Denny to Wishaw Network Upgrade

Environmental Impact Assessment Report

Volume 3 Appendices

Appendix 16.2 Intra-project Screening Assessment

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Environmental Impact Assessment Report
Volume 3, Appendix 16.2 Intra-project Screening Assessment

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Appendix 16.2 Intra-project Screening Assessment

Introduction

1.1.1 Table 16.1 and Table 16.2 identifies the sensitive receptors from the Project that are exposed to residual adverse or beneficial effects with a significance of minor, moderate and major during the construction and operational phases. Sensitive receptors that have the potential for intra-project effects (where two or more topics effect the same receptor) have been taken forward into stage 2 of the assessment.

Table 16.1 Screening of receptors during the construction phase

Receptor	Relevant topic	Relevant component										Impact(s)	Significance of residual effect	Taken forward into stage 2?
		New Build Overhead Line	Uprating of the XX, XR and ZG Route	CB Route Removal	AA Route Undergrounding	Denny North Substation	Bonnybridge Substation	Cumbernauld Substation	Newarthill Substation	Wishaw Substation	Distribution line diversion works			
Clackmannan Aquifer Group	Water Environment	X		X				X				Groundwater quality due to excess fine sediments and chemical spillage risk.	Slight adverse	No
		X						X				Groundwater flows and levels due to dewatering and excavations.	Slight adverse	
Scottish Coal Measures Aquifer Group	Water Environment	X								X		Groundwater quality due to excess fine sediments and chemical spillage risk and groundwater flows and levels due to dewatering and excavations.	Slight adverse	No
Superficial Aquifer	Water Environment	X						X		X		Groundwater quality due to excess fine sediments and chemical spillage risk and groundwater flows and levels due to dewatering and excavations.	Slight adverse	No
Auchter Water	Water Environment		X									Accidental spillages and sediment-laden runoff and use of the existing watercourse.	Slight adverse	No
ABS-01	Water Environment	X										Groundwater quality due to excess fine sediments and chemical spillage risk and groundwater flows and levels due to dewatering and excavations.	Slight adverse	No
Bonny Water / Red Burn	Water Environment	X		X	X		X	X			X	Accidental spillages and sediment-laden runoff.	Slight adverse	No
AW-2	Water Environment		X									Accidental spillages and sediment-laden runoff.	Slight adverse	No
AW-7	Water Environment		X									Accidental spillages and sediment-laden runoff.	Slight adverse	No
AW-8	Water Environment		X									Accidental spillages and sediment-laden runoff and channel alteration within the recommended riparian buffer zone (within 50m of foundation works).	Slight adverse	No
AW-9	Water Environment		X									Accidental spillages and sediment-laden runoff.	Slight adverse	No
AW-10	Water Environment		X									Accidental spillages and sediment-laden runoff.	Slight adverse	No
BW-1	Water Environment			X			X					Accidental spillages and sediment-laden runoff.	Slight adverse	No
				X								The receptor will be crossed by temporary trackway crossing.	Slight adverse	
BW-2	Water Environment	X										Accidental spillages and sediment-laden runoff.	Slight adverse	No
BW-3	Water Environment	X					X					Accidental spillages and sediment-laden runoff.	Slight adverse	No
							X					Hydromorphology impacts.	Slight adverse	

Receptor	Relevant topic	Relevant component										Impact(s)	Significance of residual effect	Taken forward into stage 2?
		New Build Overhead Line	Uprating of the XX, XR and ZG Route	CB Route Removal	AA Route Undergrounding	Denny North Substation	Bonnybridge Substation	Cumbernauld Substation	Newarthill Substation	Wishaw Substation	Distribution line diversion works			
BW-4	Water Environment			X								Accidental spillages and sediment-laden runoff.	Slight adverse	No
BW-6	Water Environment	X		X								Accidental spillages and sediment-laden runoff.	Slight adverse	No
BW-7	Water Environment			X								Accidental spillages and sediment-laden runoff and channel alteration within the recommended riparian buffer zone (within 50m of foundation works).	Slight adverse	No
BW-8	Water Environment			X								Accidental spillages and sediment-laden runoff.	Slight adverse	No
				X								Breach of riparian buffer zone (within 50m of foundation works).	Slight adverse	
BW-9	Water Environment	X										Accidental spillages and sediment-laden runoff.	Slight adverse	No
BW-10	Water Environment	X		X								Accidental spillages and sediment-laden runoff.	Slight adverse	No
				X								Channel alteration within the recommended riparian buffer zone (within 50m of foundation works).	Slight adverse	
BW-11	Water Environment	X		X								Accidental spillages and sediment-laden runoff.	Slight adverse	No
				X								The receptor will be crossed by temporary trackway crossing.	Slight adverse	
BW-12	Water Environment	X		X								Accidental spillages and sediment-laden runoff.	Slight adverse	No
BW-13	Water Environment	X		X								Accidental spillages and sediment-laden runoff.	Slight adverse	No
				X								Channel alteration within the recommended riparian buffer zone (within 50m of foundation works).	Slight adverse	
BW-14	Water Environment	X		X								Accidental spillages and sediment-laden runoff.	Slight adverse	No
BW-16	Water Environment	X										Accidental spillages and sediment-laden runoff.	Slight adverse	No
BW-17	Water Environment	X		X								Accidental spillages and sediment-laden runoff.	Slight adverse	No
BW-20	Water Environment	X										Accidental spillages and sediment-laden runoff.	Slight adverse	No
BW-22	Water Environment	X										Accidental spillages and sediment-laden runoff.	Slight adverse	No
BW-24	Water Environment	X										Accidental spillages and sediment-laden runoff.	Slight adverse	No
GB2 (a small water course)	Water Environment						X					Temporary deterioration of water quality due to construction activity (runoff).	Slight adverse	No

Receptor	Relevant topic	Relevant component										Impact(s)	Significance of residual effect	Taken forward into stage 2?
		New Build Overhead Line	Uprating of the XX, XR and ZG Route	CB Route Removal	AA Route Undergrounding	Denny North Substation	Bonnybridge Substation	Cumbernauld Substation	Newarthill Substation	Wishaw Substation	Distribution line diversion works			
RB1 (a small watercourse)	Water Environment							X				Temporary deterioration of water quality due to construction activity (runoff).	Slight adverse	No
UD1 (a small watercourse)	Water Environment							X				Partially removed and reconfigure by the works.	Slight adverse	No
River Carron	Water Environment	X	X	X	X	X	X					Accidental spillages and sediment-laden runoff.	Slight adverse	No
			X									Channel alteration within the recommended riparian buffer zone (within 50m of foundation works).	Slight adverse	
Forth and Clyde Canal	Water Environment	X		X								Accidental spillages and sediment-laden runoff.	Slight adverse	No
				X								Breach of riparian buffer zone (within 50m of foundation works),	Slight adverse	
Luggie Water	Water Environment	X										Accidental spillages and sediment-laden runoff.	Slight adverse	No
Glencryan Burn	Water Environment	X						X				Accidental spillages and sediment-laden runoff.	Slight adverse	No
South Calder Water	Water Environment		X									Accidental spillages and sediment-laden runoff.	Slight adverse	No
South Calder Water	Water Environment		X									Accidental spillages and sediment-laden runoff and will be crossed by temporary trackway crossing.	Slight adverse	No
LW-1	Water Environment	X										Accidental spillages and sediment-laden runoff.	Slight adverse	No
LW-4	Water Environment	X										Accidental spillages and sediment-laden runoff.	Slight adverse	No
LW-6	Water Environment	X										Accidental spillages and sediment-laden runoff.	Slight adverse	No
LW-7	Water Environment	X										Accidental spillages and sediment-laden runoff.	Slight adverse	No
LW-8	Water Environment	X										Accidental spillages and sediment-laden runoff.	Slight adverse	No
LW-10	Water Environment	X										Accidental spillages and sediment-laden runoff.	Slight adverse	No
LW-13	Water Environment	X										Accidental spillages and sediment-laden runoff.	Slight adverse	No
LW-14	Water Environment	X										Accidental spillages and sediment-laden runoff.	Slight adverse	No
LW-15	Water Environment	X									X	Accidental spillages and sediment-laden runoff.	Slight adverse	No

Receptor	Relevant topic	Relevant component										Impact(s)	Significance of residual effect	Taken forward into stage 2?
		New Build Overhead Line	Uprating of the XX, XR and ZG Route	CB Route Removal	AA Route Undergrounding	Denny North Substation	Bonnybridge Substation	Cumbernauld Substation	Newarthill Substation	Wishaw Substation	Distribution line diversion works			
LW-16	Water Environment	X										Accidental spillages and sediment-laden runoff.	Slight adverse	No
LW-18	Water Environment	X										Accidental spillages and sediment-laden runoff.	Slight adverse	No
SCW-1	Water Environment		X									Accidental spillages and sediment-laden runoff.	Slight adverse	No
			X									Channel altered by component with recommended riparian buffer zone (within 50m of foundation works).	Slight adverse	
SCW-2	Water Environment		X									Accidental spillages and sediment-laden runoff.	Slight adverse	No
SCW-3	Water Environment		X									Accidental spillages and sediment-laden runoff.	Slight adverse	No
SCW-4	Water Environment		X									Accidental spillages and sediment-laden runoff.	Slight adverse	No
			X									Channel altered by component with recommended riparian buffer zone (within 50m of foundation works).	Slight adverse	
SCW-5	Water Environment		X								X	Accidental spillages and sediment-laden runoff.	Slight adverse	No
			X									Channel altered by component with recommended riparian buffer zone (within 50m of foundation works).	Slight adverse	
SCW-6	Water Environment		X									Accidental spillages and sediment-laden runoff.	Slight adverse	No
			X									Channel altered by component with recommended riparian buffer zone (within 50m of foundation works).	Slight adverse	
SCW-7	Water Environment		X									Accidental spillages and sediment-laden runoff.	Slight adverse	No
			X									Channel altered by component with recommended riparian buffer zone (within 50m of foundation works).	Slight adverse	
Catchment 13-1	Water Environment		X									Accidental spillages and sediment-laden runoff and channel alteration within the recommended riparian buffer zone (within 50m of foundation works).	Slight adverse	No
Catchment 13-2	Water Environment		X									Accidental spillages and sediment-laden runoff.	Slight adverse	No
Tillan Burn	Water Environment		X									Accidental spillages and sediment-laden runoff and will be crossed by temporary trackway crossing.	Slight adverse	No
TB-1	Water Environment		X									Accidental spillages and sediment-laden runoff.	Slight adverse	No
TB-2	Water Environment		X									Accidental spillages and sediment-laden runoff.	Slight adverse	No
TB-4	Water Environment		X									Accidental spillages and sediment-laden runoff and channel alteration within the recommended riparian buffer zone (within 50m of foundation works).	Slight adverse	No

Receptor	Relevant topic	Relevant component										Impact(s)	Significance of residual effect	Taken forward into stage 2?
		New Build Overhead Line	Uprating of the XX, XR and ZG Route	CB Route Removal	AA Route Undergrounding	Denny North Substation	Bonnybridge Substation	Cumbernauld Substation	Newarthill Substation	Wishaw Substation	Distribution line diversion works			
Shirrel Burn / Thankerton Burn / Legbrannock Burn	Water Environment		X									Accidental spillages and sediment-laden runoff.	Slight adverse	No
ShirrelB-5	Water Environment		X									Accidental spillages and sediment-laden runoff and channel alteration within the recommended riparian buffer zone (within 50m of foundation works).	Slight adverse	No
ShirrelB-6	Water Environment		X									Accidental spillages and sediment-laden runoff and channel alteration within the recommended riparian buffer zone (within 50m of foundation works).	Slight adverse	No
NCW1-3	Water Environment		X									Accidental spillages and sediment-laden runoff and channel alteration within the recommended riparian buffer zone (within 50m of foundation works).	Slight adverse	No
NCW1-4	Water Environment		X									Accidental spillages and sediment-laden runoff and channel alteration within the recommended riparian buffer zone (within 50m of foundation works).	Slight adverse	No
NCW1-5	Water Environment		X									Accidental spillages and sediment-laden runoff and channel alteration within the recommended riparian buffer zone (within 50m of foundation works).	Slight adverse	No
Catchment 9-2	Water Environment		X									Accidental spillages and sediment-laden runoff.	Slight adverse	No
Catchment 9-3	Water Environment		X									Accidental spillages and sediment-laden runoff and channel alteration within the recommended riparian buffer zone (within 50m of foundation works).	Slight adverse	No
Shotts Burn	Water Environment		X									Accidental spillages and sediment-laden runoff.	Slight adverse	No
ShottsB-3	Water Environment		X									Accidental spillages and sediment-laden runoff and channel alteration within the recommended riparian buffer zone (within 50m of foundation works).	Slight adverse	No
South Burn	Water Environment		X								X	Accidental spillages and sediment-laden runoff.	Slight adverse	No
SB-3	Water Environment		X								X	Accidental spillages and sediment-laden runoff.	Slight adverse	No
SB-5	Water Environment		X									Accidental spillages and sediment-laden runoff and channel alteration within the recommended riparian buffer zone (within 50m of foundation works).	Slight adverse	No

Receptor	Relevant topic	Relevant component										Impact(s)	Significance of residual effect	Taken forward into stage 2?
		New Build Overhead Line	Uprating of the XX, XR and ZG Route	CB Route Removal	AA Route Undergrounding	Denny North Substation	Bonnybridge Substation	Cumbernauld Substation	Newarthill Substation	Wishaw Substation	Distribution line diversion works			
SB-6	Water Environment		X									Accidental spillages and sediment-laden runoff.	Slight adverse	No
SB-7	Water Environment		X									Accidental spillages and sediment-laden runoff.	Slight adverse	No
SB-8	Water Environment		X									Accidental spillages and sediment-laden runoff and channel alteration within the recommended riparian buffer zone (within 50m of foundation works).	Slight adverse	No
SB-9	Water Environment		X									Accidental spillages and sediment-laden runoff.	Slight adverse	No
SB-10	Water Environment		X								X	Accidental spillages and sediment-laden runoff.	Slight adverse	No
			X									The receptor will be crossed by temporary trackway crossing.	Slight adverse	No
SB-12	Water Environment		X									Accidental spillages and sediment-laden runoff.	Slight adverse	No
SB-13	Water Environment		X									Accidental spillages and sediment-laden runoff and channel alteration within the recommended riparian buffer zone (within 50m of foundation works).	Slight adverse	No
SB-15	Water Environment		X									Accidental spillages and sediment-laden runoff and channel alteration within the recommended riparian buffer zone (within 50m of foundation works).	Slight adverse	No
SB-16	Water Environment		X									Accidental spillages and sediment-laden runoff.	Slight adverse	No
Catchment 19-1	Water Environment		X								X	Accidental spillages and sediment-laden runoff.	Slight adverse	No
Catchment 19-2	Water Environment		X								X	Accidental spillages and sediment-laden runoff.	Slight adverse	No
Catchment 19-3	Water Environment		X								X	Accidental spillages and sediment-laden runoff.	Slight adverse	No
Catchment 19-7	Water Environment		X									Accidental spillages and sediment-laden runoff.	Slight adverse	No
Catchment 19-8	Water Environment		X									Accidental spillages and sediment-laden runoff and channel alteration within the recommended riparian buffer zone (within 50m of foundation works).	Slight adverse	No
Catchment 19-9	Water Environment		X									Accidental spillages and sediment-laden runoff and channel alteration within the recommended riparian buffer zone (within 50m of foundation works).	Slight adverse	No

Receptor	Relevant topic	Relevant component										Impact(s)	Significance of residual effect	Taken forward into stage 2?
		New Build Overhead Line	Uprating of the XX, XR and ZG Route	CB Route Removal	AA Route Undergrounding	Denny North Substation	Bonnybridge Substation	Cumbernauld Substation	Newarthill Substation	Wishaw Substation	Distribution line diversion works			
Pow Burn / Thor Burn	Water Environment		X			X						Accidental spillages and sediment-laden runoff.	Slight adverse	No
PB-4	Water Environment					X						Accidental spillages and sediment-laden runoff.	Slight adverse	No
PB-5	Water Environment		X									Accidental spillages and sediment-laden runoff and use of the existing watercourse.	Slight adverse	No
PB-6	Water Environment		X									Accidental spillages and sediment-laden runoff.	Slight adverse	No
RC1-1	Water Environment		X			X						Accidental spillages and sediment-laden runoff.	Slight adverse	No
						X						Hydromorphology impacts.	Slight adverse	
RC1-2	Water Environment		X									Accidental spillages and sediment-laden runoff and will be crossed by temporary trackway crossing.	Slight adverse	No
						X						Hydromorphology impacts.	Slight adverse	No
RC1-5	Water Environment		X									Accidental spillages and sediment-laden runoff.	Slight adverse	No
RC1-6	Water Environment		X									Accidental spillages and sediment-laden runoff and channel alteration within the recommended riparian buffer zone (within 50m of foundation works).	Slight adverse	No
RC2-1	Water Environment		X									Accidental spillages and sediment-laden runoff and channel alteration within the recommended riparian buffer zone (within 50m of foundation works).	Slight adverse	No
RC2-2	Water Environment		X									Accidental spillages and sediment-laden runoff and channel alteration within the recommended riparian buffer zone (within 50m of foundation works).	Slight adverse	No
RC2-7	Water Environment							X				Accidental spillages and sediment-laden runoff.	Slight adverse	No
BW-3	Water Environment		X									Accidental spillages and sediment-laden runoff.	Slight adverse	No
BW-6	Water Environment							X				Accidental spillages and sediment-laden runoff.	Slight adverse	No
BW-12	Water Environment							X				Accidental spillages and sediment-laden runoff.	Slight adverse	No
BW-15	Water Environment							X				Accidental spillages and sediment-laden runoff.	Slight adverse	No
BW-24	Water Environment							X				Accidental spillages and sediment-laden runoff.	Slight adverse	No

Receptor	Relevant topic	Relevant component										Impact(s)	Significance of residual effect	Taken forward into stage 2?
		New Build Overhead Line	Uprating of the XX, XR and ZG Route	CB Route Removal	AA Route Undergrounding	Denny North Substation	Bonnybridge Substation	Cumbernauld Substation	Newarthill Substation	Wishaw Substation	Distribution line diversion works			
BW-26	Water Environment										X	Accidental spillages and sediment-laden runoff.	Slight adverse	No
Catchment 17-1	Water Environment									X		Accidental spillages and sediment-laden runoff.	Slight adverse	No
Catchment 17-2	Water Environment		X							X		Accidental spillages and sediment-laden runoff.	Slight adverse	No
			X									Channel alteration within the recommended riparian buffer zone (within 50m of foundation works).	Slight adverse	
Langard's Farm and Doghillock Farm	Water Environment					X						Changes to surface water flow paths arising from the Project.	Slight adverse	No
Unnamed Watercourse RC1-2	Water Environment					X						Increased flow in watercourse due to runoff from site.	Slight adverse	No
Rail infrastructure	Water Environment									X		Changes to flood risk caused by changes to surface water flow paths or flow magnitude.	Slight adverse	No
Road infrastructure	Water Environment					X						Changes to Bonny Water flood response arising from site runoff.	Slight adverse	Yes
										X		Changes to flood risk caused by changes to surface water flow paths or flow magnitude.	Slight adverse	
	Traffic and Movement	X										Foundary Road – Impacts on severance of communities; fear and intimidation of and by road users; road users and pedestrian safety; non-motorised user delay and amenity; and transportation of hazardous / large loads.	Minor adverse	
	Traffic and Movement	X										Greenhill Road –Impacts on severance of communities; fear and intimidation of and by road users; road users and pedestrian safety; non-motorised user delay and amenity; and transportation of hazardous / large loads.	Minor adverse	
	Traffic and Movement	X										Glenyards Road –Impacts on severance of communities; fear and intimidation of and by road users; road users and pedestrian safety; non-motorised user delay and amenity; and transportation of hazardous / large loads.	Minor adverse	
	Noise and Vibration	X										Construction traffic noise along Glenyards Road.	Minor adverse	
	Traffic and Movement		X									Greenhill Road North – Impacts on severance of communities; fear and intimidation of and by road users; road users and pedestrian safety; non-motorised user delay and amenity; and transportation of hazardous / large loads.	Minor adverse	

Receptor	Relevant topic	Relevant component										Impact(s)	Significance of residual effect	Taken forward into stage 2?
		New Build Overhead Line	Uprating of the XX, XR and ZG Route	CB Route Removal	AA Route Undergrounding	Denny North Substation	Bonnybridge Substation	Cumbernauld Substation	Newarthill Substation	Wishaw Substation	Distribution line diversion works			
	Noise and Vibration		X									Construction traffic noise along Greenhill Road North.	Minor adverse	
	Traffic and Movement		X									Mill Road / Coltness Avenue – Impacts on severance of communities; fear and intimidation of and by road users; road users and pedestrian safety; non-motorised user delay and amenity; and transportation of hazardous / large loads.	Minor adverse	
	Noise and Vibration		X									Construction traffic noise along Mill Road / Coltness Avenye.	Minor adverse	
Local economy	Socio-Economics and Recreation (including Human Health)	X	X	X	X	X	X		X	X		Impacts from employment and GVA generation, including associated effects on human health.	Minor beneficial	No
		X	X	X	X	X	X		X	X		Impacts from the promotion and provision of training and apprenticeship opportunities, including associated effects on human health.	Minor beneficial	
Core path users	Socio-Economics and Recreation (including Human Health)	X	X	X	X							Impact on users of core paths during the construction phase due to temporary closures and diversions.	Minor Adverse	No
		X	X	X	X							Disruption to core paths in the form of closures or diversions would affect access to open space, leisure and play areas during construction.	Minor adverse	
Human Health	Socio-economics and Recreation (including Human Health)						X					Human health impacts arising from the provision of training and apprenticeship opportunities, and employment generation which have the potential to promote good health.	Minor beneficial	No
Local residents, businesses, and users of community facilities	Water Environment						X			X		Changes to Bonny Water flood response arising from site runoff.	Slight adverse	Yes
	Socio-Economics and Recreation (including Human Health)	X	X	X	X							There will be an adverse impact on local residents, businesses, and users of community facilities due to impact on amenity which will be required during construction	Minor adverse	
	Noise and Vibration	X										Construction noise associated with access arrangements, the establishment of compounds, bellmouth construction, removal and reinstatement of temporary works, conductor stringing and wiring and site clearance and de-vegetation.	Minor adverse	
	Noise and Vibration	X										Construction vibration associated with the bellmouth construction.	Moderate adverse	
	Noise and Vibration	X										Construction traffic noise along Beam Road, Gelnyards Road, Skipperton Burn Road, Arns Road and Hulks Road.	Minor adverse	

Receptor	Relevant topic	Relevant component										Impact(s)	Significance of residual effect	Taken forward into stage 2?
		New Build Overhead Line	Uprating of the XX, XR and ZG Route	CB Route Removal	AA Route Undergrounding	Denny North Substation	Bonnybridge Substation	Cumbernauld Substation	Newarthill Substation	Wishaw Substation	Distribution line diversion works			
	Noise and Vibration		X									Construction vibration associated with the bellmouth construction.	Major adverse	
	Noise and Vibration		X									Construction vibration associated with the installation of tower foundations (micropile/ rock anchor).	Moderate adverse	
	Noise and Vibration		X									Construction vibration associated with the establishment of construction compounds.	Minor adverse	
	Noise and Vibration		X									Construction traffic noise along the A73 Bellside Road Chapelhall.	Moderate adverse	
	Noise and Vibration		X									Construction traffic noise along Yetts Hole Road, Burnlip Road, Biggar Road, Muiredge and Jersey Road north, Muiredge and Jersey Road south, Foulburn Road, Mill Road/Coltness Avenue, Morningside East Road and Mill Road Morningside, Hareshaw Road, Greenhill Road North and Greenhill Road South.	Minor adverse	
	Noise and Vibration	X										Construction noise associated with the dismantling of existing routes.	Minor adverse	
	Noise and Vibration			X								Construction noise associated with the construction of the access arrangements, dismantling of existing routes, installation of tower foundations (raft/pad and column), installation of tower foundations (micropile/ rock anchor) and erection of towers.	Minor adverse	
	Noise and Vibration			X								Construction vibration associated with the installation of tower foundations (micropile/ rock anchor).	Moderate adverse	
	Noise and Vibration					X						Construction traffic noise along Denny Substation Road.	Minor adverse	
	Noise and Vibration						X					Construction noise associated with bulk earth works, civil works, transformer installation, balance of plant work, bunding, landscaping and removal of temporary laydown and welfare.	Slight adverse1	
	Noise and Vibration							X				Construction noise associated with bulk earthworks, civil works (including transformer installation and balance of plant works) and building, landscaping and removal of temporary laydown and welfare.	Slight adverse	
	Noise and Vibration									X		Construction noise associated with installation of foundations (micropile/rock anchor), site clearance and de-vegetation.	Minor adverse	

[1] Due to differing methodology used for the noise and vibration assessment, as outlined in Chapter 12, slight/minor are both used.

Receptor	Relevant topic	Relevant component										Impact(s)	Significance of residual effect	Taken forward into stage 2?
		New Build Overhead Line	Uprating of the XX, XR and ZG Route	CB Route Removal	AA Route Undergrounding	Denny North Substation	Bonnybridge Substation	Cumbernauld Substation	Newarthill Substation	Wishaw Substation	Distribution line diversion works			
	Noise and Vibration									X		Construction vibration associated with installation of foundations.	Minor adverse	
	Noise and Vibration									X		Construction traffic noise along Allershaw Road.	Minor adverse	
	Noise and Vibration										X	Construction noise associated with the dismantling of existing routes.	Minor adverse	
	Landscape and Visual	X					X					VP2 – construction activities would be noticeable in the focal part of the view along the canal.	Moderate adverse	
		X		X	X							VP4 – construction activities and movement would be noticeable across the view, particularly the simultaneous installation of the New Build Overhead Line in combination with the existing CB Route yet to be removed.		
		X		X								VP5 – scale of change in a small part of the view would be apparent, this is in the context of the road movement and the remainder of the open view to the northeast would remain largely unaffected.		
		X										VP12 – construction would be pronounced change in the composition of the view due to limited vegetation screening and the scale of activity. VP13 – change introduced would be noticeable in close proximity to the residential receptors and would result in increased movement and works.		
	Landscape and Visual	X		X	X		X					VP1 – construction activities, including vegetation removal and plant operation, would introduce noticeable, additional movement in the middle ground and distant part of the view.	Minor adverse	
		X										VP3 – construction activities would be a noticeable change in the background of the view associated with an uncharacteristic addition in the overall composition of the view.		
		X		X								VP6 – change is considered to be unobtrusive in the composition of the view as despite being across the entirety of the view, the construction works would typically be in small sections which are largely set against a backdrop of landform or vegetation. VP8 – construction activities and plant movement would be introduced to the view in the foreground and middle ground.		

Receptor	Relevant topic	Relevant component										Impact(s)	Significance of residual effect	Taken forward into stage 2?
		New Build Overhead Line	Uprating of the XX, XR and ZG Route	CB Route Removal	AA Route Undergrounding	Denny North Substation	Bonnybridge Substation	Cumbernauld Substation	Newarthill Substation	Wishaw Substation	Distribution line diversion works			
												VP9 – construction activities would be mainly visible in the middle ground of the view, the majority of the activity would largely be screened by intervening vegetation. VP10 – construction works would introduce additional movement in the view but would be located in the background and largely screened by mature vegetation on the edge of the immediate landscape.		
		X										VP11 – change introduced by the construction activities would be localised in the background of the view set within the expanse of vegetation.		
	Landscape and Visual							X				Construction activities would be visible in the foreground and middle ground of VP3 – Forest Road and of the middle ground in VP4 – Core Path East of Cumbernauld.	Minor adverse	Yes
	Noise and Vibration							X				Increased levels of noise as a result of construction activities on site.	Slight adverse	Yes
Landowners	Socio-Economics and Recreation (including Human Health)	X	X	X	X							There will be an adverse impact on landowners due to permanent and temporary land take which will be required during construction.	Minor Adverse	No
Development land	Socio-Economics and Recreation (including Human Health)	X										The effect of the New Build Overhead Line on planning applications and development land during construction where there is a degree of spatial overlap.	Minor adverse	No
Class 1 Nationally Important Peatland Habitats	Ground Conditions	X										Disturbance, damage and loss of peatland habitats relating to construction of steel towers, temporary laydown areas and construction of temporary access tracks and construction compounds.	Moderate adverse	No
Peat (other than Class 1)	Ground Conditions	X										Disturbance, damage and loss of peatland habitats relating to construction of steel towers, temporary laydown areas and construction of temporary access tracks and construction compounds.	Moderate adverse	No
The Slamannan Plateau / Avon Valley Local Landscape Area	Landscape and Visual	X					X					The construction activities would represent limited contrast and a limited scale of change due to the viewing distance and existing context within the receiving landscape.	Minor adverse	No

Receptor	Relevant topic	Relevant component										Impact(s)	Significance of residual effect	Taken forward into stage 2?
		New Build Overhead Line	Uprating of the XX, XR and ZG Route	CB Route Removal	AA Route Undergrounding	Denny North Substation	Bonnybridge Substation	Cumbernauld Substation	Newarthill Substation	Wishaw Substation	Distribution line diversion works			
LCT 151 Lowland Plateaux - Central	Landscape and Visual	X					X					Localised direct and indirect effects on the LCT associated with the construction works. This would include changes such as the introduction of construction plant and activity, and the localised, removal of characteristic coniferous woodland and the displacement of other vegetation.	Moderate adverse	No
LCT 152 Lowland River Valleys - Central	Landscape and Visual	X					X					Localised direct effect on the LCT associated with the specific tower and access locations and Bonnybridge Substation Extension. This would include changes due to the introduction of construction plant and activity, and the localised removal of some characteristic semi-natural woodland, some of which are conifers as detracting features.	Moderate adverse	No
LCT 201 Plateau Farmland - Glasgow & Clyde Valley	Landscape and Visual	X					X	X				Localised direct effect on the LCT associated with the construction activities where towers and access points are located. The localised vegetation removal and lighting would be a partial alteration in the more rural parts of the LCT.	Moderate adverse	No
LCT 213 Plateau Moorlands - Glasgow & Clyde Valley	Landscape and Visual	X					X					Localised direct effect on the LCT associated with the specific tower and access locations. This would include changes due to the introduction of construction plant and activity and the localised removal of vegetation and the displacement of grassland.	Minor adverse	No
Previously Unrecorded Heritage Assets	Cultural Heritage						X				X	There is potential for previously unrecorded assets to survive within the Site, however this is considered. A worst case scenario has been assumed where there could be a partial loss of unrecorded assets as a result of the Project.	Minor negative impact	No
								X				There is potential for previously unrecorded assets to survive within the Site, however this is considered. A worst case scenario has been assumed where there could be a total loss of unrecorded assets as a result of the Project.	Minor negative impact	
Antonine Wall World Heritage Site and associated buffer	Cultural Heritage	X			X							There is the potential for previously unrecorded remains to be found during works that could also contribute to the outstanding universal value of Antonine Wall. Any physical impacts could result in impacts to remains that contribute to Attributes of the outstanding universal value of the WHS, as well as its Integrity and Authenticity.	Minor negative impact	No
			X									There is the potential for previously unrecorded remains to be found during works that could also contribute to the outstanding universal value of Antonine Wall. Any physical	Minor negative impact	

Receptor	Relevant topic	Relevant component										Impact(s)	Significance of residual effect	Taken forward into stage 2?
		New Build Overhead Line	Uprating of the XX, XR and ZG Route	CB Route Removal	AA Route Undergrounding	Denny North Substation	Bonnybridge Substation	Cumbernauld Substation	Newarthill Substation	Wishaw Substation	Distribution line diversion works			
												impacts could result in impacts to remains that contribute to Attributes of the outstanding universal value of the WHS, as well as its Integrity and Authenticity.		
Roughcastle WS	Biodiversity	X										The total loss of woodland and scrub habitat within Roughcastle WS for the proposed overhead line wayleave is 1.45ha, 1.9% of the total area of the designation.	Significant adverse effect at a local level.	No
South Drum Claypit WS and Wester Drum WS	Biodiversity	X										The total loss of woodland and scrub habitat within South Drum Claypit WS for the New Build Overhead Line wayleave is 1.48ha, 6.7% of the total area of the designation. Of this, the majority of this area comprises non-notable scrub, with only a small area (0.14ha) of Wet Woodland SBL Priority habitat.	Significant adverse effect at a site level.	No
Cleuch SINC	Biodiversity	X										he total loss of woodland and scrub habitat within Cleuch SINC for the proposed wayleave is 1.37ha, 23.8% of the total area of the designation.	Significant adverse effect at a local level.	No
Palacerigg Country Park (West) SINC	Biodiversity	X										The total loss of woodland and scrub habitat within Palacerigg Country Park (West) SINC for the New Build Overhead Line wayleave is 2.33ha, 3.7% of the total area of the designation. Of this, 0.09ha is Lowland Mixed Deciduous Woodland SBL Priority habitat and 0.11ha is Wet Woodland SBL Priority habitat.	Significant adverse effect at a site level.	No
Luggie Water: Glenhove-Jockey's Well SINC	Biodiversity	X										The total loss of woodland and scrub habitat within Luggie Water: Glenhove-Jockey's Well SINC for the New Build Overhead Line wayleave is 0.81ha, 5.6% of the total area of the designation. Of this, 0.16ha is Lowland Mixed Deciduous Woodland SBL Priority habitat and 0.36ha is Wet Woodland SBL Priority habitat.	Significant adverse effect at a site level.	No
Cameron Burn: Cameron Glen SINC	Biodiversity	X										The total loss of woodland and scrub habitat within Cameron Burn: Cameron Glen SINC for the New Build Overhead Line wayleave is 0.57ha, 3.9% of the total area of the designation. Of this, 0.37ha is Lowland Mixed Deciduous Woodland SBL Priority habitat.	Significant adverse effect at a site level.	No
Cullochrigg SINC and Whinrigg SINC	Biodiversity	X										The total loss of woodland and scrub habitat within Cullochrigg SINC for the New Build Overhead Line wayleave is 2.66ha, 26.3% of the total area of the designation. The total loss of woodland and scrub habitat within Whinrigg	Significant adverse effect at a site level.	No

Receptor	Relevant topic	Relevant component										Impact(s)	Significance of residual effect	Taken forward into stage 2?
		New Build Overhead Line	Uprating of the XX, XR and ZG Route	CB Route Removal	AA Route Undergrounding	Denny North Substation	Bonnybridge Substation	Cumbernauld Substation	Newarthill Substation	Wishaw Substation	Distribution line diversion works			
												SINC is 1.15ha, 51.4% of the total area of the designation. All of this is Wet Woodland SBL Priority habitat.		
Slamannan Plateau SPA	Biodiversity			X								Disturbance/displacement of taiga bean goose, a SPA qualifying species, which sporadically use two fields in proximity to the Site for foraging.	Significant adverse effect at a site level.	No
Glencryan Woods SINC	Biodiversity							X				0.49ha of habitat within Glencryan Woods SINC (all of which is non-SBL mixed plantation woodland) will be lost to the Works. This equates to 1.4% of the existing total area of Glencryan Woods SINC (34.1ha).	Significant adverse effect at a local level.	No
Forest Woods SWT Reserve	Biodiversity							X				1.04ha of habitat within Forest Woods SWT Reserve (all of which is Mixed woodland – plantation) will be lost to the Works. This equates to 1.2% of the existing total area of Forest Woods SWT Reserve (90.4ha)	Significant adverse effect at a local level.	No
AWI: ancient semi natural woodland (ASNW)	Biodiversity	X										A total of 0.42ha woodland of ancient semi-natural origin (as identified by the AWI) will be lost to the Project.	Significant adverse effect at a County level.	Yes
	Forestry	X										Permanent removal of a 1.9ha forest unit which is in part designated as ASNW.	Moderate adverse.	
AWI: LEPO	Biodiversity	X										A total of 8.14ha of woodland of LEPO (as identified by the AWI) will be lost to the Project.	Significant adverse effect at a County level.	No
			X									A total of 0.26ha of AWI: LEPO woodland will be lost to the works.	Significant adverse effect at a site level.	No
					X							A total of 0.51ha of LEPO will be lost to the Works, of which 0.18ha was confirmed to be woodland during habitat surveys. The other habitats present include gorse scrub (0.17ha), scattered birch and species poor damp and acid grassland and no indicative features of ancient woodland were recorded. These habitats are likely subject to disturbance as are within the existing wayleave.	Significant adverse effect at a local level.	No
	Forestry	X										Permanent removal of semi natural woodland, classified in part as LEPO.	Moderate adverse.	No
Lowland mixed deciduous woodland	Biodiversity	X										6.54ha (31% of the total area of Lowland Mixed Deciduous Woodland identified within the survey area) would be permanently lost.	Significant adverse effect	No

Receptor	Relevant topic	Relevant component										Impact(s)	Significance of residual effect	Taken forward into stage 2?
		New Build Overhead Line	Uprating of the XX, XR and ZG Route	CB Route Removal	AA Route Undergrounding	Denny North Substation	Bonnybridge Substation	Cumbernauld Substation	Newarthill Substation	Wishaw Substation	Distribution line diversion works			
													at a local level.	
				X								0.09ha (5.23% of the total area of Lowland Mixed Deciduous Woodland identified within the survey area) would be temporarily lost.	Significant adverse effect at a site level.	
					X							0.15ha (5.03% of the total area of lowland mixed deciduous woodland identified within the survey area) will be temporarily lost.	Significant adverse effect at a site level.	
Wet woodland	Biodiversity	X										6.75ha (29.5% of the total area of Wet Woodland (comprising semi-natural woodland and scrub) identified within the survey area) would be permanently lost.	Significant adverse effect at a local level.	No
				X								0.53ha (5.67% of the total area of Wet Woodland (woodland and scrub) identified within the survey area) would be temporarily lost.	Significant adverse effect at a site level.	No
					X							0.40ha (10.72% of the total area of wet woodland identified within the survey area) will be lost to scaffolding, proposed access tracks and tower compounds.	Significant adverse effect at a site level.	No
Non-SBL broadleaved and mixed woodland	Biodiversity	X										21.92ha (27.8% of the total area of non-SBL broadleaved and mixed woodland (comprising broadleaved semi-natural woodland and broadleaved and mixed plantations) identified within the survey area) would be permanently lost.	Significant adverse effect at a site level.	No
				X								0.76ha (4.89% of the total area of non-SBL broadleaved and mixed woodland identified within the survey area) would be temporarily lost.	Significant adverse effect at a site level.	
					X							0.29ha (12.5% of the total area of non-SBL broadleaved and mixed woodlands (including broadleaved semi-natural woodland and broadleaved plantations) identified within the survey area) will be lost to scaffolding, proposed access tracks and tower compounds.	Significant adverse effect at a site level.	
Broadleaved and mixed tree-lines	Biodiversity	X										A 0.14km length of broadleaved tree-line would be permanently lost. This will take place mainly within the New Build Overhead Line corridor. Losses to other components such as access tracks will be very localised.	Significant adverse effect at a site level.	No
Hedgerows and non-SBL hedgerows and	Biodiversity			X								0.01km of SBL Priority Hedgerows (0.01km of which contains mature trees) and 0.64km of non-SBL hedges are within the tower compounds or crossed by proposed access tracks.	Significant adverse effect at a site level.	No

Receptor	Relevant topic	Relevant component										Impact(s)	Significance of residual effect	Taken forward into stage 2?
		New Build Overhead Line	Uprating of the XX, XR and ZG Route	CB Route Removal	AA Route Undergrounding	Denny North Substation	Bonnybridge Substation	Cumbernauld Substation	Newarthill Substation	Wishaw Substation	Distribution line diversion works			
broadleaved and mixed tree-lines					X							0.02km of Hedgerows and non-SBL hedges (2.06% of the total length of hedge identified within the survey area) would be lost to accommodate the underground cable, which will be trenched to an approximate width of 6m.	Significant adverse effect at a site level.	
Intact Blanket bog (H7130)	Biodiversity	X										0.44ha (0.05X% of the total area of intact Blanket bog identified within the survey area). This loss is considered temporary, given that it takes place within proposed access tracks/tower compounds.	Significant adverse effect at a local level.	No
			X									Direct loss of habitat.	Significant adverse effect at a site level.	No
				X								0.47ha (9.65% of the total area of blanket bog identified within the survey area) would be temporarily lost.	Significant adverse effect at a site level.	No
Degraded Lowland Raised bog (H7120) / Degraded Blanket Bog (H7130)	Biodiversity	X										3.66ha (6.1% of the total area of degraded raised bogs identified within the survey area). This loss is mainly temporary, given that it takes place within proposed access tracks/tower compounds.	Significant adverse effect at a local level.	No
			X									The very local occurrences of Lowland Raised Bog/Blanket Bog are all heavily modified (degraded). Temporary tower compounds and access tracks (the latter using protective matting) occupy 0.71ha	Significant adverse effect at a local level.	
				X								2.61ha (7.45% of the total area of degraded raised bog identified within the survey area) would be temporarily lost.	Significant adverse effect at a site level.	
Transition mires and quaking bogs	Biodiversity	X										0.16ha (53.33% of the total area of Transition mires and quaking bogs identified within the survey area) would be lost at tower location WB042, within Wester Drum WS. This loss is mainly temporary, given that it takes place within proposed access tracks/tower compounds. Permanent loss will be single tower in this location, the feet of which will measure 4m x 4m, each, thus total area lost would be, at most, 0.007ha for this single tower (2.33% of that identified within the survey area).	Significant adverse effect at a local level.	No
Lowland Fens (excluding Transition mires	Biodiversity	X										0.10ha (2.03% of the total area of non-Annex I Lowland Fens (comprising some of the Marshy Grassland, Flush and Spring – acid/neutral flush, Fen, Fen – valley mire and Swamp)	Significant adverse effect at a site level.	No

Receptor	Relevant topic	Relevant component										Impact(s)	Significance of residual effect	Taken forward into stage 2?
		New Build Overhead Line	Uprating of the XX, XR and ZG Route	CB Route Removal	AA Route Undergrounding	Denny North Substation	Bonnybridge Substation	Cumbernauld Substation	Newarthill Substation	Wishaw Substation	Distribution line diversion works			
and quaking bogs (H7140))												identified within the survey area) would be temporarily lost (e.g. to proposed access tracks/tower compounds).		
Lowland Fens and non-SBL swamp	Biodiversity		X									The total directly impacted area of Lowland Fen and non-SBL swamp is 0.1 ha. This is very small area in comparison to that recorded in the survey area (3.86ha).	Significant adverse effect at a site level.	No
				X								0.03ha (1.9% of the total area of non-Annex I Lowland Fens identified within the survey area) would be temporarily lost. These fens are acidic and species-poor. They occur in isolated fragments within the landscape and provide a source of biodiversity value.	Significant adverse effect at a site level.	
Lowland Heathland (H4010 and H4030) (including with acid grassland mosaic)	Biodiversity			X								0.30ha (8.72% of the total area of Lowland Heathland identified within the survey area) would be temporarily lost.	Significant adverse effect at a site level.	No
Purple Moor-grass & Rush Pasture and non-SBL Marshy grassland	Biodiversity		X									Within the Site there is 0.22ha of Purple Moor-grass and Rush Pasture, this represents a small area in comparison to that which was recorded during the field surveys, within the 50m survey corridor, which recorded 0.79ha	Significant adverse effect at a site level.	No
					X							0.03ha (8.57% of the total area of Purple Moor-grass and Rush Pasture identified within the survey area) would be temporarily lost.	Significant adverse effect at a site level.	No
Non-notable marsh/marshy grassland	Biodiversity			X								1.69ha (9.87% of the total area of non-notable marsh/marshy grassland identified within the survey area) would be temporarily lost. These are wetlands/damp habitats with little intrinsic nature conservation value. The examples within the Site are generally species-poor, but they provide a source of biodiversity value to the landscape.	Significant adverse effect at a site level.	No
					X							0.14ha (6.36% of the total area of non-SBL marsh/marshy grassland identified within the survey area) would be temporarily lost to proposed access tracks and tower compounds. Marshy grassland beneath scaffolding is not considered to be lost.	Significant adverse effect at a site level.	
Non-SBL watercourses	Biodiversity				X							A tributary of the Rowan Tree Burn would be crossed by a temporary access track and the underground cable between AA007 and AA008. The watercourse would be subject to	Significant adverse effect at a site level.	No

Receptor	Relevant topic	Relevant component										Impact(s)	Significance of residual effect	Taken forward into stage 2?
		New Build Overhead Line	Uprating of the XX, XR and ZG Route	CB Route Removal	AA Route Undergrounding	Denny North Substation	Bonnybridge Substation	Cumbernauld Substation	Newarthill Substation	Wishaw Substation	Distribution line diversion works			
												temporary habitat loss during the installation of the underground cable (to be installed using open cut methods) and water crossing. The estimated combined width of these works is 10m, a small proportion (0.6%) of the length of the Rowan Tree Burn within the survey area (1.67km).		
Roosting bats	Biodiversity	X										67 trees with suitability for roosting bats will be felled for the proposed overhead line wayleave.	Significant adverse effect at a county level.	No
			X									32 trees with suitability for roosting bats are at risk of disturbance where they are within 10m of works but will not be lost.	Significant adverse effect at a local level.	
		X										A total of 39.33ha of broadleaved and mixed woodland and scrub, 6.28ha of wetland and 0.73ha grassland will be lost to the Works, all of which could be used by foraging bats.	Significant adverse effect at a site level.	
			X									A total of nine trees with the potential to support roosting bats are expected to be felled as a result of the Works Trees adjacent to proposed access tracks and visibility splays may require lopping which may result in the loss of bat roosts.	Significant adverse effect at a local level.	
			X									44 trees with the potential to support roosting bats will be retained, but are present within 10m of the Works, the distance at which significant disturbance from works is considered possible.	Significant adverse effect at a local level.	
				X								37 trees with suitability for roosting bats are at risk of disturbance, where they are within 10m of Works (felling, proposed access, scaffolding, tower compounds) but will not be lost.	Significant adverse effect at a local level.	
					X							At most, one tree with suitability for roosting bats will be felled as a result of Works at tower compound AA003.	Significant adverse effect at site level.	
					X							At most, six trees with suitability for roosting bats are at risk of disturbance where they are within 10m of Works, but will not be lost.	Significant adverse effect at site level.	
						X						A total of four trees with the potential to support small numbers of roosting bats are expected to be felled as a result of the Works.	Significant adverse effect at a site level.	

Receptor	Relevant topic	Relevant component										Impact(s)	Significance of residual effect	Taken forward into stage 2?
		New Build Overhead Line	Uprating of the XX, XR and ZG Route	CB Route Removal	AA Route Undergrounding	Denny North Substation	Bonnybridge Substation	Cumbernauld Substation	Newarthill Substation	Wishaw Substation	Distribution line diversion works			
								X				The same potential roost features which will be lost, plus an additional tree, could be temporarily disturbed during construction and therefore small roosts of common bat species may be disturbed prior to their loss.	Significant adverse effect at a site level.	
Red squirrel	Biodiversity	X										Permanent direct habitat loss due to felling within the proposed overhead line wayleave. This loss is estimated at 12.5ha, and includes broadleaved, mixed and coniferous woodland. There may be further minor losses to facilitate new proposed access tracks.	Significant adverse effect at a local level.	No
		X										Red squirrel habitat fragmentation will take place where woodland will be felled for the New Build Overhead Line wayleave in locations where red squirrels are considered to be present (north of Beam Road). The New Build Overhead Line wayleave, which is 80m wide, will bisect red squirrel habitat in Roughcastle WS and Howierig Wood.	Significant adverse effect at a site level.	
		X										Loss of red squirrel dreys will occur where dreys are present within areas which will be felled. Disturbance to red squirrel dreys may occur where Works take place within 50m of dreys during the breeding season (February to September inclusive), or within 5m or one tree's distance of a potential drey location (whichever is less) during the non-breeding season.	Significant adverse effect at a local level.	
Great crested newt	Biodiversity	X										Temporary habitat loss within tower compounds, scaffolding, pulling positions and proposed access tracks, will effectively bisect the wider Drum WS area, dividing the terrestrial habitat and also the ponds.	Slight adverse effect at a site level.	No
				X								Temporary great crested newt habitat loss will take place to all habitats within tower compounds, scaffolding, pulling positions and proposed access tracks where Works are in the vicinity of pond CB01.	Slight adverse effect at a site level.	
		X		X								Mortality of great crested newts during predatory works.	Slight adverse effect at a site level.	
				X								Temporary habitat loss and fragmentation.	Significant adverse effect at a site level.	

Receptor	Relevant topic	Relevant component										Impact(s)	Significance of residual effect	Taken forward into stage 2?
		New Build Overhead Line	Uprating of the XX, XR and ZG Route	CB Route Removal	AA Route Undergrounding	Denny North Substation	Bonnybridge Substation	Cumbernauld Substation	Newarthill Substation	Wishaw Substation	Distribution line diversion works			
Badger	Biodiversity							X				Sett WB.B.20 (main sett) and Sett WB.B.21 (outlier sett) will be lost due to being located within the area of the earthworks.	Significant adverse effect at a site level.	No
Terrestrial invertebrates	Biodiversity	X										Several of the habitats which will be lost have the potential to support notable invertebrates. The loss of certain habitats (e.g. Blanket bog, Wet Woodland, Lowland Mixed Deciduous Woodland)	Significant adverse effect at a local level.	No
				X								Several of the habitats which will be lost have the potential to support notable invertebrates.	Significant adverse effect at a local level.	
					X							Several of the habitats which will be lost have the potential to support notable invertebrates.	Significant adverse effect at site level.	
								X				Some of the habitat which will be lost has the potential to support notable invertebrates (e.g. Wet Woodland, Non-SBL broadleaved and mixed woodland).	Significant adverse effect at a local level.	
Curlew	Biodiversity	X										The works have the potential to disturb and displace breeding curlew, including foraging birds, to a maximum distance of 300m from the works. Embedded mitigation will prevent the abandonment of active breeding attempts due to disturbance, however works may displace breeding curlew from suitable breeding and foraging habitat.	Significant adverse effect at a local level.	No
Barn owl	Biodiversity	X										Embedded mitigation would protect barn owl nesting within the identified barn owl box from disturbance. Works, however, could potentially prevent the species from occupying the nest box due to displacement.	Significant adverse effect at a local level.	No

Table 16.2 Screening of receptors during the operation phase

Receptor	Relevant topic	Relevant element										Impact(s)	Significance of residual effect	Taken forward into stage 2?
		New Build Overhead Line	Uprating of the XX, XR and ZG Routes	CB Route Removal	AA Route Undergrounding	Denny North Substation	Bonnybridge Substation	Cumbernauld Substation	Newarthill Substation	Wishaw Substation	Distribution line diversion works			
Clackmannan Aquifer Group	Water Environment					X						Groundwater quality – excess fine sediments and chemical spillage risk.	Slight adverse	No
								X				Changes to groundwater level and flow from ongoing presence of the new platform.	Slight adverse	No
								X				Contaminated runoff from the platform.	Slight adverse	No
Super Aquifer	Water Environment					X	X			X		Groundwater quality – excess fine sediments and chemical spillage risk.	Slight adverse	No
								X				Changes to groundwater level and flow from ongoing presence of the new platform.	Slight adverse	
								X				Contaminated runoff from the platform.	Slight adverse	
Pow Burn / Tor Burn	Water Environment					X						Contamination from onsite runoff.	Slight adverse	No
River Carron	Water Environment					X	X					Groundwater quality – excess fine sediments and chemical spillage risk.	Slight adverse	No
PB-4	Water Environment					X						Groundwater quality – excess fine sediments and chemical spillage risk.	Slight adverse	No
BW-3	Water Environment					X						Groundwater quality – excess fine sediments and chemical spillage risk.	Slight adverse	No
Scottish Coal Measures Aquifer Group	Water Environment						X			X		Groundwater quality – excess fine sediments and chemical spillage risk	Slight adverse	No
Bonny Water / Red Burn	Water Environment						X					Contamination from onsite runoff.	Slight adverse	No
BW-1	Water Environment						X					Contamination from onsite runoff.	Slight adverse	No

Receptor	Relevant topic	Relevant element										Impact(s)	Significance of residual effect	Taken forward into stage 2?
		New Build Overhead Line	Uprating of the XX, XR and ZG Routes	CB Route Removal	AA Route Undergrounding	Denny North Substation	Bonnybridge Substation	Cumbernauld Substation	Newarthill Substation	Wishaw Substation	Distribution line diversion works			
BW-3	Water Environment						X					Contamination from onsite runoff.	Slight adverse	No
Glencryan Burn	Water Environment							X				Contaminated runoff from the platform.	Slight adverse	No
								X				Changes to hydromorphology due to the installation of the new outlet.	Slight adverse	No
Road infrastructure	Water Environment						X					Changes to Bonny Water flood response arising from site runoff.	Slight beneficial	No
										X		Changes flood risk caused by changes to surface water flow paths or flow magnitude.	Slight adverse	
Rail infrastructure	Water Environment									X		Changes flood risk caused by changes to surface water flow paths or flow magnitude.	Slight adverse	No
Local residents, businesses, and users of community facilities	Water Environment						X					Changes to Bonny Water flood response arising from site runoff.	Slight beneficial	Yes
										X		Changes flood risk caused by changes to surface water flow paths or flow magnitude.	Slight adverse	
	Noise and Vibration		X									Operational noise effects at four receptors from the overhead line (XR Route only).	Minor adverse	
	Noise and Vibration						X					Operational noise of the substation.	Slight adverse	
	Noise and Vibration							X				Operational noise of the substation.	Slight adverse	
	Landscape and Visual	X					X					Year 1 of operation VP1 – the Project would introduce new energy infrastructure in closer proximity than existing and this scale change would occur across the majority of the view. Year 15 of operation VP1 – visual effects at Year 15 are assessed as remaining consistent with the Year 1 assessment.	Moderate adverse	
		X										Year 1 of operation		

Receptor	Relevant topic	Relevant element										Impact(s)	Significance of residual effect	Taken forward into stage 2?
		New Build Overhead Line	Uprating of the XX, XR and ZG Routes	CB Route Removal	AA Route Undergrounding	Denny North Substation	Bonnybridge Substation	Cumbernauld Substation	Newarthill Substation	Wishaw Substation	Distribution line diversion works			
												VP5 – whilst the scale of change in a small part of the view would be apparent, this is in the context of the road movement and the remainder of the open view to the northeast would remain largely unaffected. VP12 – the perceived change resulting from the New Build Overhead Line would be a pronounced change in the simple composition of the existing view. Year 15 of operation VP5 and VP12 – visual effects at Year 15 are assessed as remaining consistent with the Year 1 assessment.		
	Landscape and Visual		X									Year 1 of operation VP2 – the perceived change resulting from the New Build Overhead Line would be a small change in the background of a view dominated by large scale features including mature woodland. New Build Overhead LineVP4 – the change resulting from the proposed New Build Overhead Line and CB Route removal would be beneficial within the view as the electricity transmission infrastructure would be further from the receptor and the influence of scale decreased. VP6 – the New Build Overhead Line towers would largely reflect that of the former CB Route with the addition of a tower in the direction of the background hills. VP10 – the view would include the New Build Overhead Line (WB022 and WB023). These towers would be located in the background of the view and would be largely screened by mature intervening vegetation, particularly WB022. The introduction of WB023 would be an unobtrusive change to the visual receptor due to the small part of the view altered and only available for a short part of the route through the Park due to intervening mature vegetation cover. VP11 – the change to the composition of the view would be an unobtrusive change due to existing features and the large-scale nature of the view which reduce the perception of scale	Minor adverse	

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		New Build Overhead Line	Uprating of the XX, XR and ZG Routes	CB Route Removal	AA Route Undergrounding	Denny North Substation	Bonnybridge Substation	Cumbernauld Substation	Newarthill Substation	Wishaw Substation	Distribution line diversion works			
												and degree of contrast from the addition of the New Build Overhead Line. Year 15 of operation VP2, VP4, VP6, VP10 and VP11 – visual effects at Year 15 are assessed as remaining consistent with the Year 1 assessment.		
								X				Year 1 of operation VP8 – at Year 1, the view would include the permanent infrastructure associated with the Cumbernauld Substation Extension, the cut-slopes, and the areas of permanently removed vegetation. The extended hardstanding leading to the Substation would be perceptible in the foreground and vegetation clearance for the new access would open up views towards the permanent built form. Year 15 of operation VP8 – at Year 15, the proposed landscape planting for the Cumbernauld Substation Extension would have matured and would help to soften views of the infrastructure. Proposed woodland planting and hedgerows would partially screen both the new and existing Substation infrastructure. New Build Overhead Line	Minor adverse	
	Landscape and Visual	X										Year 1 of operation New Build Overhead LineVP9 – he upper extent of the proposed New Build Overhead Line would be visible against the skyline in the northwestern part of the view, the infrastructure would be largely screened by existing vegetation in the middle ground, reducing the scale of change. Year 15 of operation and VP9 – visual effects at Year 15 are assessed as remaining consistent with the Year 1 assessment.	Minor beneficial	
	Landscape and Visual							X				VP3 – Forest Road (year 1) – The Cumbernauld Substation Extension would be a pronounced change in the foreground and middle ground of the view. Despite the existing context of the Cumbernauld Substation in the view, the new	Minor adverse	Yes

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		New Build Overhead Line	Uprating of the XX, XR and ZG Routes	CB Route Removal	AA Route Undergrounding	Denny North Substation	Bonnybridge Substation	Cumbernauld Substation	Newarthill Substation	Wishaw Substation	Distribution line diversion works			
											permanent infrastructure and scale of earthworks and vegetation clearance would be larger. VP3 – Forest Road (year 15) – The proposed landscape planting would have matured and would soften views of the infrastructure. Perimeter grassland would provide a buffer between the Forest Road edge and the planting areas. Woodland and shrubs towards the northeastern and southeastern parts of the site view would help integrate with the woodland in the wider landscape.		
	Noise and Vibration							X			There will be some operational noise from the Project, however the noise levels would fall below background noise levels for nearby residential properties.	Slight adverse	
Catchment 17-1	Water Environment									X	Contamination from onsite runoff.	Slight adverse	No
Catchment 17-2	Water Environment									X	Contamination from onsite runoff.	Slight adverse	No
The Slamannan Pleateau / Avon Valley Local Landscape Area	Landscape and Visual		X								Year 1 – the introduction of the New Build Overhead Line in the wider landscape would be perceptible however the degree of contrast would be limited due to the existing context of energy infrastructure including overhead lines and towers and wind turbines also in the surrounding landscape. Year 15 – effects at Year 15 are assessed as remaining consistent with the Year 1 assessment.	Minor adverse	No
LCT 151 Lowland Plateaux - Central	Landscape and Visual		X				X				Year 1 – direct effect on the LCT due to the removal of coniferous woodland and new towers. The perception of change would be reduced due to the context of the removed CB Route and the context of existing forestry operations.	Minor adverse	No
			X				X				Year 15 – effects on this LCT at Year 15 are assessed as remaining consistent with the Year 1 assessment.	Minor adverse	
LCT 152 Lowland River Valleys - Central	Landscape and Visual		X				X				Year 1 – direct effect on the LCT due to the removal of roadside and hedgerow trees and semi-natural woodland, although noting existing influence on such features which reduces the change experienced. The Project would result in	Minor adverse	No

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												localised effects enabling the proposed Bonnybridge Substation Extension and wayleaves for the proposed New Build Overhead Line. Year 15 – The mitigation planting would aid in lessening the perceived scale of change by the Bonnybridge Substation Extension. The New Build Overhead Line would remain to be located through the LCT as reported at Year 1.		
LCT 201 Plateau Farmland – Glasgow & Clyde Valley	Landscape and Visual	X						X				Year 1 – there would be a direct effect on the LCT due to the removal of vegetation and the introduction of the New Build Overhead Line and the Cumbernauld Substation Extension. The perceived changes would result in localised effects associated with the creation of wayleaves for the New Build Overhead Line and space for the Substation Extension. Year 15 – effects at Year 15 are assessed as remaining consistent with the Year 1 assessment.	Minor adverse	No
Antonine Wall World Heritage Site and associated buffer	Cultural Heritage	X										While the introduction of the New Build Overhead Line would result in a new element in the landscape, the towers and associated wirescape would not result in impacts through changes to setting. This is partially a result of aspects such as the distance between the New Build Overhead Line and the World Heritage Site as well as screening provided by topography and woodland which help limit aspects such as long ranging views. The ability to span the World Heritage Site with towers either side of the monument means that the limited views that are currently possible along the monument in some locations will not be severed as there will be no new towers within the monument. Instead, the powerlines will oversail the scheduled components, with the appearance of New Build Overhead Line being reduced due to the extensive tree cover.	Minor negative impact	No
				X								The CB Route runs through the World Heritage Site with one tower located within the scheduled component west of Rough Castle. The current positioning of this tower partially severs	Moderate positive impact	

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												views along the Roman defences when looking east-west, as well as views into Rough Castle when viewed from the west. It is also positioned close to the alignment of the military road south of the Wall which linked the Roman features and was key to the functional setting of the Wall. As such, the removal of the tower would improve the setting of the World Heritage Site and Attributes of outstanding universal value where setting is a contributing element.		
Curlew	Biodiversity	X										The New Build Overhead Line south of Tower WB035 will replace the CB Route along a similar alignment. While the New Build Overhead Line will be a taller structure, collision risk will be broadly similar to the existing baseline.	Significant adverse effect at a local level.	No