Appendix G: NORTH WEST ENGLAND, European and Internationally Designated sites and key Environmental Sensitivities.

## Information taken from:

- (i) Habitats Regulations Assessment of the North West Regional Spatial Strategy Consolidated Report. September 2008
- (ii) Habitats Regulations Assessment of the Secretary of State's Proposed Changes to the North West Regional Spatial Strategy March 2008
- (iii) Joint Summary Report: Summary findings of the: Sustainability Appraisal; Habitats Regulations Assessment; Equality Impact Assessment; and Health Impact Assessment; of the Secretary of State's Proposed Changes to the North West Regional Spatial Strategy March 2008
- (iv) Scott Wilson, Levett-Therivel Sustainability Consultants and Treweek Environmental Consultants (2007) Appropriate Assessment of the Draft North West Plan, prepared for the Government Office for the North West in December 2007.
- (v) Entec UK Limited (2007) Habitats Regulations Assessment of NWRA Regional Spatial Strategy: Stage 1 Screening and Avoidance Measures, prepared for the North West Regional Assembly in January 2007.
- (vi)% figure in last column taken from Natural England's designations list and condition data of sites (data for 31 March 2012)

## **SPECIAL AREAS OF CONSERVATION (SACs)**

SAC	Excessive recreational pressure and other types of disturbance	Other effects of increasing urbanisation (e.g. increased incidence of fires and numbers of cats predating vulnerable chicks)	Deterioration in air quality (both local and diffuse)	Increased abstraction leading to a decline in water levels and freshwater inputs to hydrologically sensitive European sites	Deterioration in water quality	Increased 'coastal squeeze'	Loss of important supporting habitat outside the boundary of the European site	% of site in favourable condition 31/3/12
Asby Complex	Moderate levels of development at Appleby and Kirkby Stephen could impact on recreational use of the area.		Site abuts M6, and may suffer from increased air pollution with the increased traffic resulting from economic, residential and recreational growth.				In-combination effects of multiple wind farms could be particular severe on birds that move between different European sites along the coast.	15%
Berwyn and South Clwyd Mountains				Risk of over- abstraction to provide water needs of new homes, retail and airport.				n/a
Bolton Fell	Peat extraction.							
Border Mires, Kielder- Butterburn	Recreational pressure from tourists.		Air pollution from Cockenzie power station significant. Increased traffic	Parts of the site lies adjacent to Kielder Forest and so forest management				54%

SAC	Excessive recreational pressure and other types of disturbance	Other effects of increasing urbanisation (e.g. increased incidence of fires and numbers of cats predating vulnerable chicks)	Deterioration in air quality (both local and diffuse)	Increased abstraction leading to a decline in water levels and freshwater inputs to hydrologically sensitive European sites	Deterioration in water quality	Increased 'coastal squeeze'	Loss of important supporting habitat outside the boundary of the European site	% of site in favourable condition 31/3/12
			could reduce air quality.	could affect water levels.				
Borrowdale Woodland Complex			Air pollution from Drax power station.					13%
Calf Hill and Cragg Woods								100%
Clints Quarry								0%
Cumbrian Marsh Fritillary Site								0%
Drigg Coast	Potential impact of radioactive waste storage in the vicinity of the site.  Potential for					Theoretical risk of coastal squeeze.		65%
	erosion from human activity.							
Duddon Mosses	Recreational pressure lined to the Cumbria Coastal Way which passes		Significantly affected by acid deposition, notably from agriculture,	Improvements to the A5092 risk hydrological effects, especially	Improvements to the A5092 risk adverse effects on water quality,			0%

SAC	Excessive recreational pressure and other types of disturbance	Other effects of increasing urbanisation (e.g. increased incidence of fires and numbers of cats predating vulnerable chicks)	Deterioration in air quality (both local and diffuse)	Increased abstraction leading to a decline in water levels and freshwater inputs to hydrologically sensitive European sites	Deterioration in water quality	Increased 'coastal squeeze'	Loss of important supporting habitat outside the boundary of the European site	% of site in favourable condition 31/3/12
	through the site.		large power stations, and transport.	during construction.	especially during construction.			
Helbeck & Swindale Woods			Adverse effects from planned upgrades to the A66 between Penrith and Scotch Corner.					27%
Lake District High Fells	Sensitive to erosion and trampling.		Significantly affected by acid deposition, notably from agriculture, large power stations, and transport.					6%
Manchester Mosses	Sensitive to erosion and trampling.		Significantly affected by acid deposition, notably from agriculture, large power stations, and transport.	Risk from changes in hydrology due to landfill nearby, pressure for which may increase due to				1%

SAC	Excessive recreational pressure and other types of disturbance	Other effects of increasing urbanisation (e.g. increased incidence of fires and numbers of cats predating vulnerable chicks)	Deterioration in air quality (both local and diffuse)	Increased abstraction leading to a decline in water levels and freshwater inputs to hydrologically sensitive European sites	Deterioration in water quality	Increased 'coastal squeeze'	Loss of important supporting habitat outside the boundary of the European site	% of site in favourable condition 31/3/12
			Increased traffic generally, especially at Holcroft Moss (adjacent to the M62).	increased housing.				
Moor House - Upper Teesdale	Sensitive to erosion and trampling.		Adverse effects from planned upgrades to the A66 between Penrith and Scotch Corner.					
Morecambe Bay	Site subject to some fishing, bait digging and dredging, and with the potential for erosion from human activity.  Sensitive to erosion and illegal removal of limestone			Possible effects from tidal and wave energy proposals, aggregate extraction and port developments at Fleetwood or Heysham.	Inputs from diffuse and point sources have the potential to lead to eutrophication in the estuary from ammonia and decreased dissolved oxygen. Port development at Fleetwood or	Theoretical risk of coastal squeeze.		95%

SAC	Excessive recreational pressure and other types of disturbance	Other effects of increasing urbanisation (e.g. increased incidence of fires and numbers of cats predating vulnerable chicks)	Deterioration in air quality (both local and diffuse)	Increased abstraction leading to a decline in water levels and freshwater inputs to hydrologically sensitive European sites	Deterioration in water quality	Increased 'coastal squeeze'	Loss of important supporting habitat outside the boundary of the European site	% of site in favourable condition 31/3/12
	pavement.				Heysham and associated freight transport could create water pollution problems.			
Morecambe Bay Pavements	Increased visitor							37%
Naddle Forest	pressure.		Risk from increased traffic on Haweswater Road due to increased visitor numbers.					29%
North Pennine Dales Meadows			Affected by acid deposition, due primarily to agriculture and large power stations.					73%
North Pennine Moors	Sensitive to erosion and illegal removal of limestone pavement.		Affected by acid deposition, due primarily to agriculture and large power					14%

Excessive recreational pressure and other types of disturbance	Other effects of increasing urbanisation (e.g. increased incidence of fires and numbers of cats predating vulnerable chicks)	Deterioration in air quality (both local and diffuse)	Increased abstraction leading to a decline in water levels and freshwater inputs to hydrologically sensitive European sites	Deterioration in water quality	Increased 'coastal squeeze'	Loss of important supporting habitat outside the boundary of the European site	% of site in favourable condition 31/3/12
Significant recreational use including shooting.		stations					
			Abstraction within the Delamere sand sheet, underlying the site, is considered to place it at high risk of a lower water table.	Risk of water quality deterioration resulting from any improvement works to A556 or A54.			
			Risk of hydrological changes resulting from any improvement works to A556 or A54.				
	recreational pressure and other types of disturbance  Significant recreational use including	recreational pressure and other types of disturbance  of increasing urbanisation (e.g. increased incidence of fires and numbers of cats predating vulnerable chicks)  Significant recreational use including	recreational pressure and other types of disturbance of fires and numbers of cats predating vulnerable chicks) stations	recreational pressure and other types of disturbance of fires and numbers of cats predating vulnerable chicks)  Significant recreational use including shooting.  Significant recreational use including shooting.  Abstraction leading to a decline in water levels and freshwater inputs to hydrologically sensitive European sites  Abstraction within the Delamere sand sheet, underlying the site, is considered to place it at high risk of a lower water table.  Risk of hydrological changes resulting from any improvement works to A556	recreational pressure and other types of disturbance    Cats predating vulnerable chicks   Significant recreational use including shooting.   Stations	recreational pressure and other types of disturbance    Cast predating vulnerable chicks   Significant recreational use including shooting.   Significant recreations within the Delamere sand sheet, underlying the site, is considered to place it at high risk of a lower water table.   Risk of hydrological changes resulting from any improvement works to A556   Significant recreations and freshwater inputs to hydrologically sensitive European sites   Significant recreations and freshwater inputs to hydrologically sensitive   Significant recreations and freshwater inputs to hydrologically sensitive   Significant recreations   S	recreational pressure and other types of disturbance  of increasing urbanisation (both local and other types of disturbance)  Significant recreational use including shooting.  Abstraction within the Delamere sand sheet, underlying the site, is considered to place it at high risk of a lower water table.  Risk of hydrological changes resulting from any improvement works to A556  Risk of hydrological changes resulting from any improvement works to A556

SAC	Excessive recreational pressure and other types of disturbance	Other effects of increasing urbanisation (e.g. increased incidence of fires and numbers of cats predating vulnerable chicks)	Deterioration in air quality (both local and diffuse)	Increased abstraction leading to a decline in water levels and freshwater inputs to hydrologically sensitive European sites	Deterioration in water quality	Increased 'coastal squeeze'	Loss of important supporting habitat outside the boundary of the European site	% of site in favourable condition 31/3/12
Bala Lake				abstraction to provide water needs of new homes, retail and airport.	implications of new developments in and around Chester (run-off and waste-water treatment works).		energy proposals within Dee Estuary could form a barrier to salmon.  Port developments could affect migratory fish.	
River Derwent and Bassenthwaite Lake				Adverse effects through overabstraction within the Thirlmere catchment.	Discharges from wastewater treatment works and diffuse sources. Port and town redevelopment at Workington and improvements to M6 access via the A66 could affect water quality.		g ,	

SAC	Excessive recreational pressure and other types of disturbance	Other effects of increasing urbanisation (e.g. increased incidence of fires and numbers of cats predating vulnerable chicks)	Deterioration in air quality (both local and diffuse)	Increased abstraction leading to a decline in water levels and freshwater inputs to hydrologically sensitive European sites	Deterioration in water quality	Increased 'coastal squeeze'	Loss of important supporting habitat outside the boundary of the European site	% of site in favourable condition 31/3/12
River Eden	Increase in recreational use of the area, which could have impact on otters			Water abstraction from the sandstone aquifer. Risk of over-abstraction to provide water needs of new homes, retail,	Waste water treatment works and traffic affecting water quality.		Port area developments could have effects on fish migration.	51%
River Ehen				regional casinos and airports.  Abstraction upstream of the River Ehen SAC leads to a reduction in the supply of suitable substrates for river bed roughness.	Sensitive to water quality, particularly with regards to hardness, calcium content and conductivity. Affected by discharges from			0%
				Risk of over- abstraction to provide water	upstream waste-water treatment works.			

SAC	Excessive recreational pressure and other types of disturbance	Other effects of increasing urbanisation (e.g. increased incidence of fires and numbers of cats predating vulnerable chicks)	Deterioration in air quality (both local and diffuse)	Increased abstraction leading to a decline in water levels and freshwater inputs to hydrologically sensitive European sites	Deterioration in water quality	Increased 'coastal squeeze'	Loss of important supporting habitat outside the boundary of the European site	% of site in favourable condition 31/3/12
				needs of new				
River Kent	Improved public transport access to the Lake District National Park has potential to increase tourism and recreational use of the area.			homes. The site suffers adverse effects from abstraction which at low flow can cause potential adverse effects to SAC species in the Gowan catchment.	Poor water quality along a stretch of the River Kent SAC has occurred due to wastewater treatment works.		Port developments could affect migratory fish.	0%
Rixton Clay Pits								0%
Rochdale Canal	Increased fishing and boat movements could affect interest features on the site.				Increased development and housing in the area has potential to lead to water pollution issues			0%
Roudsea Wood & Mosses			Increased traffic in the area, and potential development leading to risk of		Port development at Fleetwood or Heysham and associated			8%

SAC	Excessive recreational pressure and other types of disturbance	Other effects of increasing urbanisation (e.g. increased incidence of fires and numbers of cats predating vulnerable chicks)	Deterioration in air quality (both local and diffuse)	Increased abstraction leading to a decline in water levels and freshwater inputs to hydrologically sensitive European sites	Deterioration in water quality	Increased 'coastal squeeze'	Loss of important supporting habitat outside the boundary of the European site	% of site in favourable condition 31/3/12
			air pollution.		freight transport could water pollution problems.			
Sefton Coast	Trampling and other activities causing erosion on dunes.			Increasing need for water (e.g. for golf courses), leading to water abstraction affecting dune aquifer.		Theoretical risk of coastal squeeze.	Sensitive to disturbance by shipping.	68%
Solway Firth	Subject to some fishing, bait digging and dredging, and with the potential for erosion from human activity.				Water quality issues arising in the river Eden. Development of Carlisle airport and port development has implications for water quality.	Theoretical risk of coastal squeeze.		23%
South Pennine Moors	Recreational pressure. Sensitive to erosion from		Affected by acid deposition, due primarily to agriculture and		,			7%

Appendix F

SAC	Excessive recreational pressure and other types of disturbance	Other effects of increasing urbanisation (e.g. increased incidence of fires and numbers of cats predating vulnerable chicks)	Deterioration in air quality (both local and diffuse)	Increased abstraction leading to a decline in water levels and freshwater inputs to hydrologically sensitive European sites	Deterioration in water quality	Increased 'coastal squeeze'	Loss of important supporting habitat outside the boundary of the European site	% of site in favourable condition 31/3/12
	trampling, vehicles etc.		large power stations.					
South Solway Mosses	Recreational pressure.		Significantly affected by acid deposition, notably from agriculture, large power stations, and transport.					0%
Subberthwaite, Blawith & Torver Low Commons	Sensitive to erosion from trampling, vehicles etc.		Traffic on local roads.					100%
Tarn Moss			Air pollution from Drax power station	Forest management of the conifer plantation to the immediate south of this site could affect water levels.				94%
Tyne & Nent	Sensitive to erosion from trampling,		Traffic.					27%

SAC	Excessive recreational pressure and other types of disturbance	Other effects of increasing urbanisation (e.g. increased incidence of fires and numbers of cats predating vulnerable chicks)	Deterioration in air quality (both local and diffuse)	Increased abstraction leading to a decline in water levels and freshwater inputs to hydrologically sensitive European sites	Deterioration in water quality	Increased 'coastal squeeze'	Loss of important supporting habitat outside the boundary of the European site	% of site in favourable condition 31/3/12
	vehicles etc. (especially motorcycles).							
Ullswater Oakwoods			Traffic					13%
Walton Moss			Air pollution from Cockenzie power station					13%
Wast Water			Traffic.	May be affected by water abstraction				0%
West Midlands Mosses			Significantly affected by acid deposition, notably from agriculture, large power stations, and transport.	Site at risk from a lowering of the water table.				38%
Witherslack Mosses			Traffic.					0%
Yewbarrow Woods								25%

## **SPECIAL PROTECTION AREAS (SPAs)**

SPA	Excessive recreational pressure and other types of disturbance	Other effects of increasing urbanisation (e.g. increased incidence of fires and numbers of cats predating vulnerable chicks)	Deterioration in air quality (both local and diffuse)	Increased abstraction leading to a decline in water levels and freshwater inputs to hydrologically sensitive European sites	Deterioration in water quality	Increased 'coastal squeeze'	Loss of important supporting habitat outside the boundary of the European site	% of site in favourable condition 31/3/12
Bowland Fells	Sensitive bird population.							5%
Duddon Estuary						Theoretical risk of coastal squeeze.	Port developments could lead to land take and to bird disturbance.	94%
Leighton Moss								0%
Liverpool Bay pSPA	Significant disturbance already caused by shipping, wind turbine construction, dredging etc.			Port developments at Birkenhead etc. could lead to changes in hydrology	Potentially affected by the water quality issues of the Mersey. Physical disturbance could occur from overflow discharges from waste water	Theoretical risk of coastal squeeze.		n/a

SPA	Excessive recreational pressure and other types of disturbance	Other effects of increasing urbanisation (e.g. increased incidence of fires and numbers of cats predating vulnerable chicks)	Deterioration in air quality (both local and diffuse)	Increased abstraction leading to a decline in water levels and freshwater inputs to hydrologically sensitive European sites	Deterioration in water quality	Increased 'coastal squeeze'	Loss of important supporting habitat outside the boundary of the European site	% of site in favourable condition 31/3/12
					treatment works where these overflows are not currently screened leading to sewage litter being discharged, causing physical disturbance to the estuarine habitat.			
Martin Mere					High levels of phosphate are present in discharges to the SPA. Concerns over the ability for existing waste water treatment works discharging into the site to			100%

SPA	Excessive recreational pressure and other types of disturbance	Other effects of increasing urbanisation (e.g. increased incidence of fires and numbers of cats predating vulnerable chicks)	Deterioration in air quality (both local and diffuse)	Increased abstraction leading to a decline in water levels and freshwater inputs to hydrologically sensitive European sites	Deterioration in water quality	Increased 'coastal squeeze'	Loss of important supporting habitat outside the boundary of the European site	% of site in favourable condition 31/3/12
				·	provide the increased capacity required to support the growth proposed.			
Mersey Estuary	Subject to disturbance from bait digging, fishing, dredging, dogwalking and horse-riding.	Physical disturbance could occur from overflow discharges from waste water treatment works where these overflows are not currently screened leading to sewage litter being discharged, causing physical disturbance to		Port developments at Birkenhead, and a proposed new crossing of the River Mersey could lead to changes in hydrology.	Concerns over the ability for existing waste water treatment works discharging into the site to provide the increased capacity required to support the growth proposed.  Port developments at Birkenhead, and	Theoretical risk of coastal squeeze.		44%

SPA	Excessive recreational pressure and other types of disturbance	Other effects of increasing urbanisation (e.g. increased incidence of fires and numbers of cats predating vulnerable chicks)	Deterioration in air quality (both local and diffuse)	Increased abstraction leading to a decline in water levels and freshwater inputs to hydrologically sensitive European sites	Deterioration in water quality	Increased 'coastal squeeze'	Loss of important supporting habitat outside the boundary of the European site	% of site in favourable condition 31/3/12
		habitat.			a proposed new crossing of the River Mersey could lead to changes in hydrology.			
Mersey Narrows and North Wirral Foreshore pSPA		Physical disturbance could occur from overflow discharges from waste water treatment works where these overflows are not currently screened leading to sewage litter being discharged, causing physical disturbance to the estuarine		Port developments at Birkenhead could lead to changes in hydrology.	Concerns over the ability for existing waste water treatment works discharging into the site to provide the increased capacity required to support the growth proposed.  Potentially affected by the water quality		Port expansion in North Wales, for example at the Port of Mostyn at the mouth of the Dee Estuary, could also contribute to disturbance from shipping	n/a

SPA	Excessive recreational pressure and other types of disturbance	Other effects of increasing urbanisation (e.g. increased incidence of fires and numbers of cats predating vulnerable chicks)	Deterioration in air quality (both local and diffuse)	Increased abstraction leading to a decline in water levels and freshwater inputs to hydrologically sensitive European sites	Deterioration in water quality	Increased 'coastal squeeze'	Loss of important supporting habitat outside the boundary of the European site	% of site in favourable condition 31/3/12
					Mersey.			
Morecambe Bay	Subject to disturbance from bait digging, fishing, dredging, dog- walking and horse-riding.	Existing discharge outfalls into the Salthouse Pool of Morecambe Bay have also caused physical damage, as a cut channel has been created across the intertidal zone.			Concerns over the ability for existing waste water treatment works discharging into the site to provide the increased capacity required to support the growth proposed.  Poor water quality inputs from diffuse and point sources.	Theoretical risk of coastal squeeze.	Port development at Fleetwood or Heysham and associated freight transport could create water pollution problems.	95%
North Pennine	Recreational		Affected by acid					14%
Moors	pressure. Unauthorised		deposition, due primarily to					
	damage to		agriculture and					
	limestone		large power					

SPA	Excessive recreational pressure and other types of disturbance	Other effects of increasing urbanisation (e.g. increased incidence of fires and numbers of cats predating vulnerable chicks)	Deterioration in air quality (both local and diffuse)	Increased abstraction leading to a decline in water levels and freshwater inputs to hydrologically sensitive European sites	Deterioration in water quality	Increased 'coastal squeeze'	Loss of important supporting habitat outside the boundary of the European site	% of site in favourable condition 31/3/12
	pavements		stations					
Peak District Moors (South Pennine Moors Phase 1)	Recreational pressure.	Significant habitat damage due to erosion, fire etc.	Affected by acid deposition, due primarily to agriculture and large power stations.					11%
Ribble and Alt Estuaries	Subject to disturbance from bait digging, fishing, dredging, dog- walking and horse-riding.			Port development could lead to changes in hydrology	Decrease in water quality resulting from discharges to the site. Concerns over the ability for existing waste water treatment works discharging into the site to provide the increased capacity required to support the growth	Theoretical risk of coastal squeeze.	May be sensitive to disturbance by shipping.	99%

SPA	Excessive recreational pressure and other types of disturbance	Other effects of increasing urbanisation (e.g. increased incidence of fires and numbers of cats predating vulnerable chicks)	Deterioration in air quality (both local and diffuse)	Increased abstraction leading to a decline in water levels and freshwater inputs to hydrologically sensitive European sites	Deterioration in water quality	Increased 'coastal squeeze'	Loss of important supporting habitat outside the boundary of the European site	% of site in favourable condition 31/3/12
					Port development could lead to water pollution.			
South Pennine Moors (Phase 2)	Significant recreational use including shooting already affecting the interest features of the site through e.g. trampling.		Air pollution from Fiddler's Ferry power station.		water ponduern			1%
The Dee Estuary	Subject to disturbance from bait digging, fishing, dredging, dog- walking and horse-riding.			Port developments could lead to changes in Hydrology.	This site is potentially affected by similar water quality issues to the Mersey. Concerns over the ability for existing waste water treatment	Further development at Neston may reduce potential for future managed realignment.	May be sensitive to disturbance by shipping.	100%

SPA	Excessive recreational pressure and other types of disturbance	Other effects of increasing urbanisation (e.g. increased incidence of fires and numbers of cats predating vulnerable chicks)	Deterioration in air quality (both local and diffuse)	Increased abstraction leading to a decline in water levels and freshwater inputs to hydrologically sensitive European sites	Deterioration in water quality	Increased 'coastal squeeze'	Loss of important supporting habitat outside the boundary of the European site	% of site in favourable condition 31/3/12
					works discharging into the site to provide the increased capacity required to support the growth proposed.			
Upper Solway Flats and Marshes	Subject to disturbance from bait digging, fishing, dredging, dogwalking and horse-riding.  Sensitive to disturbance by aircraft.			Port developments could lead to changes in hydrology	The SPA is directly downstream of the River Eden, and consequently water quality issues in the Eden could adversely affect the integrity of the Upper Solway Flats and Marshes SPA. Particular		Birds from the SPA use fields near the airport for feeding.	23%

SPA	Excessive recreational pressure and other types of disturbance	Other effects of increasing urbanisation (e.g. increased incidence of fires and numbers of cats predating vulnerable chicks)	Deterioration in air quality (both local and diffuse)	Increased abstraction leading to a decline in water levels and freshwater inputs to hydrologically sensitive European sites	Deterioration in water quality	Increased 'coastal squeeze'	Loss of important supporting habitat outside the boundary of the European site	% of site in favourable condition 31/3/12
		Onioko)		European sites	water quality issues of the River Eden relate to waste water treatment works. Concerns over the ability for existing waste water treatment works discharging into the site to provide the increased capacity required to support the growth proposed.			
					Port developments could lead to water pollution.			

## **RAMSAR SITES**

Ramsar Site	Excessive recreational pressure and other types of disturbance	Other effects of increasing urbanisation (e.g. increased incidence of fires and numbers of cats predating vulnerable chicks)	Deterioration in air quality (both local and diffuse)	Increased abstraction leading to a decline in water levels and freshwater inputs to hydrologically sensitive European sites	Deterioration in water quality	Increased 'coastal squeeze'	Loss of important supporting habitat outside the boundary of the European site
Duddon Estuary	Subject to disturbance from bait digging, fishing, dredging, dog-walking and horse-riding.			·		Theoretical risk of coastal squeeze.	Port developments could lead to land take and to bird disturbance.
Esthwaite Water	Recreational pressure.				Eutrophication, particularly as a result of aquaculture.		
Irthinghead Mires			Significantly affected by acid deposition, notably from agriculture, large power stations, and transport.				
Leighton Moss  Martin Mere					High levels of		
West and West					phosphate are present in discharges to the SPA. Concerns		

Ramsar Site	Excessive recreational pressure and other types of disturbance	Other effects of increasing urbanisation (e.g. increased incidence of fires and numbers of cats predating vulnerable chicks)	Deterioration in air quality (both local and diffuse)	Increased abstraction leading to a decline in water levels and freshwater inputs to hydrologically sensitive European sites	Deterioration in water quality	Increased 'coastal squeeze'	Loss of important supporting habitat outside the boundary of the European site
					over the ability for existing waste water treatment works discharging into the site to provide the increased capacity required to support the growth proposed.		
Mersey Estuary	Subject to disturbance from bait digging, fishing, dredging, dog-walking and horse-riding.	Physical disturbance could occur from overflow discharges from waste water treatment works where these overflows are not currently screened leading to sewage litter being discharged, causing physical disturbance to the		Port developments at Birkenhead, and a proposed new crossing of the River Mersey could lead to changes in hydrology.	Concerns over the ability for existing waste water treatment works discharging into the site to provide the increased capacity required to support the growth proposed.  Port developments at Birkenhead, and	Theoretical risk of coastal squeeze.	

Ramsar Site	Excessive recreational pressure and other types of disturbance	Other effects of increasing urbanisation (e.g. increased incidence of fires and numbers of cats predating vulnerable chicks)	Deterioration in air quality (both local and diffuse)	Increased abstraction leading to a decline in water levels and freshwater inputs to hydrologically sensitive European sites	Deterioration in water quality	Increased 'coastal squeeze'	Loss of important supporting habitat outside the boundary of the European site
		estuarine habitat.			a proposed new crossing of the River Mersey could lead to changes in hydrology.		
Mersey Narrows and North Wirral Foreshore pRamsar		Physical disturbance could occur from overflow discharges from waste water treatment works where these overflows are not currently screened leading to sewage litter being discharged, causing physical disturbance to the estuarine habitat.		Port developments at Birkenhead could lead to changes in hydrology.	Concerns over the ability for existing waste water treatment works discharging into the site to provide the increased capacity required to support the growth proposed.  Potentially affected by the water quality issues of the Mersey.		Port expansion in North Wales, for example at the Port of Mostyn at the mouth of the Dee Estuary, could also contribute to disturbance from shipping
Midland Meres and Mosses	Recreational pressure.		Increased traffic.	Risk of changes in hydrology due	Increased traffic. Risk of water		

Ramsar Site	Excessive recreational pressure and other types of disturbance	Other effects of increasing urbanisation (e.g. increased incidence of fires and numbers of cats predating vulnerable chicks)	Deterioration in air quality (both local and diffuse)	Increased abstraction leading to a decline in water levels and freshwater inputs to hydrologically sensitive European sites	Deterioration in water quality	Increased 'coastal squeeze'	Loss of important supporting habitat outside the boundary of the European site
Phase 1				to water abstraction to meet future water resource needs.	quality changes resulting from any improvement works to A556 and A50.		
Midland Meres and Mosses Phase 2				Risk of changes in hydrology due to water abstraction to meet future water resource needs, and due to gravel extraction	Improvements to the A556 and capacity improvements to the M6 could increase water pollution.		
Morecambe Bay	Subject to disturbance from bait digging, fishing, dredging, dog-walking and horse-riding.	Existing discharge outfalls into the Salthouse Pool of Morecambe Bay have also caused physical damage, as a cut channel has been created across the intertidal zone.			Concerns over the ability for existing waste water treatment works discharging into the site to provide the increased capacity required to support the growth proposed.	Theoretical risk of coastal squeeze.	Port development at Fleetwood or Heysham and associated freight transport could create water pollution problems.

Ramsar Site	Excessive recreational pressure and other types of disturbance	Other effects of increasing urbanisation (e.g. increased incidence of fires and numbers of cats predating vulnerable chicks)	Deterioration in air quality (both local and diffuse)	Increased abstraction leading to a decline in water levels and freshwater inputs to hydrologically sensitive European sites	Deterioration in water quality	Increased 'coastal squeeze'	Loss of important supporting habitat outside the boundary of the European site
					Poor water quality inputs from diffuse and point sources.		
Ribble and Alt Estuaries	Subject to disturbance from bait digging, fishing, dredging, dog-walking and horse-riding.			Port development could lead to changes in hydrology.	Decrease in water quality resulting from discharges to the site. Concerns over the ability for existing waste water treatment works discharging into the site to provide the increased capacity required to support the growth proposed.  Port development could lead to water pollution.	Theoretical risk of coastal squeeze.	May be sensitive to disturbance by shipping.
Rostherne Mere	Recreational pressure.		Improvements to the A556.		Improvements to the A556.		

Ramsar Site	Excessive recreational pressure and other types of disturbance	Other effects of increasing urbanisation (e.g. increased incidence of fires and numbers of cats predating vulnerable chicks)	Deterioration in air quality (both local and diffuse)	Increased abstraction leading to a decline in water levels and freshwater inputs to hydrologically sensitive European sites	Deterioration in water quality	Increased 'coastal squeeze'	Loss of important supporting habitat outside the boundary of the European site
The Dee Estuary	Subject to disturbance from bait digging, fishing, dredging, dog-walking and horse-riding.			Port developments could lead to changes in Hydrology.	This site is potentially affected by similar water quality issues to the Mersey. Concerns over the ability for existing waste water treatment works discharging into the site to provide the increased capacity required to support the growth proposed.	Further development at Neston may reduce potential for future managed realignment.	May be sensitive to disturbance by shipping.
Upper Solway Flats and Marshes	Subject to disturbance from bait digging, fishing, dredging, dog-walking and horse-riding.  Sensitive to			Port developments could lead to changes in hydrology	The SPA is directly downstream of the River Eden, and consequently water quality issues in the Eden could		Birds from the SPA use fields near the airport for feeding.

Ramsar Site	Excessive recreational pressure and other types of disturbance	Other effects of increasing urbanisation (e.g. increased incidence of fires and numbers of cats predating vulnerable chicks)	Deterioration in air quality (both local and diffuse)	Increased abstraction leading to a decline in water levels and freshwater inputs to hydrologically sensitive European sites	Deterioration in water quality	Increased 'coastal squeeze'	Loss of important supporting habitat outside the boundary of the European site
	disturbance by aircraft.				adversely affect the integrity of the Upper Solway Flats and Marshes SPA. Particular water quality issues of the River Eden relate to waste water treatment works. Concerns over the ability for existing waste water treatment works discharging into the site to provide the increased capacity required to support the growth proposed.  Port developments could lead to water pollution.		

Appendix F