# 18 Summary of Residual Effects

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18.1 Introduction

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## 18 Summary of Residual Effects

### 18.1 Introduction

- 18.1.1 Table 18.1 and Table 18.2 provide a quick reference to residual environmental effects identified in the technical sections of the EIA, as well as a cross reference to the relevant mitigation measures identified.
- 18.1.2 Table 18.3 provides a summary of the cumulative effects of the Proposed Development in combination with other proposed, consented and operation developments within the area.

#### Table 18.1 - Summary of Residual Effects – Construction Phase

Description of Effect Significance of Likel		cely Effect	Additional Mitigation Measure	Significance of Resid	ual Effect
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse
6. Landscape and Visual					
Rough Moorland	Not significant			Not significant	
Coastal Basin LCT (301): Widewall Bay LCU	Not significant			Not significant	
Enclosed Bays LCT (305): Swanbister Bay LCU	Not significant			Not significant	
Holms LCT (295): Cava and Rysa Little LCU	Not significant			Not significant	
Holms LCT (295): Calf of Flotta and Switha LCU	Not significant	Adverse	None	Not significant	Adverse
Holms LCT (295): Hunda LCU	Not significant	-		Not significant	
Holms LCT (295): Swona LCU	Not significant	-		Not significant	
Inclined Coastal Pasture LCT (302); Lyness LCU	Significant			Significant	
Inclined Coastal Pasture LCT (302); Orphir LCU	Not significant			Not significant	

Description of Effect	Significance of Likely Effect		Additional Mitigation Measure	Significance of Residual Effect	
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse
Inclined Coastal Pasture LCT (302); Hoxa LCU	Not significant			Not significant	
Low Moorland LCT (311): West Flotta LCU	Not significant			Not significant	
Moorland Hills Orkney LCT (314): Hoy Central Hills LCU	Significant Not significant			Significant Not significant	
Moorland Hills Orkney LCT (314): Ward Hill	Not significant			Not significant	
Rugged Hills Orkney LCT (316): Ward Hill LCU	Not significant	Adverse	None	Not significant	Adverse
Rolling Hill Fringe LCT (313): Scorra Dale LCU	Not significant			Not significant	
Undulating Island Pasture LCT (299); East Flotta LCU	Not significant			Not significant	
Whaleback Islands LCT (296); Fara LCU	Significant			Significant	
Whaleback Islands LCT (296); South Walls LCU	Significant			Significant	

Description of Effect	Significance of Likely Effect		Additional Mitigation Measure	Significance of Residual Effect	
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse
RCCA 23: Orphir	Not significant			Not significant	
RCCA 24: Stromness and Clestrain Sound	Not significant			Not significant	
RCCA 31: Cava, Rysa Little and Fara	Significant – western coasts Not significant – eastern coasts			Significant – western coasts Not significant – eastern coasts	
RCCA 32: South East Hoy	Significant – Crockness to Ruberry Not significant – remaining coasts	Adverse	None	Significant – Crockness to Ruberry Not significant – remaining coasts	Adverse
RCCA 33: Flotta	Not significant	-		Not significant	
RCCA 34: North Bay, Longhope and Switha	Significant			Significant	
RCCA 38: West Burray and South Ronaldsay	Not significant			Not significant	
VP1: Knap of Trowieglen	Significant			Significant	

Description of Effect	Significance of Lik	kely Effect	Additional Mitigation Measure	Significance of Residual Effect	
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse
VP 2: West Hill, Flotta	Significant			Significant	
VP 3: Longhope, South Walls	Significant			Significant	
VP 4: A961 OS Viewpoint, South Ronaldsay	Not significant			Not significant	
VP 5: St Margaret's Hope Ferry	Not significant			Not significant	
VP 6: Orphir, A964	Not significant			Not significant	
VP 7: Clestrain, A964	Not significant			Not significant	
VP 8: Dunnet Head, Mainland	Not significant	Adverse	None	Not significant	Adverse
VP 9: Duncansby Head, Mainland	Not significant			Not significant	
VP 10: Ward Hill	Significant			Significant	
VP 11: Lyness Naval Cemetery	Significant			Significant	
VP 12: North Walls School	Significant			Significant	
VP 13: Bakingstone Hill	Significant			Significant	
VP14: Houton to Lyness Ferry	Significant			Significant	

Description of Effect	Significance of Lik	ely Effect	Additional Mitigation Measure	Significance of Reside	ual Effect
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse
VP15: A961 Burray	Not significant			Not significant	
VP 16: Withi Gill	Significant			Significant	
B9047	Significant Not significant – north of Lyrawa Hill			Significant Not significant – north of Lyrawa Hill	
Houton to Lyness Ferry	Significant			Significant	
Lyness	Significant	Adverse	None	Significant	Adverse
Longhope	Significant			Significant	
H7 Wee Fea Core Path	Significant			Significant	
F1 West Hill Circular Core Path	Significant – western section			Significant – western section	
	Not significant – remaining section			Not significant – remaining section	

Description of Effect	Significance of	Likely Effect	Additional Mitigation Measure	Significance of Re	Significance of Residual Effect	
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse	
7. Ornithology						
Red-throated diver – breeding Disturbance (Noise and Visual)	Significant	Adverse	ORN1 Implementation of a Breeding Bird Protection Plan; ORN2 During the breeding season (April to August), construction will not take place along the section of access track between T4, T5 and T6, nor installation of the turbine at T5, before mid-May. Construction may only commence from mid-May onwards within the aforementioned areas if pre- construction surveys indicate that the closest red-throated diver lochan is not occupied. If the lochan is occupied, construction of the aforementioned infrastructure will commence only after the breeding attempt is completed (young fledged) or has failed, or if no eggs are laid by mid-July.	No effect	Not applicable	
Hen harrier – breeding			ORN1 Implementation of a Breeding Bird Protection Plan;			
Disturbance (Noise and Visual)						

Significance of Likely Effect		Additional Mitigation Measure	Significance of Residual Effect		
Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse	
		ORN3 During the breeding season			
		(April to August) construction will			
		not take place along the section of			
		access track between T2 and T4 nor			
		installation of the turbines at T3			
		and T4 before mid-May.			
		Construction may only commence			
		within the aforementioned area			
		from mid-May onwards only if pre-			
		construction surveys (ORN1)			
		indicate that there is no occupied			
		hen harrier nest site within 500 m.			
		If nests are found within 500 m,			
		construction of the			
		aforementioned infrastructure will			
		commence only after the breeding			
		attempt is completed (young			
		fledged) or has failed. Works may			
		commence from mid-May if there			
		are nests at 500 m – 750 m, but			
		these nests will be monitored by			
		the ECoW and the works would			
		cease if disturbance was observed.			
		Significance Beneficial/	Significance Beneficial/ Adverse   ORN3 During the breeding season (April to August) construction will not take place along the section of access track between T2 and T4 nor installation of the turbines at T3 and T4 before mid-May. Construction may only commence within the aforementioned area from mid-May onwards only if pre- construction surveys (ORN1) indicate that there is no occupied hen harrier nest site within 500 m. If nests are found within 500 m, construction of the aforementioned infrastructure will commence only after the breeding attempt is completed (young fledged) or has failed. Works may commence from mid-May if there are nests at 500 m – 750 m, but these nests will be monitored by the ECoW and the works would	Significance Beneficial/ Adverse Significance   ORN3 During the breeding season (April to August) construction will not take place along the section of access track between T2 and T4 nor installation of the turbines at T3 and T4 before mid-May. Construction may only commence within the aforementioned area from mid-May onwards only if pre- construction surveys (ORN1) indicate that there is no occupied hen harrier nest site within 500 m. If nests are found within 500 m, construction of the aforementioned infrastructure will commence only after the breeding attempt is completed (young fledged) or has failed. Works may commence from mid-May if there are nests at 500 m - 750 m, but these nests will be monitored by the ECoW and the works would	

Description of Effect	Significance of Likely Effect		Additional Mitigation Measure	Significance of Resid	ual Effect
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse
Great skua – breeding Disturbance (Noise and Visual) Breeding waders – Curlew and snipe Disturbance (Noise and Visual)	Significant (at less than local (site) level only)	Adverse	None (effects are temporary and reversible)	Significant (at less than local (site) level only)	Adverse
8. Ecology					
Loss/Drying effect on habitat: Hoy and North Walls SSSI Moorland Fringes LNCS and associated habitats wet modified bog and blanket mire	Medium and Significant	Adverse	Standard in-built mitigation (i.e. 50 m watercourse buffer) and adoption of good practice and CEMP. ECoW advising on micro-siting requirements to ensure impacts on modified bog are reduced further where possible. HMP will be implemented during the construction and operation phases that will focus on restoration of blanket bog within the site and at an off-site location.	Barely perceptible and Not Significant	Beneficial
Loss of habitat and disturbance to mountain hare	Barely perceptible and Not Significant		Implementation of Species Protection Plan.		Adverse

Description of Effect	Significance of Likely Effect		Additional Mitigation Measure	Significance of Resid	sidual Effect	
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse	
Mortality to mountain hare	Low and Not Significant		Implementation of Species Protection Plan.			
Loss of habitat and disturbance to fish species	Barely perceptible and Not Significant		Implementation of CEMP.			
Mortality to fish	Low and Not Significant	Adverse		Barely perceptible and Not Significant	Adverse	
Running Water	Barely perceptible and Not Significant					
Dry dwarf shrub heath	Medium and Significant		Implementation of CEMP and demarcation of sensitive areas during construction.			
9. Noise						
Noise from construction activities	Minor and Not Significant	Adverse	Implementation of appropriate noise controls regarding hours of work, timing of site deliveries, and use of best practice to minimise unnecessary noise.	Minor and Not Significant	Adverse	

Description of Effect	Significance of Lil	kely Effect	Additional Mitigation Measure	Significance of Residual Effect		
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse	
Noise from construction traffic	Minor and Not Significant	Adverse	Implementation of appropriate noise controls regarding hours of work, timing of site deliveries, and use of best practice to minimise unnecessary noise.	Minor and Not Significant	Adverse	
10. Cultural Heritage						
Direct impacts on known non- designated group of nationally important archaeological remains on Wee Fea.	Moderate and Significant	Adverse	A mitigation strategy in four stages is proposed; earthwork survey and trial trenching will be undertaken in the first instance. Should the results of the trial trenching indicate that further works are required further excavation and post-excavation analysis will be undertaken. A Heritage Interpretation and Conservation Management Plan (HICMP) for these assets is also proposed.	Negligible and Not Significant	Adverse	
Direct impacts on known non- designated remains of local importance that are present on the site.	Minor and Not Significant		A mitigation strategy in four stages is proposed; earthwork survey and trial trenching will be undertaken in the first instance. Should the results of the trial trenching indicate that further works are			

Description of Effect	Significance of Likely Effect		Additional Mitigation Measure	Significance of Resid	ual Effect
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse
			required further excavation and post-excavation analysis will be undertaken.		
Direct impacts on known non- designated remains of negligible importance that are present on the site.	Minor and Not Significant		A mitigation strategy in four stages is proposed; earthwork survey and trial trenching will be undertaken in the first instance. Should the results of the trial trenching indicate that further works are required further excavation and post-excavation analysis will be undertaken.	Negligible and Not Significant	Adverse
Direct impacts on previously unrecorded non-designated regionally or nationally important archaeological remains that could be present on the site.	Major and Significant	Adverse	A four-stage mitigation strategy is proposed; survey and trial trenching will be undertaken initially and will be followed by excavation and post-excavation analysis as necessary. Any significant remains will be preserved in situ wherever possible.		
Temporary significant effects on the settings of Category A Listed Former Naval Headquarters and	Moderate and Significant		No additional mitigation than the standard mitigation identified (effects on setting from	Neutral and Not Significant	-

Description of Effect	Significance of Likely Effect		Additional Mitigation Measure	Significance of Residual Effect		
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse	
Communications Centre (Site 127), Wee Fea and Underground Fuel Reservoir (Site 153).			construction compound and heavy traffic movement would cease on completion of construction).			
11. Geology, Hydrology and Hydrogeolo	ogy					
Pollution from sediment-laden runoff	Minor and Not Significant		Form working platforms to ensure surface runoff is away from watercourses. Implement Habitat Management Plan.			
Pollution from chemical contaminated runoff			No additional mitigation than the standard mitigation identified.			
Effect on groundwater quality and flow		Adverse	Minimise dewatering requirement during foundation construction.	Minor and Not Significant	Adverse	
Removal of and impact on peat	Minor to moderate and Not Significant		Re-use of excavated peat on-site, implementation of Peat Management Plan. Implement Habitat Management Plan.			
Peat slide (impact on watercourses)	Minor and Not Significant		No additional mitigation than the standard mitigation identified (in particular pre-construction site			

ORKNEY'S COMMUNITY WIND FARM PROJECT - HOY

Description of Effect	Significance of Lil	kely Effect	Additional Mitigation Measure	Significance of Resid	ual Effect
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse
			investigation works to inform detailed design, micro-siting and any additional geotechnical control measures required).		
Soil compaction	Minor and Not Significant	Adverse	Establish and demarcate working areas and corridors.	Minor and Not Significant	Adverse
12. Traffic and Transport					
Traffic impacts on the Wee Fea Access Track	Major and Significant	Adverse	Port Management Plan and enhancements to the Construction Traffic Management Plan.	Moderate / Minor and Not Significant	Adverse
Traffic impacts on the B9047 and B9048	Moderate and Significant		Construction management plan and enhanced traffic management and warning signage.	Minor and Not Significant	
13. Socio-economic, Recreation and Tou	urism				
Economic impact of £2.6 million GVA and 39 job years in Orkney	Minor and Not Significant	Beneficial	n/a	Minor and Not Significant	Beneficial
Economic impact of £10.4 million GVA and 161 job years in Scotland	Negligible and Not Significant	n/a		Negligible and Not Significant	n/a

Description of Effect	Significance of Lik	ely Effect	Additional Mitigation Measure	Significance of Resid	ual Effect				
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse				
14. Aviation and Radar	14. Aviation and Radar								
No construction phase effects anticipate	ed.								
15. Shadow Flicker									
No construction phase effects anticipate	ed.								
16. Other Issues									
No construction phase effects on teleco	mmunications are a	nticipated.							
No construction phase effects on marine	e radar are anticipat	ed.							
Outdoor Access (Core Path H7)	Significant	Adverse	Provision of alternative route to closures to Core Path H7 where possible. Clear signage to be put in place throughout.	Not significant	Adverse				

### Table 18.2 Summary of Residual Effects - Operation

Description of Effect	Significance of Likely	Effect	Mitigation Measure	Significance of Residu	al Effect
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse
6. Landscape and Visual					
Rough Moorland	N/A	N/A		N/A	N/A
Coastal Basin LCT (301): Widewall Bay LCU	Not significant			Not significant	
Enclosed Bays LCT (305): Swanbister Bay LCU	Not significant			Not significant	
Holms LCT (295): Cava and Rysa Little LCU	Significant			Significant	
Holms LCT (295): Calf of Flotta and Switha LCU	Not significant	Adverse	None	Not significant	Adverse
Holms LCT (295): Hunda LCU	Not significant			Not significant	
Holms LCT (295): Swona LCU	Not significant			Not significant	
Inclined Coastal Pasture LCT (302); Lyness LCU	Significant			Significant	
Inclined Coastal Pasture LCT (302); Orphir LCU	Not significant			Not significant	

Description of Effect	Significance of Likely Effect		Mitigation Measure	Significance of Residu	Significance of Residual Effect	
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse	
Inclined Coastal Pasture LCT (302); Hoxa LCU	Not significant			Not significant		
Low Moorland LCT (311): West Flotta LCU	Not significant			Not significant	-	
Moorland Hills Orkney LCT (314): Hoy Central Hills LCU	Significant Not significant			Significant Not significant		
Moorland Hills Orkney LCT (314): Ward Hill	Not significant	-		Not significant	Adverse	
Rugged Hills Orkney LCT (316): Ward Hill LCU	Not significant	Adverse	None	Not significant		
Rolling Hill Fringe LCT (313): Scorra Dale LCU	Not significant			Not significant	-	
Undulating Island Pasture LCT (299); East Flotta LCU	Not significant			Not significant		
Whaleback Islands LCT (296); Fara LCU	Significant			Significant	]	
Whaleback Islands LCT (296); South Walls LCU	Significant			Significant		
RCCA 23: Orphir	Not significant			Not significant	1	

ORKNEY'S COMMUNITY WIND FARM PROJECT - HOY

Description of Effect	Significance of Likely Effect		Mitigation Measure	Significance of Residu	al Effect
	Significance	Beneficial/ Adverse	-	Significance	Beneficial/ Adverse
RCCA 24: Stromness and Clestrain Sound	Not significant			Not significant	
RCCA 31: Cava, Rysa Little and Fara	Significant – western coasts Not significant – eastern coasts			Significant – western coasts Not significant – eastern coasts	
RCCA 32: South East Hoy	Significant – Crockness to Ruberry Not significant –			Significant – Crockness to Ruberry Not significant –	
	remaining coasts	Adverse	None	remaining coasts	Adverse
RCCA 33: Flotta	Not significant			Not significant	_
RCCA 34: North Bay, Longhope and Switha	Significant			Significant	
RCCA 38: West Burray and South Ronaldsay	Not significant			Not significant	-
VP1: Knap of Trowieglen	Significant			Significant	
VP 2: West Hill, Flotta	Significant			Significant	]
VP 3: Longhope, South Walls	Significant			Significant	<u> </u>

Description of Effect	Significance of Likely	Effect	Mitigation Measure	Significance of Residual Effect	
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse
VP 4: A961 OS Viewpoint, South Ronaldsay	Not significant			Not significant	
VP 5: St Margaret's Hope Ferry	Not significant			Not significant	
VP 6: Orphir, A964	Not significant			Not significant	
VP 7: Clestrain, A964	Not significant			Not significant	
VP 8: Dunnet Head, Mainland	Not significant			Not significant	
VP 9: Duncansby Head, Mainland	Not significant			Not significant	
VP 10: Ward Hill	Significant	Adverse	None	Significant	Adverse
VP 11: Lyness Naval Cemetery	Significant			Significant	
VP 12: North Walls School	Significant			Significant	
VP 13: Bakingstone Hill	Significant			Significant	
VP14: Houton to Lyness Ferry	Significant	1		Significant	1
VP15: A961 Burray	Not significant	1		Not significant	1
VP 16: Withi Gill	Significant	1		Significant	1

Description of Effect	Significance of Likely Effect		Mitigation Measure	Significance of Residual Effect		
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse	
B9047 Houton to Lyness Ferry	Significant Not significant – north of Lyrawa Hill Significant	Adverse		Significant Not significant – north of Lyrawa Hill Significant		
Lyness Longhope	Significant		None	Significant	Adverse	
H7 Wee Fea Core Path	Significant			Significant	-	
F1 West Hill Circular Core Path	Significant – western section Not significant – remaining section			Significant – western section Not significant – remaining section		
7. Ornithology						
Red-throated diver – Hoy SPA population – Collision mortality	• Not significant	Adverse	None	Not significant	Adverse	
Peregrine Hoy SPA population – Collision mortality	Not significant	Adverse	NOTE	Not significant	AUVEISE	

Description of Effect	Significance of Likely I	Effect	Mitigation Measure	Significance of Residual Effect				
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse			
Hen harrier Orkney population – Collision mortality	Not significant			Not significant				
Great skua Hoy SPA population – Collision mortality	Not significant	Adverse		Not significant				
Great black-backed gull Hoy SPA population – Collision mortality	Not significant			Not significant				
White-tailed eagle (adults) Orkney population - Collision mortality	Significant (at the regional scale)		None	Significant (at the regional scale)	Adverse			
Curlew (Displacement and Collision mortality)	Significant (at less than local (site) level only)			Significant (at less than local (site) level only)				
Snipe	Significant (at less than local (site) level only)			Significant (at less than local (site) level only)				
8. Ecology								
Mortality to mountain hare	Barely perceptible and Not Significant	Adverse	Implementation of Species Protection Plan.	Barely perceptible and Not Significant	Adverse			

Description of Effect	Significance of Likely Effect		Mitigation Measure	Significance of Residual Effect	
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse
9. Noise					
Noise from non-turbine fixed plant	Minor and Not	Adverse	Selection of plant which complies with specified maximum sound power level such that the derived noise limits are met.	Minor and Not	Adverse
Noise from wind turbines	Significant		Subject to the selection of the daytime period Overall Noise Limit, a noise management plan may be required such that Residual Noise Limits are met at all NSRs.	Significant	
10. Cultural Heritage					
Moderate significant effects on the settings of Category A Listed Former Naval Headquarters and Communications Centre, Wee Fea and Category B Listed Royal Naval Cemetery at Lyness.	Moderate and Significant	Adverse	Heritage Interpretation and Conservation Management Plan to be put in place to ensure better understanding and appreciation of the Second World War heritage on Wee Fea and ensure its preservation for future generations.	Moderate and Significant	Adverse
11. Geology, Hydrology and Hydrogeolog	y			·	
Change in surface water drainage	Minor and Not Significant	Adverse	Implement Habitat Management Plan.	Minor and Not Significant	Adverse

Description of Effect	Significance of Likely Effect		Mitigation Measure	Significance of Residual Effect	
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse
Long-term changes to groundwater flow	Minor and Not Significant	Adverse	No additional mitigation beyond the standard mitigation identified	Minor and Not Significant	Adverse
12. Traffic and Transport					
No significant operational effects anticipat	ed.				
13. Socio-economic, Recreation and Touri	ism				
Annual O&M economic impact of £0.3 million GVA and 4 jobs in Orkney	Negligible and Not Significant	n/a		Negligible and Not Significant	n/a
Annual O&M economic impact of £0.5 million GVA and 9 jobs in Scotland	Negligible and Not Significant	n/a		Negligible and Not Significant	n/a
Contribution to the case for the interconnector	Moderate and Significant	Beneficial	, ,	Moderate and Significant	Beneficial
Annual payment of an estimated £0.5 million in non-domestic rates	Minor and Not Significant	Beneficial	n/a	Minor and Not Significant	Beneficial
Annual payment of £144,000 in a location specific community benefit fund	Minor and Not Significant	Beneficial		Minor and Not Significant	Beneficial
Annual profit of £2.88 million from ownership	Minor and Not Significant	Beneficial		Minor and Not Significant	Beneficial

Description of Effect	Significance of Likely	Effect	Mitigation Measure	Significance of Residu	al Effect
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse
Effect on tourism assets					
Effect on core paths and recreational access	Negligible and Not Significant	n/a	n/a	Negligible and Not Significant	n/a
Effect on accommodation providers					
14. Aviation and Radar					
No operational effects anticipated.					
15. Shadow Flicker					
Shadow flicker nuisance on residential receptor	Not significant	Adverse	Wind Farm Shadow Flicker Protocol.	Not significant	Adverse
16. Other Issues					
Telecommunications	Not significant	N/A	Should micro-siting be required, the turbine locations would not be moved within the accepted BT buffer (75 m clearance from the blade tip) unless otherwise agreed with BT.	Not significant	N/A
Marine radar		Adverse	No mitigation required.		Adverse

Description of Effect	Significance of Likely Effect		Mitigation Measure	Significance of Residu	al Effect
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse
Outdoor access	Not significant	Beneficial	No mitigation required.	Not significant	Beneficial

#### Table 18.3 Cumulative Effects

Receptor	Description of Effect	Cumulative Developments Significance of Cumulative	ve Effect	
			Significance	Beneficial/ Adverse
6. Landscape and Visual				
Rough Moorland		N/A	N/A	N/A
Coastal Basin LCT (301): Widewall Bay LCU		Ore Brae, West Hill, Akla, Berriedale, Northfield Burray, Hesta Head		
Enclosed Bays LCT (305): Swanbister Bay LCU		Ore Brae, West Hill, Akla, Berriedale, Northfield Burray, Hesta Head		
Holms LCT (295): Cava and Rysa Little LCU	Landscape & Visual	Ore Brae, West Hill, Akla, Berriedale, Northfield Burray, Hesta Head	Not significant	Adverse
Holms LCT (295): Calf of Flotta and Switha LCU		Ore Brae, West Hill, Akla, Berriedale, Northfield Burray, Hesta Head		
Holms LCT (295): Hunda LCU		Ore Brae, West Hill, Akla, Berriedale, Northfield Burray, Hesta Head		
Holms LCT (295): Swona LCU		Ore Brae, West Hill, Akla, Berriedale, Northfield Burray, Hesta Head		

Receptor	Description of Effect	Cumulative Developments	Significance of Cumulativ	e Effect
			Significance	Beneficial/ Adverse
Inclined Coastal Pasture LCT (302); Lyness LCU		Ore Brae, West Hill, Akla, Berriedale, Northfield Burray, Hesta Head	_	
Inclined Coastal Pasture LCT (302); Orphir LCU		Ore Brae, West Hill, Akla, Berriedale, Northfield Burray, Hesta Head		
Inclined Coastal Pasture LCT (302); Hoxa LCU		Ore Brae, West Hill, Akla, Berriedale, Northfield Burray, Hesta Head		
Low Moorland LCT (311): West Flotta LCU	Landscape & Visual	Ore Brae, West Hill, Akla, Berriedale, Northfield Burray, Hesta Head	Not significant	Adverse
Moorland Hills Orkney LCT (314): Hoy Central Hills LCU		Ore Brae, West Hill, Akla, Berriedale, Northfield Burray, Hesta Head, Hammars Hill, Burgar Hill, Costa Head		
Moorland Hills Orkney LCT (314): Ward Hill		Ore Brae, West Hill, Akla, Berriedale, Northfield Burray, Hesta Head, Hammars Hill, Burgar Hill, Costa Head		
Rugged Hills Orkney LCT (316): Ward Hill LCU		Ore Brae, West Hill, Akla, Berriedale, Northfield Burray, Hesta Head, Hammars Hill, Burgar Hill, Costa Head		
Rolling Hill Fringe LCT (313): Scorra Dale LCU		Ore Brae, West Hill, Akla, Berriedale, Northfield Burray, Hesta Head		

Receptor	Description of Effect	Cumulative Developments	Significance of Cumulative Effect	
			Significance	Beneficial/ Adverse
Undulating Island Pasture LCT (299); East Flotta LCU	Landscape & Visual	Ore Brae, West Hill, Akla, Berriedale, Northfield Burray, Hesta Head	Not significant	Adverse
Whaleback Islands LCT (296); Fara LCU		Ore Brae, West Hill, Akla, Berriedale, Northfield Burray, Hesta Head		
Whaleback Islands LCT (296); South Walls LCU		Ore Brae, West Hill, Akla, Berriedale, Northfield Burray, Hesta Head		
RCCA 23: Orphir		Ore Brae, West Hill, Akla, Berriedale, Northfield Burray, Hesta Head		
RCCA 24: Stromness and Clestrain Sound		Ore Brae, West Hill, Akla		
RCCA 31: Cava, Rysa Little and Fara		Ore Brae, West Hill, Akla, Berriedale, Northfield Burray, Hesta Head		
RCCA 32: South East Hoy		Ore Brae, West Hill, Akla, Berriedale, Northfield Burray, Hesta Head		
RCCA 33: Flotta		Ore Brae, West Hill, Akla, Berriedale, Hesta Head		
RCCA 34: North Bay, Longhope and Switha		Ore Brae, West Hill, Akla, Berriedale, Northfield Burray, Hesta Head		

Receptor	Description of Effect	Cumulative Developments	Significance of Cumulative Eff	ive Effect
			Significance	Beneficial/ Adverse
RCCA 38: West Burray and South Ronaldsay		Ore Brae, West Hill, Akla, Berriedale, Northfield Burray, Hesta Head		
VP1: Knap of Trowieglen		Ore Brae, West Hill, Burgar Hill, Hammers Hill, Costa Head, Berriedale, Northfield Burray, Hesta Head, Akla	la ray, Not significant	
VP 2: West Hill, Flotta		Ore Brae, West Hill, Akla, Berriedale, Northfield Burray, Hesta Head		
VP 3: Longhope, South Walls	Landscape & Visual	Ore Brae, West Hill, Berriedale, Hesta Head		
VP 4: A961 OS Viewpoint, South Ronaldsay		Ore Brae, West Hill, Akla, Berriedale, Hesta Head, Hammars Head		
VP 5: St Margaret's Hope Ferry		Ore Brae, West Hill, Berriedale, Hesta Head, Stroupster		Adverse
VP 6: Orphir, A964		Ore Brae, West Hill, Akla, Hesta Head		
VP 7: Clestrain, A964		Ore Brae		
VP 8: Dunnet Head, Mainland		Ore Brae, West Hill, Baillie Hill, Forss, Hill of Lybster		
VP 9: Duncansby Head, Mainland		Ore Brae, West Hill		

Receptor	Description of Effect	Cumulative Developments	Significance of Cumulati	ve Effect
			Significance	Beneficial/ Adverse
VP 10: Ward Hill		Ore Brae, West Hill, Akla, Costa Head, Hammers Hill, Burgar Hill, Hesta Head, Berriedale	Not significant	
VP 11: Lyness Naval Cemetery		West Hill, Akla		
VP 12: North Walls School		Ore Brae	_	
VP 13: Bakingstone Hill		Ore Brae, West Hill, Hesta Head, Berriedale	_	
VP14: Houton to Lyness Ferry		Ore Brae, West Hill, Akla	_	
VP15: A961 Burray	Landscape & Visual	Ore Brae, West Hill, Berriedale, Hesta Head, Northfield Burray	Not significant	Adverse
VP 16: Withi Gill		Ore Brae, West Hill, Burgar Hill, Hammers Hill, Costa Head, Berriedale, Hesta Head, Akla	-	
B9047		Ore Brae, West Hill, Akla, Berriedale, Hesta Head, Northfiedl Burray	-	
Houton to Lyness Ferry		Ore Brae, West Hill, Akla, Berriedale, Hesta Head, Northfiedl Burray		
Lyness		Ore Brae, West Hill, Berriedale, Hesta Head, Akla	-	

Receptor	Description of Effect	Cumulative Developments	Significance of Cumulative Effect	e Effect
			Significance	Beneficial/ Adverse
Longhope		Ore Brae, West Hill, Berriedale, Hesta Head		
H7 Wee Fea Core Path	Landscape & Visual	Ore Brae, West Hill, Berriedale, Hesta Head, Akla	Not significant	Adverse
F1 West Hill Circular Core Path		Ore Brae, West Hill, Berriedale, Hesta Head, Akla		
7. Ornithology				
Red-throated diver (Hoy SPA)		Ore Brae		
Peregrine (Hoy SPA)		Ore Brae		
Great skua (Hoy SPA)		Ore Brae		
Hen harrier (Orkney population)	Collision mortality	Ore Brae; Costa Head; Burgar Hill; Burgar Hill north extension; Burgar Hill south extension; Hammars Hill existing; Hammars Hill expansion; Holodyke; Quanterness; Akla; Deerness, Upper Stove; New Holland, Holm; Hesta Head; Berriedale, South Ronaldsay; Eday Community Turbine; Kingarly Hill.	Not significant	Not applicable
8. Ecology	·			
No significant cumulative effects anticipated.				

Receptor	Description of Effect	cription of Effect Cumulative Developments	Significance of Cumulative Effect	
			Significance	Beneficial/ Adverse
9. Noise				
All NSRs	Cumulative wind turbine noise	Ore Brae and Gable End Theatre wind turbines.	Minor and Not Significant	Adverse
10. Cultural Heritage				
Former Naval Headquarters and Communications Centre Wee Fea; Royal Navy Cemetery Lyness; Crockness Martello Tower; Hackness Martello Tower; Rysa Lodge; Undergound Fuel Storage Reservoir; Green Hill of Hestigo Broch; Greenhill Broch South Walls.	Settings Effects	West Hill Flotta, Ore Brae Hoy, Howe Shapinsay, Work Farm, Akla, Hesta Head, Costa Head, Quanterness	No additional cumulative effect	N/A
Direct impacts on known non-designated group archaeological remains on Wee Fea.	Direct Effects	West Hill Flotta, Ore Brae Hoy, Howe Shapinsay, Work Farm, Akla, Hesta Head, Costa Head, Quanterness	No additional cumulative effect	

Receptor	Description of Effect	Cumulative Developments	Significance of Cumulative Effect	
			Significance	Beneficial/ Adverse
Unknown archaeological remains	Direct Effects	West Hill Flotta, Ore Brae Hoy, Howe Shapinsay, Work Farm, Akla, Hesta Head, Costa Head, Quanterness	Negligible effect and Not Significant	
11. Geology, Hydrology	and Hydrogeology			
No significant cumulative	e effects anticipated.			
12. Traffic and Transport	t			
No significant cumulative	e effects anticipated.			
13. Socio-economic, Rec	reation and Tourism			
Local supply chain			Minor and Not Significant	Beneficial
Tourism			Negligible and Not Significant	N/A
14. Aviation and Radar				
No significant cumulative	e effects anticipated.			
15. Shadow Flicker				
Residential Property	Shadow flicker nuisance.	No relevant cumulative developments identified.	None	Neutral
16. Other Issues				

Receptor	Description of Effect	Cumulative Developments	Significance of Cumulative Effect		
			Significance	Beneficial/ Adverse	
No significant cumulative effects anticipated.					

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