	Belgian beam trawl		Negligible Adverse / Not Significant	
	French demersal otter trawl		Negligible Adverse / Not Significant	
	Irish demersal otter trawl		Negligible Adverse / Not Significant	
	Chapter 28: Other Sea Users	N/A	N/A	N/A
	Chapter 28: Other Sea Users– Cumulative Effects	Recreational boaters Recreational fishing	Cumulative effects of disruption to marine tourism and recreation	Minor Adverse / Not Significant



ES Chapter	Receptor	Description Residual Effect	Residual Significance Effect
	Other recreational activities		
	Oil and gas operations Renewable energy developments Subsea cables Marine dredge and disposal sites Aggregate extraction Military practice areas	Cumulative effects of disruption to Other Sea Users and offshore infrastructure from increased vessel traffic	Minor Adverse / Not Significant
	Cable and pipeline asset owners	Cumulative effects of damage to or interference with a third-party asset	Minor Adverse / Not Significant



32.5 Summary of significant residual effects

Table 32-4. A summary of significant residual effects of the proposed Project

ES Chapter	Significant Residual Effect	Project Phase	Receptor	Reason for Significance Classification	Additional Mitigation Measures	Residual Significance	Reference within the ES
Chapter 7: Landscape and Visual	Impacts on visual amenity	Construction	Viewpoints A and E	Viewpoint A (B4320) and Viewpoint E (Wallaston Green): Both the significance and magnitude of construction visual effects were moderate and medium, respectively. Given no additional mitigation measures were included in the assessment, collectively the residual effect of visual impacts on this receptor is classified as significant.	None Available	Moderate Adverse	ES Chapter 7: Landscape and Visual Impact Assessment, section 7.8.1 and Table 7-8
	Impacts on visual amenity	Construction	Viewpoint F	Viewpoint F (right of way east of Lambeth Farm): Although visibility of the Onshore Substation from the viewpoints would be relatively limited there would be greater change to views from a small number of nearby receptors, resulting in a medium magnitude of change at year 1 of operation. The sensitivity is high or medium	None Available	Moderate Adverse	ES Chapter 7: Landscape and Visual Impact Assessment, section 7.8.1 and Table 7-8



ES Chapter	Significant Residual Effect	Project Phase	Receptor	Reason for Significance Classification	Additional Mitigation Measures	Residual Significance	Reference within the ES
				and the magnitude of the impact assessed as medium, resulting in a moderate adverse significance of effect at year 1 of operation.			
	Impacts on visual amenity	Operation and Maintenance	Viewpoints E and F	The Onshore Substation would be located in closer proximity to Viewpoint E: Wallaston Green and Viewpoint F: Right of Way, west of Lambeeth Farm, and although visibility of the Onshore Substation from the viewpoints would be relatively limited there would be greater change to views from a small number of nearby receptors. The sensitivity of these receptors is considered to be high or medium and the magnitude of the impact assessed as medium, resulting in a moderate adverse significance of effect at year 1 of operation	Earthworks and planting at Onshore Substation	Moderate Adverse at year 1, reducing to Minor adverse by year 15.	ES Chapter 7: Landscape and Visual Impact Assessment, section 7.8.1 and Table 7-8
Chapter 8 Terrestrial Ecology –	Killing and disturbance of individuals in	Construction	Hazel Dormouse	Whilst the proposed Project Erebus, Project Valorous and Greenlink developments conclude that the impacts on dormice will	Phased habitat clearance protocols	Moderate Adverse	ES Chapter 8: Terrestrial Ecology, section 8.11.3



ES Chapter	Significant Residual Effect	Project Phase	Receptor	Reason for Significance Classification	Additional Mitigation Measures	Residual Significance	Reference within the ES
Cumulative Effects	combination with proposed Project Erebus, Project Valorous and Greenlink project development.			be not significant, as each individual project will only result in localised areas of habitat loss, when considered in combination with each other and this proposed Project widespread disturbance, habitat loss and fragmentation is likely to occur which is considered a permanent, moderate adverse and significant impact on dormice.			
Chapter 15: Noise and Vibration	HDD noise at night	Construction	R5 (Burrows Angle)	The predicted Façade Noise Level at R5 is classified as a large impact (60 dB) for HDD works. This results in the magnitude of the residual effect as high. Along with a high sensitivity this classifies noise and vibration residual effect related to HDD works on R5 as moderate adverse therefore significant (even after additional mitigation measures such as using quieter equipment are applied).	Maximise distance to sensitive receptor; Quieter equipment; Use of barriers	Moderate Adverse	ES Chapter 15: Noise and Vibration, section 15.8.1 and Table 15-26
Chapter 16: Socio-economics,	Employment creation	Construction	Labour Force in Pembrokeshire	The proposed Project will create direct and indirect employment (FTEs) in locations within the	N/A	Moderate Beneficial	ES Chapter 16: Socio-economics,



ES Chapter	Significant Residual Effect	Project Phase	Receptor	Reason for Significance Classification	Additional Mitigation Measures	Residual Significance	Reference within the ES
Recreation and Tourism				<p>Onshore Development Area and in the supply chain.</p> <p>It is anticipated that 2,165 gross FTEs will be created during the construction phase because of the proposed Project. Consequently, the magnitude of this beneficial residual effect is high. Along with a medium receptor sensitivity this residual significant effect is classified as significant.</p>			Recreation and Tourism, section 16.8.1 and Table 16-22
Chapter 16: Socio-economics, Recreation and Tourism - Cumulative Effects	Cumulative impact on the economy (FTEs and GVA) in combination with proposed Project Erebus, Project Valorous and	Construction Operation	Labour force in Pembrokeshire	<p>It is likely that the cumulative impact for the proposed Projects will be beneficial, and will support construction employment throughout Pembrokeshire. The overall scale of construction employment is increased through the potentially simultaneous construction phases taking place for each scoped in project. However, given the proposed Project will begin works onshore between 2026 and 2027, the</p>	N/A	Moderate Beneficial	ES Chapter 16: Socio-economics, Recreation and Tourism, section 16.11.3



ES Chapter	Significant Residual Effect	Project Phase	Receptor	Reason for Significance Classification	Additional Mitigation Measures	Residual Significance	Reference within the ES
	Greenlink projects.			opportunity for overlapping programmes of activities between the scoped in projects is likely to be low. The duration of each construction phase for the concurrent projects is also relatively short.			
	Cumulative impact of construction workforce on local housing market in combination with proposed Project Erebus, Project Valorous and Greenlink projects.	Construction	Housing in the Study Area	The overall scale of demand for the residential sector is increased through the simultaneous construction phases taking place for each scoped in project. As detailed above, the scope for overlapping construction and construction phases is relatively small, but if this occurs, the combined impact will have an adverse impact on housing availability in Pembrokeshire local authority. The duration of cumulative effects is also likely to be short, as the construction phases of the Erebus and Greenlink Interconnector projects	None available	Moderate Adverse	ES Chapter 16: Socio-economics, Recreation and Tourism, section 16.11.3



ES Chapter	Significant Residual Effect	Project Phase	Receptor	Reason for Significance Classification	Additional Mitigation Measures	Residual Significance	Reference within the ES
				possibly finish before that of the proposed Project.			
Chapter 26: Commercial Fisheries– Cumulative Effects	Cumulative reduction in, or loss of access to, established fishing grounds	Construction Operation Decommissioning	UK potting	Overall, it is predicted that the sensitivity of the receptor is low to medium, and the cumulative impact magnitude is medium. The cumulative effect is of minor to moderate adverse significance, which is potentially significant in EIA terms. In response to this, and specific to the UK potting fleet where there is a significant residual impact, further mitigation has been identified	Implementation of evidence-based mitigation following procedures to be set out within the Fisheries Liaison and Coexistence Plan and in line with Fishing Liaison with Offshore Wind and Wet Renewables (FLOWW) guidelines	Minor / Moderate Adverse	ES Chapter 26: Commercial Fisheries, section 26.11.3
	Cumulative displacement leading to	Construction Operation Decommissioning	UK potting	Overall, it is predicted that the sensitivity of the receptor is low to medium, and the impact	Implementation of evidence-based	Minor / Moderate Adverse	ES Chapter 26: Commercial



ES Chapter	Significant Residual Effect	Project Phase	Receptor	Reason for Significance Classification	Additional Mitigation Measures	Residual Significance	Reference within the ES
	gear conflict and increased fishing pressure on adjacent grounds			magnitude is medium. The effect is of moderate adverse significance, which is potentially significant in EIA terms. In response to this, and specific to the UK potting fleet where there is a significant residual impact, further mitigation has been identified.	mitigation following procedures to be set out within the Fisheries Liaison and Coexistence Plan and in line with FLOWW guidelines		Fisheries, section 26.11.3