

Wylfa Newydd Project

**6.9.9 ES Volume I - Cumulative effects App
I4-1 - Intra-project cumulative effects**

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Table 1-1 Intra-project cumulative effects

Receptor	Effects of individual developments (brief description and significance)						Intra-project cumulative effect		
	Project-wide effect	WNDA Development	Off-Site Power Station Facilities: AECC, ESL and MEEG	Park and Ride	A5025 Off-line Highway Improvements	Logistics Centre	Description of cumulative effect	Additional mitigation	Significance of residual cumulative effect
Socio-economics									
Local economy in north Wales	Investment made within the local economy (north Wales). It is estimated that up to 4% of the total £10 billion construction value of the Wylfa Newydd Project could be spent within north Wales (moderate beneficial).	It is likely that there will be increased spending by workers in local businesses. The potential effect is assessed as minor beneficial, and therefore not significant.	It is likely that there will be increased spending by workers in local businesses. The potential effect is assessed as minor beneficial, and therefore not significant.	It is likely that there will be increased spending by workers in local businesses. The potential effect is assessed as minor beneficial, and therefore not significant.	Not applicable	It is likely that there will be increased spending by workers in local businesses. The potential effect is assessed as minor beneficial, and therefore not significant.	There would be substantial investment within the local economy (north Wales) as a result of the Wylfa Newydd Project. There would be increased spending by construction and operational workers within the north Wales area.	None identified	Moderate beneficial
Local economy in Anglesey	Annual average direct, indirect and induced increase in income of around £20 million on Anglesey from staff costs at the Wylfa Newydd Power Station, equivalent to an increase of 2.1% over baseline levels (moderate beneficial).	It is likely that there will be increased spending by workers in local businesses. The potential effect is assessed as minor beneficial, and therefore not significant.	It is likely that there will be increased spending by workers in local businesses. The potential effect is assessed as minor beneficial, and therefore not significant.	It is likely that there will be increased spending by workers in local businesses. The potential effect is assessed as minor beneficial, and therefore not significant.	Not applicable	It is likely that there will be increased spending by workers in local businesses. The potential effect is assessed as minor beneficial, and therefore not significant.	There would be an annual average direct, indirect and induced increase in income of around £20 million on Anglesey.	None identified	Moderate beneficial
Agricultural land	Not applicable	Of Anglesey's best and most versatile (BMV) land, 0.87% would be lost, with	Not applicable	Of Anglesey's Grade 3 land, 0.05% would be lost through the	A number of agricultural land plots (Grade 4) along the A5025	Landtake would be approximately 3.1ha, and the effect is assessed	There are a number of isolated and limited areas of agricultural land of	None required	Minor adverse

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	Project-wide effect	WNDA Development	Off-Site Power Station Facilities: AECC, ESL and MEEG	Park and Ride	A5025 Off-line Highway Improvements	Logistics Centre	Description of cumulative effect	Additional mitigation	Significance of residual cumulative effect
		the magnitude of the effect assessed as negligible and therefore not significant.		development. The magnitude of the effect is assessed as negligible and therefore not significant.	subject to landtake and severance, and therefore leading to potential reduction in farming activities and farm viability. Effects of moderate to major significance are predicted.	as minor adverse, which is not significant.	different grades subject to landtake, some BMV and others poor quality.		

Traffic and transport – all effects have been reported at a project-wide level in volume C; hence, there are no intra-project cumulative effects to report for this topic.

Public access and recreation

Users of Wales Coast Path (WCP) between Cemlyn Bay and Cemaes	Not applicable	<p>A major adverse effect would result from the reduction in recreational amenity as a result in the increase in length of the WCP between Cemlyn Bay and Cemaes during construction.</p> <p>A major adverse effect would result from the reduction in recreational amenity as a result of noise, dust and visual intrusion during construction of the Power Station.</p> <p>A major adverse effect would result from the reduction in</p>	Not applicable	Not applicable	Construction of Power Station access road junction across the WCP is assessed as minor adverse.	Not applicable	The cumulative effect associated with this receptor is the elongation of the period of time over which it will occur.	None identified. Embedded and additional mitigation to minimise the effects of the construction works on the recreational amenity of the WCP as far as practicable are described in chapters D4 and G4.	Major adverse
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Receptor	Effects of individual developments (brief description and significance)						Intra-project cumulative effect		
	Project-wide effect	WNDA Development	Off-Site Power Station Facilities: AECC, ESL and MEEG	Park and Ride	A5025 Off-line Highway Improvements	Logistics Centre	Description of cumulative effect	Additional mitigation	Significance of residual cumulative effect
		recreational amenity of the WCP as a result of the increase in length of the route between Cemlyn Bay and Cemaes during operation.							
Recreational and active travel users of the Lôn Trefignath	A moderate adverse effect would result from the movement of heavy goods vehicles (HGV) in and out of the Logistics Centre crossing the Lôn Trefignath during the opening year of the A5025. A moderate adverse effect would result from the movement of HGVs in and out of the Logistics Centre crossing the Lôn Trefignath during peak construction.	Not applicable	Not applicable	Not applicable	Not applicable	The reduction in recreational amenity of the Lôn Trefignath during construction of the site entrance to the Logistics Centre is assessed as minor adverse. (minor adverse) The reduction in recreational amenity of the Lôn Trefignath during construction of the main compound of the Logistics Centre is assessed as minor adverse.	The cumulative effect associated with this receptor is the elongation of time over which these recreational and active travel users would experience a reduction in the amenity of the route.	None identified. Embedded and additional mitigation to minimise the effects of the construction works on the recreational amenity of the Lôn Trefignath as far as practicable are described in chapters D4 and G4.	Moderate adverse
Users of the Copper	The reduction in recreational amenity during construction	The reduction in recreational amenity during construction	Not applicable	Not applicable	Not applicable	Not applicable	The effect associated with this receptor is	None identified	Minor adverse

Receptor	Effects of individual developments (brief description and significance)						Intra-project cumulative effect		
	Project-wide effect	WNDA Development	Off-Site Power Station Facilities: AECC, ESL and MEEG	Park and Ride	A5025 Off-line Highway Improvements	Logistics Centre	Description of cumulative effect	Additional mitigation	Significance of residual cumulative effect
Trail/National Cycle Route 566	<p>opening year of the A5025 is assessed as minor adverse.</p> <p>The reduction in recreational amenity during peak construction is assessed as minor adverse.</p> <p>The reduction in recreational amenity during peak operation is assessed as minor adverse.</p>	is assessed as minor adverse.					<p>the elongation of time over which these recreational and active travel users would experience a reduction in the amenity of the route. This is assessed as minor adverse.</p> <p>z</p>		
Recreational and active travel walkers and cyclists on A5 and A5025 between Junction 3 of A55 and Wylfa Newydd Development Area	<p>The reduction in recreational amenity and active travel amenity during opening year of the A5025 is assessed as minor adverse.</p> <p>The reduction in recreational amenity and active travel amenity during peak construction is assessed as minor adverse.</p>	Not applicable	Not applicable	Not applicable	<p>The reduction in recreational amenity and active travel amenity during construction of Section 1 and Section 5 and tie ins to Sections 3, 7 and the Wylfa Newydd Development Area access road. This is assessed as minor adverse.</p>	Not applicable	<p>The effect associated with this receptor is the elongation of time over which these recreational and active travel users would experience a reduction in the amenity of the route. This is assessed as minor adverse.</p>	None identified	Minor adverse

Receptor	Effects of individual developments (brief description and significance)						Intra-project cumulative effect		
	Project-wide effect	WNDA Development	Off-Site Power Station Facilities: AECC, ESL and MEEG	Park and Ride	A5025 Off-line Highway Improvements	Logistics Centre	Description of cumulative effect	Additional mitigation	Significance of residual cumulative effect
	The reduction in recreational amenity and active travel during peak operation is assessed as minor adverse.								
Participants of the Tour de Môn	The reduction in recreational amenity of the route during construction of the Power Station due to increased traffic flows at shift change is assessed as minor adverse.	Not applicable	Not applicable	Not applicable	The reduction in recreational amenity in the route during the traffic management at Llanfachraeth and Valley, should it coincide with the event, is assessed as moderate adverse.	Not applicable	The moderate adverse cumulative effect associated with this receptor is the elongation of time over which these recreational and active travel users would experience a reduction in the amenity of the route.	None identified	Moderate adverse
Air quality									
Human receptors within 350m of the A5025 Off-line Highway Improvements – Section 5 (Llanfaethlu) and the Off-Site Power Station Facilities (construction dust)	Not applicable	Not applicable	Dust emissions – there would not be a significant air quality effect due to dust deposition.	Not applicable	Dust emissions – there would not be a significant air quality effect due to dust deposition.	Not applicable	The good practice mitigation set out in the air quality management strategies for both the Off-Site Power Station Facilities and A5025 Off-line Highway Improvements would reduce any potential effects to not significant.	None required	Not significant
Human receptors within 2km of the	Air pollutant emissions –	Air emissions – there	Not applicable	Not applicable	Not applicable	Not applicable	The cumulative effect of air pollutant	None required	Not significant

Receptor	Effects of individual developments (brief description and significance)						Intra-project cumulative effect		
	Project-wide effect	WNDA Development	Off-Site Power Station Facilities: AECC, ESL and MEEG	Park and Ride	A5025 Off-line Highway Improvements	Logistics Centre	Description of cumulative effect	Additional mitigation	Significance of residual cumulative effect
Wylfa Newydd Development Area	there would not be a significant air quality effect due to pollutant emissions from road traffic.	would not be a significant air quality effect due to pollutant emissions from construction plant, machinery and marine vessels.					emissions at receptors close to the A5025 within 2km of the Wylfa Newydd Development Area would be not significant, and similar to the effects described in chapter D5.		
Noise and vibration									
Receptors at Cefn Coch									
Two residential receptors within 25m of the A5025 in Cefn Coch	Moderate adverse effect at 2 properties due to increased noise levels from the effects of traffic on the A5025.	Moderate adverse effect at 2 properties due to elevated noise and vibration levels during construction.	Not applicable	Not applicable	Moderate adverse effect at 2 properties due to elevated noise and vibration levels during construction.	Not applicable	The cumulative effects identified within this receptor group are due to the following interaction identified to occur for a period of 6 quarters commencing in Year 1: <ul style="list-style-type: none">project wide traffic, A5025 Off-line Highway Improvements and the construction of the WNDA Development.	None Identified	Major adverse effect at 2 properties
One outlying residential receptor 400m east of the A5025	Minor adverse effect at 1 property due to increased noise levels from the effects of traffic on the A5025.	Moderate adverse effect at 1 property due to elevated noise and vibration levels during construction.	Not applicable	Not applicable	Minor adverse effect at 1 property due to elevated noise and vibration levels during construction.	Not applicable	The cumulative effects identified within this receptor group are due to the following interaction identified to occur for a period of 6 quarters	None Identified	Major adverse effect at 1 property

Receptor	Effects of individual developments (brief description and significance)						Intra-project cumulative effect		
	Project-wide effect	WNDA Development	Off-Site Power Station Facilities: AECC, ESL and MEEG	Park and Ride	A5025 Off-line Highway Improvements	Logistics Centre	Description of cumulative effect	Additional mitigation	Significance of residual cumulative effect
							commencing in Year 1: • project wide traffic, A5025 Off-line Highway Improvements and the construction of the WNDA Development.		
Two outlying residential receptors 400m west of the A5025	Minor adverse effect at 2 properties due to increased noise levels from the effects of traffic on the A5025.	Moderate adverse effect at 2 properties due to elevated noise and vibration levels during construction.	Not applicable	Not applicable	Minor adverse effect at 2 properties due to elevated noise and vibration levels during construction.	Not applicable	The cumulative effects identified within this receptor group are due to the following interaction identified to occur for a period of 6 quarters commencing in Year 1: • project wide traffic, A5025 Off-line Highway Improvements and the construction of the WNDA Development.	None Identified	Major adverse effect at 2 properties
Two residential receptors within 80m of the A5025 in Cefn Coch	Moderate adverse effect at 2 properties due to increased noise levels from the effects of traffic on the A5025.	Moderate adverse effect at 2 properties due to elevated noise and vibration levels during construction.	Not applicable	Not applicable	Not applicable	Not applicable	The cumulative effects identified within this receptor group are due to the following interaction identified to occur for a period of 26 quarters commencing in Year 3: • project wide traffic and the construction of the WNDA Development.	None Identified	Major adverse effect at 2 properties

Receptor	Effects of individual developments (brief description and significance)						Intra-project cumulative effect		
	Project-wide effect	WNDA Development	Off-Site Power Station Facilities: AECC, ESL and MEEG	Park and Ride	A5025 Off-line Highway Improvements	Logistics Centre	Description of cumulative effect	Additional mitigation	Significance of residual cumulative effect
Three residential receptors off the road between Llanfairynghornwy and Llanfechell, south of Cefn Coch	Minor adverse effect at 3 receptors due to increased noise levels from the effects of traffic on the A5025.	Minor adverse effect at 3 properties due to elevated noise and vibration levels during construction.	Not applicable	Not applicable	Not applicable	Not applicable	The cumulative effects identified within this receptor group are due to the following interaction identified to occur for a period of 26 quarters commencing in Year 3: • project wide traffic and the construction of the WNDA Development.	None Identified	Moderate adverse effect at 2 properties
One residential receptor on the A5025 in Cefn Coch	Moderate adverse effect at 1 property due to increased noise levels from the effects of traffic on the A5025.	Minor adverse effect at 1 property due to elevated noise and vibration levels during construction.	Not applicable	Not applicable	Moderate adverse effect at 1 property due to elevated noise and vibration levels during construction.	Not applicable	The cumulative effects identified within this receptor group are due to the following interactions identified to occur for a period of 26 quarters commencing in Year 1 and 26 quarters commencing in Year 3, respectively: • project wide traffic, A5025 Off-line Highway Improvements and the construction of the WNDA Development; and • project wide traffic and the construction of the WNDA Development.	None Identified	Major adverse effect at 1 property

Receptors at Kingsland

Receptor	Effects of individual developments (brief description and significance)						Intra-project cumulative effect		
	Project-wide effect	WNDA Development	Off-Site Power Station Facilities: AECC, ESL and MEEG	Park and Ride	A5025 Off-line Highway Improvements	Logistics Centre	Description of cumulative effect	Additional mitigation	Significance of residual cumulative effect
One residential receptor off Kingsland Road and south of the A5153	Moderate adverse effect at 1 property due to increased noise levels from the effects of traffic on the A5025.	Not applicable	Not applicable	Not applicable	Not applicable	Moderate adverse effect at one property due to elevated noise and vibration levels during construction. Moderate adverse effect at one property due to operation.	The cumulative effects identified within this receptor group are due to the following interactions identified to occur for a period of 5 quarters commencing in Year 1 and 2 quarters commencing in Year 3, respectively: <ul style="list-style-type: none"> project wide traffic and construction of the Logistics Centre; and project wide traffic Logistics Centre. 	None Identified	Major adverse effect at 1 property
Receptors at Llanfaethlu									
Residential receptors in Llanfaethlu Village (a)	Moderate at 5 receptors, Minor adverse at 8 due to increased noise levels from the effects of traffic on the A5025.	Not applicable	Not applicable	Not applicable	Minor adverse effect at 13 properties due to elevated noise and vibration levels during construction.	Not applicable	The cumulative effects identified within this receptor group are due to the following interaction identified to occur for a period of 6 quarters commencing in Year 1: <ul style="list-style-type: none"> project wide traffic and A5025 Off-line Highway Improvements. 	None Identified	Major adverse effect at 13 properties
Outlying residential receptor south east of Llanfaethlu Village	Moderate adverse effect at 1 property due to increased noise levels from the	Not applicable	Not applicable	Not applicable	Moderate adverse effect at 1 property due to elevated noise and vibration	Not applicable	The cumulative effects identified within this receptor group are due to the following interaction identified to occur for	None Identified	Major adverse effect at 1 property

Receptor	Effects of individual developments (brief description and significance)						Intra-project cumulative effect		
	Project-wide effect	WNDA Development	Off-Site Power Station Facilities: AECC, ESL and MEEG	Park and Ride	A5025 Off-line Highway Improvements	Logistics Centre	Description of cumulative effect	Additional mitigation	Significance of residual cumulative effect
	effects of traffic on the A5025.				levels during construction.		a period of 6 quarters commencing in Year 1: • project wide traffic and A5025 Off-line Highway Improvements.		
Residential receptors off the A5025, north of Llanfaethlu Village (a)	Moderate adverse effect at 2 properties due to increased noise levels from the effects of traffic on the A5025.	Not applicable	Not applicable	Not applicable	Minor adverse effect at 2 properties due to elevated noise and vibration levels during construction.	Not applicable	The cumulative effects identified within this receptor group are due to the following interaction identified to occur for a period of 6 quarters commencing in Year 1: • project wide traffic and A5025 Off-line Highway Improvements.	None Identified	Major adverse effect at 2 properties
Outlying residential receptor north of Llanfaethlu Village	Minor adverse effect at 1 property due to increased noise levels from the effects of traffic on the A5025.	Not applicable	Not applicable	Not applicable	Minor adverse effect at 1 property due to elevated noise and vibration levels during construction.	Not applicable	The cumulative effects identified within this receptor group are due to the following interaction identified to occur for a period of 6 quarters commencing in Year 1: • project wide traffic and A5025 Off-line Highway Improvements.	None Identified	Major adverse effect at 1 property
Residential receptors in Llanfaethlu Village (b)	Moderate adverse effect at 2 receptors, Minor adverse	Not applicable	Minor adverse effect at 14 properties due to elevated noise	Not applicable	Not applicable	Not applicable	The cumulative effects identified within this receptor group are due to the	None Identified	Major adverse effect at 7 properties, Moderate at 7.

Receptor	Effects of individual developments (brief description and significance)						Intra-project cumulative effect		
	Project-wide effect	WNDA Development	Off-Site Power Station Facilities: AECC, ESL and MEEG	Park and Ride	A5025 Off-line Highway Improvements	Logistics Centre	Description of cumulative effect	Additional mitigation	Significance of residual cumulative effect
	at 12 due to increased noise levels from the effects of traffic on the A5025.		and vibration levels during construction.				following interaction identified to occur for a period of 10 quarters commencing in Year 3: • project wide traffic and the construction of power station off-site facilities.		
Residential receptors off the A5025, north of Llanfaethlu Village (b)	Moderate adverse effect at 1 receptor, Minor adverse at 1 due to increased noise levels from the effects of traffic on the A5025.	Not applicable	Minor adverse effect at 2 properties due to elevated noise and vibration levels during construction.	Not applicable	Not applicable	Not applicable	The cumulative effects identified within this receptor group are due to the following interaction identified to occur for a period of 10 quarters commencing in Year 3: • project wide traffic and the construction of power station off-site facilities.	None Identified	Major adverse effect at 1 property, Moderate at 1.
Residential receptors in Llanfaethlu Village (c)	Moderate adverse effect at 2 receptors, Minor adverse at 3 due to increased noise levels from the effects of traffic on the A5025.	Not applicable	Minor adverse effect at 5 properties due to elevated noise and vibration levels during construction.	Not applicable	Minor adverse effect at 5 properties due to elevated noise and vibration levels during construction.	Not applicable	The cumulative effects identified within this receptor group are due to the following interactions identified to occur for a period of 6 quarters commencing in Year 1 and 10 quarters commencing in Year 3, respectively: • project wide traffic and A5025 Off-line Highway	None Identified	Major adverse effect at 5 properties

Receptor	Effects of individual developments (brief description and significance)						Intra-project cumulative effect		
	Project-wide effect	WNDA Development	Off-Site Power Station Facilities: AECC, ESL and MEEG	Park and Ride	A5025 Off-line Highway Improvements	Logistics Centre	Description of cumulative effect	Additional mitigation	Significance of residual cumulative effect
							Improvements; and • project wide traffic and the construction of power station off-site facilities.		
Residential receptors off the A5025, north of Llanfaethlu Village (c)	Moderate adverse effect at 3 receptors due to increased noise levels from the effects of traffic on the A5025.	Not applicable	Minor adverse effect at 3 properties due to elevated noise and vibration levels during construction.	Not applicable	Minor adverse effect at 3 properties due to elevated noise and vibration levels during construction.	Not applicable	The cumulative effects identified within this receptor group are due to the following interactions identified to occur for a period of 6 quarters commencing in Year 1 and 10 quarters commencing in Year 3, respectively: • project wide traffic and A5025 Off-line Highway Improvements; and • project wide traffic and the construction of power station off-site facilities.	None Identified	Major adverse effect at 3 properties
Receptors at Llanfihangel-yn-Nhywyn									
Two residential receptors in Dol Eithin	Minor adverse effect at 2 receptors due to increased noise levels from the effects of traffic on the A5025.	Not applicable	Not applicable	Minor adverse effect at 2 properties due to elevated noise and vibration levels during construction.	Not applicable	Not applicable	The cumulative effects identified within this receptor group are due to the following interactions identified to occur for a period of 6 quarters commencing in Year 1: • project wide traffic and the construction	None Identified	Major adverse effect at 2 properties

Receptor	Effects of individual developments (brief description and significance)						Intra-project cumulative effect		
	Project-wide effect	WNDA Development	Off-Site Power Station Facilities: AECC, ESL and MEEG	Park and Ride	A5025 Off-line Highway Improvements	Logistics Centre	Description of cumulative effect	Additional mitigation	Significance of residual cumulative effect
							of the park and ride facility.		
Receptors at Llangynghenedl									
Four residential receptors off A5025 near junction with B5109	Moderate adverse effect at 4 receptors due to increased noise levels from the effects of traffic on the A5025.	Not applicable	Not applicable	Not applicable	Minor adverse effect at 4 properties due to elevated noise and vibration levels during construction.	Not applicable	The cumulative effects identified within this receptor group are due to the following interactions identified to occur for a period of 6 quarters commencing in Year 1: <ul style="list-style-type: none">project wide traffic and A5025 Off-line Highway Improvements.	None Identified	Major adverse effect at 4 properties
Receptors north of Trearddur Bay									
Seven residential receptors in Penrhyn Geiriol	Minor adverse effect at 7 receptors due to increased noise levels from the effects of traffic on the A5025.	Not applicable	Not applicable	Not applicable	Not applicable	Minor adverse effect at 4 receptors due to increased noise levels from the operation of Logistics Centre	The cumulative effects identified within this receptor group are due to the following interaction identified to occur for a period of 26 months commencing in Year 3: <ul style="list-style-type: none">project wide traffic and the operation of Logistics Centre.	None Identified	Moderate adverse effect at 7 properties
Outlying receptors at Llanfihangel-yn-Nhywyn									
One residential receptors near Go Karting	Minor adverse effect at 1 property due to increased noise levels from the	Not applicable	Not applicable	Minor adverse effect at 1 property due to elevated noise and vibration	Not applicable	Not applicable	The cumulative effects identified within this receptor group are due to the following interaction identified to occur for	None Identified	Major adverse effect at 1 property

Receptor	Effects of individual developments (brief description and significance)						Intra-project cumulative effect		
	Project-wide effect	WNDA Development	Off-Site Power Station Facilities: AECC, ESL and MEEG	Park and Ride	A5025 Off-line Highway Improvements	Logistics Centre	Description of cumulative effect	Additional mitigation	Significance of residual cumulative effect
	effects of traffic on the A5025.			levels during construction.			a period of 6 quarters commencing in Year 1 : • project wide traffic and the construction of the park and ride facility.		
Five residential receptors off Altwen Goch	Minor adverse effect at 5 receptors due to increased noise levels from the effects of traffic on the A5025.	Not applicable	Not applicable	Minor adverse effect at 5 properties due to elevated noise and vibration levels during construction.	Not applicable	Not applicable	The cumulative effects identified within this receptor group are due to the following interaction identified to occur for a period of 6 quarters commencing in Year 1 : • project wide traffic and the construction of the park and ride facility.	None Identified	Major adverse effect at 4 properties, Moderate at 1
Eight residential receptors off Holyhead Road	Minor adverse effect at 8 receptors due to increased noise levels from the effects of traffic on the A5025.	Not applicable	Not applicable	Minor adverse effect at 8 properties due to elevated noise and vibration levels during construction.	Not applicable	Not applicable	The cumulative effects identified within this receptor group are due to the following interaction identified to occur for a period of 6 quarters commencing in Year 1 : • project wide traffic and the construction of the park and ride facility.	None Identified	Major adverse effect at 4 properties, Moderate at 4
One residential receptor off Road to Bodedern	Minor adverse effect at 1 property due to increased noise	Not applicable	Not applicable	Minor effect at 1 property due to elevated noise	Not applicable	Not applicable	The cumulative effects identified within this receptor group are due to the	None Identified	Moderate adverse effect at 1 property

Receptor	Effects of individual developments (brief description and significance)						Intra-project cumulative effect		
	Project-wide effect	WNDA Development	Off-Site Power Station Facilities: AECC, ESL and MEEG	Park and Ride	A5025 Off-line Highway Improvements	Logistics Centre	Description of cumulative effect	Additional mitigation	Significance of residual cumulative effect
	levels from the effects of traffic on the A5025.			and vibration levels during construction.			following interaction identified to occur for a period of 6 quarters commencing in Year 1: • project wide traffic and the construction of the park and ride facility.		
One (residential purposes assessment) Hotel for of	Minor adverse effect at 1 property due to increased noise levels from the effects of traffic on the A5025.	Not applicable	Not applicable	Minor adverse effect at 1 property due to elevated noise and vibration levels during construction.	Not applicable	Not applicable	The cumulative effects identified within this receptor group are due to the following interaction identified to occur for a period of 6 quarters commencing in Year 1: • project wide traffic and the construction of the park and ride facility.	None Identified	Moderate adverse effect at 1 property
Two residential receptors off Altwen Goch near junction with Minffordd Road	Minor adverse effect at 2 properties due to increased noise levels from the effects of traffic on the A5025.	Not applicable	Not applicable	Minor adverse effect at 2 properties due to elevated noise and vibration levels during construction.	Not applicable	Not applicable	The cumulative effects identified within this receptor group are due to the following interaction identified to occur for a period of 26 quarters commencing in Year 3: • project wide traffic and the operation of the park and ride facility.	None Identified	Moderate adverse effect at 2 properties

Outlying receptors north of Cefn Coch

Receptor	Effects of individual developments (brief description and significance)						Intra-project cumulative effect		
	Project-wide effect	WNDA Development	Off-Site Power Station Facilities: AECC, ESL and MEEG	Park and Ride	A5025 Off-line Highway Improvements	Logistics Centre	Description of cumulative effect	Additional mitigation	Significance of residual cumulative effect
Nine residential receptors North of Cefn Coch	Moderate adverse effect at 5 receptors, Minor adverse at 4 due to increased noise levels from the effects of traffic on the A5025.	Moderate adverse effect at 2 properties, Minor at 7 due to elevated noise and vibration levels during construction.	Not applicable	Not applicable	Not applicable	Not applicable	The cumulative effects identified within this receptor group are due to the following interaction identified to occur for a period of 26 quarters commencing in Year 3 : • project wide traffic and the construction of the WNDA Development.	None Identified	Major adverse effect at 5 properties, Moderate at 4
Four residential receptors North of Cefn Coch	Moderate adverse effect at 4 receptors due to elevated noise and vibration levels from the effects of traffic on the A5025.	Moderate adverse effect at 4 properties due to elevated noise and vibration levels during construction.	Not applicable	Not applicable	Moderate adverse effect at 2 properties, minor at 2 due to elevated noise and vibration levels during construction.	Not applicable	The cumulative effects identified within this receptor group are due to the following interactions identified to occur for a period of 6 quarters commencing in Year 1 and 26 quarters commencing in Year 3, respectively: • project wide traffic, A5025 Off-line Highway Improvements and the construction of the WNDA Development; and • project wide traffic and the construction of the WNDA Development.	None Identified	Major adverse effect at 4 properties
Outlying receptors north of Llanfaethlu									

Receptor	Effects of individual developments (brief description and significance)						Intra-project cumulative effect		
	Project-wide effect	WNDA Development	Off-Site Power Station Facilities: AECC, ESL and MEEG	Park and Ride	A5025 Off-line Highway Improvements	Logistics Centre	Description of cumulative effect	Additional mitigation	Significance of residual cumulative effect
One residential receptors off A5025 near Road fork with Chapel Street	Moderate adverse effect at 1 property due to increased noise levels from the effects of traffic on the A5025.	Not applicable	Minor adverse effect at 1 property due to elevated noise and vibration levels during construction.	Not applicable	Not applicable	Not applicable	The cumulative effects identified within this receptor group are due to the following interaction identified to occur for a period of 10 months commencing in Year 3: • project wide traffic and the construction of power station off-site facilities.	None Identified	Major adverse effect at 1 property
Outlying receptors north of Llanfachraeth									
Three residential receptors on unnamed road east of A5025	Moderate adverse effect at 3 receptors due to increased noise levels from the effects of traffic on the A5025.	Not applicable	Not applicable	Not applicable	Minor adverse effect at 3 properties due to elevated noise and vibration levels during construction.	Not applicable	The cumulative effects identified within this receptor group are due to the following interactions identified to occur for a period of 6 quarters commencing in Year 1: • project wide traffic and A5025 Off-line Highway Improvements.	None Identified	Major adverse effect at 3 properties
Receptors on the A5025 between Cemaes and Tregele									
Eight residential receptors north of A5025 (Between Tregele & Cemaes)	Minor adverse effect at 8 receptors due to increased noise levels from the effects of traffic on the A5025.	Moderate adverse effect at 7 properties and minor adverse effect at 1 property due to elevated noise and vibration levels during construction.	Not applicable	Not applicable	Not applicable	Not applicable	The cumulative effects identified within this receptor group are due to the following interaction identified to occur for a period of 32 quarters commencing in Year	None Identified	Major adverse effect at 1 property and moderate adverse effect at 7 properties

Receptor	Effects of individual developments (brief description and significance)						Intra-project cumulative effect		
	Project-wide effect	WNDA Development	Off-Site Power Station Facilities: AECC, ESL and MEEG	Park and Ride	A5025 Off-line Highway Improvements	Logistics Centre	Description of cumulative effect	Additional mitigation	Significance of residual cumulative effect
							1: • project wide traffic and the construction of the WNDA Development.		
six residential receptors south of A5025 (Between Tregele & Camaes)	Minor adverse effect at 6 properties due to increased noise levels from the effects of traffic on the A5025.	Moderate adverse effect at 5 properties, Minor at 1 due to elevated noise and vibration levels during construction.	Not applicable	Not applicable	Not applicable	Not applicable	The cumulative effects identified within this receptor group are due to the following interaction identified to occur for a period of 32 quarters commencing in Year 1: • project wide traffic and the construction of the WNDA Development.	None Identified	Major adverse effect at 4 properties, Moderate at 2
One residential receptor south of A5025 (between Tregele & Cemaes)	Minor adverse effect due to increased noise levels from the effects of traffic on the A5025.	Moderate adverse effect due to elevated noise and vibration levels during construction.	Not applicable	Not applicable	Not applicable	Not applicable	The cumulative effects identified within this receptor group are due to the following interaction identified to occur for a period of 32 quarters commencing in year 1: project-wide traffic and the construction of the WNDA Development. A 2nd interaction is due to the project-wide traffic and the operation of the Power Station.	None identified	Major adverse effect during construction of the WDNA Development.
Outlying receptors south of Valley									

Receptor	Effects of individual developments (brief description and significance)						Intra-project cumulative effect		
	Project-wide effect	WNDA Development	Off-Site Power Station Facilities: AECC, ESL and MEEG	Park and Ride	A5025 Off-line Highway Improvements	Logistics Centre	Description of cumulative effect	Additional mitigation	Significance of residual cumulative effect
Two residential receptors within 200m of the A55	Minor adverse effect at 2 receptors due to increased noise levels from the effects of traffic on the A5025.	Not applicable	Not applicable	Not applicable	Minor adverse effect at 2 properties due to elevated noise and vibration levels during construction.	Not applicable	The cumulative effects identified within this receptor group are due to the following interaction identified to occur for a period of 6 quarters commencing in Year 1: <ul style="list-style-type: none">project wide traffic and A5025 Off-line Highway Improvements.	None Identified	Moderate adverse effect at 2 properties
Receptors at Tregele									
Two residential receptors off A5025 near Tregele Petrol Station.	Minor adverse effect at 2 receptors due to increased noise levels from the effects of traffic on the A5025.	Minor adverse effect at 2 properties due to elevated noise and vibration levels during construction.	Not applicable	Not applicable	Minor adverse effect at 2 properties due to elevated noise and vibration levels during construction.	Not applicable	The cumulative effects identified within this receptor group are due to the following interaction identified to occur for a period of 6 quarters commencing in Year 1: <ul style="list-style-type: none">project wide traffic, A5025 Off-line Highway Improvements and the construction of the WNDA Development.	None Identified	Major adverse effect at 2 properties
53 residential properties in Tregele	Minor adverse effect at 53 receptors due to increased noise levels from the effects	Moderate adverse effect at 6 properties, Minor at 47 due to elevated noise and vibration levels during construction.	Not applicable	Not applicable	Not applicable	Not applicable	The cumulative effects identified within this receptor group are due to the following interaction identified to occur for a period of 26 quarters	None Identified	Major adverse effect at 35 properties, Moderate at 18

Receptor	Effects of individual developments (brief description and significance)						Intra-project cumulative effect		
	Project-wide effect	WNDA Development	Off-Site Power Station Facilities: AECC, ESL and MEEG	Park and Ride	A5025 Off-line Highway Improvements	Logistics Centre	Description of cumulative effect	Additional mitigation	Significance of residual cumulative effect
	of traffic on the A5025.						commencing in Year 3: • project wide traffic and the construction of the WNDA Development.		
Five residential properties in Tregele	Minor adverse effect at 5 receptors due to increased noise levels from the effects of traffic on the A5025.	Moderate adverse effect at 4 properties, Minor at 1 due to elevated noise and vibration levels during construction.	Not applicable	Not applicable	Not applicable	Not applicable	The cumulative effects identified within this receptor group are due to the following interactions identified to occur for a period of 32 quarters commencing in Year 1 and 100 quarters commencing in Year 11, respectively: • project wide traffic and the construction of the WNDA Development; and • project wide traffic and the operation of the Power Station.	None Identified	Major adverse effect at 4 properties, Moderate at 1
Receptors at Valley									
117 residential properties North of the A5	Minor adverse effect at 117 receptors due to increased noise levels from the effects of traffic on the A5025.	Not applicable	Not applicable	Not applicable	Minor adverse effect at 117 properties due to elevated noise and vibration levels during construction.	Not applicable	The cumulative effects identified within this receptor group are due to the following interaction identified to occur for a period of 6 quarters commencing in Year 1: • project wide traffic and A5025 Off-line	None Identified	Major adverse effect at 69 properties, Moderate at 48

Receptor	Effects of individual developments (brief description and significance)						Intra-project cumulative effect		
	Project-wide effect	WNDA Development	Off-Site Power Station Facilities: AECC, ESL and MEEG	Park and Ride	A5025 Off-line Highway Improvements	Logistics Centre	Description of cumulative effect	Additional mitigation	Significance of residual cumulative effect
							Highway Improvements.		
87 residential receptors South of A5 and North of North Wales Coast Railway Line	Minor adverse effect at 87 receptors due to increased noise levels from the effects of traffic on the A5025.	Not applicable	Not applicable	Not applicable	Minor adverse effect at 87 properties due to elevated noise and vibration levels during construction.	Not applicable	The cumulative effects identified within this receptor group are due to the following interaction identified to occur for a period of 6 quarters commencing in Year 1: <ul style="list-style-type: none">• project wide traffic and A5025 Off-line Highway Improvements.	None Identified	Major adverse effect at 9 properties, Moderate at 78
Receptors at West Llanfachraeth									
One residential receptor off A5025 and north of Llanfachraeth Ysgol	Moderate adverse effect at 2 receptors due to increased noise levels from the effects of traffic on the A5025.	Not applicable	Not applicable	Not applicable	Minor adverse effect at 2 properties due to elevated noise and vibration levels during construction.	Not applicable	The cumulative effects identified within this receptor group are due to the following interaction identified to occur for a period of 6 quarters	None Identified	Major adverse effect at 2 properties

Receptor	Effects of individual developments (brief description and significance)						Intra-project cumulative effect		
	Project-wide effect	WNDA Development	Off-Site Power Station Facilities: AECC, ESL and MEEG	Park and Ride	A5025 Off-line Highway Improvements	Logistics Centre	Description of cumulative effect	Additional mitigation	Significance of residual cumulative effect
							commencing in Year 1: • project wide traffic and A5025 Off-line Highway Improvements.		
24 residential receptor off A5025 and south of Stad Roebuck	Moderate adverse effect at 23 receptors, Minor at 1 due to increased noise levels from the effects of traffic on the A5025.	Not applicable	Not applicable	Not applicable	Minor adverse effect at 24 properties due to elevated noise and vibration levels during construction.	Not applicable	The cumulative effects identified within this receptor group are due to the following interaction identified to occur for a period of 6 quarters commencing in Year 1: • project wide traffic and A5025 Off-line Highway Improvements.	None Identified	Major adverse effect at 24 properties
Nine residential receptor off north of Stad Roebuck and south of Llanfachraeth ysgol	Moderate adverse effect at 7 receptors, Minor at 2 due to increased noise levels from the effects of traffic on the A5025.	Not applicable	Not applicable	Not applicable	Minor adverse effect at 9 properties due to elevated noise and vibration levels during construction.	Not applicable	The cumulative effects identified within this receptor group are due to the following interaction identified to occur for a period of 6 quarters commencing in Year 1: • project wide traffic and A5025 Off-line Highway Improvements.	None Identified	Major adverse effect at 9 properties
Conventional waste and materials management – all effects have been reported at a project-wide level in volume C; hence, there are no intra-project cumulative effects to report for this topic.									
Soils and geology									
Soil	Not applicable	Minor adverse effect due to soil stripping,	Not applicable	Not applicable	Minor adverse effect due to soil	Not applicable	Reductions in soil quality at multiple sites would combine	None identified	Minor adverse

Receptor	Effects of individual developments (brief description and significance)						Intra-project cumulative effect			
	Project-wide effect	WNDA Development	Off-Site Power Station Facilities: AECC, ESL and MEEG	Park and Ride	A5025 Off-line Highway Improvements	Logistics Centre	Description of cumulative effect	Additional mitigation	Significance of residual cumulative effect	
		<p>storage and handling.</p> <p>Minor adverse effect due to site clearance works.</p> <p>Minor adverse effect due to increased soil erosion from altered landform.</p> <p>Minor adverse effect due to mixing with made ground.</p> <p>Minor adverse effect due to mixing of contaminated and uncontaminated soils.</p> <p>Minor adverse effect due to pollution incidents.</p>			<p>stripping, storage and handling.</p>		<p>to have a cumulative effect on soils; however, the extent of high-value BMV soils affected would be relatively minor in the context of Anglesey as a whole, and effects would be largely mitigated through good practice mitigation measures.</p>			
Construction workers (working on the Wylfa Newydd Project)	Not applicable	<p>Moderate adverse effect due to potential exposure to unexpected contamination.</p> <p>Minor adverse effect due to pollution incidents.</p>	<p>Minor adverse effect due to potential exposure to unexpected contamination.</p>	<p>Minor adverse effect due to potential exposure to unexpected contamination.</p>	<p>Minor adverse effect due to potential exposure to unexpected contamination.</p>	<p>Minor adverse effect due to potential exposure to unexpected contamination.</p>	<p>Minor adverse effect due to potential exposure to unexpected contamination.</p> <p>Minor adverse effect due to potential harm from unexploded ordnance.</p>	<p>Construction workers could be mobile between sites comprising the Wylfa Newydd Project and therefore could potentially be exposed to unexpected contamination at multiple sites. If a moderate adverse effect occurred on construction workers at the Wylfa Newydd Development Area, and they were then exposed to unexpected</p>	<p>None identified</p>	<p>Moderate adverse</p>

Receptor	Effects of individual developments (brief description and significance)						Intra-project cumulative effect			
	Project-wide effect	WNDA Development	Off-Site Power Station Facilities: AECC, ESL and MEEG	Park and Ride	A5025 Off-line Highway Improvements	Logistics Centre	Description of cumulative effect	Additional mitigation	Significance of residual cumulative effect	
							contamination at another site, the cumulative effect could be greater than the effect identified for the Wylfa Newydd Development Area in isolation, although the likelihood of this occurring is very low.			
Category Aggregates Safeguarding Areas	2	Not applicable	Minor adverse effect due to non-beneficial reuse/sterilisation of igneous resources.	Not applicable	Not applicable	Minor adverse effect due to sterilisation of mineral resources.	Not applicable	The sterilisation of mineral resources would occur for both the WNDA Development and the A5205 Off-line Highways Improvements; thus, a combined effect would arise. However, the extent of resources affected would be minor in the context of Anglesey as a whole.	None identified	Minor adverse
Surface water and groundwater										
Ancillary buildings at Existing Power Station	Not applicable	Potential minor adverse effects on some buildings due to dewatering) and moderate adverse due to vibration.	Not applicable	Not applicable	Not applicable	Not applicable	Potential cumulative effect if vibration and dewatering both affect ancillary building stability/structure at the same time, but the combined adverse effect is unlikely to be greater than moderate.	None additional to the mitigation already included in chapters D6 and D8 (Application Reference Numbers: 6.4.6 and 6.4.8). This	Moderate adverse	

Receptor	Effects of individual developments (brief description and significance)						Intra-project cumulative effect		
	Project-wide effect	WNDA Development	Off-Site Power Station Facilities: AECC, ESL and MEEG	Park and Ride	A5025 Off-line Highway Improvements	Logistics Centre	Description of cumulative effect	Additional mitigation	Significance of residual cumulative effect
								may be sufficient to avoid a significant effect, but there is uncertainty in how effective it would be.	
Groundwater in Secondary aquifers within and around the Wylfa Newydd Development Area (and any associated subtractions)	Not applicable	Minor adverse effect during construction due to reduction in groundwater quality from soil leaching, use of cementitious materials, spillages of sewage and drawdown from contaminated land. Minor adverse effects during construction would result from saltwater intrusion during dewatering, reduction in groundwater recharge, changes to groundwater levels and dewatering. Minor adverse effect during operation due to reduction in groundwater levels causing a reversal in flow direction and a reduction in surface water inputs. Minor adverse effect during operation on groundwater quality	Minor adverse effect during construction due to potential spillages of fuels or oils and due to any dewatering of excavations. Minor adverse effect due to the potential for leaks and spillages of fuels during operation from below-ground fuel tank. Minor adverse effect during decommissioning due to leaks and spillages of fuel from construction plant.	Not applicable	Not applicable	Not applicable	Construction and operation effects could overlap on the Secondary B bedrock aquifer from the Wylfa Newydd Development Area and the Off-Site Power Station Facilities.	None identified	Minor adverse

Receptor	Effects of individual developments (brief description and significance)						Intra-project cumulative effect		
	Project-wide effect	WNDA Development	Off-Site Power Station Facilities: AECC, ESL and MEEG	Park and Ride	A5025 Off-line Highway Improvements	Logistics Centre	Description of cumulative effect	Additional mitigation	Significance of residual cumulative effect
		due to potential spills and leaks of fuel and cementitious materials as spent fuel storage is constructed.							
Afon Llanrhuddlad	Not applicable	Not applicable	Minor adverse effect during construction due to disturbance of sediment during works causing changes in the morphology, destabilisation of the banks and smothering of the bed substrate. A minor adverse effect would also occur due to altered flow from preferential flow paths. A minor adverse effect during operation due to leaks and spillages of fuel, and presence of outfalls causing scour and sediment movement. Minor beneficial effect during operation would occur due to increased time in	Not applicable	Minor adverse due to high sediment loading, in-channel working and physical modifications to the watercourse.	Not applicable	Construction and operation effects could overlap on the Afon Llanrhuddlad from the Off-Site Power Station Facilities and the A5025 Off-Line Highway Improvements.		Minor adverse

Receptor	Effects of individual developments (brief description and significance)						Intra-project cumulative effect		
	Project-wide effect	WNDA Development	Off-Site Power Station Facilities: AECC, ESL and MEEG	Park and Ride	A5025 Off-line Highway Improvements	Logistics Centre	Description of cumulative effect	Additional mitigation	Significance of residual cumulative effect
			response to rainfall events.						

Terrestrial and freshwater ecology – the only effects of minor or greater significance have been reported in volume D; hence, there are no intra-project cumulative effects to report for this topic.

Landscape and visual

Landscape receptors

Isle of Anglesey Area of Outstanding Natural Beauty (AONB)	Not applicable	Medium-term major adverse direct effect (localised to an area of AONB within the Wylfa Newydd Development Area directly affected) during the construction phase resulting from changes to landform and land cover. Indirect effects would also occur resulting from visibility of the construction works and associated construction apparatus (including tower cranes) from the wider AONB. During operation, the effect would reduce in the long-term to moderate adverse following establishment of the mitigation planting which would help to integrate the Power Station into the surrounding landscape.	Short-term minor adverse indirect effect (localised) during the construction phase resulting from visibility of the construction works. During operation, the effect would reduce to neutral, the Off-Site Power Station Facilities appearing similar in nature to the existing baseline conditions. At decommissioning there would be a minor adverse (localised) effect which would reduce following restoration and the establishment of mitigation planting.	Not applicable	Short-term slight adverse effect (localised) resulting from the loss of a small section of pasture and stone wall within the AONB during the construction phase as a direct result of loss of land cover and vegetation associated with the construction works. Indirect effects would also occur, resulting from visibility of the construction works and increased perception of movement. During operation, the effect would reduce permanently to neutral following establishment of the mitigation planting.	Short-term moderate adverse effect (localised) during the construction phase as a direct result of loss of land cover and vegetation associated with the construction works. Indirect effects associated with visibility of the construction of the Logistics Centre. Medium-term moderate adverse effect (localised) during operation as a result of the presence of the Logistics Centre within a rural situation. Indirect effects associated with the visibility of the Logistics Centre within a rural situation. At decommissioning the effect would	Construction of the Power Station would overlap with the construction and operational phases of the Off-Site Power Station Facilities, the A5025 Off-line Highway Improvements and the Logistics Centre (including its decommissioning). The concurrent construction and operation of these developments would result in direct and indirect localised changes to the special qualities which define the AONB (including expansive views and its coastal landscapes). While each development would result in localised effects on the features which contribute to the special qualities of the AONB, the sum	There would be only a limited perception of simultaneous cumulative effects on the AONB, and given the specific mitigation already proposed for each development, no further mitigation is considered necessary.	Moderate adverse effect locally (primarily relating to the Wylfa Newydd Development Area). Minor adverse effect (overall)
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Receptor	Effects of individual developments (brief description and significance)						Intra-project cumulative effect		
	Project-wide effect	WNDA Development	Off-Site Power Station Facilities: AECC, ESL and MEEG	Park and Ride	A5025 Off-line Highway Improvements	Logistics Centre	Description of cumulative effect	Additional mitigation	Significance of residual cumulative effect
		In regard to the AONB as a whole, there would be a minor adverse effect overall.					reduce to minor adverse (localised) as a result of removal of the welfare/security building, inspection bay covering, security scanner and security kiosks. At all stages the overall effect on the AONB would be negligible adverse.	total of these effects is unlikely to undermine the integrity of the AONB, any effects being reduced as the mitigation planting associated with each development becomes established and helps to integrate the developments into the landscape.	
Non-designated wider landscape	Not applicable	Medium-term major adverse direct effect (localised) during the construction phase resulting from changes to landform and land cover. Indirect effects would also occur resulting from visibility of the construction works and associated construction apparatus (including tower cranes) from the wider area. During operation the effect would reduce in the long-term to moderate adverse following establishment of the mitigation planting, which would help to integrate the Power	Not applicable.	Short-term moderate adverse effect (localised) resulting from the loss of sections of pasture and changes to the field pattern/land cover during the construction phase. Indirect effects would also occur, resulting from visibility of the construction works and increased perception of movement. Moderate adverse visual effect during operation	Short-term moderate adverse effect (localised) resulting from the loss of sections of pasture and changes to the field pattern/land cover during the construction phase. Indirect effects would also occur, resulting from visibility of the construction works and increased perception of movement. During operation, the effect reduces permanently to slight adverse (localised)	Not applicable	Construction of the Power Station would overlap with the construction and operational phases of the Off-Site Power Station Facilities, the Park and Ride (including its decommissioning) and the A5025 Off-line Highway Improvements. The concurrent construction and operation of these developments would result in direct and indirect localised changes to the landscape features and qualities which define the non-designated wider landscape.	There would be only a limited perception of simultaneous cumulative effects on the non-designated wider landscape, and given the specific mitigation already proposed for each development, no further mitigation is considered necessary.	Minor to major adverse locally. Minor adverse overall.

Receptor	Effects of individual developments (brief description and significance)						Intra-project cumulative effect		
	Project-wide effect	WNDA Development	Off-Site Power Station Facilities: AECC, ESL and MEEG	Park and Ride	A5025 Off-line Highway Improvements	Logistics Centre	Description of cumulative effect	Additional mitigation	Significance of residual cumulative effect
		Station into the surrounding landscape. In regard to the non-designated wider landscape as a whole, there would be a minor adverse effect overall.		reducing permanently to neutral following decommissioning and restoration of the car park to pasture.	following establishment of the mitigation planting.		While each development would result in localised effects on landscape features within the non-designated wider landscape, the sum total of these changes are unlikely to undermine the integrity of the non-designated wider landscape, any effects being reduced as the mitigation planting associated with each development becomes established and helps to integrate the developments into the landscape (in addition to the restoration of the Park and Ride site to pasture).		
Local Landscape Character	Not applicable	Short- to medium-term effects (localised) ranging from moderate to major adverse during the construction phase resulting from changes to landform and land cover. Indirect effects would also occur resulting from visibility of the construction works and associated	Short-term minor adverse effect (localised) resulting from the direct loss of landscape features during the construction phase. Long-term minor beneficial effect during operation resulting from the establishment of	Short-term moderate adverse effect (localised) resulting from the loss of sections of pasture and changes to the field pattern/land cover during the construction phase. Indirect effects would also occur,	Short-term moderate adverse effect (localised) resulting from the loss of sections of pasture and changes to the field pattern/land cover during the construction phase. Indirect effects would also occur, resulting	Short-term moderate adverse effect (localised) during the construction phase as a direct result of loss of land cover and vegetation associated with the construction works. Indirect effects associated with visibility of	Construction of the Power Station would overlap with the construction and operational phases of the Off-Site Power Station Facilities, the Park and Ride (including its decommissioning), the A5025 Off-line Highway Improvements and the Logistics Centre	There would be only a limited perception of simultaneous cumulative effects on local landscape character, and given the specific mitigation already proposed for	Minor to major adverse locally. Minor adverse overall.

Receptor	Effects of individual developments (brief description and significance)						Intra-project cumulative effect		
	Project-wide effect	WNDA Development	Off-Site Power Station Facilities: AECC, ESL and MEEG	Park and Ride	A5025 Off-line Highway Improvements	Logistics Centre	Description of cumulative effect	Additional mitigation	Significance of residual cumulative effect
		<p>construction apparatus (including tower cranes) from surrounding Local Landscape Character Areas (LLCAs).</p> <p>During operation the effects on LLCAs would reduce in the long-term to moderate adverse or less following establishment of the mitigation planting, which would help to integrate the Power Station into the surrounding landscape.</p>	<p>planting along the northern, eastern and southern boundaries to the Off-Site Power Station Facilities.</p>	<p>resulting from visibility of the construction works and increased perception of movement.</p> <p>Moderate adverse visual effect during operation reducing permanently to neutral following decommissioning and restoration of the car park to pasture.</p>	<p>from visibility of the construction works and increased perception of movement.</p> <p>During operation, the effect reduces permanently to slight adverse (localised) following establishment of the mitigation planting.</p>	<p>the construction of the Logistics Centre.</p> <p>Medium-term moderate adverse effect (localised) during operation as a result of the presence of the Logistics Centre within a rural situation. Indirect effects associated with the visibility of the Logistics Centre within a rural situation.</p> <p>At decommissioning the effect would reduce to minor adverse (localised) as a result of removal of the welfare/security building, inspection bay covering, security scanner and security kiosks.</p> <p>At all stages the overall effect on the local landscape character would be negligible adverse.</p>	<p>(in addition to its decommissioning). The concurrent construction and operation of these developments (and decommissioning where relevant) would result in direct and indirect localised changes to the features which define LLCAs within the study area. Generally, these effects would be localised and occur in the vicinity of each development only.</p> <p>In this regard, the sum total of these changes is unlikely to significantly undermine and redefine the LLCAs cumulatively, the effects generally occurring in geographically distinct areas. Where effects do arise, for instance in the vicinity of the A5025 Off-line Highway Improvements where it passes the Off-Site Power Station Facilities, the effects on landscape character would be</p>	<p>each development, no further mitigation is considered necessary.</p>	

Receptor	Effects of individual developments (brief description and significance)						Intra-project cumulative effect		
	Project-wide effect	WNDA Development	Off-Site Power Station Facilities: AECC, ESL and MEEG	Park and Ride	A5025 Off-line Highway Improvements	Logistics Centre	Description of cumulative effect	Additional mitigation	Significance of residual cumulative effect
							reduced as the mitigation planting associated with each development becomes established and helps to integrate the developments into the landscape (in addition to the restoration of the Park and Ride site to pasture).		
Visual Receptors									
WCP walkers	Not applicable	Medium-term visual effects ranging from major to moderate adverse, resulting from views of the construction works including tower cranes. During operation, visual effects would be major adverse or less in the long-term. Where effects are reduced, this would be attributable to the establishment of the mitigation planting which would help to integrate the Power Station into the surrounding landscape.	Not applicable	Not applicable	Short-term slight adverse visual effect during the construction phase resulting from direct views of the construction works. During operation, visual effects would generally reduce permanently to neutral but would be permanently slight adverse at west Llanfachraeth.	Not applicable	WCP walkers would potentially experience cumulative visual effects resulting from the construction of the Power Station and the A5025 Off-line Highway Improvements. Furthermore, WCP walkers would also experience visual effects during the operational phases of these developments. Cumulative effects would be sequential in nature (i.e. views of each development occurring separately, the developments not being visible at the same time) where	There would be very limited potential for simultaneous views of the two developments, and given the specific mitigation already proposed for each development, no further mitigation is considered necessary.	Major adverse

Receptor	Effects of individual developments (brief description and significance)						Intra-project cumulative effect		
	Project-wide effect	WNDA Development	Off-Site Power Station Facilities: AECC, ESL and MEEG	Park and Ride	A5025 Off-line Highway Improvements	Logistics Centre	Description of cumulative effect	Additional mitigation	Significance of residual cumulative effect
							the WCP is walked the entire distance between West Llanfachraeth and the Power Station, a distance of approximately 20km. There would be no (or very limited for) simultaneous views of the two developments.		
Users of Local Public Rights of Way (PRoWs) and open access land	Not applicable	Medium-term visual effects ranging from major to moderate adverse, resulting from views of the construction works including; tower cranes from PRoWs and open access land within approximately 6km of the Power Station. During operation, visual effects would range from major to minor adverse permanently. Where effects are reduced the reduction would be attributable to establishment of the mitigation planting, which would help to integrate the Power Station into the surrounding landscape.	Short-term adverse effects ranging from minor to moderate, resulting from views of the construction works from PRoWs and open access land within approximately 2km of the Off-Site Power Station Facilities. During operation, visual effects would reduce permanently to minor or less as a result of the establishment of planting along the northern, eastern and southern boundaries to the Off-Site Power	Not applicable	Short-term adverse effects ranging from slight to moderate, resulting from views of the construction works from PRoWs and open access land within approximately 2km of the A5025 Off-line Highway Improvements. During operation, visual effects would reduce to moderate or less permanently following establishment of the mitigation planting, which would help to integrate the A5025 Off-line Highway	Short-term adverse effects ranging from minor to moderate, resulting from views of the construction works from PRoWs and open access land within approximately 2km of the Logistics Centre. During operation, effects would remain moderate adverse for close-range views, or negligible for longer distance views, following the establishment of planting to the site boundary. Effects would reduce to negligible	Users of Local PRoWs and open access land would potentially experience cumulative effects resulting from the construction and operation of the Power Station, Off-Site Power Station Facilities and A5025 Off-line Highway Improvements in combination. These effects are most likely to arise for users of PRoWs and open access land within 2km of the Off-Site Power Station Facilities and the A5025 Off-line Highway Improvements, who would experience simultaneous or sequential views of the developments.	Only effects of the A5025 Off-line Highway Improvements would be perceived simultaneously with the effects of some other developments, and given the specific mitigation already proposed for each development, no further mitigation is considered necessary.	Major adverse

Receptor	Effects of individual developments (brief description and significance)						Intra-project cumulative effect		
	Project-wide effect	WNDA Development	Off-Site Power Station Facilities: AECC, ESL and MEEG	Park and Ride	A5025 Off-line Highway Improvements	Logistics Centre	Description of cumulative effect	Additional mitigation	Significance of residual cumulative effect
			Station Facilities which would screen views and soften the appearance of the buildings. At decommissioning effects would be minor.		Improvements into the landscape.	following decommissioning.	While the changes in views would be most apparent during the construction phases of the three developments, the establishment of mitigation planting would reduce effects during the operational phases. Due to the distance separating PRoWs and open access land in the vicinity of the Logistics Centre to those in the vicinity of the Power Station, Off-Site Power Station Facilities and the A5025 Off-line Highway Improvements, and with consideration of the intervening landform and vegetation, it is unlikely that cumulative visual effects associated with in-combination visibility of these developments would arise.		
A5025 users	Not applicable	Medium-term visual effects ranging from major to moderate adverse, resulting from views of the construction works	Short-term minor adverse effect resulting from intermittent views of the	Not applicable	Short-term effects ranging from slight adverse to moderate adverse resulting	Not applicable	Users of the A5025 would have the potential to experience cumulative visual effects during the	Only effects of the A5025 Off-line Highway Improvements would be perceived	Moderate adverse

Receptor	Effects of individual developments (brief description and significance)						Intra-project cumulative effect		
	Project-wide effect	WNDA Development	Off-Site Power Station Facilities: AECC, ESL and MEEG	Park and Ride	A5025 Off-line Highway Improvements	Logistics Centre	Description of cumulative effect	Additional mitigation	Significance of residual cumulative effect
		including tower cranes. During operation, visual effects would reduce to moderate adverse or less for the long-term following establishment of the mitigation planting, which would help to integrate the Power Station into the surrounding landscape.	construction works. During operation, the effects would reduce to negligible. At decommissioning effects would be minor.		from views of the construction works. During operation, visual effects would reduce to slight or less permanently following establishment of the mitigation planting, which would help to integrate the A5025 Off-line Highway Improvements into the landscape.		construction and operational phase of the A5025 Off-line Highway Improvements with the construction of both the Off-Site Power Station Facilities and the Power Station as a result of the changes to the existing views. These effects would be both sequential in nature and simultaneous (i.e. within the same field of view at the same time). While the change in views would be greatest during the construction of both the Off-Site Power Station Facilities and construction of the Power Station, the establishment of mitigation planting would reduce effects during the operation of all three developments.	simultaneously with the effects of some other developments, and given the specific mitigation already proposed for each development, no further mitigation is considered necessary.	
Local road network users	Not applicable	Medium-term visual effects ranging from major to moderate adverse, resulting from views of the construction works	Short-term effects ranging from minor adverse to neutral resulting from direct views of the	Not applicable	Short-term effects ranging from slight adverse to large adverse resulting from views of the	Not applicable	Users of the local road networks identified within the study area of each development would potentially experience cumulative visual	Only effects of the A5025 Off-line Highway Improvements would be perceived simultaneously with the effects	Moderate adverse

Receptor	Effects of individual developments (brief description and significance)						Intra-project cumulative effect		
	Project-wide effect	WNDA Development	Off-Site Power Station Facilities: AECC, ESL and MEEG	Park and Ride	A5025 Off-line Highway Improvements	Logistics Centre	Description of cumulative effect	Additional mitigation	Significance of residual cumulative effect
		including tower cranes. During operation, visual effects would reduce to moderate adverse or less for the long-term following establishment of the mitigation planting, which would help to integrate the Power Station into the surrounding landscape.	construction works. During operation, the effects would reduce to negligible as a result of the establishment of planting along the northern, eastern and southern boundaries to the Off-Site Power Station Facilities. At decommissioning effects would be minor.		construction works. During operation, visual effects would reduce to moderate or less permanently following establishment of the mitigation planting, which would help to integrate the A5025 Off-line Highway Improvements into the landscape.		effects during the construction and operational phases of the Power Station and Off-Site Power Station Facilities and the operation of the A5025 Off-line Highway Improvements. These effects would have the potential to be both sequential in nature and simultaneous. While the change in views would be greatest during the construction of both the Off-Site Power Station Facilities and construction of the Power Station, the establishment of mitigation planting would reduce effects during the operation of all three developments.	of some other developments, and given the specific mitigation already proposed for each development, no further mitigation is considered necessary.	
Community of Tregele	Not applicable	Medium-term major adverse visual effect during the construction phase resulting from partial views of the construction works and cranes. During operation, the visual effect would reduce to moderate	Not applicable	Not applicable	Short-term moderate adverse visual effect during the construction phase resulting from direct views of the construction works.	Not applicable	The community of Tregele would potentially experience cumulative visual effects resulting from the construction and operation of both the A5025 Off-line Highway	The only cumulative effects would result from the effects of the A5025 Off-line Highway Improvements in conjunction with the effects of the Power Station, and	Moderate adverse

Receptor	Effects of individual developments (brief description and significance)						Intra-project cumulative effect		
	Project-wide effect	WNDA Development	Off-Site Power Station Facilities: AECC, ESL and MEEG	Park and Ride	A5025 Off-line Highway Improvements	Logistics Centre	Description of cumulative effect	Additional mitigation	Significance of residual cumulative effect
		adverse for the long term, the maturation of woodland planting helping to soften and integrate the landscape mounds into the surrounding landscape.			During operation, the effect would reduce permanently to slight adverse following establishment of the mitigation planting, which would help to integrate the A5025 Off-line Highway Improvements into the landscape.		Improvements and the Power Station. Views of the developments would generally be consecutive in nature (i.e. not within the same field of view at the same time). While the change in views would be greatest during the construction of both the Off-Site Power Station Facilities and the Power Station, the establishment of mitigation planting would reduce effects during the operation of both developments.	given the specific mitigation already proposed for both developments, no further mitigation is considered necessary.	
Community of Llanfaethlu (including Ysgol y Llannau and St Maethlu's Church)	Not applicable	Not applicable	Short-term minor adverse visual effect during the construction phase resulting from direct views of the construction works. During operation, the effect would range from minor adverse to negligible following establishment of the mitigation	Not applicable	Short-term moderate adverse visual effect during the construction phase resulting from direct views of the construction works. During operation the effect would reduce permanently to slight beneficial following establishment of	Not applicable	The community of Llanfaethlu would have the potential to experience cumulative visual effects resulting from the operation of the A5025 Off-line Highway Improvements and the construction and operation of the Off-Site Power Station Facilities. Views of the developments would generally be	None required	Minor beneficial

Receptor	Effects of individual developments (brief description and significance)						Intra-project cumulative effect		
	Project-wide effect	WNDA Development	Off-Site Power Station Facilities: AECC, ESL and MEEG	Park and Ride	A5025 Off-line Highway Improvements	Logistics Centre	Description of cumulative effect	Additional mitigation	Significance of residual cumulative effect
			planting, which would soften the appearance of the buildings. At decommissioning effects would be minor.		the mitigation planting, which would help to integrate the A5025 Off-line Highway Improvements into the landscape.		simultaneous in nature. While the change in views would be greatest during the construction of the Off-Site Power Station Facilities and construction of the Power Station, the establishment of mitigation planting would reduce effects during the operation of both developments.		
National Cycle Network Route 8	Not applicable	Not applicable	Not applicable	Short-term minor adverse visual effects during the construction phase resulting from direct, open views of the construction works. Minor adverse visual effect during operation reducing permanently to neutral after decommissioning following restoration of the car park to pasture.	Short-term slight adverse effect during the construction phase resulting from intermittent, glimpsed views of construction works. During operation, the effects would reduce permanently to neutral.	Not applicable	Users of National Cycle Network Route 8 would potentially experience cumulative effects during the construction phase of the Park and Ride and the A5025 Off-line Highway Improvements. These effects would be sequential in nature and experienced where National Cycle Network Route 8 is travelled between Cymunod and Valley. Effects would be likely to be diminished by the glimpsed nature of views and the	None required	Minor adverse

Receptor	Effects of individual developments (brief description and significance)						Intra-project cumulative effect		
	Project-wide effect	WNDA Development	Off-Site Power Station Facilities: AECC, ESL and MEEG	Park and Ride	A5025 Off-line Highway Improvements	Logistics Centre	Description of cumulative effect	Additional mitigation	Significance of residual cumulative effect
							relatively short duration of the view experienced.		
A5 Holyhead Road	Not applicable	Not applicable	Not applicable	Short-term minor adverse visual effects during the construction phase resulting from extensive views of the construction works. Minor adverse visual effect during operation, reducing permanently to neutral after decommissioning following restoration of the car park to pasture.	Short-term moderate adverse visual effect during the construction phase resulting from direct views of the construction works. During operation, visual effects reduce permanently to slight adverse following establishment of the mitigation planting, which would help to integrate the A5025 Off-line Highway Improvements into the landscape.	Not applicable	Users of the A5 would potentially experience cumulative visual effects during the construction and operational phases of the A5025 Off-line Highway Improvements and the Park and Ride. These effects would be sequential in nature where the A5 is travelled between Valley and Llanfihangel. The establishment of mitigation planting would reduce effects on visual amenity during the operational phases of both developments.	The only cumulative effects would result from the effects of the A5025 Off-line Highway Improvements in conjunction with the effects of the Park and Ride, and given the specific mitigation already proposed for both developments, no further mitigation is considered necessary.	Moderate adverse during construction and reducing to minor adverse in operation.
A55	Not applicable	Not applicable	Not applicable	Not applicable	Short-term slight adverse visual effect during the construction phase resulting from views of the construction works. During operation, visual effects would reduce	Short-term minor adverse visual effects during the construction phase resulting from open views and the increase in the extent of industrial development visible in the view.	Users of the A55 would have the potential to experience cumulative visual effects during the construction and operational phases of both the A5025 Off-line Highway	None required	Minor adverse during construction reducing to negligible during operation

Receptor	Effects of individual developments (brief description and significance)						Intra-project cumulative effect		
	Project-wide effect	WNDA Development	Off-Site Power Station Facilities: AECC, ESL and MEEG	Park and Ride	A5025 Off-line Highway Improvements	Logistics Centre	Description of cumulative effect	Additional mitigation	Significance of residual cumulative effect
					permanently to neutral.	Minor adverse visual effect during operation, reducing to negligible adverse at decommissioning following establishment of the boundary hedge planting.	Improvements and the Logistics Centre. These effects would be sequential in nature where the A55 is travelled between Valley and Holyhead. The establishment of mitigation planting would reduce effects during the operational phases of both developments.		
Cultural heritage									
Groesfechan (Asset 341)/(Asset 289)	Not applicable	Minor adverse effect due to the introduction of noise, including increased traffic on the A5025, and visual intrusion resulting in comprehensive changes to the setting of this asset during construction.	Not applicable	Not applicable	Slight adverse effect due to the introduction of temporary noise and visual intrusion during construction.	Not applicable	Increased noise and visual intrusion resulting in comprehensive changes to the setting of this asset would combine to have a short-term cumulative effect.	None identified	Minor adverse
Cefn Coch House, Llanfechell (Asset 430)/(Asset 258)	Not applicable	Minor adverse effect due to increased visual intrusion from modern infrastructure in views from the east elevation, and intrusion from traffic on the A5025 during construction.	Not applicable	Not applicable	Slight adverse effect due to temporary intrusion from construction works, detracting from the rural character of the asset during construction.	Not applicable	Increased visual intrusions from modern infrastructure and construction works would combine to have a short-term cumulative effect.		Minor adverse
Surviving outbuildings, Cefn	Not applicable	Minor adverse effect due to increased	Not applicable	Not applicable	Slight adverse effect due to	Not applicable	Increased noise and visual intrusion from		Minor adverse

Receptor	Effects of individual developments (brief description and significance)						Intra-project cumulative effect		
	Project-wide effect	WNDA Development	Off-Site Power Station Facilities: AECC, ESL and MEEG	Park and Ride	A5025 Off-line Highway Improvements	Logistics Centre	Description of cumulative effect	Additional mitigation	Significance of residual cumulative effect
Coch (Asset 617)/(Asset 259)		aural intrusion on the setting of this asset during construction.			temporary intrusion from construction works, detracting from the rural character of the asset during construction.		construction activities would combine to have a short-term cumulative effect.		
Barn, south-east of Cefn Coch (Asset 618)/(Asset 260)	Not applicable	Minor adverse effect due to increased aural intrusion on the setting of this asset during construction.	Not applicable	Not applicable	Slight adverse effect due to temporary intrusion from construction works, detracting from the rural character of the asset during construction.	Not applicable	Increased noise and visual intrusion from construction activities would combine to have a short-term cumulative effect.		Minor adverse

Coastal processes and coastal geomorphology – the only effects have been reported in volume D; hence, there are no intra-project cumulative effects to report for this topic.

Marine environment – the only effects have been reported in volume D; hence, there are no intra-project cumulative effects to report for this topic.

Radiological effects – the only effects have been reported in volume D; hence, there are no intra-project cumulative effects to report for this topic.

Shipping and navigation – the only effects have been reported in volume D; hence, there are no intra-project cumulative effects to report for this topic.