

APPENDIX 21.6

Effect	Receptor and importance	Nature of Effect	Significance	Mitigation & Enhancement Measures	Residual Significance	Cumulative Effect	Significance (and Nature) of Cumulative Effect	Explanation
Construction								
Landscape Intermediate Study Area	Area of Special Landscape Value High sensitivity	Negative Long term Permanent Indirect	Moderate adverse	Planting to edge of salt marsh, light bridge design	Slight adverse (not significant)	Visual effects arising from construction activities	High Negative Short Term Temporary Direct	A potential negative cumulative effect of increased visual intrusion could occur if construction of proposed developments near to the Project coincided with that of the project. Such developments could include developments 127, 128, 130, 131, 132, 133. No other developments are planned which will intrude into the estuary which will help reduce effects in areas along the margins of the estuary.
	Greenbelt High Sensitivity	Medium	Major adverse		Moderate adverse			
	Inter-tidal estuary, linear waterways and the Runcorn slopes Medium Sensitivity	Positive Long Term Permanent Indirect Medium	Moderate beneficial	None required	Moderate beneficial		Medium Negative Short term Temporary Direct	
Settlements Intermediate Study Area	West Bank Widnes High Sensitivity	Neutral Long term Permanent Indirect Low	Major adverse / beneficial may vary	Light bridge design	Major adverse / beneficial may vary	Visual effects arising from construction activities	High Negative Short Term Temporary Direct	
	Runcorn Slopes High Sensitivity	Positive Long Term Permanent Indirect Medium	Moderate beneficial	None required	Moderate Beneficial			

Effect	Receptor and importance	Nature of Effect	Significance	Mitigation & Enhancement Measures	Residual Significance	Cumulative Effect	Significance (and Nature) of Cumulative Effect	Explanation
Construction								
Recreational receptors Intermediate Study Area	Spike Island and Wigg Island High Sensitivity	Varies Long Term Permanent Indirect High	Major adverse / beneficial may vary	Light bridge design and planting to screen bridge	Moderate adverse / beneficial may vary	Visual effects arising from construction activities	High Negative Short Term Temporary Direct	
Visual Effect of demolition and construction works	Area B Low Sensitivity	Negative Short Term Temporary Indirect Low to High	Moderate adverse	Implementation of screen hoardings, good working practices and communication strategy	Moderate adverse	Visual effects arising from construction activities	Low to High Negative Short term Temporary Direct	
Visual effect on users of St Helens Canal / Trans Pennine Trail	Area C High Sensitivity		Major adverse		Major adverse			
Visual effect of demolition / construction works on users of Spike and Wigg Islands	Area D High Sensitivity		Moderate adverse		Moderate adverse			
Visual effect of construction works Astmoor Road area	Area E Low Sensitivity							
Visual effect of construction works Bridgewater Canal area	Area F Low / High Sensitivity							

Effect	Receptor and importance	Nature of Effect	Significance	Mitigation & Enhancement Measures	Residual Significance	Cumulative Effect	Significance (and Nature) of Cumulative Effect	Explanation
Operation								
Intermediate Study Area								
Landscape	Area of Special Landscape Value High sensitivity	Negative Long term Permanent Indirect Medium	Moderate adverse	Planting to edge of salt marsh, light bridge design	Slight adverse (not significant)	Generally developments are of similar scale to existing though the proposal for a wind farm on Frodsham Marshes (8 to 10km SW) will involve other tall structures	Neutral to positive Long Term Permanent Indirect Low	Generally other proposed developments are of similar size to those they will replace or sit near to and there are no developments which will protrude into the view of the Estuary. Regeneration proposals should be a visual improvement and the additional lighting from these schemes will reduce the obtrusiveness of the lighting from the project. There is a proposal (application 135) for a wind farm at Frodsham
	Greenbelt High Sensitivity		Major adverse		Moderate adverse			
	Inter-tidal estuary, linear waterways and Runcorn slopes Medium Sensitivity	Positive Long Term Permanent Indirect Medium	Moderate beneficial	None required	Moderate beneficial			
Settlements	West Bank Widnes High Sensitivity	Neutral Long term Permanent Indirect Low	Major adverse / beneficial may vary	Light bridge design	Major adverse / beneficial may vary			
	Runcorn Slopes High Sensitivity	Positive Long Term Permanent Indirect Medium	Moderate beneficial	None required	Moderate Beneficial			

Effect	Receptor and importance	Nature of Effect	Significance	Mitigation & Enhancement Measures	Residual Significance	Cumulative Effect	Significance (and Nature) of Cumulative Effect	Explanation
Recreational receptors	Spike Island and Wigg Island High Sensitivity	Varies Long Term Permanent Indirect High	Major adverse / beneficial may vary	Light bridge design and planting to screen bridge	Moderate adverse / beneficial may vary			Marshes that will involve tall structures. The bridge has been assessed as beneficial though depending on individual perceptions could be seen as positive or negative. Overall because the landscape is so heavily affected by mans activities and the wind farm and bridge are separated by the higher ground at Runcorn this has been assessed as a low cumulative effect.

Effect	Receptor and importance	Nature of Effect	Significance	Mitigation & Enhancement Measures	Residual Significance	Cumulative Effect	Significance (and Nature) of Cumulative Effect	Explanation
Operation Local Study Area								
Visual effect of new road layout on surrounding area (Year 1 and Year 15)	Area B Low Sensitivity	Positive Long term Permanent Indirect Low (1 year) to Medium (15 years)	Slight positive (not significant)	Landscaping scheme to improve surrounding area and screen road. Maturing of scheme improves outcomes.	Slight positive (not significant) to moderate positive after 15 years	None	-	Other proposed developments are generally of similar size to those which they will replace or sit near. In addition there are no other developments which will protrude into the view of the Estuary.
Visual effect of road structure on users of St Helens Canal / Trans Pennine Trail (Year 1 and Year 15)	Area C High Sensitivity	Negative Long Term Permanent Indirect Medium	Moderate adverse becoming slight / moderate	Detail design of bridge abutments and surrounding spaces to improve pedestrian environment and screening planting to soften views	Slight/moderate adverse becoming slight after 15 years and not significant Slight adverse (not significant)	None	-	Therefore there are unlikely to be any cumulative effects in the local area.

Effect	Receptor and importance	Nature of Effect	Significance	Mitigation & Enhancement Measures	Residual Significance	Cumulative Effect	Significance (and Nature) of Cumulative Effect	Explanation
Visual effect of bridge structure on users of Spike Island and Wigg Island (Year 1 and Year 15)	Area D High Sensitivity	Negative Long term Permanent Indirect Medium	Moderate Adverse	Light Bridge Design and planting to screen bridge structure. No further mitigation possible at Wigg Island	Moderate adverse becoming slight to moderate adverse at Wigg Island after 15 years	None	-	
Visual effect of new road layout on area surrounding Bridgewater Junction (Year 1 and Year 15)	Area F High Sensitivity	Negative Long term Permanent Indirect Medium	Moderate Adverse	Implementation of landscape scheme to improve surrounding area and screen road	Slight/moderate adverse becoming low after 15 years	None	-	
Visual effect of new road layout on SJB environment	Area I Low/high sensitivity	Negative Long term Permanent Indirect Medium	Moderate Adverse	Improvements to pedestrian environment achieved through implementation of scheme	Moderate adverse	None	-	

Effect	Receptor and importance	Nature of Effect	Significance	Mitigation & Enhancement Measures	Residual Significance	Cumulative Effect	Significance (and Nature) of Cumulative Effect	Explanation
Construction Phase								
Intermediate area receptors 1: Visual change (middle distance views).	Residents and users of public realm spaces north of the Estuary Importance: Part Moderate/ part low	Mostly positive but some localised negative Short term Temporary Direct Part high beneficial part moderate adverse	Part low negative, part moderate negative and part high positive.	Retention and enhancement of existing tree and shrub planting.	Low Negative Significance	Intermediate area receptors 1: Visual change (middle distance views).	Low Negative (Short term, Temporary, Direct)	A potential negative cumulative effect of increased visual intrusion could occur if construction of proposed developments near to the Project, coincided with that of the project. Such developments could include developments 2, 3, 10 and 5.
Intermediate area receptors 2: Visual change (Middle distance views).	Users of Spike Island & Wigg Island & Residents of western fringe of west bank Importance: High	Part positive & part negative Short term Temporary Direct High beneficial through to low adverse	High positive with areas of moderate positive and high negative	Unable to mitigate.	High negative	Intermediate area receptors 2: Visual change (Middle distance views).	High Negative (Short term, Temporary, Direct)	A potential negative cumulative effect of increased visual intrusion could occur if construction of proposed developments near to the Project, coincided with that of the Project. Such developments could include developments

Effect	Receptor and importance	Nature of Effect	Significance	Mitigation & Enhancement Measures	Residual Significance	Cumulative Effect	Significance (and Nature) of Cumulative Effect	Explanation
								2, 3, 10 and 5.
Intermediate area receptors 3: Visual change (middle distance views).	Residents & users of public realm spaces south of the Estuary Importance: _____ Moderate	Negative Short term Temporary Direct Moderate adverse	Moderate negative	Retention and protection of selected areas of existing planting.	Low Negative Significance	Intermediate area receptors 3: Visual change (middle distance views).	Low Negative (Short term, Temporary, Direct)	A potential negative cumulative effect of increased visual intrusion could occur if construction of proposed developments near to the Project, coincided with that of the Project. Such developments could include developments 2, 3, 10 and 5.
Local area receptors 1: Visual change (local views).	Residents & users of public realm areas around South Widnes & Estuary margins Importance: Part low part moderate part high	Negative Short term Temporary Direct and indirect Part low adverse, part moderate adverse & part high adverse	Part low negative part moderate negative.	Retention and enhancement of existing tree and shrub planting.	Part low negative part moderate negative.	Local area receptors 1: Visual change (local views).	Low negative (Short term, Temporary, Direct)	A potential negative cumulative effect of increased visual intrusion could occur if construction of proposed developments near to the Project, coincided with that of the Project. Such developments could include developments 2, 3, 10 and 5.

Effect	Receptor and importance	Nature of Effect	Significance	Mitigation & Enhancement Measures	Residual Significance	Cumulative Effect	Significance (and Nature) of Cumulative Effect	Explanation
Local area receptors 2: Visual change (local views).	Residents & users of Spike Island, St Helens Canal, Trans-Pennine Trail & Wigg Island Importance: Part Moderate part high	Negative Short term Temporary Direct and indirect Moderate adverse	Part moderate negative part high negative	Unable to mitigate.	Part moderate negative part high negative.	Local area receptors 2: Visual change (local views).	Moderate Negative (Short term, Temporary, Direct)	A potential negative cumulative effect of increased visual intrusion could occur if construction of proposed developments near to the Project, coincided with that of the Project. Such developments could include developments 2, 3, 10 and 5.
Local area receptors 3: Visual change (local views).	Residents around Bridgewater Junction Central Expressway & other modified junctions Importance: Moderate	Negative Long term Permanent Direct Part low, part moderate adverse	Part low negative part moderate negative.	Retention and protection of selected areas of existing planting.	Low negative.	Local area receptors 3: Visual change (local views).	Low negative (Short term, Temporary, Direct)	A potential negative cumulative effect of increased visual intrusion could occur if construction of proposed developments near to the Project, coincided with that of the Project. Such developments could include developments 2, 3, 10 and 5.

Effect	Receptor and importance	Nature of Effect	Significance	Mitigation & Enhancement Measures	Residual Significance	Cumulative Effect	Significance (and Nature) of Cumulative Effect	Explanation
Operational Phase								
Intermediate area receptors 1: Visual change (middle distance views).	Residents and users of public realm spaces north of the Estuary Importance: Part Moderate / part low	Positive Long term Permanent Direct High beneficial	Part moderate positive, part high positive, part low negative.	Mitigation achieved by extensive landscape scheme commensurate with scale of Project.	Low negative	None	-	Other proposed developments are of similar size to those which they will replace or sit near. In addition there are no other developments which will protrude into the view of the Estuary. Therefore there are unlikely to be any cumulative effects.
Intermediate area receptors 1: Effect on landscape & townscape.	Landscape/townscape of South Widnes & fringes of northern estuary. Importance: Part low / part negligible	Positive Long term Permanent Direct High beneficial	High positive	Landscape scheme improves degraded landscape.	Low negative	None	-	Other proposed developments are of similar size to those which they will replace or sit near. In addition there are no other developments which will protrude into the view of the Estuary. Therefore there are unlikely to be any cumulative effects.

Effect	Receptor and importance	Nature of Effect	Significance	Mitigation & Enhancement Measures	Residual Significance	Cumulative Effect	Significance (and Nature) of Cumulative Effect	Explanation
Intermediate area receptors 2: Visual change (Middle distance views).	Users of Spike Island & Wigg Island & Residents of western fringe of west bank Importance: — High	Part positive & part negative Long term Permanent Direct High beneficial through to low adverse	High positive with areas of moderate positive and high negative	Mitigation measures focus upon refinement of design of structural aspects and colour themes of New Bridge with integration into estuary margins achieved by large scale landscape scheme.	High negative	None	-	Other proposed developments are of similar size to these which they will replace or sit near. In addition there are no other developments which will protrude into the view of the Estuary. Therefore there are unlikely to be any cumulative effects.
Intermediate area receptors 2: Effect on landscape and townscape	Estuary & estuary margins. Importance: — Part high, part moderate	Part positive & part negative Long term Permanent Direct Part high beneficial part	Part moderate negative part moderate positive. Low negative for Green Belt. Part moderate	Unable to mitigate.	Moderate negative, low negative, part moderate positive part high positive.	Intermediate area receptors 2: Effect on landscape and townscape	High Positive Significance (Long term, Permanent, Direct)	Regeneration projects should be a visual improvement to the existing area. The additional lighting from these schemes will reduced the obtrusiveness of lighting from the Project. Therefore

Effect	Receptor and importance	Nature of Effect	Significance	Mitigation & Enhancement Measures	Residual Significance	Cumulative Effect	Significance (and Nature) of Cumulative Effect	Explanation
		moderate negative	positive part high positive for cultural heritage.					there will be high positive cumulative effect of improvement to the degraded landscape setting.
Intermediate area receptors 3: Visual change (middle distance views).	Residents & users of public realm spaces south of the Estuary Importance: Moderate	Negative Short term Temporary Direct Moderate adverse	Moderate negative	Retention and protection of selected areas of existing planting.	Low negative.	None	-	Other proposed developments are of similar size to those which they will replace or sit near. In addition there are no other developments which will protrude into the view of the Estuary. Therefore there are unlikely to be any cumulative effects.
Intermediate area receptors 3: Visual change (middle distance views).	Residents & users of public realm spaces south of the Estuary Importance: Moderate	Negative Short term Temporary Direct Moderate adverse	Moderate negative	Retention and protection of selected areas of existing planting.	Low negative.	None	-	Other proposed developments are of similar size to those which they will replace or sit near. In addition there are no other developments which will protrude into the view of the Estuary. Therefore

Effect	Receptor and importance	Nature of Effect	Significance	Mitigation & Enhancement Measures	Residual Significance	Cumulative Effect	Significance (and Nature) of Cumulative Effect	Explanation
								there are unlikely to be any cumulative effects.
Local area receptors 1: Visual change (local views).	Residents & users of public realm areas around South Widnes & Estuary margins Importance: Part low part moderate part high	Positive Long term Permanent Direct Part low adverse, part moderate adverse, part moderate beneficial & part high beneficial.	Part low, part moderate, part high positive	Mitigation predominantly achieved by provision of screen planting.	Low negative.	None	-	Other proposed developments are of similar size to those which they will replace or sit near. In addition there are no other developments which will protrude into the view of the Estuary. Therefore there are unlikely to be any cumulative effects.
Local area receptors 2: Visual change (local views).	Residents & users of Spike Island, St Helens Canal, Trans-Pennine Trail & Wigg Island Importance: Moderate	Negative Long term Permanent Direct Part low adverse mostly moderate adverse, part high	Part moderate negative part high negative	Mitigation predominantly achieved by provision of screen planting.	High negative	None	-	Other proposed developments are of similar size to those which they will replace or sit near. In addition there are no other developments which will protrude into the view of the Estuary. Therefore

Effect	Receptor and importance	Nature of Effect	Significance	Mitigation & Enhancement Measures	Residual Significance	Cumulative Effect	Significance (and Nature) of Cumulative Effect	Explanation
		adverse.						there are unlikely to be any cumulative effects.
Local area receptors 3: Visual change (local views).	Residents around Bridgewater Junction Central Expressway & other modified junctions Importance: —— Moderate	Negative Long term Permanent Direct Part low part moderate adverse.	Part low negative part moderate negative	Mitigation predominantly achieved by provision of screen planting.	Part moderate positive part low negative.	None	-	Other proposed developments are of similar size to those which they will replace or sit near. In addition there are no other developments which will protrude into the view of the Estuary. Therefore there are unlikely to be any cumulative effects.

Table 12.6. Cumulative effects relating to Landscape and Visual Amenity arising from the Project