

19. Summary of Residual Effects

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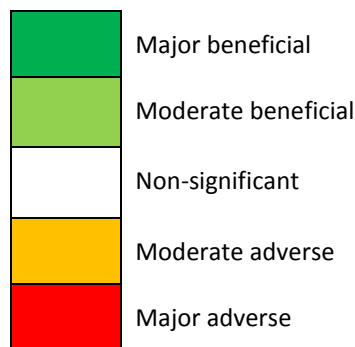
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19 Summary of Residual Effects

19.1 Introduction

19.1.1 Tables 19.1 and 19.2 provide a quick reference to each of the significant residual environmental effects identified in the technical sections of this Environmental Statement (ES), as well as a cross reference to the relevant mitigation measures identified.

19.1.2 The significant residual effects are highlighted in a “traffic light” formula for easy identification of beneficial and adverse effects as shown below.



19.1.3 Tables 19.3 and 19.4 provides a summary of the cumulative effects of the Proposed Development in combination with other proposed, consented and operation developments within the area.

Table 19.19.1 - Summary of Residual Effects – Construction and Decommissioning/Restoration Phases

Description of Effect	Significance of Potential Effect		Mitigation Measure	Significance of Residual Effect	
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse
6. Landscape and Visual					
VP1 Cairn Bridge, A76	Moderate for road users; Major-Moderate for properties; Significant	Adverse	N/A	Moderate for road users; Major-Moderate for properties; Significant	Adverse
VP2 Libry Moor Footpath	Negligible; Not Significant	Adverse	N/A	Negligible; Not Significant	Adverse
VP3 The Knowe	Moderate for road users; Major-Moderate for properties; Significant	Adverse	N/A	Moderate for road users; Major-Moderate for properties; Significant	Adverse
VP4 Lagrae	Moderate; Significant	Adverse	N/A	Moderate; Significant	Adverse
VP5 St.Connel’s Church	Major-Moderate to Moderate; Significant	Adverse	N/A	Major-Moderate to Moderate; Significant	Adverse
VP6 Kelloholm	Moderate-Minor; Not Significant for both receptor groups	Adverse	N/A	Moderate-Minor; Not Significant for both receptor groups	Adverse
VP7 Kirkland Hill	Negligible; Not Significant	Adverse	N/A	Negligible; Not Significant	Adverse

Description of Effect	Significance of Potential Effect		Mitigation Measure	Significance of Residual Effect	
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse
VP8 Sanquhar Railway Bridge	Moderate-Minor; Not Significant for all receptor groups	Adverse	N/A	Moderate-Minor; Not Significant for all receptor groups	Adverse
VP9 Sanquhar Academy Entrance	Negligible; Not Significant for all receptor groups	Adverse	N/A	Negligible; Not Significant for all receptor groups	Adverse
VP10 Southern Upland Way, NE Sanquhar	Negligible; Not Significant	Adverse	N/A	Negligible; Not Significant	Adverse
VP11 Crawick Artland	Negligible; Not Significant	Adverse	N/A	Negligible; Not Significant	Adverse
VP12 Southern Upland Way, Ulzieside	Negligible; Not Significant	Adverse	N/A	Negligible; Not Significant	Adverse
VP13 Coupland Knowe	Negligible; Not Significant	Adverse	N/A	Negligible; Not Significant	Adverse
VP14 East Mount Lowther	Negligible; Not Significant	Adverse	N/A	Negligible; Not Significant	Adverse
VP15 Blackcraig Hill	Moderate; Significant	Adverse	N/A	Moderate; Significant	Adverse
VP16 Mansfield	Negligible; Not Significant	Adverse	N/A	Negligible; Not Significant	Adverse

Description of Effect	Significance of Potential Effect		Mitigation Measure	Significance of Residual Effect	
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse
7. Ecology and Nature Conservation					
Habitats					
Marshy grassland (NVC community: M23a/b & M25a)	Minor - negligible	Adverse	Generic mitigation Preservation of the seed bank through the appropriate storage and re-instatement of soil as part of site remediation works.	Negligible / Negligible	Adverse
Unimproved acid grassland (NVC community: U5a)	Minor - negligible	Adverse	Generic mitigation. Preservation of the seed bank through the appropriate storage and re-instatement of soil as part of site remediation works.	Negligible / Negligible	Adverse
Running and standing water (NVC community: n/a)	Major - minor	Adverse	Generic mitigation.	Negligible / Negligible	Adverse
Acid/neutral flushes (NVC community: M6c/d)	Moderate	Adverse	Generic mitigation. Extensive habitat and wider hydrological management of 25 ha of dry modified and blanket bog habitat.	Positive / Moderate	Beneficial
Blanket bog (including areas of dry modified bog) (NVC community: M20)	Major - moderate	Adverse	Generic mitigation. Extensive habitat and wider hydrological management of 25 ha of dry modified and blanket bog habitat.	Positive / Moderate	Beneficial
Dry heath/acid grassland (NVC community: H10c)	No effect	Neutral	None proposed.	No effect	-
Non-ruderal Herb (NVC Community: U19)	Moderate	Adverse	Generic mitigation.	No effect	-
Badger Confidential Appendix 7.5					
Otter					
Direct Mortality	Negligible	Neutral	Generic mitigation.	Negligible / Negligible	Adverse

Description of Effect	Significance of Potential Effect		Mitigation Measure	Significance of Residual Effect	
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse
Habitat Loss	Minor	Adverse	Pre-construction survey in advance of construction; exclusion of resting places under terms of development licence if avoidance and reduction mitigation strategies are not practicable. No works to be undertaken within 50m of identified resting places unless under the terms of a development licence. Removal of in-stream obstacles outside construction periods. Daily check of works area with specific reference to pits or other deep excavation by the ECoW.	Negligible / Negligible	Adverse
Fragmentation	Moderate	Adverse		Low / Minor	Adverse
Disturbance	Moderate	Adverse		Low / Minor	Adverse
Pollution	Moderate	Adverse		Negligible / Negligible	Adverse
Bats					
Direct Mortality	Moderate/minor	Adverse	Generic mitigation. Implementation of avoidance strategies as part of the Design Stage comprising a stand-off of 70m from features deemed to be of higher value to bats e.g. woodland edge and water course. Pre-construction survey in advance of construction; exclusion of roosts under terms of development licence if avoidance and reduction mitigation strategies are not practicable. Watching brief by EcoW during clearance of areas of woodland.	Negligible / Negligible	Adverse
Habitat Loss	Negligible	Neutral		Negligible / Negligible	Adverse
Fragmentation	Negligible	Neutral		Negligible / Negligible	Adverse
Disturbance	Minor - negligible	Adverse		Negligible / Negligible	Adverse
Pollution	Negligible	Neutral		Negligible / Negligible	Adverse
Amphibian and Reptiles					
Direct Mortality	Minor – Negligible	Adverse	Generic mitigation. Management of habitats to displace reptiles and amphibians away from works areas. No ground breaking works to be undertaken during the hibernation season. Where works during hibernation	Negligible / Negligible	Adverse
Habitat Loss	Minor - Negligible	Adverse		Negligible / Negligible	Adverse
Fragmentation	Negligible	Adverse		Negligible / Negligible	Adverse

Description of Effect	Significance of Potential Effect		Mitigation Measure	Significance of Residual Effect	
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse
Disturbance	Minor - Negligible	Adverse	cannot be avoided low pressure matting is to be used to reduce the likelihood of crushing animals.	Negligible / Negligible	Adverse
Pollution	Minor	Adverse	Identification and protection of higher value reptile and amphibian habitat.	Negligible / Negligible	Adverse
Freshwater Fish					
Direct Mortality	Moderate	Adverse	Generic mitigation. Removal of in-stream obstacles outside construction periods. Avoidance of in-channel works during spawning, incubation and migration periods. Design and installation of bridges and where this is not practicable, installation of bottomless culverts in order to retain bankside profiles. EMP and HMP must include measures to prevent sedimentation of water courses and reduce potential for pollution incidents, provision of spill kits, and outline on-going monitoring of water quality and fish stocks.	Negligible / Negligible	Adverse
Habitat Loss	Negligible	Neutral		Negligible / Negligible	Adverse
Fragmentation	Moderate	Adverse		Low / Minor	Adverse
Disturbance	Moderate	Adverse		Low / Minor	Adverse
Pollution	Moderate	Adverse		Negligible / Negligible	Adverse
8. Ornithology					
Hen Harrier					
Direct Mortality	Negligible	Neutral	Generic mitigation	Negligible	Adverse
Habitat Loss	Negligible	Neutral		Negligible	Adverse
Fragmentation	Negligible	Neutral		Negligible	Adverse
Disturbance	Minor	Adverse		Negligible	Adverse
Pollution	Negligible	Neutral		Negligible	Adverse
Common Raptors					
Direct Mortality	Negligible	Neutral	Generic mitigation.	Negligible	Adverse

Description of Effect	Significance of Potential Effect		Mitigation Measure	Significance of Residual Effect	
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse
Habitat Loss	Negligible	Neutral		Negligible	Adverse
Fragmentation	Negligible	Neutral		Negligible	Adverse
Disturbance	Minor-Negligible	Adverse		Negligible	Adverse
Pollution	Negligible	Neutral		Negligible	Adverse
Black Grouse					
Direct Mortality	Negligible	Neutral	All vegetation clearance and construction activities within 750 m of any lekking site will be undertaken out with this period. Dedicated black grouse survey will be required in the lekking season immediately prior to construction and for every subsequent lekking season falling within the construction programme Pre-construction survey in advance of construction; exclusion of roosts under terms of development licence if avoidance and reduction mitigation strategies are not practicable. Watching brief by EcoW during clearance of areas of woodland which	Negligible	Adverse
Habitat Loss	Moderate - Minor	Adverse		Negligible	Adverse
Fragmentation	Negligible	Neutral		Negligible	Adverse
Disturbance	Major	Adverse		Negligible	Adverse
Pollution	Negligible	Neutral		Negligible	Adverse
Woodland bird assemblage					
Direct Mortality	Moderate- Minor	Adverse	Generic mitigation measures. Felling operations to be undertaken out with the bird breeding season (March – July inclusive). If vegetation clearance must be undertaken during the breeding bird season a detailed survey will be undertaken. Should a nest be located at this time an SQE will enforce a suitable stand-off area in which no works will take place.	Negligible	Adverse
Habitat Loss	Negligible	Neutral		Negligible	Adverse
Fragmentation	Negligible	Neutral		Negligible	Adverse
Disturbance	Minor-negligible	Adverse		Negligible	Adverse
Pollution	Negligible	Neutral		Negligible	Adverse
Golden Plover					
Direct Mortality	Negligible	Adverse	Generic mitigation.	Negligible	Adverse
Habitat Loss	Negligible	Neutral		Negligible	Adverse

Description of Effect	Significance of Potential Effect		Mitigation Measure	Significance of Residual Effect	
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse
Fragmentation	Negligible	Adverse	Removal of in-stream obstacles outside construction periods. Avoidance of in-channel works during spawning, incubation and migration periods. Design and installation of bridges and where this is not practicable, installation of bottomless culverts in order to retain bankside profiles. EMP and HMP must include measures to prevent sedimentation of water courses and reduce potential for pollution incidents, provision of spill kits, and outline on-going monitoring of water quality and fish stocks.	Negligible	Adverse
Disturbance	Moderate-minor	Adverse		Negligible	Adverse
Pollution	Negligible	Adverse		Negligible	Adverse
Waders					
Direct Mortality	Moderate-Minor	Adverse	Generic mitigation measures. Vegetation clearance operations to be undertaken out with the bird breeding season (March – July inclusive). If vegetation clearance must be undertaken during the breeding bird season a detailed survey will be undertaken. Should a nest be located at this time an SQE will enforce a suitable stand-off area in which no works will take place.	Negligible	Adverse
Habitat Loss	Negligible	Neutral		Negligible	Adverse
Fragmentation	Negligible	Neutral		Negligible	Adverse
Disturbance	Minor-negligible	Adverse		Negligible	Adverse
Pollution	Negligible	Neutral		Negligible	Adverse
9. Hydrology, Hydrogeology and Geology					
Pollution from silt-laden runoff	Major	Adverse	Develop and enforce a CDMP	Minor	Adverse
Pollution from chemical contaminated runoff	Major	Adverse	Develop and enforce a CDMP	Minor	Adverse
Soil compaction	Moderate	Adverse	Minimise vehicle movements to use of access tracks only. Appropriately designed access tracks to spread load over soils.	Negligible	N/A
Impact on fluvial geomorphology	Moderate	Adverse	Fence off banks of watercourses and mark out field drains in close proximity to construction works.	None	N/A

Description of Effect	Significance of Potential Effect		Mitigation Measure	Significance of Residual Effect	
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse
			Use 'No Entry' signs on fence.		
Peat Loss	Major	Adverse	Implementation of Peat Management Plan	Minor	Adverse
Discharge of untreated foul drainage	Major	Adverse	Connect to foul sewer or use self-contained tanks or a septic tank.	Minor	Adverse
10. Cultural Heritage					
Potential direct effect on a section of the Deil's Dyke (6a)	Moderate (significant)	Adverse	Breaches of the dyke during construction of the off-site access track will be kept to a minimum width necessary to facilitate the passage of the track and associated drainage ditch. A detailed archaeological watching brief will be carried out where the Deil's Dyke is crossed by the off-site access track.	Minor (non-significant)	Adverse
Potential direct effects on hitherto unknown buried archaeological remains	Minor (non-significant)	Adverse	Recording; Watching Brief/Evaluation	Minor (non-significant)	Adverse
11. Noise and Vibration					
Construction Noise	Negligible, to occasionally Moderate to Major (temporary, local),	Adverse	Adoption of Best practice mitigation measures to include: All plant items to be properly maintained and operated; works to take place during normal construction hours and not at night. Good local communications	Negligible, to occasionally Minor to Moderate (temporary, local),	Adverse
Construction Traffic Noise	Negligible to occasionally Moderate (temporary local)	Adverse	Appropriate timing of arrivals and departures. No night-time movements for general construction. No unnecessary idling or waiting at site access	Negligible to occasionally Moderate (temporary local)	Adverse
Construction Vibration	Negligible to Minor	Adverse	-	Negligible to Minor	Adverse

Description of Effect	Significance of Potential Effect		Mitigation Measure	Significance of Residual Effect	
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse
	(temporary local)			(temporary local)	
12. Traffic and Transport					
Accidents and Safety – Effects due to the transport of abnormal loads	Major	Adverse	Advance warning signs will be installed on the approaches to the affected road network. A request will be made to Transport Scotland that Variable Message Signs (VSM) warn drivers of abnormal loads. An advance escort to warn oncoming vehicles of abnormal loads will be in place. Abnormal loads shall be no more than three HGVs long. Implementation of a Construction Traffic Management Plan.	Not significant	Adverse
Severance, driver delay, pedestrian delay, pedestrian amenity, fear & intimidation.	Not significant	Adverse	Implementation of a Construction Traffic Management Plan.	Not significant	Adverse
13. Socio-Economic, Tourism and Recreation					
Socio-Economics					
Construction FTEs	Minor	Beneficial	Not required for beneficial impacts	Minor	Beneficial
Decommissioning FTE	Negligible	Beneficial	Not required for beneficial impacts	Negligible	Beneficial
Tourism and Recreation					
Visual effects: 1 settlement, 2 tourist routes, 2 visitor attractions, 4 core paths, 1 right of way, 1 cycle route, 1 river Physical effects: 1 core path, 1 right of way	Moderate	Adverse	N/A	Minor	Adverse
Visual effects: 1 promoted path	Moderate	Adverse	N/A	Negligible	Adverse

Description of Effect	Significance of Potential Effect		Mitigation Measure	Significance of Residual Effect	
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse
Visual effects: 2 settlements, 2 tourist routes, 1 visitor attraction, 2 promoted paths, 3 hill tracks, 11 core paths, 24 rights of way, 4 heritage paths, 2 golf courses, 1 horse riding centre, 2 leisure centres, 7 cycle routes, 1 river/loch, 1 nature reserve	Minor	Adverse	N/A	Minor	Adverse
No effect: 1 settlement, 2 tourist routes, 3 visitor attractions, 2 promoted paths, 12 hill tracks, 32 rights of way, 1 heritage path, 1 river/loch, 1 nature reserve.	Negligible	Adverse	N/A	Negligible	Adverse
14. Shadow Flicker					
No effects are anticipated due to shadow flicker during construction or decommissioning.					
15. Residential Visual Amenity					
No effects are anticipated due to Residential Visual Amenity during construction or decommissioning.					
16. Aviation, Radar and Telecommunications					
No effects are anticipated to aviation, radar or utilities during construction or decommissioning.					
17. Forestry					
Permanent loss of woodland	Minor for the site and negligible for the Dumfries and Galloway Region	Adverse	Minimise permanent felling. Replanting and planting of native species across the site.	Negligible for the site and no effect for the Dumfries and Galloway Region	Beneficial

Table 19.2 - Summary of Residual Effects – Operation

Description of Effect	Significance of Potential Effect		Mitigation Measure	Significance of Residual Effect	
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse
6. Landscape and Visual					
Thornhill Uplands Regional Scenic Area	Moderate to Moderate- Minor within 10 km Not Significant	Adverse	N/A	Moderate to Moderate- Minor within 10 km Not Significant	Adverse
	Negligible beyond 10 km Not Significant	Adverse	N/A	Negligible beyond 10 km Not Significant	Adverse
Blackcraig Sensitive Landscape Area	Moderate to Moderate-Minor Not Significant	Adverse	N/A	Moderate to Moderate-Minor Not Significant	Adverse
	Rising to: Major-Moderate to Moderate in a localised area Significant	Adverse	N/A	Rising to: Major-Moderate to Moderate in a localised area Significant	Adverse
East Ayrshire Upland Hills Sensitive Landscape Area	Negligible; Not Significant	Adverse	N/A	Negligible; Not Significant	Adverse
Upper Dale (Valley) LCT – Upper Nithsdale Unit	Major-Moderate within 7 km; Significant	Adverse		Major-Moderate within 7 km; Significant	Adverse
	Moderate between 7-15 km; Significant	Adverse		Moderate between 7-15 km; Significant	Adverse

Description of Effect	Significance of Potential Effect		Mitigation Measure	Significance of Residual Effect	
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse
	Negligible beyond 15 km; Not Significant	Adverse		Negligible beyond 15 km; Not Significant	Adverse
Southern Uplands with Forest LCT – Ken Unit	Moderate within 3 km; Significant	Adverse	N/A	Moderate within 3 km; Significant	Adverse
	Moderate-Minor between 3 – 6 km; Not Significant	Adverse	N/A	Moderate-Minor between 3 – 6 km; Not Significant	Adverse
	Negligible beyond 6 km; Not Significant	Adverse	N/A	Negligible beyond 6 km; Not Significant	Adverse
Southern Uplands LCT – Nithsdale Unit	Moderate to Moderate-Minor within 6 km; Not Significant	Adverse	N/A	Moderate to Moderate-Minor within 6 km; Not Significant	Adverse
	Negligible beyond 6 km; Not Significant	Adverse	N/A	Negligible beyond 6 km; Not Significant	Adverse
Southern Uplands LCT (This LCT is not split into areas/units in East Ayrshire)	Major-Moderate to Moderate from Blackcraig Hill Summit; Significant	Adverse	N/A	Major-Moderate to Moderate from Blackcraig Hill Summit; Significant	Adverse
	Moderate to Moderate-Minor across the majority of the LCT;	Adverse	N/A	Moderate to Moderate-Minor across the majority of the LCT;	Adverse

Description of Effect	Significance of Potential Effect		Mitigation Measure	Significance of Residual Effect	
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse
	Not Significant			Not Significant	
Upland River Valleys LCT – Nith Unit	Moderate in some northern areas (localised); Significant	Adverse	N/A	Moderate in some northern areas (localised); Significant	Adverse
	Reducing to Negligible in southern parts; Not Significant	Adverse	N/A	Reducing to Negligible in southern parts; Not Significant	Adverse
Southern Uplands LCT – North West Lowther Unit	Moderate to Moderate-Minor within 7 km; Not Significant	Adverse	N/A	Moderate to Moderate-Minor within 7 km; Not Significant	Adverse
	Negligible beyond 7km; Not Significant	Adverse	N/A	Negligible beyond 7km; Not Significant	Adverse
Plateau Moorland with Forest LCT – Clocklowie Unit	Negligible; Not Significant	Adverse	N/A	Negligible; Not Significant	Adverse
Plateau Moorland LCT (This LCT is not split into areas/units in East Ayrshire)	Moderate to Moderate-Minor Not Significant	Adverse	N/A	Moderate to Moderate-Minor Not Significant	Adverse
Upland Basin LCT (This LCT is not split into areas/units in East Ayrshire)	Moderate to Negligible Not Significant	Adverse	N/A	Moderate to Negligible Not Significant	Adverse
Upland Glen LCT – Scar Unit	Negligible Not Significant	Adverse	N/A	Negligible Not Significant	Adverse
Upland River Valleys LCT – Glenmuir Unit	Negligible Not Significant	Adverse	N/A	Negligible Not Significant	Adverse

Description of Effect	Significance of Potential Effect		Mitigation Measure	Significance of Residual Effect	
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse
Plateau Moorland LCT – Western Plateau Unit	Negligible Not Significant	Adverse	N/A	Negligible Not Significant	Adverse
Upland Glen LCT – Mennock Unit	Negligible Not Significant	Adverse	N/A	Negligible Not Significant	Adverse
Ayrshire Lowlands LCT (This LCT is not split into areas/units in East Ayrshire)	Negligible Not Significant	Adverse	N/A	Negligible Not Significant	Adverse
The Knowe Cluster	Major-Moderate to Major; Significant	Adverse	N/A	Major-Moderate to Major; Significant	Adverse
Kirkconnel	Moderate-Minor for the majority of the village; Not Significant	Adverse	N/A	Moderate-Minor for the majority of the village; Not Significant	Adverse
	Major-Moderate on the southern and western fringes; Significant	Adverse	N/A	Major-Moderate on the southern and western fringes; Significant	Adverse
Kelloholm	Moderate-Minor for the majority of the village; Not Significant	Adverse	N/A	Moderate-Minor for the majority of the village; Not Significant	Adverse
Fauldhead Farm Cluster	Moderate; Significant	Adverse	N/A	Moderate; Significant	Adverse
Kirkland Cluster	Negligible; Not Significant	Adverse	N/A	Negligible; Not Significant	Adverse
New Cumnock	Negligible; Not Significant	Adverse	N/A	Negligible; Not Significant	Adverse

Description of Effect	Significance of Potential Effect		Mitigation Measure	Significance of Residual Effect	
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse
Crawick	Negligible; Not Significant	Adverse	N/A	Negligible; Not Significant	Adverse
Sanquhar	Moderate-Minor for the majority of the town; Not Significant	Adverse	N/A	Moderate-Minor for the majority of the town; Not Significant	Adverse
Pathhead	Negligible; Not Significant	Adverse	N/A	Negligible; Not Significant	Adverse
Mennock	Negligible; Not Significant	Adverse	N/A	Negligible; Not Significant	Adverse
A76 west	Moderate-Minor rising to Moderate (locally); reducing to Negligible beyond 12 km; Overall the effect is Not Significant	Adverse	N/A	Moderate-Minor rising to Moderate (locally); reducing to Negligible beyond 12 km; Overall the effect is Not Significant	Adverse
A76 east	Negligible rising to Moderate locally; Overall the effect is Not Significant	Adverse	N/A	Negligible rising to Moderate locally; Overall the effect is Not Significant	Adverse
Glasgow South Western Main Line	Moderate-Minor reducing to Negligible; Not Significant	Adverse	N/A	Moderate-Minor reducing to Negligible; Not Significant	Adverse
Southern Upland Way North-East	Moderate to Negligible; Not Significant	Adverse	N/A	Moderate to Negligible; Not Significant	Adverse

Description of Effect	Significance of Potential Effect		Mitigation Measure	Significance of Residual Effect	
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse
Southern Upland Way South-West	Moderate to Negligible rising to Moderate in a few localised areas; Significant (localised)	Adverse	N/A	Moderate to Negligible rising to Moderate in a few localised areas; Significant (localised)	Adverse
Core Path 84 (Libry Moor Footpath) south	Moderate-Minor rising to Locally Major to Major-Moderate (for a stretch totalling 800m); Locally Significant	Adverse	N/A	Moderate-Minor rising to Locally Major to Major-Moderate (for a stretch totalling 800m); Locally Significant	Adverse
Core Path 84 (Libry Moor Footpath) north	Negligible rising to Locally Major to Major-Moderate (for a short stretch totalling 1 km); Locally Significant	Adverse	N/A	Negligible rising to Locally Major to Major-Moderate (for a short stretch totalling 1 km); Locally Significant	Adverse
Core Path 111 (Sanquhar Castle circular) north	Moderate to Moderate-Minor and Not Significant	Adverse	N/A	Moderate to Moderate-Minor and Not Significant	Adverse
Core Path 111 (Sanquhar Castle circular) south	Negligible and Not Significant	Adverse	N/A	Negligible and Not Significant	Adverse
Core Path 88 north	None and Not Significant	Adverse	N/A	None and Not Significant	Adverse
Core Path 88 south	Major-Moderate to Moderate and Significant within 7 km	Adverse	N/A	Major-Moderate to Moderate and Significant within 7 km	Adverse

Description of Effect	Significance of Potential Effect		Mitigation Measure	Significance of Residual Effect	
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse
VP1 Cairn Bridge, A76	Major-Moderate; Significant for both receptor groups	Adverse	N/A	Major-Moderate; Significant for both receptor groups	Adverse
VP2 Libry Moor Footpath	Major to Major- Moderate; Significant	Adverse	N/A	Major to Major- Moderate; Significant	Adverse
VP3 The Knowe	Major-Moderate for road users; Major for properties; Significant	Adverse	N/A	Major-Moderate for road users; Major for properties; Significant	Adverse
VP4 Lagrae	Moderate; Significant	Adverse	N/A	Moderate; Significant	Adverse
VP5 St.Connel's Church	Major-Moderate to Moderate; Significant	Adverse	N/A	Major-Moderate to Moderate; Significant	Adverse
VP6 Kelloholm	Moderate; Significant for both receptor groups	Adverse	N/A	Moderate; Significant for both receptor groups	Adverse
VP7 Kirkland Hill	Major-Moderate; Significant	Adverse	N/A	Major-Moderate; Significant	Adverse
VP8 Sanquhar Railway Bridge	Moderate-Minor; Not Significant for all receptor groups	Adverse	N/A	Moderate-Minor; Not Significant for all receptor groups	Adverse
VP9 Sanquhar Academy Entrance	Moderate-Minor; Not Significant	Adverse	N/A	Moderate-Minor; Not Significant	Adverse
VP10 Southern Upland Way, NE Sanquhar	Moderate; Significant	Adverse	N/A	Moderate; Significant	Adverse

Description of Effect	Significance of Potential Effect		Mitigation Measure	Significance of Residual Effect	
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse
VP11 Crawick Artland	Moderate to Moderate-Minor; Not Significant	Adverse	N/A	Moderate to Moderate-Minor; Not Significant	Adverse
VP12 Southern Upland Way, Ulzieside	Moderate; Significant	Adverse	N/A	Moderate; Significant	Adverse
VP13 Coupland Knowe	Moderate to Moderate-Minor; Not Significant	Adverse	N/A	Moderate to Moderate-Minor; Not Significant	Adverse
VP14 East Mount Lowther	Negligible; Not Significant	Adverse	N/A	Negligible; Not Significant	Adverse
VP15 Blackcraig Hill	Major-Moderate; Significant	Adverse	N/A	Major-Moderate; Significant	Adverse
VP16 Mansfield	Moderate-Minor; Not Significant	Adverse	N/A	Moderate-Minor; Not Significant	Adverse
7. Ecology and Nature Conservation					
Habitats					
Coniferous/ Broadleaved Woodland	Moderate - minor	Adverse	Generic mitigation. Creation and management of 10.47 ha of mixed woodland/scrub to enhance and re-enforce existing areas of low value coniferous plantation woodland adjacent to the Proposed Development's eastern and southern boundary.	Positive / Moderate	Beneficial
Marshy grassland (NVC community: M23a/b & M25a)	Minor - negligible	Adverse	Generic mitigation.	Negligible / Negligible	Adverse
Unimproved acid grassland (NVC community: U5a)	Minor - negligible	Adverse	Generic mitigation.	Negligible / Negligible	Adverse

Description of Effect	Significance of Potential Effect		Mitigation Measure	Significance of Residual Effect	
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse
Running and standing water (NVC community: n/a)	Major - minor	Adverse	Generic mitigation.	Negligible / Negligible	Adverse
Acid/neutral flushes (NVC community: M6c/d)	Moderate	Adverse	Generic mitigation. Extensive habitat and wider hydrological management of 25 ha of dry modified and blanket bog habitat.	Positive / Moderate	Beneficial
Blanket bog (including areas of dry modified bog) (NVC community: M20)	Major - moderate	Adverse	Generic mitigation. Extensive habitat and wider hydrological management of 25 ha of dry modified and blanket bog habitat.	Positive / Moderate	Beneficial
Dry heath/acid grassland (NVC community: H10c)	No effect	Neutral	None proposed.	No effect	-
Non-ruderal Herb (NVC Community: U19)	Moderate	Adverse	Generic mitigation.	Negligible / Negligible	Adverse
Badger – refer to confidential appendix 7.5					
Otter					
Direct Mortality	Extremely unlikely	Negligible	Generic mitigation. Restriction of working to daylight hours to minimise disturbance. Felling of low value plantation coniferous woodland and creation and management of 10.47 ha of mixed woodland/scrub to enhance and re-enforce existing areas of low value coniferous plantation woodland adjacent to the Proposed Development's eastern and southern boundary.	Negligible / Negligible	Adverse
Habitat Loss	Unlikely	Minor		Negligible / Negligible	Adverse
Fragmentation	Unlikely	Negligible		Negligible / Negligible	Adverse
Disturbance	Unlikely	Negligible		Negligible / Negligible	Adverse
Pollution	Unlikely	Negligible		Negligible / Negligible	Adverse

Description of Effect	Significance of Potential Effect		Mitigation Measure	Significance of Residual Effect	
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse
Bats					
Direct Mortality	Unlikely	Minor - negligible	Generic mitigation Provision of replacement roosting opportunities in suitable donor sites e.g. bat boxes in trees outside the developed areas but within the Proposed Development boundary at a ratio of ten boxes per sq. km. Felling of low value plantation coniferous woodland and creation and management of 10.47 ha of mixed woodland/scrub to enhance and re-enforce existing areas of low value coniferous plantation woodland adjacent to the Proposed Development's eastern and southern boundary.	Negligible / Negligible	Adverse
Habitat Loss	Certain/near-certain	Moderate - minor		Positive / Minor	Beneficial
Fragmentation	Probable	minor – negligible		Low / Minor - Negligible	Adverse
Disturbance	Unlikely	minor - negligible		Negligible / Negligible	Adverse
Pollution	Unlikely	Negligible		Negligible / Negligible	Adverse
Amphibian and Reptiles					
Direct Mortality	Extremely unlikely	Negligible	Generic mitigation. Enhancement of existing habitat through the installation of log piles or other structures that can be used during the hibernation season. Identification and protection of higher value reptile and amphibian habitat. Specific mitigation for loss and enhancement of mire and flush habitats and creation of broadleaved woodland habitats.	Negligible / Negligible	Adverse
Habitat Loss	Certain/near-certain	Minor - negligible		Positive / Minor	Beneficial
Fragmentation	Unlikely	Negligible		Negligible / Negligible	Adverse
Disturbance	Unlikely	Negligible		Negligible / Negligible	Adverse
Pollution	Unlikely	Negligible		Negligible / Negligible	Adverse
Freshwater Fish					
Direct Mortality	Certain/near-certain	Moderate	Generic mitigation.	Negligible / Negligible	Adverse

Description of Effect	Significance of Potential Effect		Mitigation Measure	Significance of Residual Effect	
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse
Habitat Loss	Probable	Major - moderate	Avoidance of in-channel works during spawning and incubation periods. Inspection and maintenance of culverts during operation to ensure barriers to migration and movement are removed.	Negligible / Negligible	Adverse
Fragmentation	Unlikely	Negligible		Negligible / Negligible	Adverse
Disturbance	Unlikely	Negligible		Negligible / Negligible	Adverse
Pollution	Unlikely	Moderate		Negligible / Negligible	Adverse
8. Ornithology					
Hen Harrier					
Direct Mortality	Negligible	Neutral	No mitigation proposed.	Negligible	Adverse
Habitat Loss	Negligible	Neutral		Negligible	Adverse
Fragmentation	Negligible	Neutral		Negligible	Adverse
Disturbance	Negligible	Neutral		Negligible	Adverse
Pollution	Negligible	Neutral		Negligible	Adverse
Peregrine Falcon					
Direct Mortality	Negligible	Neutral	No mitigation proposed.	Negligible	Adverse
Habitat Loss	Negligible	Neutral		Negligible	Adverse
Fragmentation	Negligible	Neutral		Negligible	Adverse
Disturbance	Negligible	Neutral		Negligible	Adverse
Pollution	Negligible	Neutral		Negligible	Adverse
Long eared Owl					
Direct Mortality	Negligible	Neutral	No mitigation proposed.	Negligible	Adverse
Habitat Loss	Negligible	Neutral		Negligible	Adverse

Description of Effect	Significance of Potential Effect		Mitigation Measure	Significance of Residual Effect	
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse
Fragmentation	Negligible	Neutral		Negligible	Adverse
Disturbance	Negligible	Neutral		Negligible	Adverse
Pollution	Negligible	Neutral		Negligible	Adverse
Golden Plover					
Direct Mortality	Negligible	Neutral	No mitigation proposed.	Negligible	Adverse
Habitat Loss	Negligible	Neutral		Negligible	Adverse
Fragmentation	Negligible	Neutral		Negligible	Adverse
Disturbance	Negligible	Neutral		Negligible	Adverse
Pollution	Negligible	Neutral		Negligible	Adverse
Waders					
Direct Mortality	Negligible	Neutral	Habitat restoration plan to provide suitable nesting habitat (Chapter7)	Negligible	Adverse
Habitat Loss	Minor	Adverse		Negligible	Adverse
Fragmentation	Negligible	Neutral		Negligible	Adverse
Disturbance	Negligible	Neutral		Negligible	Adverse
Pollution	Negligible	Neutral		Negligible	Adverse
Moorland Birds					
Direct Mortality	Negligible	Neutral	Generic Mitigation	Negligible	Adverse
Habitat Loss	Minor	Adverse		Negligible	Adverse
Fragmentation	Negligible	Neutral		Negligible	Adverse
Disturbance	Negligible	Neutral		Negligible	Adverse
Pollution	Negligible	Neutral		Negligible	Adverse
Black Grouse					
Direct Mortality	Negligible	Neutral		Negligible	Adverse

Description of Effect	Significance of Potential Effect		Mitigation Measure	Significance of Residual Effect	
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse
Habitat Loss	Negligible	Neutral	Implementation of HMP (Chapter 7 and Chapter 17)	Positive Minor	Beneficial
Fragmentation	Negligible	Neutral		Negligible	Adverse
Disturbance	moderate	Adverse		Negligible	Adverse
Pollution	Negligible	Neutral		Negligible	Adverse
9. Hydrology, Hydrogeology and Geology					
Change in surface water drainage	Major	Adverse	Agree detailed Drainage Strategy with SEPA and Dumfries and Galloway Council.	Moderate	N/A
Impact on fluvial geomorphology	Moderate	Adverse	Agree use of bridge or bottomless culverts with SEPA.	Minor	Adverse
10. Cultural Heritage					
Indirect effect predicted on the setting of Crichton Peel and Sanquhar Castle (687)	Minor (non-significant)	Adverse	None required	Minor (non-significant)	Adverse
Indirect effect predicted on the setting of and Sanquhar Parish Church (40538)	Minor (non-significant)	Adverse		Minor (non-significant)	Adverse
Indirect effect predicted on the setting of St Connel's Church and Graveyard (MDG75)	Minor (non-significant)	Adverse		Minor (non-significant)	Adverse
Indirect effects predicted on the setting of all other cultural heritage assets with predicted visibility of the Proposed Development	Negligible/Minor (non-significant)	Adverse		Negligible/Minor (non-significant)	Adverse
11. Noise and Vibration					
Operational Wind Turbine Noise	Negligible to Minor (permanent local)	Adverse	Implementation of appropriate noise management scheme.	Negligible to Minor (permanent local)	Adverse

Description of Effect	Significance of Potential Effect		Mitigation Measure	Significance of Residual Effect	
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse
Fixed (non-turbine) Noise	Negligible (permanent local)	Adverse	Incorporation of appropriate mitigation scheme, where necessary, to comply with derived limits	Negligible (permanent local)	Adverse
12. Traffic and Transport					
No effects are anticipated due to traffic during operation.					
13. Socio-Economic, Tourism & Recreation					
Socio-Economics					
Operation & maintenance FTEs	Negligible	Beneficial	Not required for beneficial impacts	Negligible	Beneficial
Community ownership	Major	Beneficial	Not required for beneficial impacts	Major	Beneficial
Business rates	Minor	Beneficial	Not required for beneficial impacts	Minor	Beneficial
Community Benefit Fund	Moderate	Beneficial	Not required for beneficial impacts Not required for beneficial impacts	Moderate Beneficial	Beneficial
Education/ Training and Apprenticeship opportunities	Negligible	Beneficial	Not required for beneficial impacts	Negligible	Beneficial
Wider socio-economic effects	Minor	Beneficial	Not required for beneficial impacts	Minor	Beneficial
Funding to Glasgow Prestwick Airport (GPA) and NATS	Negligible	Beneficial	Not required for beneficial impacts	Negligible	Beneficial
Tourism and Recreation					
Visual effects: 1 settlement, 2 tourist routes, 2 visitor attractions, 4 core paths, 1 right of way, 1 cycle route, 1 river Physical effects: 1 core path, 1 right of way	Moderate	Adverse	N/A	Minor	Adverse
Visual effects: 1 promoted path	Moderate	Adverse	N/A	Negligible	Adverse

Description of Effect	Significance of Potential Effect		Mitigation Measure	Significance of Residual Effect	
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse
Visual effects: 2 settlements, 2 tourist routes, 1 visitor attraction, 2 promoted paths, 3 hill tracks, 11 core paths, 24 rights of way, 4 heritage paths, 2 golf courses, 1 horse riding centre, 2 leisure centres, 7 cycle routes, 1 river/loch, 1 nature reserve	Minor	Adverse	N/A	Minor	Adverse
No effect: 1 settlement, 2 tourist routes, 3 visitor attractions, 2 promoted paths, 12 hill tracks, 32 rights of way, 1 heritage path, 1 river/loch, 1 nature reserve.	Negligible	Adverse	N/A	Negligible	Adverse
14. Shadow Flicker					
Shadow Flicker effects on nearby residential properties	Significant	Adverse	Wind Farm Shadow Flicker Protocol to be agreed with Dumfries and Galloway Council	Negligible	Adverse
15. Residential and Visual Amenity					
Visual amenity effects to receptors 2, 12	Major	Adverse	N/A	Major	Adverse
Visual amenity effects to receptors 1, 5, 8, 9, 11	Moderate	Adverse	N/A	Moderate	Adverse
Visual amenity effects to receptors 3, 4, 7, 10	Negligible	NA	N/A	Negligible	NA
16. Aviation, Radar and Telecommunication					
Effects to MoD low flying area.	Significant	Adverse	Infrared aviation lighting will be installed at the highest practicable point	No significant	
Effects on Glasgow Prestwick Airport's Primary Surveillance Radar.	Significant	Adverse	A Radar Mitigation Scheme agreed through the Section 36 Application will be implemented for the lifetime of the Proposed Development	No significant	

Description of Effect	Significance of Potential Effect		Mitigation Measure	Significance of Residual Effect	
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse
NATS object to the Original Section 36 Application due to the Proposed Development's potential to give rise to false plots at the Lowther Hill CMB Radar.	Significant	Adverse	A Radar Mitigation Scheme agreed through the Section 36 Application will be implemented for the lifetime of the Proposed Development	No significant	
17. Forestry					
Permanent loss of woodland	Minor for the site and negligible for the Dumfries and Galloway Region	Adverse	Minimise permanent felling. Replanting and planting of native species across the site.	Negligible for the site and no effect for the Dumfries and Galloway Region	Beneficial

Table 19.3 - Summary of Cumulative Effects (except LVIA)

Description of Effect	Cumulative Developments	Cumulative Effects	
		Significance	Beneficial/ Adverse
Effects on ecology and nature conservation during construction, operation & decommissioning .	Proposed, consented and operation wind farm developments.	Negligible	Adverse
Loss of bog habitats during construction, operation & decommissioning	Glenmuckloch Surface Coal Mine, Rigg North Surface Coal Mine and Rigg South OCCS and Glenmuckloch Wind farm	Major/ moderate locally and minor at authority area.	Adverse
Protected species during construction, operation & decommissioning		No effect.	N/A
Effects on ornithology during construction, operation & decommissioning	Proposed, consented and operation wind farm developments.	Negligible	Adverse

Description of Effect	Cumulative Developments	Cumulative Effects	
		Significance	Beneficial/ Adverse
Effects on ornithology during construction, operation & decommissioning	Glenmuckloch Surface Coal Mine, Rigg North Surface Coal Mine and Rigg South OCCS.	Moderate (short-term) Negligible (long-term)	Adverse
Pollution of River Nith from contaminated runoff during construction, operation & decommissioning	Hare Hill , Hare Hill Extension, Sanquhar Community and Sanquhar Six	Minor	Adverse
Indirect effect predicted on the setting of Crichton Peel and Sanquhar Castle (687) during operation	Hare Hill, Hare Hill Extension, Sanquhar Community Wind Farm and Sanquhar 'Six', Whiteside Hill, Ulzieside, Lethans, Glenmuckloch, Sunnyside, Twentysilling Hill.	Minor (non-significant)	Adverse
Indirect effect predicted on the setting of and Sanquhar Parish Church (40538) during operation	Hare Hill, Hare Hill Extension, Sanquhar Community Wind Farm and Sanquhar 'Six', Whiteside Hill, Ulzieside, Lethans, Glenmuckloch, Sunnyside, Twentysilling Hill.	Minor (non-significant)	Adverse
Indirect effect predicted on the setting of St Connel's Church and Graveyard (MDG75) during operation	Hare Hill, Hare Hill Extension, Sanquhar Community Wind Farm and Sanquhar 'Six', Whiteside Hill, Ulzieside, Lethans, Glenmuckloch.	Minor (non-significant)	Adverse
Indirect effects predicted on the setting of all other cultural heritage assets with predicted visibility of the Proposed Development during operation	Hare Hill, Hare Hill Extension, Sanquhar Community Wind Farm and Sanquhar 'Six', Whiteside Hill, Ulzieside, Lethans, Glenmuckloch, Sunnyside.	Negligible/Minor (non-significant)	Adverse
Cumulative operational effects		None	N/A
Severance due to increased construction traffic on C125N	Sanquhar Community Wind Farm & Sanquhar 6 Wind Farm	Not significant	Adverse
Construction and decommissioning FTEs (Labour market impact)	Sanquhar Community, Sanquhar Six, Glenmuckloch, High Park Farm, Afton, Twentysilling Hill, Lethans, Ulzieside, High park Farm Extension, Ashmark Farm, Pencloe, Lorg and Enoch Hill	Negligible	Beneficial
O&M FTEs (Labour market impact)	Sanquhar Community, Sanquhar Six, Glenmuckloch, High Park Farm, Afton, Twentysilling Hill, Lethans, Ulzieside, High park Farm Extension, Ashmark Farm, Pencloe, Lorg and Enoch Hill	Negligible	Beneficial
Shadow flicker effects	Hare Hill Wind Farm, Hare Hill Extension, Sanquhar 6 Wind Farm	No impacts	N/A

Description of Effect	Cumulative Developments	Cumulative Effects	
		Significance	Beneficial/ Adverse
Residential visual amenity of receptor 1	Hare Hill, Sunnyside, Lethans and Glenmucklock.	Moderate	Adverse
Residential visual amenity of receptor 2	Hare Hill, Sunnyside, Glenmucklock, Lethans, North Lowther.	Major	Adverse
Residential visual amenity of receptor 3	Hare Hill, Hare Hill Extension, Sanquhar Community, Sanquhar Six, Glenmucklock.	Negligible	Adverse
Residential visual amenity of receptor 4	Hare Hill, Sanquhar Six, Sanquhar Community, Sunnyside and Glenmucklock.	Negligible	Adverse
Residential visual amenity of receptor 5	Hare Hill, Sanquhar Six and Sanquhar Community.	Moderate	Adverse
Residential visual amenity of receptor 7	Glenmucklock and Sunnyside.	Negligible	Adverse
Residential visual amenity of receptor 8	Glenmucklock	Moderate	Adverse
Residential visual amenity of receptor 9	Hare Hill, Sanquhar Six and Sanquhar Community.	Moderate	Adverse
Residential visual amenity of receptor 10	Hare Hill, Sanquhar Six, Sanquhar Community, Sunnyside and Glenmucklock.	Negligible	Adverse
Residential visual amenity of receptor 11	Hare Hill, Sanquhar Six, Sanquhar Community, Glenmucklock and Whiteside Hill.	Moderate	Adverse
Residential visual amenity of receptor 12	Sunnyside, Glenmucklock, and Ulzieside.	Major	Adverse
Effects on aviation and telecommunications		None	N/A
Permanent Loss of Woodland	Consented and operational wind farms local to the Proposed Development.	Minor	Beneficial

Table 19.4 - Summary of Cumulative Effects (LVIA)

Receptor	Predicted Cumulative Effects			
	Proposed Development in Addition to Operational & Consented Wind Farms		Proposed Development in Addition to Operational, Consented & Proposed Wind Farms (in planning)	
	Significance	Adverse/Beneficial	Significance	Adverse/Beneficial
Landscape Designations: Thornhill Uplands RSA	Moderate to Moderate-Minor (not significant)	Adverse	Moderate to Moderate-Minor (not significant)	Adverse
Landscape Designations: Blackcraig Sensitive Landscape Area	Moderate to Moderate-Minor rising to Major-Moderate to Moderate (locally) (not significant)	Adverse	Moderate to Moderate-Minor rising to Major-Moderate (locally) (not significant)	Adverse
Landscape Designations: East Ayrshire Upland Hills Sensitive Landscape Area	Negligible	Adverse	Moderate to Negligible (not significant)	Adverse
Dumfries & Galloway - Upper Nithsdale unit (Upper Dale LCT) (locally)	Major-Moderate (significant)	Adverse	Major-Moderate (significant)	Adverse
Dumfries & Galloway - Upper Nithsdale unit (Upper Dale LCT) (7-15 km)	Moderate (not significant)	Adverse	Moderate (not significant)	Adverse
Dumfries & Galloway - Upper Nithsdale unit (Upper Dale LCT) (beyond 15 km)	Negligible (not significant)	Adverse	Negligible (not significant)	Adverse
Dumfries & Galloway - Nith unit (Upland River Valley LCT)	Moderate (not significant)	Adverse	Moderate(not significant)	Adverse
Dumfries & Galloway – Clocklowie unit (Plateau Moorland with Forest LCT); Plateau Moorland LCT	Moderate to Moderate-Minor (not significant)	Adverse	Moderate to Moderate-Minor (not significant)	Adverse

Receptor	Predicted Cumulative Effects			
	Proposed Development in Addition to Operational & Consented Wind Farms		Proposed Development in Addition to Operational, Consented & Proposed Wind Farms (in planning)	
	Significance	Adverse/ Beneficial	Significance	Adverse/ Beneficial
Dumfries & Galloway - Ken unit (Southern Uplands with Forest LCT)	Moderate within 3 km reducing to Moderate-Minor (not significant)	Adverse	Moderate within 3 km reducing to Moderate-Minor (not significant)	Adverse
Dumfries & Galloway – Nithsdale unit (Southern Uplands LCT)	Moderate-Minor (not significant)	Adverse	Moderate-Minor rising to Moderate (locally) (not significant)	Adverse
Dumfries & Galloway - North West Lowther unit (Southern Uplands LCT) (within 6km)	Moderate (not significant)	Adverse	Moderate (not significant)	Adverse
Dumfries & Galloway - North West Lowther unit (Southern Uplands LCT) (6-10km)	Moderate-Minor (not significant)	Adverse	Moderate-Minor (not significant)	Adverse
Dumfries & Galloway - North West Lowther unit (Southern Uplands LCT) (beyond 10km)	Negligible (not significant)	Adverse	Negligible (not significant)	Adverse
Dumfries & Galloway – Scar unit (Upland Glen LCT); Glenmuir unit (Upland River Valley LCT); Glenmuir unit (Upland River Valley LCT), Western Plateau unit (Plateau Moorland LCT), Mencknock unit (Upland Glen LCT), Ayrshire Lowlands LCT (East Ayrshire)	Negligible (not significant)	Adverse	Negligible (not significant)	Adverse
East Ayrshire – Southern Uplands LCT	Moderate to Moderate-Minor rising to Major-Moderate to Moderate (locally) (not significant)	Adverse	Moderate to Moderate-Minor rising to Major-Moderate (locally) (not significant)	Adverse

Receptor	Predicted Cumulative Effects			
	Proposed Development in Addition to Operational & Consented Wind Farms		Proposed Development in Addition to Operational, Consented & Proposed Wind Farms (in planning)	
	Significance	Adverse/ Beneficial	Significance	Adverse/ Beneficial
Plateau Moorland LCT	Moderate to Moderate-Minor (not significant)	Adverse	Moderate to Moderate-Minor (not significant)	Adverse
Ayrshire – Upland Basin LCT	Moderate to Moderate-Minor (not significant)	Adverse	Moderate to Moderate-Minor (not significant)	Adverse
Settlement – The Knowe Cluster	Major-Moderate to Major	Adverse	Major-Moderate to Major	Adverse
Settlement – Kelloholm	Moderate-Minor rising to Major-Moderate (southern and western)	Adverse	Moderate-Minor rising to Major-Moderate (southern and western fringes)	Adverse
Settlement – Kirkconnel	Moderate-Minor rising to Major-Moderate (southern and western fringes)	Adverse	Moderate-Minor rising to Major-Moderate (southern and western fringes)	Adverse
Settlement – Sanquhar (most of town)	Moderate-Minor (not significant)	Adverse	Moderate-Minor (not significant)	Adverse
Settlement – Sanquhar (south-west fringes and a small part of northern area)	Moderate (significant)	Adverse	Moderate (significant)	Adverse
Settlement – Fauldhead Farm Cluster	Moderate	Adverse	Moderate	Adverse
Settlement – Kirkland Cluster, New Cumnock, Crawick, Pathhead, Mennock	Negligible	Adverse	Negligible	Adverse

Receptor	Predicted Cumulative Effects			
	Proposed Development in Addition to Operational & Consented Wind Farms		Proposed Development in Addition to Operational, Consented & Proposed Wind Farms (in planning)	
	Significance	Adverse/ Beneficial	Significance	Adverse/ Beneficial
A76 West Bound (within 12km)	Moderate-Minor (significant)	Adverse	Moderate-Minor (significant)	Adverse
A76 West Bound (outwith 12km)	Negligible (not significant)	Adverse	Negligible (not significant)	Adverse
A76 East Bound (within 2km)	Moderate-Minor reducing to Negligible beyond 2 km (not significant)	Adverse	Moderate-Minor reducing to Negligible beyond 2 km (not significant)	Adverse
Glasgow South Western Main Line	Moderate-Minor reducing to Negligible beyond 13 km (not significant)	Adverse	Moderate-Minor reducing to Negligible beyond 13 km (not significant)	Adverse
Southern Upland Way South-West Bound	Negligible rising to Moderate and Significant in a few localised areas	Adverse	Negligible rising to Moderate and Significant in a few localised areas	Adverse
Southern Upland Way North-East Bound	Negligible (not significant)	Adverse	Negligible (not significant)	Adverse
Core Path 84, Libry Moor, South-West Bound	Moderate to Negligible rising to Major in a few locations; (Locally Significant)	Adverse	Moderate to Negligible rising to Major in a few locations; (Locally Significant)	Adverse
Core Path 84, Libry Moor, North-East Bound	Moderate to Negligible (Not Significant)	Adverse	Moderate to Negligible (Not Significant)	Adverse
Core Path 111, Sanquhar Castle circular, South Bound	Negligible (not significant)	Adverse	Negligible (not significant)	Adverse

Receptor	Predicted Cumulative Effects			
	Proposed Development in Addition to Operational & Consented Wind Farms		Proposed Development in Addition to Operational, Consented & Proposed Wind Farms (in planning)	
	Significance	Adverse/ Beneficial	Significance	Adverse/ Beneficial
Core Path 111, Sanquhar Castle circular, North Bound	Moderate (significant)	Adverse	Moderate (significant)	Adverse
Core Path 88, Kirkconnel to Black Law, South Bound	Major-Moderate (locally) (significant)	Adverse	Major-Moderate (locally) (significant)	Adverse
Core Path 88, Kirkconnel to Black Law, North Bound	None	N/A	None	N/A
VP 1: Cairn Bridge, A76 (road users)	Major-Moderate (significant)	Adverse	Moderate (significant)	Adverse
VP 1: Cairn Bridge, A76 (dispersed properties)	Major-Moderate (significant)	Adverse	Major (significant)	Adverse
VP 2: Libry Moor Footpath	Major (Significant)	Adverse	Major (Significant)	Adverse
VP 3: The Knowe (road users)	Major-Moderate (Significant)	Adverse	Major-Moderate (significant)	Adverse
VP 3: The Knowe (properties)	Major (Significant)	Adverse	Major (Significant)	Adverse
VP 4: Lagrae	Moderate (significant)	Adverse	Moderate (significant)	Adverse
VP 5: St.Connel's Church	Moderate to Major-Moderate (Significant)	Adverse	Moderate to Major-Moderate (Significant)	Adverse
VP 6: Kelloholm	Moderate (significant)	Adverse	Moderate (significant)	Adverse
VP 7: Kirkland Hill	Major-Moderate (Significant)	Adverse	Major-Moderate (Significant)	Adverse

Receptor	Predicted Cumulative Effects			
	Proposed Development in Addition to Operational & Consented Wind Farms		Proposed Development in Addition to Operational, Consented & Proposed Wind Farms (in planning)	
	Significance	Adverse/ Beneficial	Significance	Adverse/ Beneficial
VP 8: Sanquhar Railway Bridge	Moderate-Minor (Not Significant)	Adverse	Moderate-Minor (Not Significant)	Adverse
VP 9: Sanquhar Academy Entrance	Moderate-Minor (Not Significant)	Adverse	Moderate-Minor (Not Significant)	Adverse
VP 10: Southern Upland Way, NE Approach to Sanquhar	Moderate (Significant)	Adverse	Major-Moderate (Significant)	Adverse
VP 11: Crawick Artland	Moderate-Minor to Moderate (Not Significant)	Adverse	Moderate-Minor to Moderate (Not Significant)	Adverse
VP 12: Southern Upland Way near Ulzieside	Moderate (Significant)	Adverse	Major-Moderate (Significant)	Adverse
VP 13: Coupland Knowe	Moderate to Moderate-Minor (Not Significant)	Adverse	Moderate (Significant)	Adverse
VP 14: East Mount Lowther	Negligible (Not Significant)	Adverse	Moderate to Negligible (Not Significant)	Adverse
VP 15: Blackcraig Hill	Major-Moderate (Significant)	Adverse	Major-Moderate to Major (Significant)	Adverse
VP 16: Mansfield	Moderate-Minor (Not Significant)	Adverse	Moderate-Minor (Not Significant)	Adverse

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