Habitat Regulations Assessment

West Lancashire Borough Council

Local Plan Publication version

Issue 2
June 2012

Prepared for

Revision Schedule

HRA Report
47036991
June 2012

Rev	Date	Details	Prepared by	Reviewed by	Approved by
01	08 June 2012	Issue 1	**James Riley** Principal Ecologist		
02	13 June 2012	Issue 2	**James Riley** Principal Ecologist		

URS/Scott Wilson
Brunel House
54 Princess Street
Manchester
M1 6HS

Tel: 0161 907 3500
Fax: 0161 907 3501

www.urs-scottwilson.com

Table of Contents

1 Introduction

1.1 Habitat Regulations Assessment

1.1.1 The Habitats Directive applies the precautionary principle to Natura 2000 Sites (Special Areas of Conservation, SACs, and Special Protection Areas, SPAs; as a matter of UK Government policy, Ramsar Sites[1] are given equivalent status). Collectively, such sites are referred to as "European sites". The need for Appropriate Assessment (AA) is set out within Article 6 of the EC Habitats Directive 1992, and interpreted into British law by the Conservation of Habitats and Species Regulations 2010 (Box 1). The ultimate aim of the Directive is to "*maintain or restore, at favourable conservation status, natural habitats and species of wild fauna and flora of Community interest*" (Habitats Directive, Article 2(2)). This aim relates to habitats and species, not the Sites themselves, although the Sites have a significant role in delivering favourable conservation status.

Box 1. The legislative basis for Habitat Regulations Assessment

Habitats Directive 1992

"*Any plan or project not directly connected with or necessary to the management of the European site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the European site in view of the European site's conservation objectives.*"

Article 6 (3)

Conservation of Habitats and Species Regulations 2010

"*A competent authority, before deciding to … give any consent for a plan or project which is likely to have a significant effect on a European site … shall make an appropriate assessment of the implications for the European site in view of that European sites conservation objectives … The authority shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the European site*".

1.1.2 URS/Scott Wilson has been appointed by West Lancashire Borough Council ("the Council") to assist in undertaking a Habitat Regulations Assessment (HRA) of the potential effects of the Local Plan, on the Natura 2000 network and Ramsar Sites (herein collectively referred to as 'European sites').

1.1.3 The Local Plan will supersede the current Unitary Development Plan. The current Unitary Development Plan was adopted in 2001 and is saved until the Local Plan comes into effect. The Council's aim is to adopt the Local Plan in 2012.

1.1.4 A combined HRA Screening and AA Report of the Local Plan Preferred Options was produced in 2011. Earlier HRA work associated with the Issues and Options (September 2009) is reported

[1] Wetlands of International Importance designated under the Ramsar Convention 1979

elsewhere[2]. The current report updates the Preferred Options HRA report to account for changes made to draft policies for the Publication stage. This essentially consists of a new HRA screening assessment of the Publication version Local Plan. The Publication version Local Plan policies are documented in Appendix 2. The opportunity is also taken in this report to make amendments in line with comments made by Natural England in correspondence received 16/02/12, in particular with regard to clarifying the situation regarding Public Water Supply.

1.2 West Lancashire Local Plan

1.2.1 The purpose of the West Lancashire Local Plan (herein referred to as the 'Local Plan') is to contribute to the delivery of sustainable development within West Lancashire. This is to be achieved through setting out the vision, objectives and strategic approach for the spatial development of the borough until 2027.

1.2.2 Appendix 1 of this report provides a key spatial diagram which illustrates the locations of Key Areas of the Local Plan, with particular relevance to Policy SP1 (A Sustainable Development Framework for West Lancashire). Appendix 2 lists the West Lancashire Publication Local Plan Policies, providing a summary description of each policy.

1.2.3 The key aspects of the Local Plan that are subject to HRA screening and AA in this report are listed below. Relevant Local Plan policy numbers are in brackets.

- Provision of 4,500 new dwellings (net) over the lifetime of the Local Plan (CS1, RS1)
- Provision of 87 hectares of new employment land (CS1, SP3, EC1)
- Provision of infrastructure including water supply/ treatment and social infrastructure (community services/ facilities) (CS1, IF3), energy supply (CS1, EN1) and green infrastructure (EN3), and developers' contribution to this (IF4)
- Enhancement and regeneration of Skelmersdale as a town centre regional development site, the focus of borough-wide housing and employment land provision (CS1, SP2)
- Development of land to the west of Burscough as a strategic development site including up to 600 new residential houses, 10ha new employment land, and a decentralised renewable energy facility (SP3)
- Expansion of Edge Hill university in Ormskirk including up to 10ha of greenbelt land (EC4)
- Promotion and enhancement of tourism within the borough as part of the development of the rural economy (EC2) and green infrastructure (EN3)
- Provision for Gypsies Travellers and Travelling Showpeople (Policy RS4)
- Renewable energy development including district heating networks, small to medium renewable energy projects, and large scale grid connection wind energy development and off shore energy (SP1; EN1), including within Burscough (SP3) and as part of the development of rural economy (EC2)

[2] West Lancashire Borough Council (2009) Local Development Framework Habitat Regulations Assessment for the Local Plan Options (September 2009)

1.2.4 It is important to note the projected demographic population shift in the borough, which has a growing, ageing population. In 2007, the population of the borough was estimated at almost 110,000. The population of the borough is projected to increase by approximately 7% during the lifetime of the Local Plan, equating to an additional approximate 7,500 residents[3]. Approximately one-quarter of residents are currently of retirement age. By 2031, this proportion is projected to have risen to around one-third of residents, whilst over the same period, the proportion of people aged 15-59 will have dropped from 59% of the population to less than 50%.

1.2.5 There are variations in the population age structure between settlements. In general, the rural areas of West Lancashire are more attractive to people of middle or retirement age, whilst Skelmersdale has a younger, more varied population structure. One key aim of the Local Plan is to the delivery of services, provision of an adequate labour force and a suitable balanced housing stock that takes account of the ageing population.

[3] Approximate figures based on Spatial Portrait and Key Issues for West Lancashire, in the Local Plan Preferred Options Report (August 2010)

2 Methodology

2.1 Introduction

2.1.1 This section sets out our approach and methodology for undertaking the HRA Screening. Habitat Regulations Assessment itself operates independently from the planning policy system, being a legal requirement of a Statutory Instrument. Therefore, there is no direct relationship to PPS12 and the 'Test of Soundness'. The HRA process we have adopted has been designed to ensure that the HRA is: a) compliant; b) accepted by key stakeholders including Natural England; c) has clear recommendations that can be used by the Council to develop their plan; and d) has a clear record of the process undertaken, providing the necessary evidence base for the plan.

2.2 A Proportionate Assessment

2.2.1 Project-related HRA often requires bespoke survey work and novel data generation in order to accurately determine the significance of adverse effects, that is, to look beyond the risk of an effect to a justified prediction of the actual likely effect and to the development of avoidance or mitigation measures.

2.2.2 However, the draft CLG guidance[4] makes it clear that when implementing HRA of land-use plans, the Appropriate Assessment (AA) should be undertaken at a level of detail that is appropriate and proportional to the level of detail provided within the plan itself:

"*The comprehensiveness of the [Appropriate] assessment work undertaken should be proportionate to the geographical scope of the option and the nature and extent of any effects identified. An AA need not be done in any more detail, or using more resources, than is useful for its purpose. It would be inappropriate and impracticable to assess the effects [of a strategic land use plan] in the degree of detail that would normally be required for the Environmental Impact Assessment (EIA) of a project.*"

2.2.3 In other words, there is a tacit acceptance that appropriate assessment can be tiered and that all impacts are not necessarily appropriate for consideration to the same degree of detail at all levels (Figure 1).

2.2.4 For an LDF, the level of detail concerning the developments that will be delivered is usually insufficient to make a highly detailed assessment of significance of effects. For example, precise and full determination of the impacts and significant effects of a new settlement will require extensive details concerning the design of the town, including layout of greenspace and type of development to be delivered in particular locations, yet these data will not be decided until subsequent stages.

[4] CLG (2006) Planning for the Protection of European sites, Consultation Paper

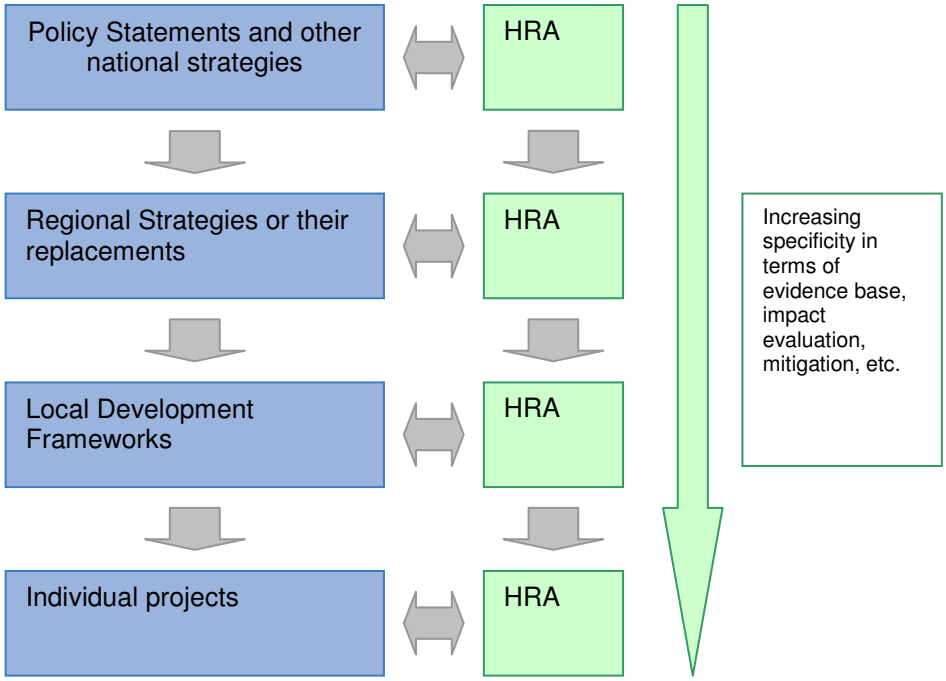


Figure 1: Tiering in HRA of Land Use Plans

2.3 The Process of HRA

2.3.1 The HRA is being carried out in the continuing absence of formal Government guidance. CLG released a consultation paper on AA of Plans in 2006[5]. As yet, no further formal guidance has emerged.

2.3.2 Figure 2 below outlines the stages of HRA according to current draft CLG guidance. The stages are essentially iterative, being revisited as necessary in response to more detailed information, recommendations and any relevant changes to the plan until no significant adverse effects remain.

2.3.3 In practice, we and other practitioners have discovered that this broad outline requires some amendment in order to feed into a developing land use plan such as a Local Plan. The following process has been adopted for carrying out the subsequent stages of the HRA.

[5] CLG (2006) Planning for the Protection of European sites, Consultation Paper

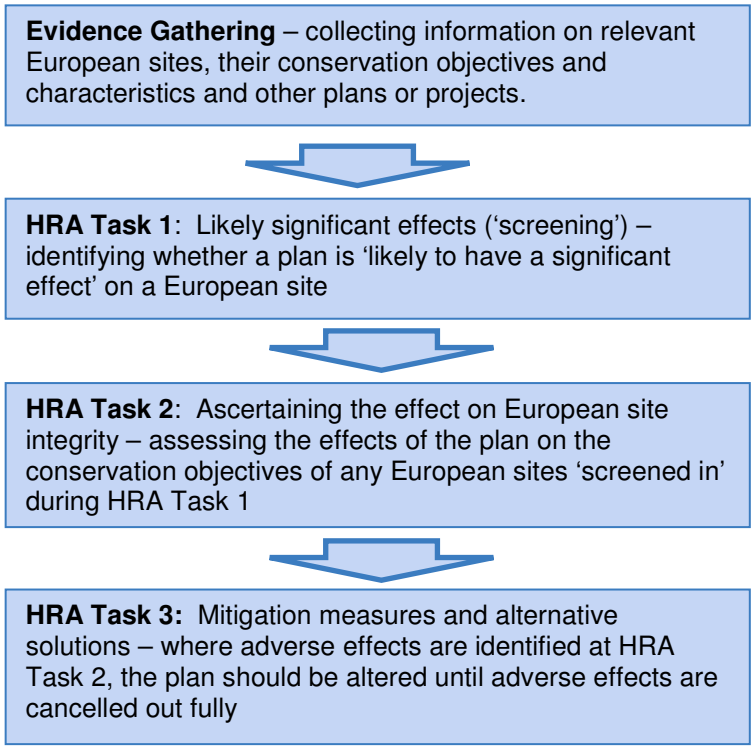


Figure 2: Four-Stage Approach to Habitat Regulations Assessment

2.4 Task One: Likely Significant Effect Test (Screening)

2.4.1 The first stage of any Habitat Regulations Assessment is a Likely Significant Effect test - essentially a high-level risk assessment to decide whether the full subsequent stage known as Appropriate Assessment is required. The essential question is:

"*Is the Plan, either alone or in combination with other relevant projects and plans, likely to result in a significant effect upon European sites*?"

2.4.2 The objective is to 'screen out' those plans and projects (or site allocations/ policies) that can, without any detailed appraisal, be said not to lead to likely significant effects upon European sites, usually because there is no mechanism or pathway for an adverse interaction with European sites.

2.4.3 An HRA Screening exercise was undertaken for the Preferred Options Local Plan. This identified that at that stage the Plan could not be 'screened out'. An Appropriate Assessment was subsequently undertaken and recommendations made for amendments to Plan policy. This current report presents a fresh HRA Screening exercise for the Publication version of the Local Plan, in response to changes to Local Plan policy/wording including that introduced to address recommendations made in the Preferred Options HRA.

2.5 Consultation with Statutory Bodies

2.5.1 In accordance with best practice, URS/Scott Wilson has engaged in several stages of consultation with statutory bodies. Natural England's comments on the Preferred Options HRA report were used to produce this Publication stage HRA report).

2.6 Physical scope of the HRA

2.6.1 The physical scope of the HRA is as shown in Table 1. The location of these European sites is illustrated in Figures 3 and 4.

Table 1: Physical scope of the HRA

European site	Reason for inclusion
Martin Mere SPA and Ramsar site	Located within the West Lancashire Borough Local Plan Area.
Ribble and Alt Estuaries SPA/ Ramsar site	Located partly within the West Lancashire Borough Local Plan Area.
Sefton Coast SAC	Located within 50m of the Borough Local Plan Area, occupying the same geographical area as parts of the Ribble and Alt Estuaries SPA/Ramsar
Mersey Narrows & North Wirral Foreshore pRamsar and pSPA	Located within Merseyside, with closest point approximately 7km from West Lancashire Borough Local Plan Area, with hydraulic connections to the Ribble and Alt Estuaries SPA/Ramsar (within West Lancashire Borough Local Plan Area) and currently subject to recreational pressures.
Liverpool Bay SPA	Located immediately adjacent to Mersey Estuary with hydraulic connections to Ribble and Alt Estuaries SPA/Ramsar (within West Lancashire Borough Local Plan Area).
Dee Estuary SAC, SPA & Ramsar site	The SAC is located 10km south of West Lancashire Borough Local Plan Area; the SPA/Ramsar is located 20m south of West Lancashire Borough Local Plan Area. There are hydraulic connections to the Ribble and Alt Estuaries SPA/Ramsar (within West Lancashire Borough Local Plan Area)

European site	Reason for inclusion
Mersey Estuary SPA/Ramsar	Located approximately 15km south of West Lancashire Borough Local Plan Area
Morecambe Bay SPA and Ramsar	Located approximately 15km north of the West Lancashire Borough Local Plan Area (Morecambe Bay SAC is located approximately 25km north of the Local Plan Area, so is not included)
River Dee & Bala Lake SAC	Identified as a source of potable water for West Lancashire
River Eden SAC	Haweswater reservoir (to which the River is hydrologically connected) is the main potable water supply for West Lancashire, and is likely to form part of the future water supply for Merseyside and West Cheshire.

2.6.2 No other pathways to other European sites have been identified.

2.6.3 Consideration has been given to including the following European sites but we are currently minded to scope them out:

- **Manchester Mosses SAC –** Located 15km east of the West Lancashire Borough Local Plan Area immediately adjacent to the M62. No realistic pathway has been identified

2.6.4 All baseline data relating to these European sites including interest features and vulnerabilities presented in subsequent sections of this Report is taken from Joint Nature Conservancy Council website (JNCC) unless otherwise stated.

2.7 The 'in combination' scope

2.7.1 It is a requirement of the Regulations that the impacts and effects of any land use plan being assessed are not considered in isolation but in combination with other plans and projects that may also be affecting the European site(s) in question. The other plans and projects that URS/Scott Wilson have considered are:

Core Strategies of Local Authorities Adjacent to West Lancashire

- Chorley LDF Local Plan
- South Ribble LDF Local Plan
- Fylde LDF Local Plan
- Sefton LDF Local Plan
- Knowsley LDF Local Plan
- St Helens LDF Local Plan

- Wigan LDF Local Plan

Core Strategies of Local Authorities adjacent to the European sites

- Liverpool LDF Local Plan
- Blackburn with Darwen Local Plan
- Blackpool LDF Local Plan
- Preston City LDF Local Plan
- Ribble Valley LDF Local Plan

Other Relevant Plans, Policies and Projects

- Liverpool City Region Renewable Energy Capacity Study[6]
- North West England & North Wales Shoreline Management Plan 2
- Gwynt y Mor Offshore Windfarm Project
- Thornton to Switch Island Link Road
- Crosby Water Centre, Seaforth Terminal and possible visitor centres at Formby/Marshside
- Lancashire Minerals and Waste Local Plan 2009-2021
- Lancashire Local Transport Plan 2 (2006-2010) (and forthcoming Joint Lancashire Local Transport Plan 2011 -2021 in collaboration with Blackpool and Blackburn with Darwen)
- Lancashire Climate Change Strategy (2009-2010)
- Lancashire Economic Strategy
- Ribble Coast and Wetlands Regional Park (2020)[7]

2.7.2 Blackpool International Airport is the fastest growing airport in the UK and is undergoing a multimillion pound refurbishment and modernisation to create new infrastructure, passenger facilities, new air routes, and car parking. This work has already seen a tenfold increase in passengers from 70,000 in 2002 to 700,000 in 2010, aiming to increase to 6 million passengers by 2014[8]. Limited information available on Blackpool airport website and also in Chapter 5 of Fylde Local Plan which supports airport expansion within defined geographic limits indicates there is an intention to improve their facilities and take on additional routes which implies additional traffic.

2.7.3 In practice, in combination assessment is of greatest relevance when the plan would otherwise be screened out because its individual contribution is inconsequential. For the purposes of this assessment, we have determined that, due to the nature of the identified impacts, the key other plans and projects relate to the additional housing and commercial/industrial allocations proposed for other Lancashire authorities over the lifetime of the Local Plan.

[6] Arup (2010) Liverpool City Regional Renewable Energy Study, completed on behalf of MEAS
[7] http://www.ribblecoastandwetlands.com/aboutus_vision
[8] http://www.blackpool.gov.uk/Services/M-R/RegenerationProjects/ [Accessed 08/09/10]

Table 7. Indicative forecast distribution of regional housing within Boroughs within adjacent to West Lancashire[9]

Local Authority	*Annual housing average*	*Total housing from 2003-2021*
South West Lancashire		
West Lancashire	300	5,4000
Sefton	500	9,000
Greater Preston		
Chorley	714	7,500
Preston	507	9,120
South Ribble	417	7,500
Central East Lancashire		
Blackburn and Darwen	489	8,800
Hyndburn	189	3,400
Ribble Valley	161	2,900
Fylde Peninsula		
Wyre	206	3,700
Blackpool	444	8,000
Fylde	306	5,500
Northern Manchester		
Wigan	978	17,900
Merseyside		
St Helens	570	10,260
Liverpool	1950	35,100

2.7.4 With regard to the specific issue of water resources (water abstraction as a pathway is described in Chapter 3), the long distance transfer pathways that exist for the supply of water to the Lancashire area and the fact that these same pathways or water sources also supply (or will supply more of) parts of Merseyside, Greater Manchester, West Cumbria, Cheshire means that development across a much broader area is required for the consideration of water resource impacts 'in combination', as follows:

- Joint Merseyside area – 80,460 homes to be delivered across the joint Merseyside area including Liverpool, Knowsley, Halton, St Helens, Wirral and Sefton;
- Greater Manchester area – 185,800 homes to be delivered across Manchester, Salford, Oldham, Rochdale, Tameside, Stockport, Trafford, Congleton, Macclesfield, Bolton, Bury and Wigan between 2003 and 2021;
- West Cumbria – 11,640 homes to be delivered across Allerdale, Barrow-in-Furness and Copeland between 2003 and 2021; and
- Cheshire – 31,800 homes to be delivered across Crewe & Nantwich, Chester, Ellesmere Port & Neston and Vale Royal between 2003 and 2021, over half (17,955) within Cheshire West

[9] North West of England Plan Regional Spatial Strategy to 2021. This plan has been revoked following election of the Coalition Government in May 2010, but provides an indication of the housing provision that LPAs have been working towards in development of Core Strategies to this date.

and Chester; and a further 17,955 homes are to be provided in Cheshire West and Chester by 2021.

2.7.5 It should be noted that, while the broad potential impacts of these other projects and plans will be considered, we do not propose carrying out HRA on each of these plans – we will however draw upon existing HRA that have been carried out for surrounding regions and plans.

3 Pathways of Impact

3.1 Introduction

3.1.1 In carrying out an HRA it is important to avoid confining oneself to effectively arbitrary boundaries (such as Local Authority boundaries) but to use an understanding of the various ways in which land use plans can impact on European sites to follow the pathways along which development can be connected with European sites, in some cases many kilometres distant. Briefly defined, pathways are routes by which a change in activity associated with a development can lead to an effect upon a European site. It is also important to bear in mind CLG guidance which states that the AA should be 'proportionate to the geographical scope of the [plan policy]' and that '*an AA need not be done in any more detail, or using more resources, than is useful for its purpose'* (CLG, 2006, p.610).

3.1.2 The following indirect pathways of impact are considered relevant to the Habitat Regulations Assessment of the Local Plan.

3.2 Disturbance

3.2.1 Habitat Regulation Assessments of Core Strategies tend to focus on recreational sources of disturbance as a result of new residents or an increasingly ageing population with more leisure time available. In the case of West Lancashire, future demographics have been predicted by CLG[11]. The population of West Lancashire is predicted to rise from 110,200 in 2008 to 114,200 in 2033. The largest increase change will be seen in the proportion of the population who are aged 60+, with a significant increase in the proportion aged 75+. This is the section of the population with the greatest amount of leisure time.

3.2.2 While this is a key factor, other sources of disturbance are also considered. Of relevance to the West Lancashire Local Plan, the potential for disturbance has been identified through policies relating to provision of land for gypsies, travellers and travelling showpeople, increases in commercial development and road transport adjacent to sensitive European sites, and disturbance from the development of onshore wind farms. Other sources of disturbance associated with increases in shipping and aircraft movement are not considered relevant to the policies presented in the West Lancashire Local Plan.

Mechanical/abrasive damage and nutrient enrichment

3.2.3 Most types of terrestrial European site can be affected by trampling, which in turn causes soil compaction and erosion. Walkers with dogs contribute to pressure on European sites through nutrient enrichment via dog fouling and also have potential to cause greater disturbance to fauna as dogs are less likely to keep to marked footpaths and also tend to move in a more erratic manner. Motorcycle scrambling and off-road vehicle use can cause serious erosion, as well as disturbance to sensitive species. Boats can also cause some mechanical damage to intertidal habitats through grounding.

[10] Department for Communities and Local Government. 2006. *Planning for the Protection of European sites: Appropriate Assessment*. http://www.communities.gov.uk/index.asp?id=1502244
[11] *Pers comms* Helen Rafferty West Lancashire Borough Council (20th August 2010)

3.2.4 There have been several papers published that empirically demonstrate that damage to vegetation in woodlands and other habitats can be caused by vehicles, walkers, horses and cyclists:

- Wilson & Seney (1994)[12] examined the degree of track erosion caused by hikers, motorcycles, horses and cyclists from 108 plots along tracks in the Gallatin National Forest, Montana. Although the results proved difficult to interpret, it was concluded that horses and hikers disturbed more sediment on wet tracks, and therefore caused more erosion, than motorcycles and bicycles.
- Cole et al (1995a, b)[13] conducted experimental off-track trampling in 18 closed forest, dwarf scrub and meadow and grassland communities (each tramped between 0 and 500 times) over five mountain regions in the US. Vegetation cover was assessed two weeks and one year after trampling, and an inverse relationship with trampling intensity was discovered, although this relationship was weaker after one year than two weeks indicating some recovery of the vegetation. Differences in plant morphological characteristics were found to explain more variation in response between different vegetation types than soil and topographic factors. Low-growing, mat-forming grasses regained their cover best after two weeks and were considered most resistant to trampling, while tall forbs (non-woody vascular plants other than grasses, sedges, rushes and ferns) were considered least resistant. Cover of hemicryptophytes and geophytes (plants with buds below the soil surface) was heavily reduced after two weeks, but had recovered well after one year and as such these were considered most resilient to trampling. Chamaephytes (plants with buds above the soil surface) were least resilient to trampling. It was concluded that these would be the least tolerant of a regular cycle of disturbance.
- Cole (1995c)[14] conducted a follow-up study (in 4 vegetation types) in which shoe type (trainers or walking boots) and trampler weight were varied. Although immediate damage was greater with walking boots, there was no significant difference after one year. Heavier tramplers caused a greater reduction in vegetation height than lighter tramplers, but there was no difference in effect on cover.
- Cole & Spildie (1998)[15] experimentally compared the effects of off-track trampling by hiker and horse (at two intensities – 25 and 150 passes) in two woodland vegetation types (one with an erect forb understory and one with a low shrub understory). Horse traffic was found to cause the largest reduction in vegetation cover. The forb-dominated vegetation suffered greatest disturbance, but recovered rapidly. Higher trampling intensities caused more disturbance.

[12] Wilson, J.P. & J.P. Seney. 1994. Erosional impact of hikers, horses, motorcycles and off road bicycles on mountain trails in Montana. Mountain Research and Development 14:77-88
[13] Cole, D.N. 1995a. Experimental trampling of vegetation. I. Relationship between trampling intensity and vegetation response. Journal of Applied Ecology 32: 203-214
Cole, D.N. 1995b. Experimental trampling of vegetation. II. Predictors of resistance and resilience. Journal of Applied Ecology 32: 215-224
[14] Cole, D.N. 1995c. Recreational trampling experiments: effects of trampler weight and shoe type. Research Note INT-RN-425. U.S. Forest Service, Intermountain Research Station, Utah.
[15] Cole, D.N., Spildie, D.R. 1998. Hiker, horse and llama trampling effects on native vegetation in Montana, USA. Journal of Environmental Management 53: 61-71

3.2.5 The total volume of dog faeces deposited on European sites can be surprisingly large. For example, at Burnham Beeches SAC, over one year, Barnard[16] estimated the total amounts of urine and faeces from dogs as 30,000 litres and 60 tonnes respectively. The specific impact on this SAC has not been quantified from local studies; however, the fact that habitats for which the SAC is designated appear to already be subject to excessive nitrogen deposition[17], suggests that any additional source of nutrient enrichment (including uncollected dog faeces) will make a cumulative contribution to overall enrichment. In European sites that are heavily used by dog walkers, degradation of valuable habitat types near car parks, entrance points and tracks can be seen that is attributable to nutrient enrichment. Such enrichment is visible near the main car parks around Chobham Common NNR in Surrey, for example, where heathland is lost and coarse grasses predominates. Any such contribution must then be considered within the context of other recreational sources of impact on European sites.

Recreational disturbance of wildlife

3.2.6 Animals for which internationally important European sites are designated comprise birds, natterjack toad and great crested newts.

Natterjack Toad and Great Crested Newt

3.2.7 Great crested newt and natterjack toad are relatively unaffected by noise and visual activity associated with recreation by comparison with bird species. Both of these amphibians may, however, be disturbed by trampling (discussed in 'Mechanical/Abrasive' subsection above). Natterjack toads, a qualifying species for the Ribble and Alt Estuaries SPA/ Ramsar site, could be sensitive to direct disturbance/trampling during the spring/summer months when toadlets leave breeding ponds. The breeding ponds are generally fenced off to protect them, but access to surrounding habitats is largely unrestricted except at Ainsdale NNR, which operates a permit system for visitors wishing to explore beyond the waymarked footpaths. Great crested newt (which is a qualifying species for Sefton Coast SAC) could be subject to similar disturbances.

Breeding Birds

3.2.8 Concern regarding the effects of disturbance on birds stems from the fact that they are expending energy unnecessarily and the time they spend responding to disturbance is time that is not spent feeding[18]. Disturbance therefore risks increasing energetic output while reducing energetic input, which can adversely affect the condition and ultimately survival of the birds. In addition, displacement of birds from one feeding site to others can increase the pressure on the resources available within the remaining sites, as they have to sustain a greater number of birds[19]. Moreover, the more time a breeding bird spends disturbed from its nest, the more its eggs are likely to cool and the more vulnerable they, or any nestlings, are to predators.

[16] Barnard, A. (2003) Getting the Facts - Dog Walking and Visitor Number Surveys at Burnham Beeches and their Implications for the Management Process. Countryside Recreation, 11, 16 - 19
[17] UK Air Pollution Information System. www.apis.ac.uk
[18] Riddington, R. *et al*. 1996. The impact of disturbance on the behaviour and energy budgets of Brent geese. *Bird Study* 43:269-279
[19] Gill, J.A., Sutherland, W.J. & Norris, K. 1998. The consequences of human disturbance for estuarine birds. *RSPB Conservation Review* 12: 67-72

Wintering Birds

3.2.9 The potential for disturbance may be less in winter than in summer, in that there are often a smaller number of recreational users. In addition, the consequences of disturbance at a population level may be reduced because birds are not breeding. However, winter activity can still cause important disturbance, especially as birds are particularly vulnerable at this time of year due to food shortages. Several empirical studies have, through correlative analysis, demonstrated that out-of-season recreational activity can result in quantifiable disturbance:

- Tuite et al[20] found that during periods of high recreational activity, bird numbers at Llangorse Lake decreased by 30% as the morning progressed, matching the increase in recreational activity towards midday. During periods of low recreational activity, however, no change in numbers was observed as the morning progressed. In addition, all species were found to spend less time in their 'preferred zones' (the areas of the lake used most in the absence of recreational activity) as recreational intensity increased.
- Underhill et al[21] counted waterfowl and all disturbance events on 54 water bodies within the South West London Water Bodies Special Protection Area and clearly correlated disturbance with a decrease in bird numbers at weekends in smaller sites and with the movement of birds within larger sites from disturbed to less disturbed areas.
- Evans & Warrington[22] found that on Sundays total water bird numbers (including shoveler and gadwall) were 19% higher on Stocker's Lake LNR in Hertfordshire, and attributed this to observed greater recreational activity on surrounding water bodies at weekends relative to week days. However, in this study, recreational activity was not quantified in detail, nor were individual recreational activities evaluated separately.
- Tuite et al[23] used a large (379 site), long-term (10-year) dataset (September – March species counts) to correlate seasonal changes in wildfowl abundance with the presence of various recreational activities. They found that shoveler was one of the most sensitive species to disturbance. The greatest impact on winter wildfowl numbers was associated with sailing/windsurfing and rowing.
- More recent research has established that human activity including recreational activity can be linked to disturbance of wintering waterfowl populations[24] [25].

Other activities causing disturbance

3.2.10 Human activity can affect birds either directly (e.g. through causing them to flee) or indirectly (e.g. through damaging their habitat). The most obvious direct effect is that of immediate mortality

[20] Tuite, C. H., Owen, M. & Paynter, D. 1983. Interaction between wildfowl and recreation at Llangorse Lake and Talybont Reservoir, South Wales. *Wildfowl* 34: 48-63
[21] Underhill, M.C. *et al.* 1993. *Use of Waterbodies in South West London by Waterfowl. An Investigation of the Factors Affecting Distribution, Abundance and Community Structure.* Report to Thames Water Utilities Ltd. and English Nature. Wetlands Advisory Service, Slimbridge
[22] Evans, D.M. & Warrington, S. 1997. The effects of recreational disturbance on wintering waterbirds on a mature gravel pitlake near London. International Journal of Environmental Studies 53: 167-182
[23] Tuite, C.H., Hanson, P.R. & Owen, M. 1984. Some ecological factors affecting winter wildfowl distribution on inland waters in England and Wales and the influence of water-based recreation. *Journal of Applied Ecology* 21: 41-62
[24] Footprint Ecology. 2010. Recreational Disturbance to Birds on the Humber Estuary
[25] Footprint Ecology, Jonathan Cox Associates & Bournemouth University. 2010. Solent disturbance and mitigation project – various reports.

such as death by shooting, but human activity can also lead to behavioural changes (e.g. alterations in feeding behaviour, avoidance of certain areas etc.) and physiological changes (e.g. an increase in heart rate) that, although less noticeable, may ultimately result in major population-level effects by altering the balance between immigration/birth and emigration/death[26].

3.2.11 The degree of impact that varying levels of noise will have on different species of bird is poorly understood except that a number of studies have found that an increase in traffic levels on roads does lead to a reduction in the bird abundance within adjacent hedgerows - Reijnen et al (1995) examined the distribution of 43 passerine species (i.e. 'songbirds'), of which 60% had a lower density closer to the roadside than further away. By controlling vehicle usage they also found that the density generally was lower along busier roads than quieter roads[27].

3.2.12 Activities other than recreation may also lead to disturbance of wildlife; for example, noise and visual disturbance from ports and airports, and disturbance from wind farms. Disturbance and displacement from feeding and roosting areas has been demonstrated with regard to wintering geese[28], curlew and hen harriers[29].

3.2.13 The sensitivity of wildlife to the noise of roads and aircraft varies greatly from species to species. However road and airport/aircraft noise can cause some wildlife – notably a range of grassland and woodland birds - to avoid areas near them, reducing the density of those animal populations[30]. Elsewhere, reduced breeding success has been recorded.

3.2.14 Animals can also be disturbed by the movement of ships. For instance, a DTI study of birds of the North West coast noted that: "Divers and scoters were absent from the mouths of some busier estuaries, notably the Mersey... Both species are known to be susceptible to disturbance from boats, and their relative scarcity in these areas... may in part reflect the volume of boat traffic in these areas"[31]. There is no port within the Ribble Estuary (historically Preston Port is likely to have caused such a disturbance, but this closed in 1981), however the Merseyside Ports are operational, and the policies supporting greater freight by shipping (e.g. as contained within the Joint Merseyside Core Strategies, but not West Lancashire Local Plan) are likely to result in an increase use of those ports.

3.2.15 Disturbing activities are on a continuum. The most disturbing activities are likely to be those that involve irregular, infrequent, unpredictable loud noise events, movement or vibration of long duration. Birds are least likely to be disturbed by activities that involve regular, frequent, predictable, quiet patterns of sound or movement or minimal vibration. The further any activity is from the birds, the less likely it is to result in disturbance.

3.2.16 The factors that influence a species response to a disturbance are numerous, but the three key factors are species sensitivity, proximity of disturbance sources and timing/duration of the potentially disturbing activity.

[26] Riley, J. 2003. Review of Recreational Disturbance Research on Selected Wildlife in Scotland. Scottish Natural Heritage.
[27] Reijnen, R. et al. 1995. The effects of car traffic on breeding bird populations in woodland. III. Reduction of density in relation to the proximity of main roads. Journal of Applied Ecology 32: 187-202
[28] Langston, R.H.W & Pullan, J.D. (2003). Effects of Wind Farms on Birds: Nature and Environment No. 139. Council of Europe.
[29] Madders, M. & Whitfield, D.P. 2006. Upland raptors and the assessment of wind farm impacts. Ibis 148 (Suppl. 1), 43-56.
[30] Kaseloo, P. A. and K. O. Tyson. 2004. Synthesis of Noise Effects on Wildlife Populations. FHWA Report.
[31] DTI (2006). Aerial Surveys of Waterbirds in Strategic Wind Farm Areas: 2004/05 Final Report

3.2.17 The distance at which a species takes flight when approached by a disturbing stimulus is known as the 'tolerance distance' (also called the 'escape flight distance') and differs between species to the same stimulus and within a species to different stimuli. These are given in Table 2, which compiles 'tolerance distances' from across the literature. It is reasonable to assume from this that disturbance is unlikely to be experienced more than a few hundred metres from the birds in question.

Table 2 - Tolerance distances of 21 water bird species to various forms of recreational disturbance, as described in the literature. All distances are in metres. Single figures are mean distances; when means are not published, ranges are given. [1] Tydeman (1978), [2] Keller (1989), [3] Van der Meer (1985), [4] Wolff et al (1982), [5] Blankestijn et al (1986).[32]

Species	Type of disturbance		
	Rowing boats/kayak	Sailing boats	Walking
Little grebe		60 – 100 [1]	
Great crested grebe	50 – 100 [2]	20 – 400 [1]	
Mute swan		3 – 30 [1]	
Teal		0 – 400 [1]	
Mallard		10 – 100 [1]	
Shoveler		200 – 400 [1]	
Pochard		60 – 400 [1]	
Tufted duck		60 – 400 [1]	
Goldeneye		100 – 400 [1]	
Smew		0 – 400 [1]	
Moorhen		100 – 400 [1]	
Coot		5 – 50 [1]	
Curlew			211 [3]; 339 [4]; 213 [5]
Shelduck			148 [3]; 250 [4]
Grey plover			124 [3]
Ringed plover			121 [3]
Bar-tailed godwit			107 [3]; 219 [4]
Brent goose			105 [3]

[32] Tydeman, C.F. 1978. *Gravel Pits as conservation areas for breeding bird communities*. PhD thesis. Bedford College
Keller, V. 1989. Variations in the response of Great Crested Grebes *Podiceps cristatus* to human disturbance - a sign of adaptation? *Biological Conservation* 49:31-45
Van der Meer, J. 1985. *De verstoring van vogels op de slikken van de Oosterschelde*. Report 85.09 Deltadienst Milieu en Inrichting, Middelburg. 37 pp.
Wolf, W.J., Reijenders, P.J.H. & Smit, C.J. 1982. The effects of recreation on the Wadden Sea ecosystem: many questions but few answers. In: G. Luck & H. Michaelis (Eds.), *Schriftenreihe M.E.L.F., Reihe A: Agnew. Wissensch* 275: 85-107
Blankestijn, S. *et al.* 1986. *Seizoensverbreding in de recreatie en verstoring van Wulp en Scholkester op hoogwatervluchplaatsen op Terschelling*. Report Projectgroep Wadden, L.H. Wageningen. 261pp.

Species	Type of disturbance		
	Rowing boats/kayak	Sailing boats	Walking
Oystercatcher			85 [3]; 136 [4]; 82 [5]
Dunlin			71 [3]; 163 [2]

3.3 Atmospheric pollution

3.3.1 The main pollutants of concern for European sites are oxides of nitrogen (NOx), ammonia (NH3) and sulphur dioxide (SO2). NOx can have a directly toxic effect upon vegetation. In addition, greater NOx or ammonia concentrations within the atmosphere will lead to greater rates of nitrogen deposition to soils. An increase in the deposition of nitrogen from the atmosphere to soils is generally regarded to lead to an increase in soil fertility, which can have a serious deleterious effect on the quality of semi-natural, nitrogen-limited terrestrial habitats.

Table 3. Main sources and effects of air pollutants on habitats and species

Pollutant	Source	Effects on habitats and species
Acid deposition	SO_2, NOx and ammonia all contribute to acid deposition. Although future trends in S emissions and subsequent deposition to terrestrial and aquatic ecosystems will continue to decline, it is likely that increased N emissions may cancel out any gains produced by reduced S levels.	Can affect habitats and species through both dry and wet deposition (acid rain). Some European sites will be more at risk than others depending on soil type, bedrock geology, weathering rate and buffering capacity.
Ammonia (NH_3)	Ammonia is released following decomposition and volatilisation of animal wastes. It is a naturally occurring trace gas, but levels have increased considerably with expansion in numbers of agricultural livestock. Ammonia reacts with acid pollutants such as the products of SO_2 and NO_X emissions to produce fine ammonium (NH_4+)- containing aerosol, which may be transferred much longer distances (can therefore be a significant trans-boundary issue.)	Adverse effects are as a result of nitrogen deposition leading to eutrophication. As emissions mostly occur at ground level in the rural environment and NH_3 is rapidly deposited, some of the most acute problems of NH_3 deposition are for small relict nature reserves located in intensive agricultural landscapes.
Nitrogen oxides NO_x	Nitrogen oxides are mostly produced in combustion processes. About one quarter of the UK's emissions are from power stations, one-half from motor vehicles, and the rest from other industrial and domestic combustion processes.	Deposition of nitrogen compounds (nitrates (NO_3), nitrogen dioxide (NO_2) and nitric acid (HNO_3)) can lead to both soil and freshwater acidification. In addition, NO_x can cause eutrophication of soils and water. This alters the species composition of plant communities and can eliminate sensitive species.

Pollutant	Source	Effects on habitats and species
Nitrogen (N) deposition	The pollutants that contribute to nitrogen deposition derive mainly from NO_X and NH_3 emissions. These pollutants cause acidification (see also acid deposition) as well as eutrophication.	Species-rich plant communities with relatively high proportions of slow-growing perennial species and bryophytes are most at risk from N eutrophication, due to its promotion of competitive and invasive species which can respond readily to elevated levels of N. N deposition can also increase the risk of damage from abiotic factors, e.g. drought and frost.
Ozone (O_3)	A secondary pollutant generated by photochemical reactions from NO_x and volatile organic compounds (VOCs). These are mainly released by the combustion of fossil fuels. The increase in combustion of fossil fuels in the UK has led to a large increase in background ozone concentration, leading to an increased number of days when levels across the region are above 40ppb. Reducing ozone pollution is believed to require action at international level to reduce levels of the precursors that form ozone.	Concentrations of O_3 above 40 ppb can be toxic to humans and wildlife, and can affect buildings. Increased ozone concentrations may lead to a reduction in growth of agricultural crops, decreased forest production and altered species composition in semi-natural plant communities.
Sulphur Dioxide SO_2	Main sources of SO_2 emissions are electricity generation, industry and domestic fuel combustion. May also arise from shipping and increased atmospheric concentrations in busy ports. Total SO_2 emissions have decreased substantially in the UK since the 1980s.	Wet and dry deposition of SO_2 acidifies soils and freshwater, and alters the species composition of plant and associated animal communities. The significance of impacts depends on levels of deposition and the buffering capacity of soils.

3.3.2 Sulphur dioxide emissions are overwhelmingly influenced by the output of power stations and industrial processes that require the combustion of coal and oil, as well (particularly on a local scale) as shipping.

3.3.3 Ammonia emissions are dominated by agriculture, with some chemical processes also making notable contributions. As such, it is unlikely that material increases in SO_2 or NH_3 emissions will be associated with Local Development Frameworks. NOx emissions, however, are dominated by the output of vehicle exhausts (more than half of all emissions). Within a 'typical' housing development, by far the largest contribution to NOx (92%) will be made by the associated road traffic. Other sources, although relevant, are of minor importance (8%) in comparison[33]. Emissions of NOx could therefore be reasonably expected to increase as a result of greater vehicle use as an indirect effect of the LDF.

3.3.4 According to the World Health Organisation, the critical NOx concentration (critical threshold) for the protection of vegetation is 30 μgm^{-3}; the threshold for sulphur dioxide is 20 μgm^{-3}. In addition,

[33] Proportions calculated based upon data presented in Dore CJ et al. 2005. UK Emissions of Air Pollutants 1970 – 2003. UK National Atmospheric Emissions Inventory. http://www.airquality.co.uk/archive/index.php

ecological studies have determined 'critical loads'[34] of atmospheric nitrogen deposition (that is, NOx combined with ammonia NH_3).

3.3.5 The National Expert Group on Transboundary Air Pollution (2001)[35] concluded that:

- In 1997, critical loads for acidification were exceeded in 71% of UK ecosystems. This was expected to decline to 47% by 2010.
- Reductions in SO_2 concentrations over the last three decades have virtually eliminated the direct impact of sulphur on vegetation.
- By 2010, deposited nitrogen was expected to be the major contributor to acidification, replacing the reductions in SO_2.
- Current nitrogen deposition is probably already changing species composition in many nutrient-poor habitats, and these changes may not readily be reversed.
- The effects of nitrogen deposition are likely to remain significant beyond 2010.
- Current ozone concentrations threaten crops and forest production nationally. The effects of ozone deposition are likely to remain significant beyond 2010.
- Reduced inputs of acidity and nitrogen from the atmosphere may provide the conditions in which chemical and biological recovery from previous air pollution impacts can begin, but the timescales of these processes are very long relative to the timescales of reductions in emissions.

3.3.6 Grice et al[36] [37] do, however, suggest that air quality in the UK will improve significantly over the next 15 years, due primarily to reduced emissions from road transport and power stations.

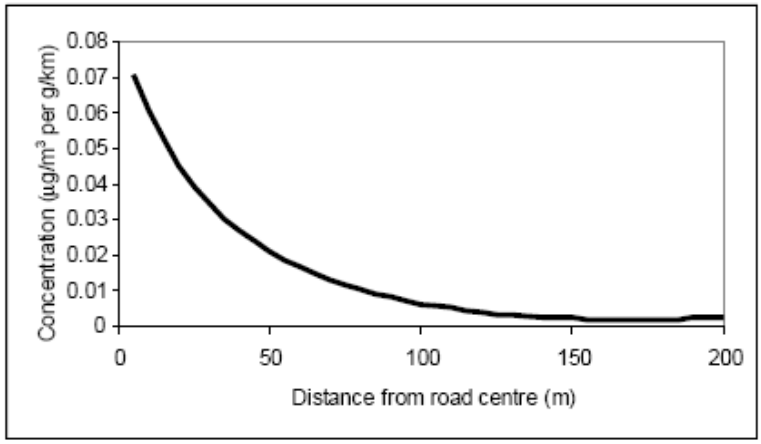
Local air pollution

3.3.7 According to the Department of Transport's Transport Analysis Guidance, *"Beyond 200m, the contribution of vehicle emissions from the roadside to local pollution levels is not significant"*[38].

3.3.8 This is therefore the distance that has been used throughout this HRA in order to determine whether European sites are likely to be significantly affected by traffic generated by development under the Local Plan. Such a distance threshold cannot currently be applied to shipping emissions and we must therefore restrict ourselves to assuming that the presence of a pathway indicates a possible issue.

[34] The critical load is the rate of deposition beyond which research indicates that adverse effects can reasonably be expected to occur
[35] National Expert Group on Transboundary Air Pollution (2001) Transboundary Air Pollution: Acidification, Eutrophication and Ground-Level Ozone in the UK.
[36] Grice, S., T. Bush, J. Stedman, K. Vincent, A. Kent, J. Targa and M. Hobson (2006) Baseline Projections of Air Quality in the UK for the 2006 Review of the Air Quality Strategy, report to the Department for Environment, Food and Rural Affairs, Welsh Assembly Government, the Scottish Executive and the Department of the Environment for Northern Ireland.
[37] Grice, S., J. Stedman, T. Murrells and M. Hobson (2007) Updated Projections of Air Quality in the UK for Base Case and Additional Measures for the Air Quality Strategy for England, Scotland, Wales and Northern Ireland 2007, report to the Department for Environment, Food and Rural Affairs, Welsh Assembly Government, the Scottish Executive and the Department of the Environment for Northern Ireland.
[38] www.webtag.org.uk/archive/feb04/pdf/feb04-333.pdf

Figure 5. Traffic contribution to concentrations of pollutants at different distances from a road (Source: DfT)



Diffuse air pollution

3.3.9 In addition to the contribution to local air quality issues, development can also contribute cumulatively to an overall change in background air quality across an entire region (although individual developments and plans are – with the exception of large point sources such as power stations – likely to make very small individual contributions). In July 2006, when this issue was raised by Runnymede District Council in the South East, Natural England advised that their Local Development Framework 'can only be concerned with locally emitted and short range locally acting pollutants'[39] as this is the only scale which falls within a local authority remit. It is understood that this guidance was not intended to set a precedent, but it inevitably does so since (as far as we are aware) it is the only formal guidance that has been issued to a Local Authority from any Natural England office on this issue.

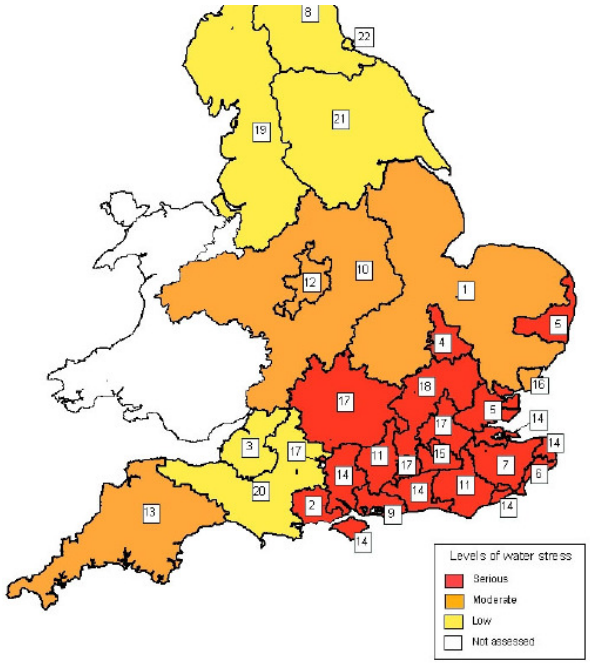
3.3.10 In the light of this and our own knowledge and experience, it is considered reasonable to conclude that it must be the responsibility of higher-tier plans to set a policy framework for addressing the cumulative diffuse pan-authority air quality impacts, partly because such impacts stem from the overall quantum of development within a region (over which individual districts have little control), and since this issue can only practically be addressed at the highest pan-authority level. Diffuse air quality issues will not therefore be considered further within this HRA.

3.4 Water resources

3.4.1 The North West UK is generally an area of low water stress (see Figure 6).

[39] English Nature (16 May 2006) letter to Runnymede Borough Council, 'Conservation (Natural Habitats &c.) Regulations 1994, Runnymede Borough Council Local Development Framework'.

Figure 6. Areas of water stress within England. It can be seen from this map that Lancashire is classified as being an area of low water stress (coded yellow).[40]



3.4.2 Initial investigation indicates that West Lancashire lies within United Utilities' Integrated Resource Zone, which serves 6.5 million people in south Cumbria, Lancashire, Greater Manchester, Merseyside and most of Cheshire. The Integrated Zone is supplied with around 1800 megalitres per day (Ml/d) of drinking water, of which about 500 Ml/d comes from water sources in Wales, about 600 Ml/d comes from sources in Cumbria, and the rest from sources in other parts of north-west England. This constitutes a large integrated supply network that enables substantial flexibility in distributing supplies within the zone.

3.4.3 Consultation with West Lancashire Council[41] and reference to the United Utilities Water Resources Management Plan (2009)[42] indicates that supply in the borough comes predominantly from the River Dee Estuary to the south and boreholes in Southport for the majority of the rest, with some of the eastern settlements taking supply from Rivington and Wigan.

3.4.4 The River Dee is a Special Area of Conservation and flows into the Dee Estuary, which is also designated as an SAC as well as an SPA (and pSPA extension) and Ramsar site. Four water companies abstract from sources that affect the River Dee: United Utilities, Dee Valley Water, Welsh Water and Severn Trent Water. Excessive abstraction from the Dee could therefore result in sufficient drawdown of water to damage the interest features of the River Dee and Bala Lake SAC (through desiccation, fish entrainment or a deterioration in water quality due to the lower

[40] Figure adapted from Environment Agency. 2007. Identifying Areas of Water Stress. http://publications.environment-agency.gov.uk/pdf/GEHO0107BLUT-e-e.pdf
[41] Pers comms Helen Rafferty, West Lancashire Borough Council 20th August 2010
[42] http://www.unitedutilities.com/Documents/WRMPMainReport.pdf

proportion of freshwater to sediment) and in turn reduce freshwater flows into the Dee Estuary to such a degree as to damage the interest features of that European site through an increase in salinity. These European sites have therefore been considered.

3.4.5 European sites that have been identified as hydraulically connected to the Southport boreholes comprise Sefton Coast SAC, Ribble and Alt Estuaries SPA/Ramsar and Martin Mere SPA/Ramsar.

3.4.6 In addition, the construction of the West East Link Main within the Integrated Resource Zone will further aid flexibility of water supply and break the traditional division in which Greater Manchester received water from Cumbria and Merseyside received water from the River Dee and Lake Vyrnwy. The West East Link Main became operational in April 2011. It is understood that Merseyside, West Cheshire, and potentially West Lancashire will obtain a greater proportion of their water supply from Lake District sources as a result of the new link main. This is likely to involve Haweswater and Thirlmere as principal reservoirs. Haweswater is within the catchment of the River Eden SAC and thus we have also included consideration of in combination drawdown and reduced flow impacts on this designated European site in this report arising form increases in water abstraction pressures.

3.5 Water quality

3.5.1 The Wastewater Treatment Works (WwTW) that serve West Lancashire generally discharge into individual local watercourses that comprise the Ribble and Alt Estuary Catchments, principally the River Douglas and its tributary the River Tawd:

- New Lane WwTW at Burscough discharges to Bow House Sluice, which has hydraulic connections to Martin Mere SPA/Ramsar;
- Hoscar WwTW near Parbold discharges to the River Douglas;
- Hill House WWTW at Great Altcar discharges to the River Alt[43].

3.5.2 Appendix 4 indicates the River Douglas catchment. WwTW deal with sewage as well as industrial discharge and other foul water flows. This has obvious potential water quality considerations relating to the Martin Mere SPA/Ramsar, Ribble and Alt Estuaries SPA/Ramsar and, through hydraulic connections, Liverpool Bay SPA.

3.5.3 Increased amounts of housing or business development can lead to reduced water quality of rivers and estuarine environments. Sewage and industrial effluent discharges can contribute to increased nutrients on European sites leading to unfavourable conditions. In addition, diffuse pollution, partly from urban run-off, has been identified during an Environment Agency Review of Consents process as being a major factor in causing unfavourable condition of European sites.

3.5.4 The quality of the water that feeds European sites is an important determinant of the nature of their habitats and the species they support. Poor water quality can have a range of environmental impacts:

[43] Pers comms Helen Rafferty, West Lancashire Borough Council 20th August 2010

- At high levels, toxic chemicals and metals can result in immediate death of aquatic life, and can have detrimental effects even at lower levels, including increased vulnerability to disease and changes in wildlife behaviour. Eutrophication, the enrichment of plant nutrients in water, increases plant growth and consequently results in oxygen depletion. Algal blooms, which commonly result from eutrophication, increase turbidity and decrease light penetration. The decomposition of organic wastes that often accompanies eutrophication deoxygenates water further, augmenting the oxygen depleting effects of eutrophication. In the marine environment, nitrogen is the limiting plant nutrient and so eutrophication is associated with discharges containing available nitrogen; in the freshwater environment, phosphorus is usually a principal cause of eutrophication;
- Some pesticides, industrial chemicals, and components of sewage effluent are suspected to interfere with the functioning of the endocrine system, possibly having negative effects on the reproduction and development of aquatic life, and subsequently bird life;
- Increased discharge of treated sewage effluent can result both in greater scour (as a result of greater flow volumes) and in high levels of macroalgal growth, which can smother the mudflats of value to SPA birds.

3.5.5 For wastewater treatment works close to capacity, further development may increase the risk of effluent escape into aquatic environments. In many urban areas, sewage treatment and surface water drainage systems are combined, and therefore a predicted increase in flood and storm events could increase pollution risk.

3.5.6 However, it is also important to note that the situation is not always simple – for European sites designated for waterfowl, a WwTW discharge can actually be a useful source of food and birds will often congregate around the outfall. In addition, while nutrient enrichment does cause considerable problems on the south coast (particularly in the Solent) due to the resulting abundance of smothering macroalgae, it is not necessarily a problem in other areas where the macroalgae are broken up by tidal wave action and where colder and more turbid water limit the build-up in the first place.

3.5.7 Nonetheless, at this screening stage, water quality impacts are considered to be an issue that requires investigation.

3.6 Coastal squeeze and Loss of Supporting Habitat

Coastal Squeeze

3.6.1 Rising sea levels can be expected to cause intertidal habitats (principally saltmarsh, sand dunes and intertidal mudflats) to migrate landwards. However, in built-up areas, such landward retreat is often rendered impossible due the presence of sea walls and other flood defences. In addition, development frequently takes place immediately behind the sea wall, so that the flood defences cannot be moved landwards to accommodate managed retreat of threatened habitats. The net result is that the quantity of saltmarsh, sand dunes and mudflat adjacent to built-up areas will progressively decrease as sea levels rise. This process is known as ‘coastal squeeze’. In areas where sediment availability is reduced, the 'squeeze' also includes an increasingly steep beach profile and foreshortening of the seaward zones.

3.6.2 Intertidal habitat loss is mainly occurring in the south and east of the UK, particularly between the Humber and Severn. North-west England (including the Ribble Estuary), south Wales, the Solent in Hampshire, the southeast around the Thames Estuary and large parts of East Anglia are also affected, but to a lesser degree.

3.6.3 Defra's current national assessment is that the creation of an annual average of at least 100 ha of intertidal habitat associated with European sites in England that are subject to coastal squeeze is likely to be required to protect the overall coherence of the Natura 2000 network, together with any more specifically identified measures to replace losses of terrestrial and supra-tidal habitats,. This assessment takes account of intertidal habitat loss from European sites in England that is caused by a combination of all flood risk management structures and sea level rise. The assessment will be kept under review, taking account of the certainty of any adverse effects and monitoring of the actual impacts of plans and projects[16].

3.6.4 Coastal squeeze cannot be assessed in detail until actual site allocations exist, but it can be at least broadly considered with respect to the Ribble and Alt Estuaries SPA/Ramsar located partly within the Local Plan area.

Loss of Supporting Habitat

3.6.5 Qualifying bird species of SPA/Ramsar sites may use land outside of the designated boundary as supporting habitat. This may comprise either adjacent land, or discrete areas of semi natural habitat or agricultural land within the borough. Consultation with the County Bird Recorder for West Lancashire[44] identified that much the agricultural land within the borough supports pink-footed geese (*Anser brachyrhynchus*) and whooper swan (*Cygnus cygnus*) which are qualifying bird species for Martin Mere SPA/Ramsar and Ribble and Alt Estuary SPA/Ramsar.

- With respect to pink-footed geese, the species has moved from the traditional saltmarsh habitat to feed inland on farmland since the late 1800s. In recent decades, birds have fed on agricultural crops, such as fertilised grassland and cereals. Local feeding studies have demonstrated seasonal changes in the diet of pink-footed geese apparently responding to, and in part driven by, seasonal changes in the habitats available[45]. It should be noted that pink-footed geese have been accused of reducing crop yields and puddling soils. In autumn when they feed on fields containing post-harvest root crops, such as potatoes and waste sugar beet, they do no harm to crop yields, but during mid-winter and spring they graze on growing cereals and come into direct competition with livestock for the spring growth of grass leys.

- With respect to whooper swan, they traditionally wintered on lakes, estuaries, marshes and floodplains, where they fed on aquatic vegetation, but use of agricultural land has become far more frequent since the 1960s. Waterbodies remain important as roost sites, but the swans now feed mainly on farmland (on pasture, cereal stubble and root crops) during the winter months[46]

[16] Defra. 2005. Coastal Squeeze – Implications for Flood Management. http://www.defra.gov.uk/environ/fcd/policy/csqueeze.pdf
[44] Pers Comms Steve White (West Lancashire County Bird Recorder), 1st February 2011 swhite@lancswt.org.uk 0151 9203769
[45] http://www.wwt.org.uk/research/monitoring/species/pinkfoot.asp
[46] http://www.wwt.org.uk/whooper/whooper-swans

3.6.6 Key areas for these species within the borough vary on an annual basis depending on agricultural practices. Appendix 6 includes a summary map showing important populations of sensitive wintering birds in Lancashire[47]. One area in particular, Simonswood Moss in the south of the borough was identified as consistently supporting roosting pink-footed geese in internationally important numbers - the five-year mean peak count of geese at Simonswood Moss for the period 2005/06 to 2009/10 is 6300, compared with a threshold for international importance of 2700[48].

[47] RSPB (2008) Wind Turbines, Sensitive Bird Populations and Peat Soils: A Spatial Planning Guide for on-shore wind farm development in Lancashire, Cheshire, Greater Manchester and Merseyside.

[48] Source: WD Forshaw, annual surveys of grey geese in Lancashire

4 Martin Mere SPA and Ramsar

4.1 Introduction

4.1.1 Martin Mere SPA and Ramsar (119.89 ha) is located north of Ormskirk in West Lancashire, North West England. The outstanding importance of Martin Mere is its large and diverse wintering, passage and breeding bird community.

4.1.2 It occupies part of a former lake and mire that extended over some 1,300 ha of the Lancashire Coastal Plain during the 17th century. In 1972 the Wildfowl and Wetlands Trust purchased 147 hectares of the former Holcrofts Farm, consisting mainly of rough damp pasture, with the primary aim of providing grazing and roosting opportunities for wildfowl. Since acquisition, the rough grazed pastures have been transformed by means of positive management into a wildfowl refuge of international importance. Areas of open water with associated muddy margins have been created, whilst maintaining seasonally flooded marsh and reed swamp habitats via water level control. In September 2002, an additional 63 hectares of land were purchased on the southernmost part of the refuge at Woodend Farm, with the aid of the Heritage Lottery Fund, to restore arable land to a variety of wetland habitats including seasonally flooded grassland, reedbed, wet woodland and open water habitats.

4.1.3 The complex now comprises open water, seasonally flooded marsh and damp, neutral hay meadows overlying deep peat. It includes a wildfowl refuge of international importance, with a large and diverse wintering, passage and breeding bird community. In particular, there are significant wintering populations of Bewick's swan (*Cygnus columbianus bewickii*), whooper swan (*Cygnus cygnus*), pink-footed geese (*Anser brachyrhynchus*) and pintail (*Anas acuta*). There is considerable movement of wintering birds between this site and the nearby Ribble and Alt Estuaries SPA/Ramsar.

4.2 Reasons for Designation

4.2.1 This site qualifies for SPA under Article 4.1 of the Directive (79/409/EEC) by supporting populations of European importance of the following over wintering birds listed on Annex I of the Directive:

- Bewick's swan, 449 individuals representing at least 6.4% of the wintering population in Great Britain (5 year peak mean 1991/2 - 1995/6)
- Whooper swan 621 individuals representing at least 11.3% of the wintering population in Great Britain (5 year peak mean 1991/2 - 1995/6)

4.2.2 This site also qualifies under Article 4.2 of the Directive (79/409/EEC) by supporting populations of European importance of the following over wintering migratory species:

- Pink-footed geese, 25,779 individuals representing at least 11.5% of the wintering Eastern Greenland/Iceland/UK population (5 year peak mean 1991/2 - 1995/6)
- Pintail 978 individuals representing at least 1.6% of the wintering North Western Europe population (5 year peak mean 1991/2 - 1995/6)

4.2.3 The assemblage of birds present makes the site a wetland of international importance. The area qualifies under Article 4.2 of the Directive (79/409/EEC) by regularly supporting at least 20,000 waterfowl. Over winter, the area regularly supports 46,196 individual waterfowl (5 year peak mean 1991/2 - 1995/6) including: pochard (*Aythya farina*), mallard (*Anas platyrhynchos*), teal (*Anas crecca*), wigeon (*Anas penelope*), pintail, pink-footed geese, whooper swan, and Bewick's swan.

4.2.4 It is additionally designated as a Ramsar European site in accordance with Criterion 5 (UN, 2005) for supporting up to 25,306 waterfowl (5-year peak mean 1998/99 – 2002/03) in winter, and in accordance with Criterion 6 for supporting internationally important populations of pink-footed geese, Bewick's swan, whooper swan, Eurasian wigeon and northern pintail.

4.3 Historic Trends and Existing Pressures

4.3.1 Since the site's designation as a Wetland of International Importance under the Ramsar Convention and as a Special Protection Area in 1985, there has been a gradual increase in the usage of the mere by wildfowl and wading birds as a direct consequence of positive management. The site is geared towards attracting visitors, with a number of hides from which the Mere and its birds may be viewed. In addition to the wild species for which it is designated, the site holds a collection of about 1,500 captive birds of 125 species from around the world, as well as a number of other visitor attractions. This is because the site is a Wildfowl and Wetlands Trust reserve.

4.3.2 The environmental pressures experienced by Martin Mere in terms of its bird community are likely to be those common to all reedbed and wetland habitats as set out in Lancashire BAP:

- Direct loss of characteristic species as a result of nutrient enrichment from agricultural fertilisers and run-off;
- Loss of reedbed due to weakening of stems through poor growth conditions;
- Natural succession to woodland;
- Changes in farming practice; grazing management is largely dependent upon cattle from surrounding farms;
- Reduced water level caused by surface and ground water abstractions or agricultural drainage, which causes the habitat to dry out and begin succession towards 'alder/willow carr woodland, hastening the overall process of succession towards broadleaved woodland';
- Removal of reeds and other vegetation from whole stretches of watercourses (e.g. neighbouring the site) through routine management of ditches and riverbanks (in some instances);
- Erosion of reedbeds due to increased recreational use of waterbodies and waterways (notably canals) including the site and immediate environs;
- Habitat loss or degradation due to the isolation of reedbeds as a result of losses elsewhere, in turn due to the above or other factors.

4.3.3 In addition, the following site-specific pressures have been documented:

- Invasive plant species: Regular herbicide control of trifid burr marigold is necessary in order to prevent this plant from invading lake/ scrape margins to the detriment of bird populations;
- Water quality problems: water levels on the Mere are controlled to maintain optimum levels throughout the winter period, then lowered progressively in summer to expose marginal mud and the underlying damp pastures and maintain a mosaic of shallow pools. Ditches are regularly cut and dredged and all areas of pasture are positively managed under a Countryside Stewardship Scheme. Nutrients brought in with the water supply from the surrounding arable farmland and inadequate sewage treatment adds considerably to the large deposits of guano from wintering waterfowl. This results in the site being highly eutrophic with extremely poor water quality conditions. The Wildfowl and Wetlands Trust have started to address this issue with the creation of reedbed water filtration systems and a series of settlement lagoons helps to reduce suspended solids of effluent water arising from waterfowl areas;
- Due to the eutrophication described above, the site is also at risk of waterborne disease that could affect wildfowl, although no such outbreaks have been recorded.

4.4 Nature Conservation Objectives

4.4.1 The main nature conservation objectives are:

- to prevent a significant reduction in numbers of all qualifying species of over-wintering birds from a reference level;
- to prevent significant damage to (or decrease in the extent) of habitat, the hydrology or the landscape features from a reference level; and
- to maintain the presence and abundance of aquatic plants and freshwater invertebrates, whereby the populations do not deviate significantly from a reference level.

4.5 Key Potential Pressures from West Lancashire

4.5.1 Martin Mere SPA/ Ramsar is located within the centre of the West Lancashire Local Plan Area. Development within West Lancashire could lead to effects on Martin Mere SPA and Ramsar European site through the following pathways:

- Direct or indirect harm or disturbance to any Birds Directive Annex I species that, for any reason such as breeding or feeding, spend time both within Martin Mere and other areas of supporting habitat within West Lancashire (or otherwise separate populations that interbreed) through changes in land use (e.g. greater recreational use of supporting habitat, rural development, pressures of gypsies, travellers and travelling showpeople);
- Loss of such areas of supporting habitat (e.g. due to development on agricultural land as yet unquantified);
- Disturbance to birds from increased recreational pressure within Martin Mere due to a rise in population within the borough (in particular a rise in the retired portion of the population with greater leisure time);

- Development of wind turbines within the borough resulting in disturbance to flight paths, or direct strike to qualifying bird species;
- A rise in population and industry within the borough, with associated greater discharge to associated watercourses resulting in pollution and eutrophication, exacerbating existing pressures (e.g. New Lane Burscough treatment works discharge to Bow House Sluice, which links to Martin Mere);
- A rise in population and industry within the borough will result in a greater pressure on water abstraction, including potential reactivation of the Southport boreholes;
- A rise in population resulting in a greater net use of motorised vehicles resulting in air pollution pressures and atmospheric nitrogen deposition exacerbating existing eutrophication pressure.

4.6 Direct Disturbance of Qualifying Bird Species/ Excessive Recreational Pressure

4.6.1 New housing and employment development will contribute to a rise in population. There is expected to be a demographic shift to a greater proportion of retired people with greater leisure time. This rise in population, alongside policies enhancing recreation and tourism within the borough has the potential to exacerbate existing recreational pressures. Martin Mere is specifically geared towards attracting visitors and is managed by the Wildfowl and Wetland Trust with numerous hides, captive bird visitor areas and educational programmes[49]. Martin Mere has received numerous visitor awards including recent Lancashire and Blackpool Tourism Awards 2010/11 for the Best Visitor Experience award: Swan Spectacular[50] and Gold Green Tourism Business Scheme 2010[51]. Martin Mere reserve is also cited in papers as a wildlife tourist industry exemplar within the UK[52]. Consultation with the Head of Reserves Management a the Wildfowl and Wetland Trust (who manage the site)[53] identified that Martin Mere receives 170,000 visitors a year and recent investment from NW Development Agency has been with a specific vision to increase this to 200,000 by 2013.

4.6.2 The site has good control over most visitors to the reserve who are screened out from the reserve area and access to the site is strictly controlled in terms of what visitors are able to do. Dense vegetation screens the site from adjacent footpaths and small roads limiting disturbance form outside of the site. The relatively high cost (approximately £10 per adult entry) and relatively small car park size (with respect to the size of reserve) is also likely to limit visitor numbers. A review of the site layout plan indicates that visitor numbers are controlled through car park size, entrance costs and also limiting access to particular areas of the site. During discussion with Natural England (over the St Helens Local Plan HRA54) there was a general view that recreation was sufficiently well managed on this site that recreational pressure was not an issue. Consultation with head of Head of Reserves Management (Wildfowl and Wetlands Trust) confirmed that an increase in visitors could be accommodated without being detrimental to qualifying species or habitats. However, three areas were identified where this may not be the case:

- The boundaries to the site. Although generally this is farmland, there are areas bounded by roads and areas with public footpaths. The farmland can be a particular problem where the shooting rights are actively taken-up. Disturbance from shooting would be a significant problem should this occur.
- Aerial activities (light aircraft, helicopters, hot air balloons are an issue and may become more problematic with greater leisure time and disposable incomes).
- There is a public footpath that cuts through part of the reserve. The WWT have provided an alternative route that has been able to screen walkers as well as provide viewing areas. It is anticipated that this will be accepted and reduce disturbance to the site.

[49] http://www.wwt.org.uk/old_files/uploads/martin-mere.pdf
[50] http://www.wwt.org.uk/visit-us/martin-mere/news/wwt-martin-mere-gets-highly-commended-in-tourism-awards
[51] http://www.wwt.org.uk/visit-us/martin-mere/news/its-gold-for-wwt-martin-mere
[52] http://www.ukeconet.co.uk/images/stories/research/tourism/EuroMed_2008_Marseille.pdf
[53] *Pers Comms*, Emma Hutchinson, 10th February 2011
[54] URS/Scott Wilson (2010) HRA of St Helens Local Plan

4.6.3 With respect to the first two items, these are considered to be very specialist recreational activities. It would be disproportionate to relate increase in these activities (to a level where they would cause significant likely effects) to policies within the Local Plan that respond to increases in the population of West Lancs by 7% (i.e. new housing and employment). New housing and employment development policies are therefore not considered to require mitigation with respect to reducing recreational disturbance associated with aerial activities and shooting in the areas supporting qualifying bird species at Martin Mere SPA/Ramsar.

4.6.4 With respect to the public footpath through the reserve, Policies EN2 and EN3 seek to secure additional areas of open spaces and green links. However the biodiversity element of this policy seeks to protect and safeguard all European sites including the provision of supporting habitats and green corridors. EN2 specifically states that '*The development of recreation will be targeted in areas which are not sensitive to visitor pressures - the protection of biodiversity will be considered over and above the development of recreation in sensitive areas of Natura 2000 and Ramsar Sites or where conflict arises'*. It is therefore considered that his policy provides an adequate policy framework to enable us to conclude there would be no likely significant effects on Martin Mere SPA/Ramsar.

4.7 Bird Strike

4.7.1 The Local Plan promotes renewable energy development (Policy EN1). Should this include wind turbine construction, a pathway could exist for the construction of onshore turbines to disrupt flight paths and displace qualifying bird species. The Liverpool City Regional Renewable Energy Options[55] identifies two wind development priority zone within West Lancashire, one of which is located approximately 3km east of Martin Mere. These are indicated in the the Wind Priority Zones Figure (Appendix 5). However, the Council has confirmed that there are no specific proposals for wind energy in the district at this current time. Moreover, Policy EN1 states that '*proposals for renewable, low carbon or decentralised energy schemes will be supported provided they do not result in unacceptable harm to the local environment which cannot be successfully mitigated*'. It also states that *'Wind energy … developers are required to provide evidence to support their proposals considering the following: … ecological impact including migration routes of protected bird species'* and adds that the impact must be addressed satisfactorily. Combined with the strong wording protecting the environment in Policy EN2, it is considered that the Local Plan contains appropriate mechanisms to ensure the forthcoming renewable energy development policies, whether alone or in combination with other land use plans, would not result in likely significant effects on the interest features of Martin Mere SPA/Ramsar.

4.8 Loss of Supporting Habitat

4.8.1 There is the potential for development arising from the Local Plan (on land either immediately adjacent to the Martin Mere SPA/Ramsar designation or elsewhere in the borough) to result in loss of supporting habitat for qualifying bird species, in particular pink-footed geese and whooper swan.

4.8.2 Releases of land under the following policies have the potential to result in loss of supporting habitat for these species:

[55] Arup (2001) Liverpool City Regional Renewable Energy Options Stage 2 (Drawing Title CHP/DH & Wind Priority Zones, Final Issue) (date 27/5/2010)

- SP3 Yew Tree Farm, Burscough
- GN2 Safeguarded Land
- EC1 The Economy and Employment Land (e.g. Simonswood Employment Area; greenbelt release around Skelmersdale, Ormskirk, Burscough);
- EC2 The Rural Economy;
- RS1 Residential Development;
- RS4 Provision for Gypsies Travellers and Travelling Showpeople;
- IF2 Enabling Sustainable Transport Choice (in particular with respect to the A570 Ormskirk bypass); and
- EN3 Provision of Green Infrastructure and Open Recreation Space.

4.8.3 Appendix 8 contains a detailed assessment of all sites named in these policies. The vast majority of sites were assessed as unlikely to provide supporting habitat. Some sites were identified as not currently providing supporting habitat, but having the potential to provide supporting habitat in future (due to the presence of suitable habitats); or as being adjacent to potential supporting habitat identified as sensitive for wintering birds by the RSPB. A plan showing sensitive areas as identified by the RSPB is included in Appendix 6. It should be noted that only a broad indication of risk can be identified at this stage. The RSPB map was produced as a guide for on-shore windfarm developments; the spatial scale of the land identified as 'bird sensitive' is appropriate to such a high-level purpose. Not all of the land within the identified 'bird sensitive' blocks actually functions as supporting habitat.

4.8.4 Appendix 8 also analyses the potential effects of development of sites named in Policy EN3 for green infrastructure and recreational purposes. All of the sites are considered unlikely to provide supporting habitat for the SPA/ Ramsar site. One site, Bescar Lane, was identified as having the potential to result in disturbance of wintering birds potentially using adjacent sensitive habitats.

4.8.5 The site consists of a tiny pocket of agricultural land at the crossroads of Bescar Lane and Wood Moss/ Drummersdale Lane. It is located in an area identified as sensitive for pink-footed geese and whooper swan and the habitat on the site consists of large arable fields which appear suitable for these species. The presence of residential development immediately adjacent to the site, however, is unfavourable to the presence of significant numbers of wintering birds, due to the likely high levels of human activity in the area. That said, the proposed scheme could have the potential for disturbance to wintering birds using adjacent habitats.

4.8.6 Wintering birds are highly mobile and move between roosting/ feeding sites according to weather, food availability, etc. Therefore, provided that there is sufficient supporting habitat in the overall area, temporary disturbance of a small area of supporting habitat is not generally considered to affect SPA/ Ramsar site integrity. Additionally, there are a number of measures available to prospective developers to avoid and/or mitigate noise and visual disturbance. Taking this into account, it is unlikely that development of the site would have a tangible effect on the overall integrity of SPA/ Ramsar sites. However, there is a possibility of in-combination effects with other future developments which also have the potential to result in disturbance (see below). This

can only be assessed when the timing of development proposals is known, i.e. at planning application stage.

4.8.7 In meeting the needs of gypsies, travellers and travelling showpeople (Policy RS4), there is a theoretical pathway for the potential effects on qualifying bird species through loss of supporting habitat within areas identified as sensitive for wintering birds.

4.8.8 Scarisbrick is located approximately 3km west of Martin Mere in a whooper swan sensitive area. The village is within 1km of areas identified as sensitive for pink-footed geese. Scarisbrick is located within a large area of Green Belt arable land which includes areas within the corridor of the A5147 and A570. For example, the land at Pool Hey Crossing is within the pink-footed geese designated sensitive area, adjacent to arable land offering suitable habitat for qualifying bird species. The M58 corridor includes the area of Green Belt around Bickerstaffe Moss which has been identified as a sensitive area for pink-footed geese. Burscough village is located approximately 2km from Martin Mere SPA/ Ramsar site and identified sensitive areas for whooper swan and pink-footed geese overlap with parts of the village and immediate environs.

4.8.9 Whilst Policy RS4 makes it clear that sites proposed under this policy should meet the highest standards for environmental and social factors, given that all three areas mentioned in the policy overlap in part with areas identified as sensitive for wintering birds, there is potential for this policy to result in loss of supporting habitat and/or disturbance to wintering birds. Until sites are proposed, however, no realistic assessment of potential effects can be undertaken, and it is not considered reasonable to apply a blanket rule prohibiting development of sites located within the identified sensitive areas. This is because the distribution of qualifying bird species can and does change over time.

4.8.10 In order to ensure compliance with legislation, national policy and policy EN2 of the Local Plan when determining planning applications submitted in connection with Policy RS4, the applicant should submit an Ornithology Report containing sufficient information to demonstrate that consideration has been given to the potential for effects on wintering birds and, if necessary, that suitable mitigation measures will be implemented to address this to the satisfaction of the Council. This will allow the Council to screen the project against the Habitats Regulations (or current equivalent legislation) and relevant national and local policy.

4.8.11 It will be necessary for the Council to take potential effects on wintering birds into account in determining future planning applications at these sites, in particular the potential for in-combination effects arising from the development of a number of sites at the same time.

4.8.12 In order to address this, the Council has incorporated the following supporting text into the Local Plan: *'Where there is reason to suspect that there may be protected species on or close to a proposed development site, planning applications should be accompanied by a survey assessing the presence of such species and, where appropriate, making provision for their needs. In particular, the HRA of the Local Plan identifies a series of sites (in Appendix 8 of that document) where the potential of the site to supporting important habitat for birds associated with Martin Mere SPA cannot be ruled out at this stage. For those sites (and any others which may support suitable habitat) the applicant should submit an Ornithology Report containing sufficient information to demonstrate that consideration has been given to the potential for effects on SPA birds and, if necessary, that suitable mitigation measures will be*

implemented to address this to the satisfaction of the Council and ensure no adverse effect on site integrity. The report could, depending on the site, be a confirmation that no suitable habitat is in fact present and therefore no loss of supporting habitat would result'.

4.8.13 This will allow the Council to screen the project against the Habitats Regulations (or current equivalent legislation) and relevant national and local policy. It is concluded that, bearing in mind the wording of policy EN2, the Local Plan contains an appropriate policy framework to avoid development resulting in loss of supporting habitat for Martin Mere SPA/Ramsar and thus a likely significant effect on the interest features of the site.

4.9 Deterioration in Water Quality

4.9.1 Policies within the Local Plan that have the potential to result in water quality deterioration, affecting Martin Mere SPA/Ramsar habitats, which could, in turn, affect qualifying bird species.

4.9.2 Policies that would encourage development within town centres of the borough may result in a greater discharge of wastewater to watercourses with hydraulic connections to the Sluice (which is connected to Martin Mere). In particular, Burscough is located 1km south east of Martin Mere and surface water from the town currently discharges into the Sluice.

4.9.3 It should be noted that the majority of the processes that could result in a deterioration of water quality (unregulated waste water discharges, surface water runoff and pollution from construction activities) are either regulated through statutory requirements or can be mitigated through standard construction techniques and environmental good practice. These impacts are therefore unlikely. Avoiding an adverse effect is largely in the hands of the water companies (through their investment in future sewage treatment infrastructure) and Environment Agency (through their role in consenting effluent discharges). However, local authorities can also contribute through ensuring that sufficient wastewater treatment infrastructure is in place prior to development being delivered through the Local Plan. In the case of West Lancashire, this is specifically dealt with in Policy IF3 (Service Accessibility and Infrastructure for Growth):

New development proposed in the areas of Ormskirk, Burscough, Rufford and Scarisbrick that are affected by limitations on wastewater treatment must be phased to ensure delivery of the development coincides with delivery of an appropriate solution which meets the requirements of the Council, the Undertaker and the Regulators.

4.9.4 It is concluded that, with the wording of Policy IF3 (Service Accessibility and Infrastructure for Growth) the Local Plan contains appropriate mechanisms in place to avoid development resulting in a deterioration in water quality, in habitats within Martin Mere SPA/Ramsar and thus achieve no likely significant effect on the SPA/Ramsar.

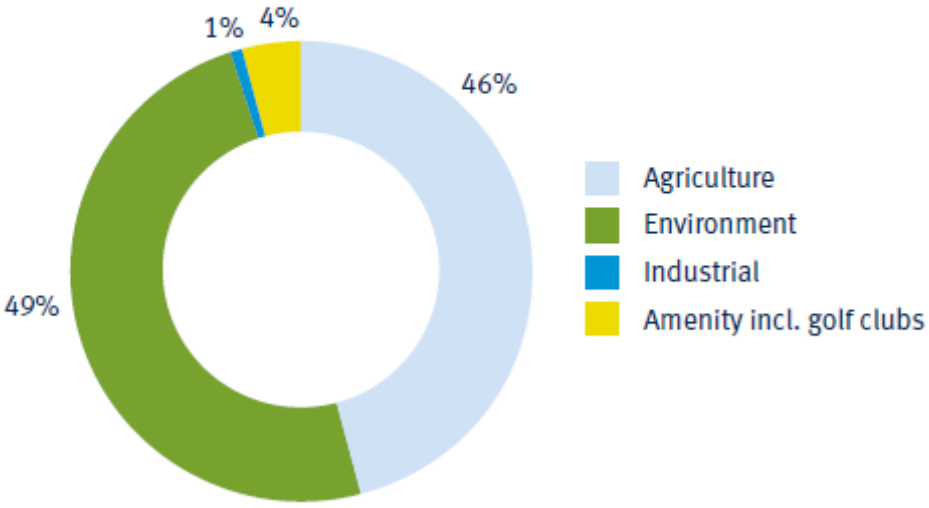
4.10 Water Abstraction

4.10.1 A rise in population and industry within the borough would place a greater pressure on water abstraction. At present, Martin Mere suffers from a low water table due to over-abstraction, although this is largely due to agricultural abstraction.

4.10.2 Martin Mere is associated with the Crossens CAMS area and is situated within 'Level Dependent Management Unit 2: Sluice' (LDMU 2)[56]. LDMU 2 contains The Sluice watercourse and is 34.22km^2 in area. The Sluice unit is served by the Crossens pumping station located at Banks. This serves the entire area of 131km^2 by draining the three main channels the Sluice, Three Pools and The Back Drain. All other drains feed into these three and they can be controlled independently or by means of a penstock operated together. This allows great flexibility in terms of operational management. The Sluice is therefore a main carrier. This unit has a "high" sensitivity to abstraction. There are forty-nine surface water licences in this unit. The largest use of water is non-consumptive as it is used to pump water around Martin Mere Wildlife Reserve. The largest consumptive use of water in this unit is for spray irrigation.

4.10.3 Figure 3 below shows that the overwhelming majority of abstractions in this entire CAMS area are associated with agricultural irrigation or 'environment' (mainly supporting the water levels in Martin Mere itself). A negligible amount is used for industry (1%) and nothing for the Public Water Supply.

Figure 3 Percentage of quantities licensed for abstraction for different uses in the Crossens CAMS area



4.10.4 The United Utilities Water Resource Management Plan (2009) indicates that the water available for use in the Integrated Resource Zone is expected to reduce by 24.8 Ml/d between 2009/10 and 2014/15. Without water efficiency measures or new resources, the initial supply demand balance for the Integrated Resource Zone is calculated to be in deficit by 8 Ml/day by 2024/25, without additional measures introduced by the Water Comapny. The Water Resource Management Plan then sets out the measures they will introduce to address this shortfall:

- Construction of a bi-directional pipeline, known as the "West-to-East Link", between Merseyside and North Manchester. This will help United Utilities maintain adequate supplies to Greater Manchester and Merseyside if there is a need to temporarily reduce supply from a major reservoir, for example due to maintenance work or drought conditions;

[56] Environment Agency. 2007. Crossens Catchment Abstraction Management Strategy

- Maintain current leakage levels;
- Help customers save 9 Ml/d by 2014/15 (increasing later on to 12 Ml/d), through a base service water efficiency programme;
- Achieve a water demand reduction of 10 Ml/d in a dry year by 2014/15 (increasing to 22 Ml/d by 2034/35) as a result of the expected scale of voluntary metering of households;

4.10.5 United Utilities also sets out their supply/resource enhancement plans as part of their economic programme to maintain adequate supply-demand balances:

- Further reducing leakage by 23 Ml/d by 2034/35;
- A programme of economic water efficiency measures to save 4 Ml/d by 2034/35;
- Implementing water source enhancements of 48 Ml/d by 2034/35, which will include reactivating the Southport boreholes; and

1.1.2 The result will be a final supply-demand balance of 0 Ml/day by 2024/25. Collectively, these strategies will ensure that no deficit is experienced and have been accepted as appropriate and deliverable by the Environment Agency and The Regulator (Ofwat).

4.10.6 The previous Appropriate Assessment undertake for the Preferred Options Local Plan identified that the upgrade of the Southport boreholes could potentially, due to the proximity of Southport (approximately 5km) anda possible theoretical hydraulic connection to Southport along the Sluice, result in secondary effects on Martin Mere. It was concluded however that primarily due to the safeguards provided in the EA abstraction licensing process, an adverse effect on the integrity of Martin Mere (assuming there is a hydrological connection) would be prevented in actuality since the EA would not consent damaging levels of abstraction. Natural England asked for this to be investigated further in their consultation response received in February 2012, particularly since reliance solely on the EA licensing regime would not account for a situation in which the Agency had no alternative but to licence damaging levels of abstraction.

4.10.7 Further investigation has therefore been undertaken into a) whether the Southport boreholes are already factored into the Environment Agency's Review of Consents process and b) how essential these boreholes are to the United Utilities WRMP and how likely it is that these boreholes would require reactiviation during the period covered by the Local Plan (and during which housing set out in the Local Plan would be delivered and occupied). This has confirmed two key facts:

- Although the existing Southport boreholes are not currently used, they do have valid abstraction licences. Therefore they will have already been included within the Environment Agency's Review of Consents process (the EA always assume use of full licensed abstraction volumes in their RoC process irrespective of actual current output, as any abstractor is free to decide to abstract their full licenced volumes at any point) and therefore their impact on European sites will have been deemed to be acceptable; and
- The United Utilities Water Resource Management Plan and its supporting Strategic Environmental Assessment makes it clear that the reactivation of the Southport boreholes (and installation of any new boreholes in the same area) would only be required to provide additional resources after 2030, which is beyond the end of the

West Lancashire Local Plan period. In other words, United Utilities does not expect to need to reactivate the boreholes during the Local Plan period and it is only expected population increases after 2030 that would render the new resources necessary.

4.10.8 Therefore, it is possible to confrm that there is a negligible risk posed to Martin Mere SPA by the need to provide public water supply for the Core Strategy development even considered in combination with all other expected development/population increases within the Integrated Resource Zone, even if there was a hydrological link between the SPA and the Southport boreholes.

1.1.3 United Utilities state in the WRMP that they are expecting further sustainability reductions in the future as a result of the European Union Water Framework Directive. However, in accordance with the regulatory guidance, these have not been included in the WRMP because the outcome is too uncertain at present. This situation will obviously have to be kept under review by local authorities as well as the Water Company.

1.1.4 Clearly, the concept of strategic forward planning of development requires local authorities to play their part in ensuring the pressures on available water resources are minimised insofar as is practical, rather than relying entirely on the Environment Agency licensing regime. The Council has thus confirmed that United Utilities have agreed that the housing proposed for West Lancashire can be met by their existing Water Resource Management Plan. The Council has also incorporated into Policy EN1 the requirement that they will require all development to '*achieve the Code for Sustainable Homes Level 3 as a minimum standard for new residential development and conversions, rising to Level 4 and Level 6 in line with the increases to Part L of the Building Regulations'*.

4.10.9 Given the low risk that can now be confirmed to be posed to Martin Mere SPA, it can be concluded.that the Local Plan will not lead to likely significant effects on Martin Mere SPA/Ramsar through this pathway.

4.11 Other Projects and Plans

Plan or project	How could it interact with the Local Plan
Local Development Frameworks for other Lancashire/ Cheshire/Merseyside Authorities	Development within Lancashire could operate cumulatively with the water quality pressures and abstraction pressures.
25 wind turbines approx 7km from Sefton Coast	The Environmental Statement Non-Technical Summary states: "With the exception of red-throated divers, the significance of impacts on all species and groups of species was assessed as being low to very low. Although the risks of impacts on red-throated divers were considered to be low, the high sensitivity of the species led the ornithological consultants to conclude that the significance of impacts should be regarded as being of medium level, rather than low. A cumulative impact assessment took account of other wind farm developments in Liverpool Bay. The contribution of Burbo Bank to the total cumulative impact of all developments was between nil and low"

Plan or project	How could it interact with the Local Plan
	While the impacts are different from those of the Local Plan, they could operate cumulatively to cause a significant adverse disturbance impact.
Liverpool City Region Renewable Energy Options	Interaction with Policy EN1

4.11.1 Given the measures already incorporated into the Local Plan it is concluded that it will not contribute to any 'in combination' effect.

4.12 Conclusion

4.12.1 It can be concluded that the Local Plan will not lead to likely significant effects on this Euroepan site.

5 Ribble and Alt Estuaries SPA / Ramsar Site

5.1 Introduction

5.1.1 The Ribble and Alt Estuary SPA and Ramsar Site is approximately 12,360ha, and consists of extensive sand- and mud-flats and, particularly in the Ribble Estuary, large areas of saltmarsh. There are also areas of coastal grazing marsh located behind the sea embankments. The saltmarshes, coastal grazing marshes and intertidal sand- and mud-flats all support high densities of grazing wildfowl and are used as high-tide roosts. Important populations of waterbirds occur in winter, including swans, geese, ducks and waders. The highest densities of feeding birds are on the muddier substrates of the Ribble.

5.1.2 The SPA is also of major importance during the spring and autumn migration periods, especially for wader populations moving along the west coast of Britain. The larger expanses of saltmarsh and areas of coastal grazing marsh support breeding birds during the summer, including large concentrations of gulls and terns. These seabirds feed both offshore and inland, outside of the SPA. Several species of waterbird (notably pink-footed geese) utilise feeding areas on agricultural land outside of the SPA boundary. There is considerable interchange in the movements of wintering birds between this European site and Morecambe Bay, the Mersey Estuary, the Dee Estuary and Martin Mere.

5.2 Reasons for Designation

5.2.1 The Ribble and Alt Estuaries Site is designated as an SPA for its Birds Directive Annex I species, both breeding and over-wintering, and these are:

5.2.2 During the breeding season:

- common tern *Sterna hirundo*: 182 pairs = 1.5% of the breeding population in Great Britain;
- ruff *Philomachus pugnax*: 1 pair = 9.1% of the breeding population in Great Britain;

5.2.3 Over winter:

- bar-tailed godwit *Limosa lapponica*: 18,958 individuals = 35.8% of the population in Great Britain;
- Bewick's swan *Cygnus columbianus ssp. bewickii*: 229 individuals = 3.3% of the population in Great Britain;
- golden plover *Pluvialis apricaria*: 4,277 individuals = 1.7% of the population in Great Britain
- whooper swan: 159 individuals = 2.9% of the population in Great Britain.

5.2.4 It also meets the criteria for SPA designation under Article 2 of the Birds Directive, supporting internationally important populations of lesser black-backed gull *Larus fuscus*, ringed plover *Charadrius hiaticula*, sanderling *Calidris alba*, black-tailed godwit *Limosa limosa ssp. limosa*, dunlin *Calidris alpina alpina*, grey plover *Pluvialis squatarola*, knot *Calidris canutus*, oystercatcher *Haematopus ostralegus*, pink-footed geese, pintail, redshank *Tringa totanus*, sanderling *Calidris alba*, shelduck *Tadorna*

tadorna, teal *Anas crecca* and wigeon. It also qualifies by regularly supporting up to 29,236 individual seabirds, and, over winter, 301,449 individual waterfowl.

5.2.5 It is additionally designated as a Ramsar Site in accordance with Criterion 5 (UN, 2005) for supporting up 89,576 waterfowl (5-year peak mean 1998/99 – 2002/03), and in accordance with Criterion 6 for supporting internationally important populations of common shelduck *Tadorna tadorna*, black-tailed godwit *Limosa limosa ssp. limosa*, redshank *Tringa totanus*, Eurasian teal *Anas crecca*, northern pintail and dunlin *Calidris alpina alpina*.

5.2.6 The Ribble and Alt Estuaries also qualifies as Ramsar as it meets criterion 2 by supporting over 40% of the UK population of natterjack toad. The natterjack Toad occurs on the Sefton Coast in seaward dunes between Southport and Hightown. In 2000 it was present on 13 sites (three of which are reintroductions). The breeding population is estimated at just over 1000 females.

5.2.7 The largest populations are on Ainsdale Sand Dunes NNR and Ainsdale and Birkdale Sandhills LNR. Natterjacks are absent from much of the dune coast and some breeding sites are considered to be isolated (North Merseyside Biodiversity Action Plan, undated).

5.3 Historic Trends and Current Pressures

5.3.1 As an estuarine site linked with the Liverpool Bay, this site has been subject to the same changes as described for the Liverpool Bay SPA but additionally its own unique pressures (some similar to those experienced in the Mersey Estuary). The estuaries were largely undisturbed until the 19th century, at which point there was extensive modification and dredging of the river channel for the Port of Preston, as well as landfill and drainage along the shoreline in order to increase agricultural usage of the land. The Ribble Estuary has over the past century experienced '*a general pattern of sediment accretion in the inner estuary and erosion in outer areas*,' but the estuary has begun '*to revert to its natural state… since maintenance of the Ribble Channel for shipping ceased in 1980. There have been dramatic changes in the course of channels in the outer Estuary, and these are expected to continue. Anticipated climatic and sea level changes are likely to exaggerate existing patterns of erosion and accretion, although sea level rise is not expected to cause significant loss of intertidal land in the Ribble'* (Ribble Estuary Strategy Steering Group, 1997, p.15).

5.3.2 The Ribble and Alt Estuaries are among '*the most popular holiday destinations in Britain*,' with Blackpool as the largest resort and Southport increasing in visitors. Leisure activities include '*watersports such as sailing and windsurfing; fishing and shooting; bird watching; land yachting; and generally relaxing at the coast… enjoyed by both local people and visitors*' (Ribble Estuary Strategy Steering Group, 1997, p.10).

5.3.3 Some of the main environmental pressures relevant to the nature conservation objectives of the Ribble and Alt Estuaries SPA / Ramsar Site are:

- Loss or damage of habitat as a result of increasing off-shore exploration and production activity associated with oil and natural gas;
- Over-grazing of the saltmarshes by cattle-farming;

- Heavy metal pollution (lead, cadmium, arsenic and other poisons) from either industry or disturbance of sediment (legacy pollution bound into the sediment);
- Pollution via rivers by agricultural effluent flowing off fields, 'leading to increased fertility of inshore waters and associated algal blooms and de-oxygenation of seawater, particularly in enclosed bays and estuaries';
- Pollution via rivers and drains by both treated sewerage and untreated runoff containing inorganic chemicals and organic compounds from everyday domestic products, which 'may combine together in ways that make it difficult to predict their ultimate effect of the marine environment. Some may remain indefinitely in the seawater, the seabed, or the flesh, fat and oil of sea creatures';
- Damage of marine benthic habitat directly from fishing methods;
- Damage of marine benthic habitat directly or indirectly from aggregate extraction;
- 'Coastal squeeze' (a type of coastal habitat loss) from land reclamation and coastal flood defences and drainage used in order to farm or develop coastal land, and from sea level rise;
- Harm to wildlife (especially birds) or habitat loss due to increasing proposals/demand for offshore wind turbines;
- Pollution, direct kills, litter, disturbance or loss of habitat as a result of water-based recreation or other recreation activity and related development along the foreshore[57];
- Disturbance to birds from aircraft, both from Blackpool Airport and from a private testing station;
- Introduction of non-native species and translocation;
- Selective removal of species (e.g. bait digging, wildfowl, fishing)[58];
- Interruption of dune accretion processes leading to over-stabilisation of dunes;
- The spread of rank grasses and scrub, partly caused by a decline in rabbit-grazing, further reducing suitable habitat;
- Losses to development, forestry and recreational uses have reduced the area of available habitat;
- Fragmentation of habitat has led to isolation of populations;
- Creation of permanent water bodies in the dunes has encouraged populations of invertebrates which prey on natterjack tadpoles and, most seriously, populations of common toads which both predate and suppress the development of natterjack tadpoles;
- Gassing of rabbits, especially on golf courses, can kill natterjacks using burrows and removes a valuable grazing animal;
- Collecting and disturbance of spawn and tadpoles can reduce metamorphic success;

[57] Wildlife Trust (2006) – The Wildlife Trust For Lancashire, Manchester And North Merseyside (2006). *Uses and abuses*. [Online]. Available at: http://www.lancswt.org.uk/Learning%20&%20Discovery/theirishsea/usesandabuses.htm (accessed 15th June 2009).
[58] (Wildlife Trust, 2006 and Ribble Estuary Strategy Steering Group, 1997);

- Inappropriate management can cause the loss of low vegetation structure and open ground used by natterjacks for foraging;
- Water abstraction, conifers and scrub lower the water table locally and reduces the number of pools in which natterjack tadpoles can develop to maturity.

5.3.4 There is both formal and informal recreation along the Sefton Coast and intensity varies with season, event and attraction. Recreation is informal within the Ribble Estuary itself.

5.4 Nature Conservation Objectives

5.4.1 The main nature conservation objectives are:

- To prevent a significant reduction in numbers or displacement of all qualifying species of over-wintering birds from a reference level;
- To prevent significant damage to or decrease in the extent of habitat, the vegetation characteristics or the landscape features from a reference level; and
- To maintain the presence and abundance of aquatic plants and invertebrates, whereby the populations do not deviate significantly from a reference level.

5.5 Key Potential Pressures from West Lancashire

5.5.1 From the environmental requirements that have been identified above, it can be determined that the following impacts of development could interfere with the above environmental requirements and processes on the SPA/Ramsar:

- New housing and employment development, contributing to a rise in population resulting in a rise in existing recreational pressures listed above. This may be further exacerbated by enhancement of tourism, leisure and green infrastructure within the borough;
- A rise in population and industry within the borough resulting in greater discharge to the Ribble and Alt Catchment, exacerbating existing water quality pressure and water abstraction pressures and associated damage to marine benthic communities, particularly if infrastructure is not phased and adequately in place;
- A rise in population resulting in a greater net use of motorised vehicles resulting in air pollution pressures;
- Loss of agricultural land, greenbelt and brownfield land, resulting in loss of (potentially unknown at this stage) supporting habitat for qualifying bird species;
- The location of wind turbines within the borough has the potential to result in disturbance to qualifying bird species;
- Depending on locations, the development of CHP plants has the potential to result in atmospheric nitrogen deposition.

5.6 Direct Disturbance of Qualifying Bird Species/ Excessive Recreational Pressure

5.6.1 New housing and employment development, will contribute to a rise in population. There is expected to be a demographic shift to a greater % of retired population with greater leisure time. This rise in population, alongside policies enhancing recreation and tourism within the borough, has the potential to exacerbate existing recreational pressures. The England Leisure Day Visits surveys indicate that people typically travel 25.5km to visit the coast for the day. As the Ribble and Alt Estuaries is within the West Lancashire borough Boundary, it is fair to conclude that a rise in population within West Lancashire, with greater leisure time would result in greater visitors at Ribble and Alt Estuaries SPA/Ramsar.

5.6.2 Visitor demographics, access, recreational facilities and management of the site is described in the Ribble Estuary NNR Management Plan[59] and associated documents[60] [61] [62]. While the NNR occupies a smaller area than the SPA/Ramsar designation, it does cover the section of the SPA/Ramsar within West Lancashire Local Plan Area. This document suggests that most users of the Estuary are local people, with walking, running, dog-walking, bird-watching and wildfowling being the most popular activities. Most of the public use of the NNR is confined to the land bordering the estuary; mainly the embankments/ sea defence structures from Crossens pumping station to Georges Lane at Hundred End and around Hesketh Bank and Becconsall on the south side, and Lytham and St Anne's sea fronts on the north side, which afford good vantage for an overview of the estuary and its wildlife, especially at times of high tide. Visitors have expressed a strong appreciation of the sense of 'isolation and low key infrastructure'.

5.6.3 With respect to allowing greater access within the NNR section of the site (within the West Lancashire Local Plan Area), the opportunity to allow free access onto some saltmarsh areas from the public footpath network exists, but this has not been actively encouraged by Natural England and its predecessors due to the hazardous nature of the tidal habitats as well as the risks of disturbance to feeding and roosting birds which this might cause. The most appropriate way to promote access at present appears to be by offering frequent guided walks across the site to small groups of people, whilst also working with partner organisations to promote the wildlife interest of the estuary as whole and directing general visitors to other facilities which are better able to cater for large numbers of visitors (e.g. RSPB and Martin Mere via the Ribble Coast and Wetland Regional Park initiative). Natural England will continue to support local Agencies and neighbours to develop the footpath network around the estuary where this is not likely to compromise the nature conservation interest of the European site. Facilities to support visitors are few including limited car parking.

5.6.4 With respect to areas of the SPA/Ramsar outside of the NNR area, it should be noted that most of the interest of the SPA is in its wintering birds, the risk of recreational disturbance may be lower since there will be less recreational activity in winter. Natterjack toads, however, are qualifying Ramsar species, and would be more sensitive to disturbance during the spring/summer months when toadlets leave breeding ponds (the breeding ponds are generally fenced off to protect them, but toadlets leaving these ponds could be subject to disturbance).

[59] Graham Skelcher Ribble Estuary NNR Management Plan February 2010 Final Draft
[60] English Nature (2006) The Ribble Estuary NNR interpretation plan. English Nature unpublished report.
[61] Gee M (2003) Ribble Estuary National Nature Reserve management plan. English Nature unpublished report.
[62] Woolerton Dodwell Associates (2005) Feasibility study to develop visitor experience and biodiversity opportunities to the Ribble Estuary National Nature Reserve and surrounding areas of Banks, Becconsall and Hesketh Banks. unpublished report for English Nature

5.6.5 Policy EN2 seeks to support the Ribble Coast and Wetlands as a Regional Park[63], with the Ribble Estuary at the heart of this area including the SPA/Ramsar designation. The vision for the Ribble Park is that it should be an 'internationally recognised destination based on its environmental significance which will be conserved and enhanced'. Plans for the Regional Park[64] identify that a collaborative regional approach would be developed with regards to directing visitors to areas most suited for mass tourism. Interpretative strategies would be employed at neighbouring Sites more suited for mass tourism, such as Martin Mere, and the crucial links between the Ribble and Alt Estuaries and Martin Mere SPA/Ramsar would be highlighted. However the provision of facilities for currently under-represented recreational users is also identified. This is quite open-ended and could result in greater visitation to more sensitive areas of the Ribble and Alt Estuaries SPA/ Ramsar.

5.6.6 Avoidance of recreational impacts at European sites involves location of new development away from such sites. Mitigation involves a mix of access management, habitat management and provision of alternative recreational space. To avoid recreational impacts on the Ribble and Alt Estuaries SPA/ Ramsar, the provision of alternative recreational space can help to attract recreational users away from sensitive sites, and reduce additional pressure on them. Policy EN2 states that the council will protect and safeguard all sites of international importance. It is recommended that this, as an overarching requirement above the recreational development of the Ribble Coast Wetlands and Regional Park (and other green infrastructure policies), is made clear. For the Preferred Options HRA it was recommended that a fourth bullet point is inserted under the 'biodiversity' element of the policy wording e.g.: *'the development of recreation will be targeted in areas which are not sensitive to visitor pressures: the protection of biodiversity will be considered over and above the development of recreation in sensitive areas of Natura 2000 and Ramsar Sites'*. This has now been inserted into Policy EN2.

5.6.7 As the development of the Ribble Coast Wetland and Regional Park (identified in Policy EN2) is not purely down to the West Lancashire Local Plan, potentially damaging recreational activities should be considered as part of an 'in combination effect' with other plans and policies seeking to increase the population of neighbouring Boroughs to this European site, and/or developing the Ribble Coast Wetland and Regional Park. It is recommended that the Council engages with other Merseyside/Lancashire authorities and Natural England to input into delivery of those actions within future Management Plans that are linked to reducing the impacts of recreation including wardening, fencing, signage and seasonal closures. This should also account for revisions and updates of the Management Plan to account for changing patterns of visitor use. West Lancashire's contribution should be commensurate with its population size, since West Lancashire can only be considered responsible for mitigating their contribution to an "in combination" effect.

5.6.8 The Developer Contributions policy (IF4) or similar could be used to secure West Lancashire's contribution towards this through imposing a levy upon developers to contribute to the management of the estuaries. However, whatever method is decided upon for funding local authority contributions must be agreed across the region (in order to avoid putting some authorities at a disadvantage) and this report is therefore not the place to go into further details. Engagement with the other Local Planning Authorities in a region-wide approach to managing recreational pressure on this network of coastal/ estuarine sites through the various Site Management Plans remains the only realistic measure by which recreational pressure on these European sites can be controlled (this is also the case for the Merseyside estuarine/coastal European sites discussed in the subsequent Chapters).

[63] http://www.ribblecoastandwetlands.com/files/uploads/pdfs/Ribble_Coast_and_Wetlands_Prospectus%5B1%5D.pdf
[64]

5.6.9 As such, it was recommended in the Preferred Options HRA that a specific policy or statement within the Local Plan should make a clear commitment on the part of West Lancashire Council to collaborate with the other Merseyside/Lancashire Authorities to manage, influence and control visitor pressure on the sensitive estuarine and coastal European sites as far as possible, and support delivery of Site Management Plans.

5.6.10 For example, the Liverpool Core Strategy covers this issue with the following supporting text: *'The Habitat Regulations Assessment (HRA) (2010 and updated 2011) work on the Core Strategy has indicated that the scale and distribution of growth that the City is seeking to achieve is likely to have a number of negative effects on protected habitat sites both within and beyond the City, in terms of disturbance, atmospheric pollution, water resources, water quality, coastal squeeze and loss of supporting habitat. A number of Strategic Policies in the Core Strategy have been amended in light of these findings to avoid negative impacts on thee sites, and the Council will, where appropriate, work in partnership with other districts and relevant bodies, to avoid and manage cumulative and in combination impacts of development on these sites'.*

5.6.11 West Lancashire Council have proposed incorporating the following supporting text into the Local Plan: '*The Habitat Regulations Assessment (HRA) has indicated that the scale and distribution of growth and development that the Local Plan is seeking to achieve in the Borough is likely to have a number of negative effects on protected habitat sites both within and outside the Borough. These effects include disturbance to certain bird species and loss of supporting habitat either directly or as a result of excessive recreational pressures. A number of policies in the Local Plan have been amended in light of these findings to avoid negative impacts on protected habitat sites, and the Council will, where appropriate, work in partnership with other local authorities and relevant bodies to avoid and manage cumulative and in combination impacts of development on these sites'*.

5.7 Bird strike

5.7.1 The Local Plan promotes renewable energy development (Policy EN1). Should this include wind turbine construction, a pathway could exist for the construction of onshore turbines to disrupt flight paths and displace qualifying bird species. The Liverpool City Regional Renewable Energy Options[65] identifies two wind development priority zone within West Lancashire. These are indicated in the the Wind Priority Zones Figure (Appendix 5). However, the Council has confirmed that there are no specific proposals for wind energy in the district at this current time. Moreover, Policy EN1 states that '*proposals for renewable, low carbon or decentralised energy schemes will be supported provided they do not result in unacceptable harm to the local environment which cannot be successfully mitigated*'. It also states that *'Wind energy … developers are required to provide evidence to support their proposals considering the following: … ecological impact including migration routes of protected bird species'* and adds that the impact must be addressed satisfactorily. Combined with the strong wording protecting the environment in Policy EN2, it is considered that the Local Plan contains appropriate mechanisms to ensure the forthcoming renewable energy development policies, whether alone or in combination with other land use plans, would not result in likely significant effects on the interest features of the Ribble & Alt Estuaries SPA/Ramsar.

[65] Arup (2001) Liverpool City Regional Renewable Energy Options Stage 2 (Drawing Title CHP/DH & Wind Priority Zones, Final Issue) (date 27/5/2010)

5.8 Loss of Supporting Habitat and Coastal Squeeze

5.8.1 There is the potential for development arising form the Local Plan to result in coastal squeeze and loss of supporting habitat for qualifying bird species, in particular pink-footed geese and whooper swan (discussed in Chapter 4 with respect to Martin Mere SPA/Ramsar). In addition, the development of towns adjacent to the Ribble and Alt Estuaries SPA/Ramsar (namely Banks and Hesketh Bank) could ultimately result in coastal squeeze.

5.8.2 Releases of land under the following policies have the potential to result in loss of supporting habitat for pink-footed geese and whooper swan:

- EC1 The Economy and Employment Land (e.g. Simonswood Employment Area; greenbelt release around Skelmersdale, Ormskirk, Burscough);
- EC2 The Rural Economy
- RS1 Residential Development
- RS4 Provision for Gypsies Travellers and Travelling Showpeople
- IF2 Enabling Sustainable Transport Choice (in particular with respect to the A570 Ormskirk bypass)
- EN1 Low Carbon Development and Energy Infrastructure

5.8.3 These are the same policies that have been identified in Chapter 4 with respect to Martin Mere, and the reader is referred to Chapter 4 and Appendix 8 for further information and discussion.

5.8.4 The development of Banks and Hesketh Bank as local centres as part of SP1 (A Sustainable Development Framework for West Lancashire) and EC2 (Rural Economy have the potential to result in coastal squeeze) could have the potential to result in Coastal Squeeze of the Ribble and Alt Estuaries SPA/Ramsar if it were not otherwise controlled..However Policy GN3 contains text which seeks to avoid this situation from occurring. This text states '*to avoid unnecessary flood risk, development will be directed away from Flood Zones 2 and 3 wherever possible, with the exception of water compatible uses and key infrastructure. Other land uses and development will only be permitted within Flood Zones 2 and 3 where it can be shown that there are no alternative Sites for that development outside of those areas of flood risk, in line with the sequential approach and exception test outlined in national planning policy (PPS25). Flood risk is generally an issue in the Northern and Western Parishes, especially in and around the village of Banks*'.

5.8.5 Most importantly policy EN2 also states that '*Development within the Borough's Coastal Zones, as defined on the Proposals Map, will be limited to that which is essential in meeting the needs of coastal navigation, amenity and informal recreation, tourism and leisure, flood protection, fisheries, nature conservation and / or agriculture*'. It is clear therefore that the Council do not intend development to be located in the coastal zone.

5.8.6 For this reason it is considered that the Local Plan will not lead to likely significant effects on Ribble & Alt Estuaries SPA/Ramsar site.

5.9 Deterioration in Water Quality

5.9.1 The development (housing and employment) delivery policies within the Local Plan have the potential to result in a deterioration of water quality of Ribble and Alt Estuaries SPA/ Ramsar site.

5.9.2 Policies that would encourage development within town centres of the borough may result in a greater discharge of wastewater to watercourses with hydraulic connections to the Ribble and Alt Estuaries SPA/ Ramsar site.

- The River Tawd flows through Skelmersdale, which discharges into the Ribble and Alt Estuaries (through the River Douglas);
- The Leeds and Liverpool Canal flows through Burscough which connects to the River Douglas and discharges into the Ribble and Alt Estuaries; and
- Banks is located immediately adjacent to 'the sluice' which discharges into the Ribble and Alt Estuaries.

5.9.3 A rise in population and a development focus within Skelmersdale, Burscough and Banks within the borough may result in greater waste water discharges into these water courses, resulting in a potential increase in pollution levels in the Ribble and Alt Estuary. Also, should development take place beyond the rate of infrastructure provision this may result in a rise in pollution levels. This may result in harm to benthic communities, aquatic plants and result in secondary effects on qualifying habitats and birds.

5.9.4 It should be noted that the majority of the processes that could result in a deterioration of water quality (unregulated waste water discharges, surface water runoff and pollution from construction activities) are either regulated through statutory requirements or can be mitigated through standard construction techniques and environmental good practice. These impacts are therefore unlikely. Avoiding an adverse effect is largely in the hands of the water companies (through their investment in future sewage treatment infrastructure) and Environment Agency (through their role in consenting effluent discharges). However, local authorities can also contribute through ensuring that sufficient wastewater treatment infrastructure is in place prior to development being delivered through the Local Plan. In the Martin Mere chapter wording in Policy IF3 has already been identified which requires development to be phased in line with delivery of water treatment infrastructure. This would also cover Ribble & Alt Estuaries SPA/Ramsar site. No further amendments are therefore recommended to address this issue.

5.10 Water Abstraction

5.10.1 A rise in population within the borough would place a greater pressure on water abstraction. At present, water abstraction, alongside conifers and scrub, lower the water table locally and reduces the number of pools in which great crested newts and natterjack tadpoles can develop to maturity. Due to the relative proximity of Southport (immediately adjacent to the Ribble and Alt Estuaries SPA/Ramsar) it is possible that further abstraction of water from Southport boreholes could result in secondary effects on Ribble and Alt Estuaries SPA/Ramsar

5.10.2 The Sefton Coast Partnership Background Information for Working Group: Water Resources Document (2006)[66] identified that the length, width and depth of the sand of the Sefton Coast (geographically including the coastal areas of the Ribble and Alt Estuaries SPA/Ramsar)

[66] http://www.seftoncoast.org.uk/pdf/natconsultwater.pdf

contains a rain-fed domed aquifer, the ridge of which is roughly along the line of the Liverpool-Southport railway (the highest dunes on the Southport and Ainsdale Golf Course are c. 25 m Above Ordnance Datum (AOD)). Natural drainage to the beach contributes to the extent of beach wetness (although not enough is known on the interplay between sea water and freshwater run-off). The report identified that for wet slack habitats a draw of even a few centimetres can make the difference between a successful breeding season and failure for the natterjack toad. This may also affect great crested newts, a qualifying features of Sefton Coast SAC (Chapter 6).

5.10.3 The report identified the abstraction licences studied in the 'Southport and Sefton Water Resources Evaluation' (1999) completed by Entec and published by the Environment Agency in 1999. These licences were for Formby Golf Club, Formby Ladies Golf Club, Southport and Ainsdale Golf Club, Southport and Birkdale Cricket Club, Royal Birkdale Golf Club and Hillside Golf Club. Abstraction is currently overwhelmingly for non-Public Water Supply activities. Although the licensed amounts are more than 60,000 m^3 a year, this represents less than 1% of aquifer recharge. However, the report identified that there are localised impacts from abstraction, greater pressure on usage at different times of the year and that this survey work should be updated to identify current abstraction amounts.

5.10.4 The United Utilities Water Resource Management Plan (2009) indicates that the water available for use in the Integrated Resource Zone is expected to reduce by 24.8 Ml/d between 2009/10 and 2014/15. Without water efficiency measures or new resources, the initial supply demand balance for the Integrated Resource Zone is calculated to be in deficit by 8 Ml/day by 2024/25. With regard to future developments in order to meet the anticipated 8 Ml/day shortfall, United Utilities intends to undertake the following activities:

- Construction of a bi-directional pipeline, known as the "West-to-East Link", between Merseyside and North Manchester. This will help United Utilities maintain adequate supplies to Greater Manchester and Merseyside if there is a need to temporarily reduce supply from a major reservoir, for example due to maintenance work or drought conditions;
- Maintain current leakage levels;
- Help customers save 9 Ml/d by 2014/15 (increasing later on to 12 Ml/d), through a base service water efficiency programme;
- Achieve a water demand reduction of 10 Ml/d in a dry year by 2014/15 (increasing to 22 Ml/d by 2034/35) as a result of the expected scale of voluntary metering of households;

5.10.5 United Utilities enhanced plans identified as part of their economic programme to maintain adequate supply-demand balances are:

- Further reducing leakage by 23 Ml/d by 2034/35;
- A programme of economic water efficiency measures to save 4 Ml/d by 2034/35;
- Implementing water source enhancements of 48 Ml/d by 2034/35, which will include reactivating the Southport boreholes; and
- The result will be a final supply-demand balance of 0 Ml/day by 2024/25.

5.10.6 The previous HRA undertake for the Preferred Options Local Plan identified that the upgrade of the Southport boreholes could potentially, due to the proximity of Southport (approximately 5km) and a possible theoretical hydraulic connection to Southport along the Sluice, result in

secondary effects on Ribble & Alt Estuaries SPA/Ramsar site. It was concluded however that primarily due to the safeguards provided in the EA abstraction licensing process, an adverse effect on the integrity of the SPA/Ramsar site (assuming there is a hydrological connection) would be prevented in actuality since the EA would not consent damaging levels of abstraction. Natural England asked for this to be investigated further in their consultation response received in February 2012, particularly since reliance solely on the EA licensing regime would not account for a situation in which the Agency had no alternative but to licence damaging levels of abstraction.

5.10.7 Further investigation has therefore been undertaken into a) whether the Southport boreholes are already factored into the Environment Agency's Review of Consents process and b) how essential these boreholes are to the United Utilities WRMP and how likely it is that these boreholes would require reactiviation during the period covered by the Local Plan (and during which housing set out in the Local Plan would be delivered and occupied). This has confirmed two key facts:

- Although the existing Southport boreholes are not currently used, they do have valid abstraction licences. Therefore they will have already been included within the Environment Agency's Review of Consents process as necessary (the EA always assume use of full licensed abstraction volumes in their RoC process irrespective of actual current output, as any abstractor is free to decide to abstract their full licenced volumes) and therefore their impact on European sites will have been deemed to be acceptable; and
- The United Utilities Water Resource Management Plan makes it clear that the reactivation of the Southport boreholes (and installation of any new boreholes in the same area) would only be required to provide additional resources after 2030, which is beyond the end of the West Lancashire Local Plan period. In other words, United Utilities does not expect to need to reactivate the boreholes during the Local Plan period and it is only expected population increases after 2030 that would render the new resources necessary.

5.10.8 Therefore, it is possible to confrm that there is a negligible risk posed to Ribble & Alt Estuaries SPA/Ramsar site by the need to provide public water supply for the Core Strategy development even considered in combination with all other expected development/population increases within the Integrated Resource Zone, even if there was a hydrological link between the SPA/Ramsar site and the Southport boreholes.

1.1.5 Clearly, the concept of strategic forward planning of development requires local authorities to play their part in ensuring the pressures on available water resources are minimised insofar as is practical, rather than relying entirely on the Environment Agency licensing regime. The Council has thus confirmed that United Utilities have agreed that the housing proposed for West Lancashire can be met by their existing Water Resource Management Plan. The Council has also incorporated into Policy EN1 the requirement that they will require all development to '*achieve the Code for Sustainable Homes Level 3 as a minimum standard for new residential development and conversions, rising to Level 4 and Level 6 in line with the increases to Part L of the Building Regulations'*.

5.10.9 It can therefore be concluded.that the Local Plan will not lead to likely significant effects on Ribble & Alt Estuaries SPA/Ramsar through this pathway.

5.11 Other Projects and Plans

5.11.1 In addition to the effects of the Local Plan when considered alone, the potential impacts could be exacerbated by the following other plans and projects.

Plan or project	How could it interact with the Local Plan
Local Development Frameworks for other Lancashire/Merseyside/Cheshire Authorities	These could operate cumulatively with the recreational pressure that would result from the Local Plan, particularly with regard to Liverpool and Sefton.
Shoreline Management Plan	A Hold the Line policy for the coastline adjacent to the SPA/Ramsar would result in coastal squeeze.
25 wind turbines approx 7km from Sefton Coast	The Environmental Statement Non-Technical Summary states: "With the exception of red-throated divers, the significance of impacts on all species and groups of species was assessed as being low to very low. Although the risks of impacts on red-throated divers were considered to be low, the high sensitivity of the species led the ornithological consultants to conclude that the significance of impacts should be regarded as being of medium level, rather than low. A cumulative impact assessment took account of other wind farm developments in Liverpool Bay. The contribution of Burbo Bank to the total cumulative impact of all developments was between nil and low" While the impacts are different from those of the Local Plan, they could operate cumulatively to cause a significant adverse disturbance impact.
Port of Liverpool expansion	Sulphur deposition is also known to be a problem for the Sefton coast, originating from shipping exhaust emissions related to the Port. According to the UK Air Pollution Information System (www.apis.ac.uk) this is mainly with regard to the 'fixed dunes with herbaceous vegetation'. APIS currently indicates that 34% of sulphur deposition within the southern part of the SPA/Ramsar is due to shipping and 'maritime activities'.. There may be a disturbance impact as well in that the expansion of the port will also bring shipping activity closer to the SPA/Ramsar. Expansion of the Port of Liverpool will potentially result in direct landtake from the southern-most point of the Ribble & Alt Estuaries SPA/Ramsar. While there will be no direct interaction with the impacts of the Local Plan there could be a significant cumulative effect.
Liverpool City Region Renewable Energy Options	Interaction with Policy CS18 with regards to location of wind turbine/CHP plant locations

5.11.2 Given the measures already incorporated into the Local Plan it is concluded that it will not contribute to any 'in combination' effect.

5.12 Conclusion

5.12.1 It can be concluded that the Local Plan will not lead to likely significant effects on this Euroepan site.

6 Sefton Coast SAC

6.1 Introduction

6.1.1 Located to the north of Liverpool, the Sefton Coast SAC (approximately 4,560ha) consists of a mosaic of sand dune communities comprising a range of ages from embryonic (i.e. dune formation) to more established communities. A number of other habitats are also present, including scrub, heath, coniferous woodland, lagoons, estuaries and riverine environments.

6.2 Reasons for Designation

6.2.1 The Sefton Coast qualifies as a SAC for both habitats and species. Firstly, the European site contains the Habitats Directive Annex I habitats of:

- Embryonic shifting sand dunes: considered rare, as its total extent in the United Kingdom is estimated to be less than 1,000 hectares – the Sefton Coast SAC is considered to be one of the best areas in the United Kingdom;
- Shifting dunes along the shoreline with marram *Ammophila arenaria* ("white dunes"): the Sefton Coast SAC is considered to be one of the best areas in the United Kingdom;
- Fixed dunes with herbaceous vegetation ("grey dunes"): the Sefton Coast SAC is considered to be one of the best areas in the United Kingdom;
- Dunes with creeping willow *Salix repens ssp. argentea (Salicion arenariae*): considered rare, as its total extent in the United Kingdom is estimated to be less than 1,000 hectares – the Sefton Coast SAC is considered to support a significant presence of the species;
- Humid dune slacks: the Sefton Coast SAC is considered to be one of the best areas in the United Kingdom;
- Atlantic decalcified fixed dunes (*Calluno-Ulicetea*): considered rare, as its total extent in the United Kingdom is estimated to be less than 1,000 hectares – the Sefton Coast SAC is considered to support a significant presence.

6.2.2 Secondly, the European site contains the Habitats Directive Annex II species petalwort *Petalophyllum ralfsii*, for which it is one of the best areas in the United Kingdom, and great crested newt *Triturus cristatus*, for which the area is considered to support a significant presence.

6.3 Historic Trends and Current Pressures

6.3.1 The dune habitats of the Sefton Coast SAC are dependent on natural erosive processes. Various human activities which interrupt natural sedimentation and deposition patterns within the Liverpool Bay have had an effect on the extent and wildlife value of these dunes. Since as early as the 18th century, '*dredging, river training and coastline hardening have imposed a pattern of accretion and erosion on the shoreline where previous conditions were much more variable*' (Liverpool Hope University College, 2006). More recently, the dunes have been partially stabilised through vegetation maintenance, the planting of pine trees, and artificial sea defences for protecting the developed shorelines. Another compounding influence is that the inland lakes and mosses behind the belt of coastal dunes have been drained and claimed for agricultural production (Liverpool Hope University College, 2006).

6.3.2 The environmental requirements of the Sefton Coast SAC can be described as:

- The need to reduce the fragmentation of habitats, and the impact of fragmentation, to provide stepping stones for the movement of species;
- The need to counter negative changes to low-nutrient habitats resulting from atmospheric nutrient deposition;
- The need to manage the continuing coastal erosion at Formby Point which leads to a squeeze on habitats. This management would not involve formal defences, as these would in themselves harm the dune ecosystem, but the management of pine plantations preventing dune roll-back. The dunes require sufficient space that natural processes can maintain the important habitats through roll-back;
- The need to consider the potential impact of climate change on shorelines, wetlands and dunes;
- The need to manage abstraction from the underlying aquifer for sources such as golf courses. The aquifer is critical to some features of the European site, such as the humid dune slacks and the great crested newts;
- To manage recreational pressures and direct disturbance to qualifying habitats;
- The need to develop and maintain management practices which sustain the conservation value of the area;
- The need to avoid loss of great crested newt habitat, and such habitats being further fragmented by distance or barriers.

6.4 Nature Conservation Objectives

6.4.1 The main nature conservation objectives are:

6.4.2 Habitats:

- To maintain the extent of sand dunes (although this extent must take account of natural variation of this habitat as a result of succession to, and interaction with, other dune habitats)
- To maintain less than 25% cover by bare sand
- To maintain the range and mosaic of sand dune communities, vegetation structure and species present (although prevent increase of existing coniferous woodland or scrub cover at the expense of fixed dune vegetation)

6.4.3 Petalwort:

- To maintain the existing 47 populations, and the general extent of the area (approximately 600m^2, within relatively young frontal dune slacks of the Ainsdale and Birkdale Hills LNR)
- To maintain favourable vegetation structure (< 1cm bare substrate: 20 – 90%, most abundant populations occurring at 30% bare substrate)

6.4.4 Great crested newts

- To maintain the area of terrestrial habitat

- To prevent reduction of waterbodies present that currently support great crested newts
- To prevent fragmentation of the terrestrial habitat: prevent barriers to newt movement between suitable ponds

6.5 Key Potential Pressures from West Lancashire

6.5.1 From the environmental requirements that have been identified above, it can be determined that the following impacts of development could interfere with the above environmental requirements and processes on the SAC. These are given greater consideration below.

- Excessive recreational pressure arising from a rise in population, and an ageing population with greater leisure time within the borough.
- Growth in population and industry resulting in an pressure on ground water reserves, vital for qualifying species (e.g. great crested newt).
- Increase in recreational visitors to the site using motorised vehicles to access the site resulting in atmospheric nitrogen deposition.

6.6 Recreational Trampling

6.6.1 As the geographical area of Sefton Coast SAC occupies the southern part of the Ribble and Alt Estuaries SPA/Ramsar, the recreational pressures described for Ribble and Alt Estuaries SPA/Ramsar (described in Chapter 5) are largely applicable to this site. One key difference is that Sefton Coast SAC is not included within the Local Plan Area. Another key difference is that recreational pressures in the Sefton Coast SAC relate to coastal dunes rather than the sand flats and intertidal mudflats and associated bird species (e.g. nesting terns) for which the Ribble and Alt Estuaries SPA/Ramsar is designated. Sand dunes are vulnerable to recreational trampling in that excessive physical disturbance can retard or set back the dune development process and lead to a reduction in habitat diversity. However, at the same time some recreational trampling is beneficial in that it ensures that the dune vegetation does not all succeed to the same late stage of development and thereby actually helps to preserve biodiversity.

6.6.2 A recent study on the recreational users of Sefton's Natural Coast[67] estimated half of the recreational users to be 'local residents' (i.e. residents within the borough of Sefton). With respect to reasons for visiting the coast, over half of the respondents' main reason was either dog walking/walking/fresh air or visiting the coast. Nature-based attractions including visiting the squirrels, bird watching, fishing accounted for approximately 20% of the visitors. The majority of visitors were focused on Formby and Crosby. It would be reasonable to assume therefore that should the number of residents within West Lancashire increase by 7,500 within the lifetime of the Local Plan (as discussed in Chapter 2), particularly as the demographic shift is expected to comprise a greater proportion of ageing residents, this is likely to result in greater visitor pressure at Sefton Coast SAC.

6.6.3 Policy EN3 seeks to support the Ribble Coast and Wetlands as a Regional Park[68], with the Ribble Estuary at the heart of this area. The Ribble Coast and Wetlands Regional Park includes areas of the Ribble Estuary outside of the Local Plan Area, including the upper

[67] England's North West Research Service for Economic Development and Tourism (May 2009) Sefton's Natural Coast Local Users of the Coast (Version 2)
[68] http://www.ribblecoastandwetlands.com/files/uploads/pdfs/Ribble_Coast_and_Wetlands_Prospectus%5B1%5D.pdf

reaches of the Sefton Coast SAC (e.g. around Formby, Ainsdale and Southport). The development of the Ribble Coast Wetland Regional Park, as well as the rise in regional populations (and therefore numbers of visitors), is therefore also dependent on other plans and policies. The additional supporting text proposed for inclusion by the Council given in Chapter 5 (with respect to Ribble and Alt Estuaries SPA/Ramsar) for collaborative working with other authorities with regard to access management of coastal recreation also provides West Lancashire with a mechanism whereby the borough can contribute towards avoiding and mitigating potentially damaging effects from the rise in recreational activities. This includes adverse effects on Sefton Coast SAC. It is intended that this would be in collaboration with the other Merseyside and Lancashire Authorities to manage, influence and control visitor pressure on the sensitive coastal and estuarine Sites within the North West region.

6.6.4 Given the text now incorporated into the Local Plan it is considered that likely significant effects on the Sefton Coast SAC will not occur.

6.7 Water Abstraction

6.7.1 A rise in population within the borough would place a greater pressure on water abstraction. This includes a greater demand for use of the golf course which is irrigated by the Southport boreholes.

6.7.2 At present, water abstraction alongside, the presence of conifers and scrub lower the water table locally within the coastline comprising both the Sefton Coast SAC and Ribble and Alt Ramsar/SPA geographical areas. As well as reducing the number of pools in which natterjack tadpoles can develop to maturity (qualifying species for Ribble and Alt Ramsar/SPA), qualifying features for Sefton Coast SAC including petalwort and breeding ponds for great crested newt may also be affected[69]. Planned expenditure in United Utilities' spending cycle (AMP 5) includes the upgrade of the Southport boreholes to reduce the reliance on the Dee supply (see Chapter 3). Due to the relative proximity of Southport (immediately adjacent to the Ribble and Alt Estuaries SPA/Ramsar), it is possible that further abstraction of water from Southport boreholes could result in secondary effects on Sefton Coast SAC. Greater discussion relating to the existing water abstraction pressures and potential effects on the wet slack habitats on which qualifying features of the Sefton Coast SAC habitats and species depend has been described in Chapter 5 (Ribble and Alt Estuaries SPA/Ramsar).

6.7.3 Further investigation has therefore been undertaken into a) whether the Southport boreholes are already factored into the Environment Agency's Review of Consents process and b) how essential these boreholes are to the United Utilities Water Resource Management Plan and how likely it is that these boreholes would require reactiviation during the period covered by the Local Plan (and during which housing set out in the Local Plan would be delivered and occupied). This has confirmed two key facts:

- Although the existing Southport boreholes are not currently used, they do have valid abstraction licences. Therefore they will have already been included within the Environment Agency's Review of Consents process as necessary (the EA always assume use of full licensed abstraction volumes in their RoC process irrespective of actual current output, as any abstractor is free to decide to abstract their full licenced volumes) and therefore their impact on European sites will have been deemed to be acceptable; and
- The United Utilities Water Resource Management Plan makes it clear that the reactivation of the Southport boreholes (and installation of any new boreholes in the same area) would

[69] http://www.seftoncoast.org.uk/pdf/natconsultwater.pdf

only be required to provide additional resources after 2030, which is beyond the end of the West Lancashire Local Plan period. In other words, United Utilities does not expect to need to reactivate the boreholes during the Local Plan period and it is only expected population increases after 2030 that would render the new resources necessary.

6.7.4 Therefore, it is possible to confrm that there is a negligible risk posed to the SAC by the need to provide public water supply for the Core Strategy development even considered in combination with all other expected development/population increases within the Integrated Resource Zone, even if there was a hydrological link between the SAC and the Southport boreholes.

1.1.6 Clearly, the concept of strategic forward planning of development requires local authorities to play their part in ensuring the pressures on available water resources are minimised insofar as is practical, rather than relying entirely on the Environment Agency licensing regime. The Council has thus confirmed that United Utilities have agreed that the housing proposed for West Lancashire can be met by their existing Water Resource Management Plan. The Council has also incorporated into Policy EN1 the requirement that they will require all development to '*achieve the Code for Sustainable Homes Level 3 as a minimum standard for new residential development and conversions, rising to Level 4 and Level 6 in line with the increases to Part L of the Building Regulations'*.

6.7.5 It can therefore be concluded.that the Local Plan will not lead to likely significant effects on Sefton Coast SAC through this pathway.

6.8 Likely Significant Effects of other Projects and Plans

6.8.1 In addition to the effects of the Local Plan when considered alone, the potential impacts could be exacerbated by the following other plans and projects.

Plan or project	How could it interact with the Local Plan
Local Development Frameworks for other Merseyside Authorities; in particular, 35100 new houses are planned for Liverpool by 2021	These could operate cumulatively with the recreational pressure that would result from the Local Plan, particularly with regard to Liverpool and Sefton.
Shoreline Management Plan	A Hold the Line policy for the coastline adjacent to the SPA/Ramsar would result in coastal squeeze.
Ribble Coast and Wetlands Regional Park	These could operate cumulatively with the recreational pressure that would result from the Local Plan.
Port of Liverpool expansion	Sulphur deposition is also known to be a problem for the Sefton coast, originating from shipping exhaust emissions related to the Port. According to the UK Air Pollution Information System (www.apis.ac.uk) this is mainly with regard to the 'fixed dunes with herbaceous vegetation'. APIS currently indicates that 34% of sulphur deposition within the southern part of the SPA/Ramsar is due to shipping and 'maritime activities'.. There may be a disturbance impact as well in that the expansion of the port will also bring shipping activity closer to the SPA/Ramsar. Expansion of the Port of Liverpool will potentially result in direct landtake from the southern-most point of the Ribble & Alt Estuaries SPA/Ramsar. While there will be no direct interaction with the impacts of the Local Plan there could be a significant cumulative effect.
Liverpool City Region Renewable	Interaction with Policy EN1 with regards to location of CHP plant locations

Plan or project	How could it interact with the Local Plan
Energy Options	
North West England & North Wales Shoreline Management Plan 2 –	Possible impacts due to the maintenance or enhancement of flood defences could lead to coastal squeeze, changes in sediment release (if previously undefended areas become defended) and direct loss of habitat to flood defence footprint;
Merseyside Joint Waste Development Plan Document.	Possible impacts due to water quality, air quality and wildfowl disturbance or chick predation. However, since this DPD is itself subject a recent HRA it will address its own contribution to any 'in combination' effect that may otherwise arise

6.8.2 Given the measures already incorporated into the Local Plan it is concluded that it will not contribute to any 'in combination' effect.

6.9 Conclusion

6.9.1 It can be concluded that the Local Plan will not lead to likely significant effects on this Euroepan site.

7 Mersey Narrows & North Wirral Foreshore pSPA / pRamsar Site

7.1 Introduction

7.1.1 The Mersey Narrows and North Wirral Foreshore pSPA and pRamsar Site is approximately 2,078ha, located at the mouths of the Mersey and Dee estuaries. The European site comprises intertidal habitats at Egremont foreshore (feeding habitat for waders at low tide), man-made lagoons at Seaforth Nature Reserve (high tide roost and nesting site for terns) and the extensive intertidal flats at North Wirral Foreshore (supports large numbers of feeding waders at low tide and also includes important high-tide roost sites). The most notable feature of the European site is the exceptionally high density of wintering turnstone *(Arenaria interpres)*. The Mersey Narrows and North Wirral Foreshore has clear links in terms of bird movements with the nearby Dee Estuary SPA and Ramsar Site, Ribble and Alt Estuaries SPA and Ramsar Site, and (to a lesser extent) the Mersey Estuary SPA and Ramsar Site[70].

7.2 Reasons for Designation

7.2.1 The Mersey Narrows and North Wirral Foreshore pSPA and pRamsar Site is proposed on the grounds of its feeding and roosting habitat for non-breeding wading birds, and as a breeding Site for terns. The Birds Directive Annex I species (qualifying the Site under Article 4.1), which can be found in any season, are:

- The site regularly supports more than 1% of the GB populations of 3 species listed in Annex I of the EC Birds Directive (Bar-tailed Godwit *Limosa lapponica*, Little Gull *Hydrocoloeus minutus* and Common Tern *Sterna hirundo*).

7.2.2 The Site also qualifies under Article 4.2 of the Birds Directive, as it is used regularly by 1% or more of the biogeographical populations of the following migratory species:

- Knot *Calidris canutus*: 10,661 individuals = 3.0% of NW European, NE Canadian, Greenland & Icelandic populations;
- Redshank *Tringa totanus*: 1,606 individuals = 1.1% Eastern Atlantic population; and
- Turnstone *Arenaria interpres*: 1,593, individuals = 2.3% Western Palearctic population.

7.2.3 Additionally, in qualifying under Article 4.2 of the Birds Directive, the Site regularly supports over 20,000 individuals of a wider range of species, including dunlin, knot *Calidris canutus,* grey plover *Pluvialis squatarola*, oystercatcher *Haematopus ostralegus* and cormorant *Phalacrocorax carbo*.

7.2.4 The Site qualifies under the Ramsar Convention under Criterion 5, regularly supporting over 20,000 waterbirds (non-breeding season, 28,841 individual waterbirds), and Criterion 6, regularly supporting 1% of the species or subspecies of waterbird in any season listed above.

[70] Wirral Metropolitan Borough Council (2001). *Consultations on proposed designation of North Wirral Foreshore SSSI and Mersey Narrows SSSI as a potential Special Protection Area and proposed Ramsar sire.* http://www.wirral.gov.uk/minute/public/envped011029rep02_3275.pdf

7.3 Historic Trends and Current Pressures

7.3.1 Due to its location at the mouth of the Mersey Estuary and in the Liverpool Bay, this Site has been subject to the same changes as described for the Liverpool Bay SPA and pRamsar Site and the Mersey Estuary SPA and Ramsar Site, in particular water quality improvements since the 1960s (especially since 1985), and increases in agricultural effluent pollution during this same period.

7.3.2 Some of the main current (as opposed to future) environmental pressures relevant to the nature conservation objectives of the Mersey Narrows and North Wirral Foreshore pSPA / pRamsar Site are:

- Disturbance of sediment releasing legacy heavy metal pollution (lead, cadmium, arsenic and other poisons) that is bound into the sediment;
- Pollution via rivers and drains by both treated wastewater and untreated runoff containing inorganic chemicals and organic compounds from everyday domestic products, which '*may combine together in ways that make it difficult to predict their ultimate effect of the marine environment… Some may remain indefinitely in the seawater, the seabed, or the flesh, fat and oil of sea creatures*';
- Pollution via commercial shipping by chemical or noise pollution and the dumping of litter at sea;
- Damage of marine benthic habitat directly from fishing methods;
- Damage of marine benthic habitat along the North Wirral Foreshore directly or indirectly from aggregate extraction, particularly anywhere that dredging may be altering erosion/deposition patterns;
- 'Coastal squeeze' (a type of coastal habitat loss) from land reclamation and coastal flood defences and drainage used in order to farm or develop coastal land, and from sea level rise;
- Loss or damage of marine benthic habitat directly and indirectly (through changed sedimentation/deposition patterns) as a result of navigational dredging in order to accommodate large vessels – e.g. into the ports of Liverpool;
- Harm to wildlife (especially birds) or habitat loss due to increasing proposals/demand for offshore wind turbines;
- Pollution, direct kills, litter, disturbance or loss of habitat as a result of water-based recreation or other recreation activity and related development along the foreshore;
- Introduction of non-native species and translocation;
- Selective removal of species (e.g. bait digging, wildfowl, fishing)[71].

7.3.3 The Mersey Estuary does have a high load of nutrients mainly from diffuse sources, with levels for phosphate and nitrogen decreasing from point sources. However, recent modelling has shown that due to the natural turbidity of the water, there is only a low risk of excessive algal growth.

[71] The Marine Biological Association (2006). *European site Characterisation of European Marine European sites: The Mersey Estuary SPA*. www.mba.ac.uk/nmbl/publications/occpub/pdf/occ_pub_18.pdf

7.4 Nature Conservation Objectives

7.4.1 Since the Site is not yet a SPA or Ramsar Site, there are no nature conservation objectives provided at this stage, but they would likely be similar to those of other maritime and estuarine SPAs, particularly nearby European sites such as the Mersey Estuary SPA. Such objectives are thus assumed to include:

- To prevent a significant reduction in numbers of all qualifying species from a reference level;
- To prevent significant damage to or decrease in the extent of habitat, vegetation characteristics or the landscape features from a reference level;
- To maintain the presence and abundance of aquatic plants (including algae) and invertebrates, whereby the populations do not deviate significantly from a reference level.

7.5 Key Potential Pressures from West Lancashire

7.5.1 From the environmental requirements that have been identified above it can be determined that the following impacts of development could interfere with the above environmental requirements and processes on the pSPA and pRamsar:

- Increased recreational pressures;
- Potential displacement of qualifying bird species due to development of wind turbines within West Lancashire borough boundary.

7.6 Recreational Pressure

7.6.1 There is the potential for a rise in population within West Lancashire, delivered through the Local Plan, to contribute to an increase in recreational pressures on the Mersey Narrows and North Wirral Foreshore pSPA/pRamsar. As this site is outside of the West Lancashire Local Plan Area, potential adverse effects arising from the Local Plan can, at most, be 'in combination' with the other plans and policies which may result in an increase in visitor numbers. (e.g. Merseyside Core Strategies and LDFs tourism management plans).

7.6.2 Avoidance of recreational impacts at European sites involves location of new development away from such European sites. Mitigation involves a mix of access management, habitat management and provision of alternative recreational space. Habitat management is not within the direct remit of the LDF. However the LDF can help to set a framework for improved habitat management by promoting S106 funding of habitat management.

7.6.3 Provision of alternative recreational space can help to attract recreational users away from sensitive Sites, and reduce additional pressure on them. As West Lancashire contains only a small section of estuarine habitat comprising the Ribble and Alt Estuaries SPA/Ramsar, this avoidance option is therefore not practicable for Mersey Narrows and North Wirral Foreshore pSPA/pRamsar.

7.6.4 It is therefore recommended that the Council engages with other Merseyside authorities and Natural England to input into the delivery of those actions of the Mersey Estuary Management

Plan and other Estuary Management Plans that are linked to reducing the impacts of recreation including wardening, fencing, signage and seasonal closures. These measures would be identified by the Management Plan as it is revised and updated to account for changing patterns of visitor use. West Lancashire's contribution should be commensurate with its population size, since West Lancashire can only be considered responsible for mitigating their contribution to an "in combination" effect.

7.6.5 The additional supporting text proposed for inclusion by the Council given in Chapter 5 (with respect to Ribble and Alt Estuaries SPA/Ramsar) for collaborative working with other authorities with regard to access management of coastal recreation also provides West Lancashire with a mechanism whereby the borough can contribute towards avoiding and mitigating potentially damaging effects from the rise in recreational activities. This includes adverse effects on Mersey Narrows & North Wirral Foreshore. It is intended that this would be in collaboration with the other Merseyside and Lancashire Authorities to manage, influence and control visitor pressure on the sensitive coastal and estuarine Sites within the North West region.

7.6.6 Given the text now incorporated into the Local Plan it is considered that likely significant effects on the Mersey Narrows and North Wirral Foreshore will not occur.

7.7 Bird strike

7.7.1 The Local Plan promotes renewable energy development (Policy EN1). Should this include wind turbine construction, a pathway could exist for the construction of onshore turbines to disrupt flight paths and displace qualifying bird species. The Liverpool City Regional Renewable Energy Options[72] identifies two wind development priority zone within West Lancashire. These are indicated in the the Wind Priority Zones Figure (Appendix 5). However, the Council has confirmed that there are no specific proposals for wind energy in the district at this current time. Moreover, Policy EN1 states that '*proposals for renewable, low carbon or decentralised energy schemes will be supported provided they do not result in unacceptable harm to the local environment which cannot be successfully mitigated*'. It also states that *'Wind energy … developers are required to provide evidence to support their proposals considering the following: … ecological impact including migration routes of protected bird species'* and adds that the impact must be addressed satisfactorily. Combined with the strong wording protecting the environment in Policy EN2, it is considered that the Local Plan contains appropriate mechanisms to ensure the forthcoming renewable energy development policies, whether alone or in combination with other land use plans, would not result in likely significant effects on the interest features of the Mersey Narrows & North Wirral Foreshore.

7.8 Likely Significant Effects of other Projects and Plans

7.8.1 In addition to the effects of the Local Plan when considered alone, it has been considered 'in combination' with the following other plans and projects.

Plan or project	Could it interact with the Local Plan
Local Development Frameworks for other	Development elsewhere within Merseyside (particularly Wirral) will result in increased

[72] Arup (2001) Liverpool City Regional Renewable Energy Options Stage 2 (Drawing Title CHP/DH & Wind Priority Zones, Final Issue) (date 27/5/2010)

Plan or project	Could it interact with the Local Plan
Merseyside Authorities, particularly 11,500 new dwellings in Wirral (including Birkenhead which lies immediately adjacent to the European site)	recreational activity within the pSPA/pRamsar.
Port expansion	Disturbance caused by shipping entering the mouth of the Mersey already has the potential to affect detrimentally Liverpool Bay SPA and Mersey Narrows and North Wirral Foreshore pSPA/pRamsar. Moreover, part of the Mersey Narrows SSSI which will constitute the pSPA/pRamsar (Management Unit 1, equivalent to Seaforth Nature Reserve) is on the north bank of the Mersey immediately adjacent to the Port of Liverpool. It is understood that expansion of the Port may involve direct physical landtake from this Management Unit. Two studies have recently been published by the NWDA & MDS Transmodal – Mersey Partnership: Superport economic trends study (June 2009), & the NW Ports: Economic trends & land use study, which set out the case for northward expansion of the port onto the Seaforth Nature Reserve. While these impacts are different from the possible 'in combination' recreational impact identified above there could be a cumulative effect with regard to Unit 1 of the North Wirral Foreshore SSSI.
Flintshire coastal towns marked for regeneration in West Cheshire/ North East Wales subregional spatial strategy: up to 7500 new homes in Flintshire and 7000 in Wrexham	As with development in Merseyside, these could operate cumulatively with the small amount of recreational pressure that would result from the Local Plan with regard to Unit 1 of the North Wirral Foreshore SSSI.
Liverpool City Region Renewable Energy Options	Interaction with Policy EN1 with regards to location of wind turbine/CHP plant locations.

7.8.2 Given the measures already incorporated into the Local Plan it is concluded that it will not contribute to any 'in combination' effect.

7.9 Conclusion

7.9.1 It can be concluded that the Local Plan will not lead to likely significant effects on this Euroepan site.

8 Liverpool Bay SPA

8.1 Introduction

8.1.1 Liverpool Bay SPA is an approximately 198,000ha maritime European site located in the Irish Sea, straddling the English and Welsh borders. The site has exposed mudflats and sandbanks in places, although the Site extends up to approximately 20km from the shoreline and thus most of the area of the SPA is relatively shallow water up to 20m deep. It is contiguous with a number of other European sites, including the Ribble and Alt Estuaries SPA and Ramsar Site, Mersey Narrows and North Wirral Foreshore pSPA and pRamsar Site, and Mersey Estuary SPA and Ramsar Site.

8.2 Reasons for Designation

8.2.1 In 2004, a study team of the Joint Nature Conservation Committee (JNCC) (referred to in citation as 'Webb et al.') produced two reports on a potential Liverpool Bay SPA, the first on the recommendation for designation, and the second on boundary options. The former reported that '*Liverpool Bay hosted populations of red-throated divers* Gavia stellata *and common scoter* Melanitta nigra *in numbers that exceeded thresholds that would qualify the site for SPA status*'[73]

8.2.2 The site qualified as an SPA for the following reasons:

- Species listed in Annex 1 of the Habitats Directive (article 4.1): red-throated diver, 922 individuals representing at least 5.4% of the wintering population of Great Britain (5 year peak mean 2001/2 – 2006/7);
- Regularly occurring migratory species (article 4.2): common scoter, 54,675 individuals representing at least 3.4% of the wintering NW Europe population (5 year peak mean 2001/2 – 2006/7);
- Assemblage of at least 20,000 waterfowl or seabirds in any season (article 4.2): over winter, the area regularly supports 55,597 individual waterfowl (5 year peak mean 2001/2 – 2006/7), including red-throated diver and common scoter.

8.3 Historic Trends and Current Pressures

8.3.1 With the site encompassing approximately 198,000 hectares and a range of estuarine and maritime habitat, Liverpool Bay SPA is subject to a wide range of pressures of varying spatial scope and human activity. Perhaps the most direct way to establish the proposed site's recent changes in health/ ecological status is through the changing environmental pressures upon the Irish Sea.

8.3.2 The industrial revolution of the 19th century led to the Irish Sea being used to dispose liquid waste, including sewage and unwanted by-products of industrial processes (including mining, manufacturing, nuclear waste reprocessing and energy generation). This improved in the latter

[73] Webb *et al.*, 2004b – Webb A., McSorley C..A., Dean B. J. and Reid J. B. (2004b). *Recommendations for the selection of, and boundary options for, an SPA in Liverpool Bay*. http://www.jncc.gov.uk/default.aspx?page=3815

half of the 20th century, and sewage and other waste are no longer dumped offshore in an uncontrolled manner. While Liverpool Bay is hypernutrified, there is no evidence of harmful algal blooms or de-oxygenation of seawater (Environment Agency, pers. comm.).

8.3.3 Some of the main existing environmental pressures on the Irish Sea relevant to the nature conservation objectives of the Liverpool Bay SPA are:

- Disturbance of sediment, releasing legacy heavy metal pollution (lead, cadmium, arsenic and other poisons) that is bound into the sediment;
- Pollution via rivers and drains by both treated wastewater and untreated runoff containing inorganic chemicals and organic compounds from everyday domestic products, which '*may combine together in ways that make it difficult to predict their ultimate effect of the marine environment… Some may remain indefinitely in the seawater, the seabed, or the flesh, fat and oil of sea creatures*';
- Pollution via commercial shipping by chemical or noise pollution and the dumping of litter at sea;
- Damage of marine benthic habitat directly from fishing methods;
- Damage of marine benthic habitat directly or indirectly from aggregate extraction;
- 'Coastal squeeze' (a type of coastal habitat loss) from land reclamation and coastal flood defences and drainage used in order to farm or develop coastal land, and from erosion and sea level rise;
- Loss or damage of marine benthic habitat directly and indirectly (through changed sedimentation/deposition patterns) as a result of navigational dredging in order to accommodate large vessels – e.g. into the ports of Liverpool;
- Harm to wildlife (especially birds) or habitat loss due to increasing proposals/demand for offshore wind turbines;
- Pollution, direct kills, litter or loss of habitat as a result of water-based recreation and related development along the foreshore.

8.4 Nature Conservation Objectives

8.4.1 Since the site has only recently received SPA designation, there are no nature conservation objectives provided at this stage, but they would likely be similar to those of other maritime and estuarine SPAs, particularly nearby sites such as the Mersey Estuary SPA. Such objectives are thus assumed to include:

- To prevent a significant reduction in numbers or displacement of all qualifying species of over-wintering birds from a reference level – these are:
    - red-throated diver *Gavia stellata*: currently estimated at 1,405 wintering individuals = 28.7% of the GB population,
    - common scoter *Melanitta nigra*: currently estimated at 53,454 wintering individuals = 3.3% of the GB population,

- To prevent significant damage to or decrease in extent of habitat, vegetation characteristics or landscape features from a reference level; and
- To maintain the presence and abundance of prey species, primarily aquatic invertebrates but also aquatic vegetation (including algae), whereby the populations do not deviate significantly from a reference level.

8.5 Key Potential Pressures from West Lancashire

8.5.1 From the environmental requirements that have been identified above it, can be determined that the following impacts of development could interfere with the above environmental requirements and processes on the SPA:

- Increased recreational pressures;
- Potential displacement of qualifying bird species due to development of wind turbines within West Lancashire borough Boundary;
- A rise in population and industry within the borough resulting in greater discharge to the Ribble and Alt Catchment exacerbating existing water quality pressure and associated damage to marine benthic communities, particularly in infrastructure is not phased and adequately in place. There are hydraulic connections to the Liverpool Bay SPA;
- Pollution, direct kills, litter, disturbance or loss of habitat as a result of water-based recreation or other recreation activity and related development along the foreshore.

8.6 Deterioration in Water Quality

8.6.1 Liverpool Bay SPA extends over the mouth of the Ribble Estuary. It is therefore susceptible to changes in water quality within the Ribble Estuary arising from:

- Wastewater discharge (domestic and industrial) and surface water runoff; and
- Shipping, port/dock expansion and associated navigational dredging/ship wash.

8.6.2 Chapter 5 provides an Appropriate Assessment of these identified pathways from the Local Plan to the Ribble Estuary. These potentially significant effects could also be relevant on Liverpool Bay SPA due to the hydraulic connections.

8.6.3 The Natural England Draft Conservation Objectives and Advice on Operation[74] provide more detail on the risk that the pollutants pose to the qualifying features of interest at the Liverpool Bay SPA.

8.6.4 With respect to wastewater discharge, non-toxic contamination through nutrient loading, organic loading and changes to the thermal regime could impact on prey species and distribution. The sensitivity of the prey species of both red-throated diver and common scoter to non-toxic contamination is considered moderate. As benthic feeders, common scoter are closely associated with the availability and condition of their shallow sandbank habitat. As such they are

[74]Natural England and Countryside Council for Wales (September 2009) *Liverpool Bay / Bae Lerpwl pSPA Conservation Objectives from Natural England and CCW, September 2009* http://www.naturalengland.org.uk/Images/LivBay-consobj_tcm6-15189.pdf

considered highly sensitive to its physical loss and smothering and any adverse impact on benthic communities.

8.6.5 PCBs are toxic persistent organic pollutants used in industry as dielectric fluids for transformers, capacitors, coolants can bioaccumulate in the sublittoral prey species of the common scooter and bioaccumulate/ biomagnify in the fish species of the red-throated diver. If marine pollution were to occur there is the potential for exposure to PCBs to change. Hotspots of PCBs include industrial estuaries and sandy environments offshore, but as PCB's are currently banned, exposure can be considered low. However disturbance of sediments through shipping, dock/port expansion and navigational dredging may release such hotspots of PCBs.

8.6.6 Large oil and chemical spills affecting shallow sandbank habitats can have a detrimental effect on bird populations as it can affect their food sources and also the birds directly especially during their moulting times when they are far less mobile. Sensitivity to non-synthetic compounds is therefore considered to be high. Oil on the feathers of birds could lead to loss of insulation, reduced buoyancy and possible drowning. Consequently both qualifying bird species may suffer the inability to feed, resulting in starvation and death. The possibility of a pollution event, however, has been considered and the overall assessment of exposure is considered to be low. This is a combination of 'normal' toxic contamination in the SPA plus the low risk of a catastrophic event. Although exposure is low, the possibility of a catastrophic event due to vessel traffic (oil tankers, ships with toxic contaminants etc) exists.

8.6.7 In the Martin Mere chapter wording in Policy IF3 has already been identified which requires development to be phased in line with delivery of water treatment infrastructure. This would also cover Liverpool Bay SPA. No further amendments are therefore recommended to address this issue.

8.7 Recreational Pressure

8.7.1 Recreational disturbance arising from fishing, boating, visual impacts and noise is highlighted as a pressure on the qualifying features of Liverpool Bay SPA[75]. North Wirral Foreshore SPA/pRamsar, Sefton Coast SAC and Ribble and Alt Estuaries SPA/Ramsar. Due to their close proximity to Liverpool Bay SPA, these same pressures are likely to be relevant. Red-throated diver winter inshore in water 0-20m deep (having one of their key concentrations off the north Wirral foreshore) and as such is likely to be particularly exposed to the impacts of water-borne recreation which largely takes place close to the shore.

8.7.2 Most of Liverpool Bay SPA is sufficiently far from the coast that coastal water-borne recreation (e.g. windsurfing, personal watercraft, water-skiing etc.) will constitute a small source of disturbance in comparison to conventional shipping. However, there is a margin of the European site which abuts and is integrally linked with the North Wirral Foreshore and the Sefton Coast. As such, water-borne recreation around either coast will potentially affect not only the interest features of the Mersey Narrows & North Wirral Foreshore pSPA/pRamsar Site and Ribble & Alt Estuaries SPA/ Ramsar Site but also Liverpool Bay SPA. However, this should be considered within the context of contributing to an 'in combination' effect with other plans and policies which

[75] Natural England and Countryside Council for Wales (September 2009) *Liverpool Bay / Bae Lerpwl pSPA Conservation Objectives from Natural England and CCW, September 2009* http://www.naturalengland.org.uk/Images/LivBay-consobj_tcm6-15189.pdf

may result in an increase in visitor numbers. (e.g. Merseyside Core Strategies and LDFs tourism management plans).

8.7.3 in the measures identified in Chapter 5 for the Local Plan to make a clear commitment on the part of West Lancashire Council to collaborate with the other Merseyside Authorities to manage, influence and control visitor pressure on European sites would also serve to mitigate recreational pressures on Liverpool Bay SPA.

8.7.4 The above measures would enable West Lancashire Council to be confident that the Local Plan contains an adequate policy framework to ensure no likely significant effects on Liverpool Bay SPA.

8.8 Bird strike

8.8.1 The Local Plan promotes renewable energy development (Policy EN1). Should this include wind turbine construction, a pathway could exist for the construction of onshore turbines to disrupt flight paths and displace qualifying bird species. The Liverpool City Regional Renewable Energy Options[76] identifies two wind development priority zone within West Lancashire. These are indicated in the the Wind Priority Zones Figure (Appendix 5). However, the Council has confirmed that there are no specific proposals for wind energy in the district at this current time. Moreover, Policy EN1 states that '*proposals for renewable, low carbon or decentralised energy schemes will be supported provided they do not result in unacceptable harm to the local environment which cannot be successfully mitigated*'. It also states that *'Wind energy … developers are required to provide evidence to support their proposals considering the following: … ecological impact including migration routes of protected bird species'* and adds that the impact must be addressed satisfactorily. Combined with the strong wording protecting the environment in Policy EN2, it is considered that the Local Plan contains appropriate mechanisms to ensure the forthcoming renewable energy development policies, whether alone or in combination with other land use plans, would not result in likely significant effects on the interest features of the Liverpool Bay SPA.

8.9 Likely Significant Effects of other Projects and Plans

8.9.1 In addition to the effects of the Local Plan when considered alone, the potential impacts could be exacerbated by the following other plans and projects.

Plan or project	How could it interact with the Local Plan
Local Development Frameworks for other Merseyside Authorities, particularly the delivery of 31,100 at Liverpool itself.	Development elsewhere within Merseyside (particularly Liverpool) will also result in increased recreational activity within the Bay.
Port expansion. Birkenhead and Bootle have potential for significant development, including port facilities. This	Large numbers of seaduck and in particular common scoter occur in the shallow waters of Liverpool Bay and these appear to be susceptible to disturbance e.g. dispersal of feeding or roosting flocks by surface vessel passage in proximity or aircraft low overflight.

[76] Arup (2001) Liverpool City Regional Renewable Energy Options Stage 2 (Drawing Title CHP/DH & Wind Priority Zones, Final Issue) (date 27/5/2010)

Plan or project	How could it interact with the Local Plan
may lead to increased water pollution both through construction and from shipping.	Disturbance caused by shipping entering the mouth of the Mersey already has the potential to affect detrimentally Liverpool Bay SPA. While these impacts are different from those of the Local Plan there could be a significant cumulative effect
Flintshire coastal towns marked for regeneration in West Cheshire/ North East Wales subregional spatial strategy: up to 7500 new homes in Flintshire and 7000 in Wrexham	As with development in Merseyside, these could operate cumulatively with the recreational pressure that would result from the Local Plan.
Gwynt y Mor offshore windfarm and other windfarms in the Bay	The Environmental Statement (November 2005) concluded that there would be no significant effects on birds, as most are found inshore of the proposed wind farm, or marine mammals. The effect of electromagnetic fields generated by subsea cables on the behaviour of fish was considered to be potentially significant due to the current lack of knowledge. Six of the currently proposed offshore wind farm Sites are located in Liverpool Bay, off the coast of North Wales and west coast of England. An assessment of the cumulative impacts on humans, biology and physical environment has been carried out ... In terms of biological impacts, the overall cumulative impact from the proposed wind farms on birds is considered to be negative with the cumulative effects of all wind farms to be high, particularly to the Common Scoter and the Red Throated Diver[77].
Liverpool City Region Renewable Energy Options	Interaction with Policy EN1 with regards to location of wind turbine/CHP plant locations

8.9.2 Given the measures already incorporated into the Local Plan it is concluded that it will not contribute to any 'in combination' effect.

8.10 Conclusion

8.10.1 It can be concluded that the Local Plan will not lead to likely significant effects on this Euroepan site.

[77]http://64.233.183.104/search?q=cache:VWmJ9hZm71sJ:www.lancashire.gov.uk/council/meetings/displayFile.asp%3FFTYPE%3DD%26FILEID%3D2370+Lancashire+offshore+wind+turbine+Cleveleys+Blackpool+2003&hl=e n&ct=clnk&cd=1&client=firefox-a

9 The Dee Estuary SAC, SPA & Ramsar Site

9.1.1 The Dee Estuary SPA, Ramsar and SAC is located outside approximately 15km west of West Lancashire borough. The boundaries of the SPA. Ramsar and SAC differ somewhat. The Dee Estuary SPA/ Ramsar site is immediately adjacent to Mersey Narrows pSPA/ pRamsar site. However, the Dee Estuary SAC partially overlaps with Mersey Narrows pSPA/ pRamsar site (Figure 3).

9.1.2 The Dee is a large funnel-shaped sheltered estuary and is one of the top five estuaries in the UK for wintering and passage waterfowl populations. The Dee Estuary Site covers over 13,000ha and is the largest macro-tidal coastal plain estuary between the larger Severn Estuary and the Solway Firth. The Dee Estuary is hyper-tidal with a mean spring tidal range of 7.7m at the mouth. The European site has extensive areas of intertidal sand-flats, mud-flats and saltmarsh. In areas where agricultural use has not occurred, the saltmarshes grade into transitional brackish and swamp vegetation on the upper shore. The site also supports three sandstone islands (the Hilbre islands) which have important cliff vegetation and maritime heathland and grassland. The two sides of the estuary show a marked difference between the industrialised usage of the Welsh coastal belt and the residential and recreational English side.

9.1.3 The Dee Estuary supports internationally important numbers of waterfowl and waders. The estuary is an accreting system and the saltmarsh continues to expand as the estuary seeks to achieve a new equilibrium following large-scale historical land-claim at the head of the estuary which commenced in the 1730s. Nevertheless, the estuary still supports extensive areas of intertidal sand and mudflats as well as saltmarsh. Where land-claim has not occurred, the saltmarshes grade into transitional brackish and freshwater swamp vegetation, on the upper shore. The site includes the three sandstone islands of Hilbre with their important cliff vegetation and maritime heathland/grassland. The site also includes an assemblage of nationally scarce plants and the sandhill rustic moth *Luperina nickerlii gueneei*, a British Red Data Book species. The two shorelines of the estuary show a marked contrast between the industrialised usage of the coastal belt in Wales and residential and recreational usage in England.

9.2 Reasons for Designation

9.2.1 The Dee Estuary qualifies as an SAC for both habitats and species. Firstly, the site contains the following Habitats Directive Annex I habitats:

- Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation;
- Mudflats and sandflats not covered by seawater at low tide;
- *Salicornia* and other annuals colonising mud and sand - The Dee Estuary is representative of pioneer glasswort *Salicornia spp.* saltmarsh in the north-west of the UK. *Salicornia spp.* saltmarsh forms extensive stands in the Dee, especially on the more sandy muds where there is reduced tidal scour. It mainly occurs on the seaward fringes as a pioneer community, and moving landwards usually forms a transition to common saltmarsh-grass *Puccinellia maritima* saltmarsh (SM10). There is also a low frequency of *Salicornia spp.* extending well inland.

Associated species often include annual sea-blite *Suaeda maritima* and hybrid scurvy grass *Cochlearia x hollandica*.

- Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) - The Dee Estuary is representative of H1330 Atlantic salt meadows in the north-west of the UK. It forms the most extensive type of saltmarsh in the Dee, and since the 1980s it has probably displaced very large quantities of the non-native common cord-grass *Spartina anglica*. The high accretion rates found in the estuary are likely to favour further development of this type of vegetation. The saltmarsh is regularly inundated by the sea; characteristic salt-tolerant perennial flowering plant species include common saltmarsh-grass *Puccinellia maritima*, sea aster *Aster tripolium*, and sea arrowgrass *Triglochin maritima*. In a few areas there are unusual transitions to wet woodland habitats.

9.2.2 Secondly, the site contains the following Habitats Directive Annex II habitats and species:

- Estuaries
- Annual vegetation of drift lines
- Vegetated sea cliffs of the Atlantic and Baltic coasts
- Embryonic shifting dunes
- Shifting dunes along the shoreline with *Ammophila arenaria* (`white dunes`)
- Fixed dunes with herbaceous vegetation (`grey dunes`)
- Humid dune slacks
- Sea lamprey *Petromyzon marinus*
- River lamprey *Lampetra fluviatilis*
- Petalwort *Petalophyllum ralfsii*

9.2.3 The Dee Estuary also qualifies as a SPA supporting:

9.2.4 During the breeding season;

- Common Tern *Sterna hirundo*, 277 pairs representing at least 2.3% of the breeding population in Great Britain (5 year mean 1991-95)
- Little Tern *Sterna albifrons*, 56 pairs representing at least 2.3% of the breeding population in Great Britain (RSPB, 5 year mean 1991-95)

9.2.5 On passage;

- Sandwich Tern Sterna *sandvicensis,* 818 individuals representing at least 5.8% of the population in Great Britain (5 year mean 1991-95)
- Redshank *Tringa totanus*, 8,451 individuals representing at least 4.8% of the Eastern Atlantic - wintering population (5 year peak mean 1991/2 - 1995/6)

9.2.6 Over winter;

- Bar-tailed Godwit *Limosa lapponica*, 1,013 individuals representing at least 1.9% of the wintering population in Great Britain (5 year peak mean 1991/2 - 1995/6)

9.2.7 This Site also qualifies under Article 4.2 of the Directive (79/409/EEC) by supporting populations of European importance of the following migratory species:

- Black-tailed Godwit *Limosa limosa islandica*, 1,739 individuals representing at least 2.5% of the wintering Iceland - breeding population (5 year peak mean 1991/2 - 1995/6)
- Curlew *Numenius arquata*, 4,028 individuals representing at least 1.2% of the wintering Europe - breeding population (5 year peak mean 1991/2 - 1995/6)
- Dunlin *Calidris alpina alpina*, 22,479 individuals representing at least 1.6% of the wintering Northern Siberia/Europe/Western Africa population (5 year peak mean 1991/2 - 1995/6)
- Grey Plover *Pluvialis squatarola*, 2,193 individuals representing at least 1.5% of the wintering Eastern Atlantic - wintering population (5 year peak mean 1991/2 - 1995/6)
- Knot *Calidris canutus*, 21,553 individuals representing at least 6.2% of the wintering North-eastern Canada/Greenland/Iceland/North-western Europe population (5 year peak mean 1991/2 - 1995/6)
- Oystercatcher *Haematopus ostralegus*, 28,434 individuals representing at least 3.2% of the wintering Europe & Northern/Western Africa population (5 year peak mean 1991/2 - 1995/6)
- Pintail *Anas acuta*, 6,498 individuals representing at least 10.8% of the wintering North-western Europe population (5 year peak mean 1991/2 - 1995/6)
- Redshank *Tringa totanus*, 6,382 individuals representing at least 4.3% of the wintering Eastern Atlantic - wintering population (5 year peak mean 1991/2 - 1995/6)
- Shelduck *Tadorna tadorna*, 6,827 individuals representing at least 2.3% of the wintering North-western Europe population (5 year peak mean 1991/2 - 1995/6)
- Teal *Anas crecca*, 5,918 individuals representing at least 1.5% of the wintering North-western Europe population (5 year peak mean 1991/2 - 1995/6)

9.2.8 The Dee Estuary is also designated as an SPA for regularly supporting 130,408 individual waterfowl (5 year peak mean 1991/2 - 1995/6)[78].

9.2.9 In addition to the SPA designation, the Dee Estuary is also designated as a Ramsar Site by meeting Ramsar criteria 1, 5 and 6 as follows:

- Extensive intertidal mud and sand flats (20 km by 9 km) with large expanses of saltmarsh towards the head of the estuary.
- Supporting an overall bird assemblage of international importance; and
- Supporting the following species at levels of international importance: shelduck, oystercatcher, curlew, redshank, teal, pintail, grey plover, red knot, dunlin, bar-tailed godwit, black-tailed godwit and turnstone

[78] The Ramsar citation sheet identifies the waterfowl population as 74,230 using slightly more recent data (5 year peak mean 1998/99-2002/2003). However, this is still more than the 20,000 needed for consideration as being internationally important.

9.2.10 The historic trends and current pressures on the European site are summarised below.

9.3 Historic Trends and Current Pressures

9.3.1 The majority of the European site is in the ownership and sympathetic management of public bodies and voluntary conservation organisations. Unlike most western estuaries, sizeable areas of saltmarsh in the Dee remain ungrazed and therefore plant species that are susceptible to grazing are widespread. This distinctive flora would therefore be sensitive to an increase in grazing pressure. The intertidal and subtidal habitats of the estuary are broadly subject to natural successional change, although shellfisheries and dredging are a current concern. Threats to the estuary's conservation come from its industrialised shorelines on the Welsh side and the impact of adjacent historic industrial use. These include land contamination from chemical and steel manufacture and localised water quality problems. Remediation works are being undertaken. Contemporary issues relate to dock development and navigational dredging, coastal defence works and their impact on coastal process, regulation of shellfisheries, and the recreational use of sand dunes and saltmarshes.

9.3.2 The environmental pressures upon the Dee Estuary SAC, SPA & Ramsar Site are mainly:

- Overgrazing of ungrazed/ little-grazed saltmarsh;
- Certain recreational activities in sensitive areas at sensitive times such as shellfishing (in terms of loss of material from the food chain) and dog walking (in terms of disturbance of waterfowl);
- Water quality threats from ex-industrial usage and agriculture;
- Physical loss and alteration of coastal processes due to navigational dredging;
- 'Coastal squeeze' from land reclamation and coastal flood defences and drainage used in order to develop coastal land, and from sea level rise;
- Introduction of non-native species;
- Risk of excessive abstraction resulting in a decrease in freshwater flows into the estuary, reducing drinking and bathing habitat for birds and increasing the salinity in localised areas.

9.4 Nature Conservation Objectives

9.4.1 The conservation objectives for the European site are to maintain the following features in favourable condition (where features are currently not in a favourable condition the objectives seek to restore these to a favourable condition):

- Estuaries
- Mudflats and sandflats
- *Salicornia* and other annuals colonising mud and sand;
- Atlantic salt meadow
- Annual vegetation of drift lines

- River lamprey
- Sea lamprey

9.5 Key Potential Pressures from West Lancashire

9.5.1 From the environmental requirements that have been identified above it can be determined that the following impact of development requires investigation, since if it occurred it could interfere with the above environmental requirements and processes on the SAC:

- Damaging levels of abstraction to supply housing and industry requirements in West Lancashire when considered in combination with development elsewhere in United Utilities' Integrated Resource Zone and development outside the zone that will receive water from the same sources (e.g. abstraction from the River Dee in relation to development in North Wales).

9.6 Likely Significant Effects of Local Plan in Combination with other Projects and Plans

9.6.1 The United Utilities Water Resource Management Plan (2009) indicates that the water available for use in the Integrated Resource Zone is expected to reduce by 24.8 Ml/d between 2009/10 and 2014/15. Without water efficiency measures or new resources the initial supply demand balance for the Integrated Resource Zone is calculated to be in deficit by 8 Ml/day by 2024/25.

9.6.2 However, increased abstraction from the Dee or any other European sites beyond the current licensed volumes is not part of United Utilities' intended future supply strategy[79], which depends on a mixture of demand management and increased abstraction from groundwater as follows:

- Construction of a bi-directional pipeline, known as the West East Link Main, between Merseyside and North Manchester. It is due to be in operation by April 2011. This will help United Utilities maintain adequate supplies to Greater Manchester and Merseyside if there is a need to temporarily reduce supply from a major reservoir, for example due to maintenance work or drought conditions;
- Maintenance of current leakage levels;
- Assistance to customers to help them save water, a saving of 9 Ml/d by 2014/15 (increasing later on to 12 Ml/d), through a base service water efficiency programme;
- A water demand reduction of 10 Ml/d in a dry year by 2014/15 (increasing to 22 Ml/d by 2034/35) as a result of the expected scale of voluntary metering of households;
- A reduction in the demand for water from non-household customers in the Integrated Zone by 87 Ml/d by 2014/15 (141 Ml/d by 2034/35) due to the effects of the economic downturn and as part of their continuing water efficiency programmes.

[79] Mark Smith of United Utilities North & Central Area Water Asset Management Team confirmed in a personal communication on 27/07/09 that abstraction from the Dee will not exceed the current licensed volume. The current licensed volume was subject to the Environment Agency's Review of Consents process and no reductions were considered necessary. It can therefore be conclude that no adverse effects on the River Dee (either alone or 'in combination') will result from the United Utilities abstraction.

9.6.3 Furthermore, United Utilities' enhanced plans identified as part of their economic programme to maintain adequate supply-demand balances are:

- Further reducing leakage by 23 Ml/d by 2034/35;
- A programme of economic water efficiency measures to save 4 Ml/d by 2034/35;
- Implementing water source enhancements of 48 Ml/d by 2034/35[80].

9.7 Dee Estuary SAC/SPA/Ramsar

9.7.1 It is concluded that since no increased abstraction from the River Dee/Dee Estuary will be required in order to service new development in West Lancashire (or elsewhere within the Integrated Supply Zone) that no likely significant effects will occur on the Dee Estuary SAC, SPA or Ramsar site. Risk of abstraction at inappropriate times of the year (such as periods of low flow) will be prevented by the Environment Agency's licensing regime and Review of Consents process.

[80] Widnes groundwater (22.7 Ml/d), Southport groundwater (22.5 Ml/d) and Oldham groundwater (2.5 Ml/d)

10 River Dee and Bala Lake SAC

10.1 Reasons for Designation

10.1.1 The River Dee and Bala Lake qualifies as a SAC for both habitats and species. Firstly, the European site contains the following Habitats Directive Annex I habitats:

- Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation

10.1.2 Secondly, the site contains the following Habitats Directive Annex II species:

- Atlantic salmon *Salmo salar*
- Floating water-plantain *Luronium natans*
- Sea lamprey *Petromyzon marinus*
- Brook lamprey *Lampetra planeri*
- River lamprey *Lampetra fluviatilis*
- Bullhead *Cottus gobio*
- Otter *Lutra lutra*

10.1.3 The historic trends and current pressures on the European site are summarised below.

10.2 Historic Trends and Current Pressures

10.2.1 The habitats and species for which the site is designated are dependent on the maintenance of good water quality and suitable flow conditions. Fish species require suitable in-stream habitat and an unobstructed migration route. Otters also require suitable terrestrial habitat to provide cover and adequate populations of prey species. The site and its features have been historically threatened by practices which had an adverse effect on the quality, quantity and pattern of water flows, such as inappropriate flow regulation, excessive abstraction, deteriorating water quality from direct and diffuse pollution, eutrophication and siltation. Degradation of riparian habitats due to engineering works, agricultural practices and invasive plant species have also had localised adverse effects in the past. The Atlantic salmon population has been threatened by excessive exploitation by high sea, estuarine and recreational fisheries. Introduction of non-indigenous species has also been a risk to both fish and plant species.

10.2.2 The environmental pressures upon the River Dee & Bala Lake SAC can be described as:

- Deterioration in water quality and changes in flow rates due to ex-industrial runoff, discharge of treated sewage effluent (which contains elevated nitrates) and agricultural runoff;
- Risk of excessive abstraction resulting in a decrease in freshwater flows and an increase in sediment loading of water such that dehydration of interest features may occur;
- Overfishing of Atlantic salmon;

- Introduction of invasive species.

10.3 Key Potential Pressures from West Lancashire

10.3.1 From the environmental requirements that have been identified above, it can be determined that the following impact of development requires investigation, since if it occurred it could interfere with the above environmental requirements and processes on the SAC:

- Damaging levels of abstraction to supply housing and industry requirements in West Lancashire, when considered in combination with development elsewhere in United Utilities' Integrated Resource Zone and development outside the zone that will receive water from the same sources (e.g. abstraction from the River Dee in relation to development in North Wales).

10.4 Likely Significant Effects of Local Plan in Combination with other Projects and Plans

10.4.1 The United Utilities Water Resource Management Plan (2009) indicates that the water available for use in the Integrated Resource Zone is expected to reduce by 24.8 Ml/d between 2009/10 and 2014/15. Without water efficiency measures or new resources, the initial supply demand balance for the Integrated Resource Zone is calculated to be in deficit by 8 Ml/day by 2024/25.

10.4.2 However, from reading the Water Resource Management Plan it does appear that increased abstraction from the Dee or any other European sites beyond the current licensed volumes is not part of United Utilities' intended future supply strategy[81], which rather depends on a mixture of demand management and increased abstraction from groundwater as follows:

- Construction of a bi-directional pipeline, known as the West East Link Main, between Merseyside and North Manchester. It is due to be in operation by April 2011. This will help United Utilities maintain adequate supplies to Greater Manchester and Merseyside if there is a need to temporarily reduce supply from a major reservoir, for example due to maintenance work or drought conditions;
- Maintain current leakage levels;
- Help customers save 9 Ml/d by 2014/15 (increasing later on to 12 Ml/d), through a base service water efficiency programme;
- Achieve a water demand reduction of 10 Ml/d in a dry year by 2014/15 (increasing to 22 Ml/d by 2034/35) as a result of the expected scale of voluntary metering of households;
- Non-household customers in the Integrated Zone are expected to reduce water demand by 87 Ml/d by 2014/15 (141 Ml/d by 2034/35) due to the effects of the economic downturn and as part of their continuing water efficiency programmes.

[81] Mark Smith of United Utilities North & Central Area Water Asset Management Team confirmed in a personal communication on 27/07/09 that abstraction from the Dee will not exceed the current licensed volume. The current licensed volume was subject to the Environment Agency's Review of Consents process and no reductions were considered necessary. It can therefore be conclude that no adverse effects on the River Dee (either alone or 'in combination') will result from the United Utilities abstraction.

10.4.3 Furthermore, United Utilities' enhanced plans identified as part of their economic programme to maintain adequate supply-demand balances are:

- Further reducing leakage by 23 Ml/d by 2034/35;
- A programme of economic water efficiency measures to save 4 Ml/d by 2034/35;
- Implementing water source enhancements of 48 Ml/d by 2034/3582.

10.5 River Dee and Bala Lake SAC

10.5.1 It is concluded that since no increased abstraction from the Bala Lake/River Dee will be required in order to service new development in West Lancashire (or elsewhere within the Integrated Supply Zone) likely significant effects on the River Dee and Bala Lake SAC Site will not occur. Risk of abstraction at inappropriate times of the year (such as periods of low flow) will be prevented by the Environment Agency's licensing regime and Review of Consents process.

[82] Widnes groundwater (22.7 Ml/d), Southport groundwater (22.5 Ml/d) and Oldham groundwater (2.5 Ml/d)

11 River Eden SAC

11.1 Reasons for Designation

11.1.1 The River Eden in the Lake District qualifies as an SAC for both habitats and species. Firstly, the site contains the following Habitats Directive Annex I habitats:

- Oligotrophic to mesotrophic standing waters with vegetation of the *Littorelletea uniflorae* and/or of the *Isoëto-Nanojuncetea*
- Watercourses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation
- Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion, Alnion incanae, Salicion albae*)

11.1.2 Secondly, the site contains the following Habitats Directive Annex II species:

- White-clawed crayfish *Austropotamobius pallipes*
- Sea lamprey *Petromyzon marinus*
- Brook lamprey *Lampetra planeri*
- River lamprey *Lampetra fluviatilis*
- Atlantic salmon *Salmo salar*
- Bullhead *Cottus gobio*
- Otter *Lutra lutra*

11.1.3 The historic trends and current pressures on the European site are summarised below.

11.2 Historic Trends and Current Pressures

11.2.1 The maintenance of breeding and nursery areas for the species on this European site depends on the habitat quality of streams and their margins. Many of the streams within the site suffer from overgrazing of riverbanks and nutrient run-off. This is being addressed by a number of measures, including a conservation strategy with actions to address river quality issues, and a partnership approach to funding habitat improvements. The water-crowfoot communities as well as the Annex II species are sensitive to water quality, particularly eutrophication.

11.2.2 Practices associated with sheep-dipping pose a potential threat at this site, and are currently under investigation. Much of the alluvial forest cover is fragmented and/or in poor condition. It is hoped to address this through management agreements or Woodland Grant Schemes with individual owners.

11.2.3 The habitats and species for which the European site is designated are dependent on the maintenance of good water quality and suitable flow conditions. Fish species require suitable in-stream habitat and an unobstructed migration route. Otters also require suitable terrestrial habitat

to provide cover and adequate populations of prey species. The site and its features have been historically threatened by practices which had an adverse effect on the quality, quantity and pattern of water flows, such as inappropriate flow regulation, excessive abstraction, deteriorating water quality from direct and diffuse pollution, eutrophication and siltation. Degradation of riparian habitats due to engineering works, agricultural practices and invasive plant species have also had localised adverse effects in the past. The Atlantic salmon population has been threatened by excessive exploitation by high sea, estuarine and recreational fisheries. Introduction of non-indigenous species has also been a risk to both fish and plant species.

11.2.4 The environmental pressures upon the River Eden SAC can be summarised as:

- Deterioration in water quality and changes in flow rates due to agricultural runoff and discharge of treated sewage effluent (which contains elevated nitrates);
- Risk of excessive abstraction resulting in a decrease in freshwater flows and an increase in sediment loading of water such that dehydration of interest features may occur;
- Overfishing;
- Introduction of invasive species.

11.3 Key Potential Pressures from West Lancashire

11.3.1 Traditionally, the water supply for West Lancashire comes from the River Dee and Welsh sources, while that for Greater Manchester comes from the Lake District (particularly Haweswater which is within the catchment of the River Eden). The new West-East Link Main will enable greater flexibility of supply such that there will no longer be a strong split between water sources.

11.3.2 From the environmental requirements that have been identified above, it can be determined that the following impacts of development could interfere with the above environmental requirements and processes on the SAC:

- Damaging levels of abstraction to supply housing in West Lancashire when considered in combination with development elsewhere in United Utilities Integrated Resource Zone and development outside the zone that will receive water from the same sources (e.g. abstraction from Haweswater in relation to development in Cumbria).

11.4 Likely Significant Effects of Local Plan in Combination with other Projects and Plans

11.4.1 The United Utilities Water Resource Management Plan (2009) indicates that the water available for use in the Integrated Resource Zone is expected to reduce by 24.8 Ml/d between 2009/10 and 2014/15. Without water efficiency measures or new resources, the initial supply demand balance for the Integrated Resource Zone is calculated to be in deficit by 8 Ml/day by 2024/25.

11.4.2 However, it has been confirmed by United Utilities that one of the main reasons for the construction of the new West East Link Main is in response to expected reductions in the licensed abstractions from Haweswater and other Lake District sources resulting from the Environment Agency's Review of Consents process. As such, abstraction from these sources is already being revised to ensure no adverse effect on the River Eden SAC or other sensitive European sites in the Lake District.

11.5 River Eden SAC

11.5.1 It is concluded that since no increased abstraction from the River Eden SAC will be required in order to service new development in West Lancashire (or elsewhere within the Integrated Supply Zone) no likely significant effects will occur.

12 Mersey Estuary SPA and Ramsar

12.1 Introduction

12.1.1 Figures 3 and 4 show the location of the Mersey Estuary SPA and Ramsar Site, and the extent to which it is located within the borough of West Lancashire. The Mersey Estuary is a large sheltered estuary that receives drainage from a catchment area of c.5000km^2 encompassing the conurbations of Liverpool and Manchester, and including the River Mersey and the River Bollin and their tributaries in Cheshire and Merseyside. The estuary covers 5023.35ha of saltmarsh and inter-tidal sand and mudflats, with limited areas of brackish marsh, rocky shoreline and boulder clay cliffs, within a rural and industrial environment. The intertidal flats and saltmarshes provide feeding and roosting sites for large and internationally important populations of waterbirds, and during the winter, the European site is of major importance for duck and waders. The site is also important during the spring and autumn migration periods, particularly for wader populations moving along the west coast of Britain.

12.2 Reasons for Designation

12.2.1 The Mersey Estuary is designated an SPA under Article 4.183

- Golden plover *(Pluvialis apricaria)*: 3,040 individuals (1.2% of GB population)

12.2.2 SPA Article 4.2 - winter:

- Redshank (*Tringa totanus*): 4,993 individuals (2.8% of Eastern Atlantic population)
- Dunlin (*Calidris alpina*): 48,789 individuals (3.6% of Northern Siberian / Europe / West African population
- Pintail (*Anas acuta*): 1,169 individuals (1.9% of NW European population)
- Shelduck (*Tadorna tadorna*): 6,746 individuals (2.2% of wintering NW European population)
- Eurasian teal (*Anas crecca*): 11,723 individuals (2.9% of NW European population)
- Wigeon (*Anas penelope*): 11,886 individuals (4.2% of the GB population) Black-tailed godwit (*Limosa limosa*): 976 individuals (1.6% of the Iceland population)
- Curlew (*Numenius arquata*): 1,300 individuals (1.1% of the GB population)
- Grey plover (*Pluvialis squatarola*): 1,010 individuals (2.3% of the GB population)
- Great crested grebe (*Podiceps cristatus*): 136 individuals (1.4% of the GB population)
- Lapwing (*Vanellus vanellus*): 10,544 individuals (0.7% of the GB population)

12.2.3 SPA Article 4.2 - on passage:

- Ringed plover (*Charadrius hiaticula*): 505

[83] All bird count data in this document is sourced from the SPA Review European site accounts as available on the Joint Nature Conservation Committee website www.jncc.gov.uk/page-1412

12.2.4 Ramsar Criterion 6, Internationally important populations of:

- Shelduck
- Black-tailed godwit (*Limosa limosa*)
- Redshank
- Eurasian teal
- Pintail
- Dunlin

12.2.5 Ramsar Criterion 5:

- 89,576 waterfowl (5-year peak mean 1998/99-2002/03)

12.2.6 Birdlife (2001) identify the Important Bird Area (IBA) to exceed the area currently designated as a Ramsar Site, and recommend that the designated area should be expanded. This additional area is termed a 'potential Ramsar' (which precedes the 'proposed' Ramsar (pRamsar) designation). This additional area is not considered in the assessment, as objectives and site boundaries are unconfirmed, however its status highlights the nature conservation value of areas of the Mersey outside of the SPA/Ramsar designation.

12.3 Historic Trends and Existing Pressures

12.3.1 Appendix 7 illustrates the extent of the Mersey Catchment. Water pollution has been an issue in the Mersey Estuary since at least the 18th century, when the Mersey catchment became a prime location for industrial expansion, especially the textile industry. With this there was an associated growth in bleaching, dyeing, and finishing trades, and paper, heavy chemical and glass industries, which are still in production to this day. All of these industries used the waterways as a means for the disposal of industrial waste, resulting in a legacy of pollutants within the River Mersey, including mercury, pesticides (e.g. DDT), and persistent organic contaminants (e.g. polychlorinated biphenyls (PCBs), pentachlorophenol (PCP)) (Mersey Basin Campaign 2004). In addition, there was surface runoff, and the discharge of domestic waste-water and sewage directly into the waterways from a large and growing human population, resulting in gross pollution[84]. The high levels of sewage discharged in to the waterways resulted in low oxygen levels and a major difficulty in improving water quality.

12.3.2 The problem of water pollution in the Mersey Estuary '*was probably at its worst in the 1960's*' and made it the most polluted Estuary in the UK (Mersey Basin Campaign 2004). Major improvements to water quality have been realised since the formation of the Mersey Basin Campaign in 1985, which aims to '*revitalise the River Mersey and its waterfront*'.

12.3.3 The major projects that brought about the improvements to water quality tackled the direct discharges of sewage into the region's waterways. New projects included: primary wastewater

[84] Langston, W.J., Chesman, B.S. and Burt, G.R. (2006). Characterisation of European Marine European sites. Mersey Estuary SPA. [Online]. *Marine Biological Association of the United Kingdom. Occasional Publications* **18**, 185pp. Available at: www.mba.ac.uk/nmbl/publications/occpub/pdf/occ_pub_18.pdf (accessed 15th June 2009).

treatment works at Sandon Dock which replaced 28 crude sewage discharges directly into the Mersey Estuary through the MEPAS scheme (Mersey Estuary Pollution Alleviation Scheme); primary wastewater treatment plants on the Wirral peninsula; secondary wastewater treatment and petrochemical effluent treatment plants at Ellesmere Port; secondary wastewater treatment plants at Widnes and Warrington; modification of the Davyhulme wastewater treatment plant in Greater Manchester to treat ammonia (which may kill salmonid species); and later secondary wastewater treatment plants at Birkenhead/Bromborough. Other improvements have been made, including reducing inputs of mercury, lead, cadmium, PCP and chlorinated hydrocarbons into the Estuary.

12.3.4 However, certain inputs remain, including:

- Pesticides and herbicides from agriculture (largely dairy farming) into the upper river system;
- Phthalate esters (used as plasticisers, increasing flexibility in plastics) thought to come from wastewater discharges in the upper Mersey;
- Hydrocarbon contamination from oil spillage/spills from Tranmere Oil Dock/Terminal, Stanlow (Shell) Oil Refinery and oil tanks along the southern bank of the Estuary, from pipelines that run between these sites along the southern bank of the Estuary, and from oil shipping spills in the Irish Sea;
- PCBs from the River Mersey (possibly also dredge spoils);
- PCBs from contaminated land in the catchment area (Marine Biological Association, 2006).

12.3.5 The General Quality Assessment scheme, introduced by the National Rivers Authority, and replaced by the Environment Agency in 1996, monitors the water quality of rivers and canals throughout England and Wales. It assesses the chemical and biological status, nutrient levels, and aesthetic water quality from permanent sampling stations. The Mersey Basin Campaign (2005) reports on sites in the Mersey catchment that detail low (Grades D, E and F, or 'fair' to 'bad') biological and chemical river water quality; only those within the Mersey catchment – see Appendix 7 – are described here. Such sampling sites are particularly concentrated in the area between Knowsley and Manchester, including St. Helens and Wigan, although biological quality is generally poor from Liverpool to Manchester.

12.3.6 The main current environmental pressures upon the Mersey Estuary SPA and Ramsar Site are considered to be:

- Disturbance of sediment releasing legacy heavy metal pollution (mercury, lead, cadmium and other poisons) that is bound into the sediment, or other introduction of these metals;
- Pollution via rivers and drains by both treated sewerage and untreated runoff containing inorganic chemicals and organic compounds from everyday domestic products, which '*may combine together in ways that make it difficult to predict their ultimate effect of the marine environment. Some may remain indefinitely in the seawater, the seabed, or the flesh, fat and oil of sea creatures*'[85];

[85] Langston, W.J., Chesman, B.S. and Burt, G.R. (2006). Characterisation of European Marine European sites. Mersey Estuary SPA. [Online]. *Marine Biological Association of the United Kingdom. Occasional Publications* **18**, 185pp. Available at: www.mba.ac.uk/nmbl/publications/occpub/pdf/occ_pub_18.pdf (accessed 15th June 2009).

- Pollution via commercial shipping by chemical pollution and the dumping of litter at sea;
- 'Coastal squeeze' and physical loss from land reclamation and coastal flood defences and drainage used in order to develop coastal land, and from sea level rise;
- Loss or physical damage of marine benthic habitat directly and indirectly (through changed sedimentation/deposition patterns) as a result of navigational or aggregate dredging;
- Disturbance to birds from increased recreational pressure (e.g. boat or other recreational activity) and wildfowling;
- Introduction of non-native species;
- Selective removal of species (e.g. bait digging, wildfowl, fishing) (Wildlife Trust 2006; Langston et al. 2006).

12.3.7 Although the Mersey Estuary does have a high load of nutrients mainly from diffuse sources, with levels for phosphate and nitrogen decreasing from point sources, recent modelling has shown that due to the natural turbidity of the water, there is only a low risk of excessive algal growth.

12.4 Nature Conservation Objectives

12.4.1 The Nature Conservation Objectives for the European site are as follows:

- No significant damage to or decrease in the extent of habitat, the vegetation characteristics, or the landscape features important for supporting populations of qualifying species from a reference level, e.g. grazing of the saltmarsh by suitable stocking levels of livestock to maintain diversity and vegetation height throughout areas used for feeding and roosting;
- Prevent an increase in obstructions to existing bird viewlines;
- Prevent significant reduction in numbers, or displacement of, all qualifying species of over-wintering birds from a reference level;
- Maintain presence and abundance of aquatic plants and invertebrates, whereby the populations do not deviate significantly from a reference level.

12.5 Key Potential Pressures from West Lancashire

12.5.1 From the environmental requirements that have been identified above, it can be determined that the following impacts of development in West Lancashire could interfere with the environmental requirements and processes on the SPA/Ramsar Site:

- Potential disturbance to qualifying bird species arising from the development of wind turbines within two identified areas of West Lancashire.

12.6 Likely Significant Effects of the Local Plan

12.6.1 One of the two potential large scale wind energy development Sites (see Appendix 1 Core Diagram) is located in the south-western corner of the West Lancashire borough, approximately 15km from the Mersey Estuary SPA/ Ramsar. The other is located to the east of the borough,

approximately 20km from the Mersey Estuary SPA/ Ramsar. At these distances, it is possible that the construction of wind turbines within West Lancashire has the potential to displace the flight path of qualifying bird species. Qualifying species such as golden plover, pintail, common teal, dunlin and ringed plover are common to both the Mersey Estuary and/or Ribble and Alt Estuaries SPA/Ramsar, and Martin Mere SPA/ Ramsar within West Lancashire borough.

12.6.2 It would be more appropriate to consider these likely significant effects as an 'in combination effect' with other policies that may contribute to the disruption of qualifying bird species of the Mersey Estuary SPA/Ramsar and polices that may contribute to the construction of wind turbines in the region.

12.7 Likely Significant Effects of Other Projects and Plans

12.7.1 Other plans and projects that have the potential to interact with the West Lancashire Local Plan Policies SP1 (A Sustainable Development Framework) and EN1 (Low Carbon Development and Energy Infrastructure) and result in an in combination effect on qualifying bird species of the Mersey Estuary SPA/ Ramsar include:

- Liverpool John Lennon Airport Masterplan (2007);
- Halton Local Plan (with respect to renewable energy and Liverpool John Lennon Airport Expansion policies);
- Liverpool Local Plan (with respect to renewable energy and Liverpool John Lennon Airport Expansion policies);
- Liverpool City Region Renewable Energy Options.

12.8 Renewable Energy

12.8.1 The discussion of policy EN1 as it relates to renewable energy in Chapter 4 (Martin Mere) is also applicable to Mersey Estuary SPA/Ramsar.

12.8.2 It is understood that the Joint Merseyside HRAs/ AAs (drafts completed by URS/Scott Wilson 2010) have considered the findings of the regional renewable energy study[86] with respect to the potential effects of wind turbines on qualifying bird species throughout the North West coastline/ estuaries including sites within West Lancashire. It is recommended that this joined-up approach towards progressing renewable energy developments within the region is maintained to ensure potential in combination effects of policy is adequately considered.

12.9 Conclusion

12.9.1 The use of strong policy wording in policies EN1 and EN2, as discussed in Chapter 4 with respect to Martin Mere SPA/Ramsar, enables West Lancashire Council to be confident that the Local Plan contains an adequate policy framework to ensure likely significant effects will not occur on the Mersey Estuary SPA/Ramsar.

[86] Arup (2010) Liverpool City Regional Renewable Energy Study, completed on behalf of MEAS

13 Morecambe Bay SPA/Ramsar

13.1 Introduction

13.1.1 Morecambe Bay SPA and Ramsar (37404.6ha) is located on the Irish Sea coast of north-west England between the coasts of South Cumbria and Lancashire (54º07'19''N, 02º57'21''W). The area is of intertidal mud and sandflats, with associated saltmarshes, shingle beaches and other coastal habitats. It is a component in the chain of west coast estuaries of outstanding importance for passage and overwintering waterfowl (supporting the third-largest number of wintering waterfowl in Britain), and breeding waterfowl, gulls and terns.

13.1.2 It is one of the largest estuarine systems in the UK and is fed by five main river channels (the Leven, Kent, Keer, Lune and Wyre) which drain through the intertidal flats of sand and mud. Mussel (*Mytilus edulis*) beds and banks of shingle are present, and locally there are stony outcrops. The whole system is dynamic, with shifting channels and phases of erosion and accretion affecting the estuarine deposits and surrounding saltmarshes. The flats contain an abundant invertebrate fauna that supports many of the waterbirds using the bay. The capacity of the bay to support large numbers of birds derives from these rich intertidal food sources together with adjacent freshwater wetlands, fringing saltmarshes and saline lagoons, as well as dock structures and shingle banks that provide secure roosts at high tide. The site is of European importance throughout the year for a wide range of bird species. In summer, areas of shingle and sand hold breeding populations of terns, whilst very large numbers of geese, ducks and waders not only overwinter, but (especially for waders) also use the site in spring and autumn migration periods. The bay is of particular importance during migration periods for waders moving up the west coast of Britain.

13.2 Reasons for Designation

13.2.1 This site qualifies under Article 4.1 of the Directive (79/409/EEC) by supporting populations of European importance of the following species listed on Annex I of the Directive (JNCC 2000; 2001c)

13.2.2 During the breeding season;

- Little Tern (*Sterna albifrons*), 26 pairs representing at least 1.1% of the breeding population in Great Britain (Count, as at 1994)
- Sandwich Tern (*Sterna sandvicensis*), 290 pairs representing at least 2.1% of the breeding population in Great Britain (5 year peak mean for 1992 to 1996).

13.2.3 Over winter;

- Bar-tailed Godwit (*Limosa lapponica*), 2,611 individuals representing at least 4.9% of the wintering population in Great Britain (5 year peak mean for 1991/92 to 1995/96)
- Golden Plover (*Pluvialis apricaria*), 4,097 individuals representing at least 1.6% of the wintering population in Great Britain (5 year mean for 1991/92 to 1995/96)

13.2.4 This site also qualifies under Article 4.2 of the Directive (79/409/EEC) by supporting populations of European importance of the following migratory species:

13.2.5 During the breeding season;

- Herring Gull *Larus argentatus*, 11,000 pairs representing at least 1.2% of the breeding North-western Europe (breeding) and Iceland/Western Europe - breeding population (5 year mean 1992 to 1996)
- Lesser Black-backed Gull *Larus fuscus*, 22,000 pairs representing at least 17.7% of the breeding Western Europe/Mediterranean/Western Africa population (5 year mean 1992 to 1996)

13.2.6 On passage;

- Ringed Plover *Charadrius hiaticula*, 693 individuals representing at least 1.4% of the Europe/Northern Africa - wintering population (5 year peak mean for 1991/92 to 1995/96)
- Sanderling *Calidris alba*, 2,466 individuals representing at least 2.5% of the Eastern Atlantic/Western & Southern Africa - wintering population (Count as at May 1995)

13.2.7 Over winter;

- Curlew *Numenius arquata*, 13,620 individuals representing at least 3.9% of the wintering Europe - breeding population (5 year peak mean for 1991/92 to 1995/96)
- Dunlin Calidris *alpina alpina*, 52,671 individuals representing at least 3.8% of the wintering Northern Siberia/Europe/Western Africa population (5 year peak mean for 1991/92 to 1995/96)
- Grey Plover *Pluvialis squatarola*, 1,813 individuals representing at least 1.2% of the wintering Eastern Atlantic - wintering population (5 year peak mean for 1991/92 to 1995/96)
- Knot *Calidris canutus*, 29,426 individuals representing at least 8.4% of the wintering North-eastern Canada/Greenland/Iceland/North-western Europe population (5 year peak mean for 1991/92 to 1995/96)
- Oystercatcher *Haematopus ostralegus*, 47,572 individuals representing at least 5.3% of the wintering Europe & Northern/Western Africa population (5 year peak mean for 1991/92 to 1995/96)
- Pink-footed geese *Anser brachyrhynchus*, 2,475 individuals representing at least 1.1% of the wintering Eastern Greenland/Iceland/UK population (5 year peak mean for 1991/92 to 1995/96)
- Pintail *Anas acuta*, 2,804 individuals representing at least 4.7% of the wintering North-western Europe population (5 year peak mean for 1991/92 to 1995/96)
- Redshank *Tringa totanus*, 6,336 individuals representing at least 4.2% of the wintering Eastern Atlantic - wintering population (5 year peak mean for 1989/90 to 1993/94)
- Shelduck *Tadorna tadorna*, 6,372 individuals representing at least 2.1% of the wintering North-western Europe population (5 year peak mean for 1991/92 to 1995/96)
- Turnstone *Arenaria interpres*, 1,583 individuals representing at least 2.3% of the wintering Western Palearctic - wintering population (5 year peak mean for 1991/92 to 1995/96)

13.2.8 The area qualifies under Article 4.2 of the Directive (79/409/EEC) by regularly supporting at least 20,000 seabirds (seabird assemblage of international importance): during the breeding season, the area regularly supports 61,858 individual seabirds (5 year peak mean for 1991/92 to 1995/96) including: Herring Gull Larus argentatus, Lesser Black-backed Gull *Larus fuscus*, Little Tern *Sterna albifrons*, Sandwich Tern *Sterna sandvicensis*.

13.2.9 The area qualifies under Article 4.2 of the Directive (79/409/EEC) by regularly supporting at least 20,000 waterfowl (a wetland of international importance): over winter, the area regularly supports 210,668 individual waterfowl (5 year peak mean for 1991/92 to 1995/96) including: Great Crested Grebe *Podiceps cristatus*, Bar-tailed Godwit *Limosa lapponica*, Pink-footed geese *Anser brachyrhynchus*, Shelduck *Tadorna tadorna*, Pintail *Anas acuta*, Oystercatcher *Haematopus ostralegus*, Grey Plover *Pluvialis squatarola*, Knot *Calidris canutus*, Dunlin Calidris *alpina alpina*, Curlew *Numenius arquata*, Golden Plover *Pluvialis apricaria*, Turnstone *Arenaria interpres*, Black-tailed Godwit Limosa limosa islandica, Cormorant *Phalacrocorax carbo*, Wigeon *Anas penelope*, Teal *Anas crecca*, Mallard *Anas platyrhynchos*, Eider *Somateria mollissima*, Goldeneye *Bucephala clangula*, Red-breasted Merganser *Mergus serrator*, Ringed Plover *Charadrius hiaticula*, Lapwing *Vanellus vanellus*, Sanderling *Calidris alba,* Redshank *Tringa totanus*, Whimbrel *Numenius phaeopus*.

13.2.10 It is additionally designated as a Ramsar Site in accordance with (UN, 2005); JNCC (2008c):

- Criterion 4: for serving as a staging area for migratory waterfowl including internationally important numbers of passage ringed plover *Charadrius hiaticula*)
- Criterion 5: for supporting up to 22,3709 waterfowl (5 year peak mean 1998/99-2002/2003)
- Criterion 6: for supporting internationally important populations of the following:
  - during breeding season; Lesser black-backed gull , *Larus fuscus graellsii*, Herring gull *Larus argentatus argentatus*, Sandwich tern , *Sterna (Thalasseus) sandvicensis sandvicensis*
  - with peak counts in spring/autumn: great cormorant, *Phalacrocorax carbo carbo*, Common shelduck , *Tadorna tadorna*, Northern pintail , *Anas acuta*, Common eider , *Somateria mollissima mollissima*, Eurasian oystercatcher , *Haematopus ostralegus ostralegus*, Ringed plover , *Charadrius hiaticula,* Grey plover, Pluvialis *squatarola, Sanderling*, *Calidris alba*, Eurasian curlew , *Numenius arquata arquata*, Common redshank , *Tringa totanus totanus*, Ruddy turnstone , *Arenaria interpres interpres,* Lesser black-backed gull , *Larus fuscus graellsii*,
  - with peak counts in winter: Great crested grebe , *Podiceps cristatus cristatus*, Pink-footed geese , *Anser brachyrhynchus*, Eurasian wigeon , *Anas penelope*, Common goldeneye , *Bucephala clangula clangula*, Red-breasted merganser , *Mergus serrator,* European golden plover , *Pluvialis apricaria apricaria,* Northern lapwing , *Vanellus vanellus*, Red knot *, Calidris canutus islandica*, Dunlin , *Calidris alpina alpina*, Bar-tailed godwit , *Limosa lapponica lapponica,*

13.3 Historic Trends and Current Pressures

13.3.1 The site is subject to a wide range of pressures such as land-claim for agriculture, overgrazing, dredging, overfishing, industrial uses and unspecified pollution. However, overall the European site is relatively robust and many of those pressures have only slight to local effects and are being addressed thorough Management Plans. The breeding tern interest is very vulnerable and the colony has recently moved to the adjacent Duddon Estuary SPA.

13.3.2 Positive management is being secured through management plans for non-governmental organisation reserves, English Nature Site Management Statements, European Marine Site Management Scheme, and the Morecambe Bay Partnership.

13.4 Nature Conservation Objectives

13.4.1 To maintain in favourable condition the habitats for the populations of Annex 1 species (sandwich tern), with particular reference to shingle areas,

13.4.2 To maintain in favourable condition the habitats for the populations of migratory bird species (pink-footed geese, shelduck, pintail, oystercatcher, grey plover, knot, dunlin, bar-tailed godwit, curlew, redshank, turnstone and ringed plover), with particular reference to intertidal mudflat and sandflat communities, intertidal and subtidal, boulder & cobble skear communities and saltmarsh communities

13.4.3 To maintain in favourable condition the habitats for the populations of waterfowl that contribute to the wintering waterfowl assemblage and the populations of seabirds that contribute to the breeding seabird assemblage, with particular reference to intertidal mudflat and sandflat communities, intertidal and subtidal boulder and cobble skear communities and saltmarsh communities.

13.5 Key Potential Pressures from West Lancashire

13.5.1 From the environmental requirements that have been identified above it can be determined that the following impacts of development in West Lancashire could interfere with the environmental requirements and processes on the SPA/Ramsar Site:

- Potential disturbance to qualifying bird species arising from the development of wind turbines within two identified areas of West Lancashire.

13.6 Likely Significant Effects of the Local Plan

13.6.1 One of the two potential large scale wind energy development sites (see Appendix 1 Core Diagram) is located in the east of the borough, approximately 25km from the SPA/Ramsar designation, The other is located in the south-western corner of the West Lancashire borough, approximately 35km from the SPA/Ramsar. It is possible that the construction of wind turbines within West Lancashire has the potential to displace the flight path of qualifying bird species. Qualifying species including pink-footed geese and pintail are common to both Morecambe Bay and Martin Mere SPA/Ramsar within the borough, and ringed plover, lesser blacked backed gull and sanderling are common to both Morecambe Bay Ribble and Alt Estuaries SPA/Ramsar within the West Lancashire borough.

13.6.2 It would be more appropriate to consider these likely significant effects as an 'in combination effect' with other policies that may contribute to the disruption of qualifying bird species of the Mersey Estuary SPA/Ramsar and polices that may contribute to the construction of wind turbines in the region.

13.7 Likely Significant Effects of Other Projects and Plans

13.7.1 Other plans and projects that have the potential to interact with the West Lancashire Local Plan Policies SP1 (A Sustainable Development Framework) and EN1 (Low Carbon Development and Energy Infrastructure) and result in an in combination effect on qualifying bird species of the Morecambe Bay SPA/Ramsar include:

- Liverpool City Region Renewable Energy Options.
- Morecambe borough Local Plan.

13.8 Renewable Energy

13.8.1 The discussion of policy EN1 as it relates to renewable energy in Chapter 4 (Martin Mere) is also applicable to Mersey Estuary SPA/Ramsar.

13.8.2 It is understood that the Joint Merseyside HRAs/ AAs (drafts completed by URS/Scott Wilson 2010) have considered the findings of the regional renewable energy study[87] in the potential effects of wind turbines on qualifying bird species throughout the North West coastline/estuaries including sites within West Lancashire. It is recommended that this joined-up approach towards progressing renewable energy developments within the region is maintained to ensure potential in combination effects of policy is adequately considered.

13.9 Conclusion

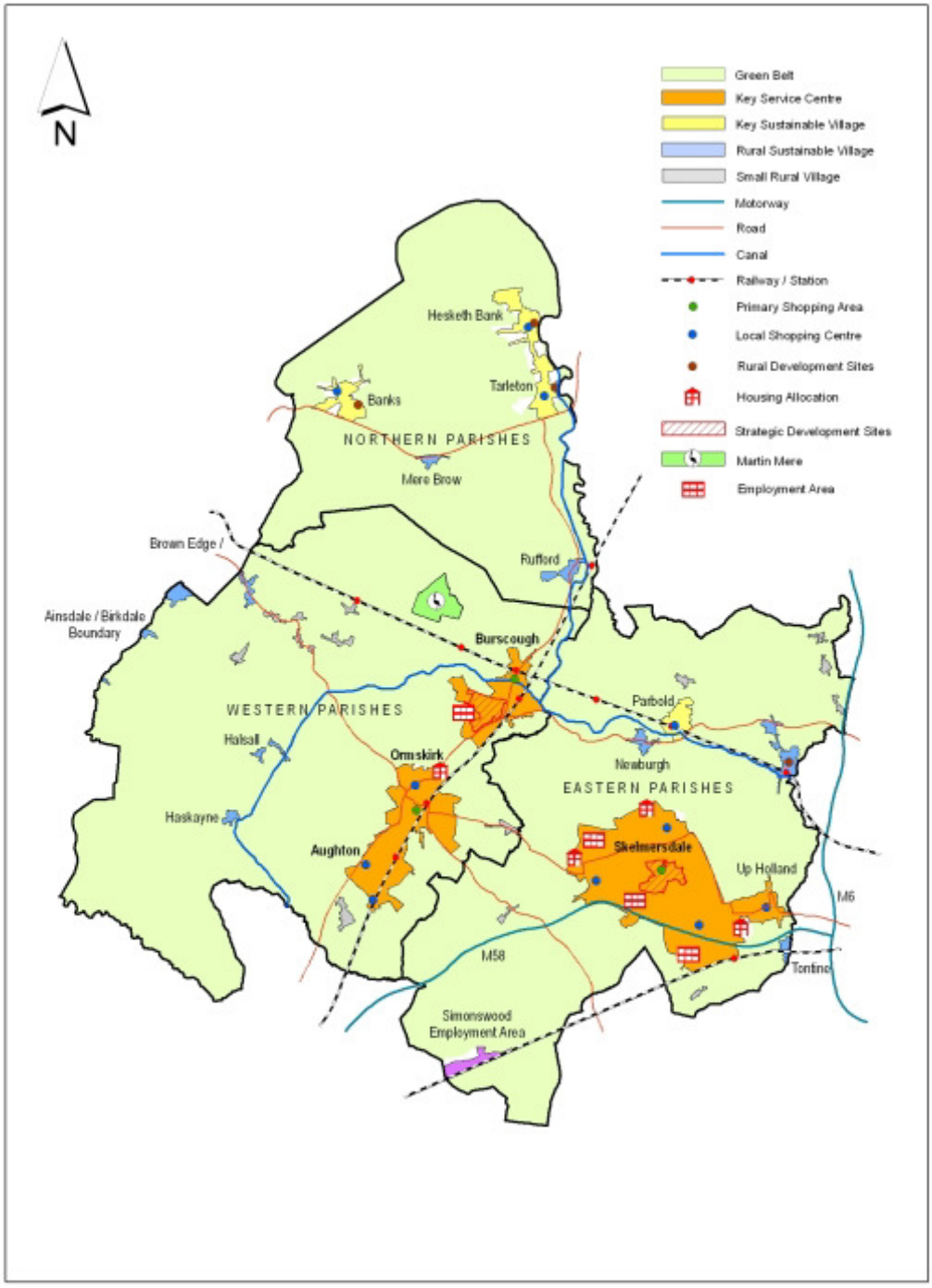
13.9.1 The strong wording in policies EN1 and EN, as discussed in Chapter 4 with respect to Martin Mere SPA/Ramsar, enables West Lancashire Council to be confident that the Local Plan contains an adequate policy framework to ensure likely significant effects will not occur on the Morecambe Bay SPA/ Ramsar.

[87] Arup (2010) Liverpool City Regional Renewable Energy Study, completed on behalf of MEAS

14 Conclusion of Appropriate Assessment

1.1.7 It is considered that the Publication version of the Local Plan has a sufficient policy framework in place to ensure that adverse effects on the integrity of European sites can be adequately mitigated or avoided.

Appendix 1: Local Plan Key Diagram



Appendix 2: Local Plan Publication Policies

Policy number/ name	Key Features of Local Plan Publication Policies (all figures are taken from the Publication Local Plan Report 2012)
Policy SP1 A Sustainable Development Framework for West Lancashire	When considering development proposals the Council will take a positive approach that reflects the presumption in favour of sustainable development contained in the National Planning Policy Framework. It will always work proactively with applicants jointly to find solutions which mean that proposals can be approved wherever possible, and to secure development that improves the economic, social and environmental conditions in the area. Planning applications that accord with the policies in this Local Plan (and, where relevant, with polices in neighbourhood plans) will be approved, unless material considerations indicate otherwise. Where there are no policies relevant to the application or relevant policies are out of date at the time of making the decision then the Council will grant permission unless material considerations indicate otherwise – taking into account whether: • Any adverse impacts of granting permission would significantly and demonstrably outweigh the benefits, when assessed against the policies in the National Planning Policy Framework taken as a whole; or • Specific policies in that Framework indicate that development should be restricted. New development in West Lancashire will contribute towards the continuation and creation of sustainable communities in the Borough by being sustainable in its construction and use of resources and in its location and accessibility. New development will be promoted in accordance with the following Settlement Hierarchy, with those settlements higher up the hierarchy, in general, taking more development than those lower down and new development being of a type and use that is appropriate to the scale and character of settlements at each level of the hierarchy.

<table>
<tr><th>Policy number/ name</th><th>Key Features of Local Plan Publication Policies (all figures are taken from the Publication Local Plan Report 2012)</th></tr>
<tr><td></td><td>
<table>
<tr><th>Hierarchy</th><th>Settlements</th></tr>
<tr><td>Regional Town</td><td>Skelmersdale with Up Holland</td></tr>
<tr><td>Key Service Centre</td><td>Ormskirk with Aughton; Burscough</td></tr>
<tr><td>Key Sustainable Village</td><td>Tarleton with Hesketh Bank; Parbold; Banks</td></tr>
<tr><td>Rural Sustainable Village</td><td>Rufford; Newburgh; Appley Bridge; Brown Edge/Pool Hey; Birkdale/Ainsdale Boundary; Mere Brow; Halsall; Haskayne; Tontine</td></tr>
<tr><td>Small Rural Village</td><td>Scarisbrick/Bescar; Shirdley Hill; Holt Green; Stanley Gate; Westhead; Hilldale; Mossy Lea; Hunger Hill; Wrightington Bar; Crawford</td></tr>
</table>
The Regional Town and the three Key Service Centres of the Borough will take the vast majority of new development. Spatially and economically, Skelmersdale with Up Holland is the main location for new development throughout the Local Plan period in order to enable the delivery of the town centre masterplan and the wider regeneration of the town. Ormskirk with Aughton and Burscough are also key locations for new development.
Development in rural settlements will be focussed on the Key and Rural Sustainable Villages. Development in Small Rural Villages will only be permitted where it involves a like-for-like redevelopment of an existing property, the appropriate re-use of an existing building or infill development.
However, it is anticipated that development on greenfield sites in Ormskirk, Burscough, Rufford and Scarisbrick will be restricted by a waste water treatment infrastructure issue until 2020 and so development will initially be somewhat constrained in these parts of the Borough.
All new built development in the Borough will take place within settlement boundaries (as defined in Policy GN1), except where a specific need for development for a countryside use is identified that retains or enhances the rural character of an area. The settlement boundaries encompass land previously included within the Green Belt that is released by this Local Plan (2012-2027). This includes land required for development before 2027, land to be safeguarded for the “Plan B” of this Local Plan and land to be safeguarded for development needs beyond 2027.
Over the life of the Local Plan (2012-2027) there will be a need for 4,650 new dwellings (net) as a minimum. Similarly,
</td></tr>
</table>

<table>
<tr><th>Policy number/ name</th><th>Key Features of Local Plan Publication Policies (all figures are taken from the Publication Local Plan Report 2012)</th></tr>
<tr><td></td><td>
there will be a need for 75 ha of land to be newly developed for employment uses over the life of the Local Plan. These Borough-wide minimum targets will be divided between the different spatial areas of the Borough as follows:
<table>
<tr><th></th><th>Housing</th><th>Employment</th></tr>
<tr><td>Skelmersdale with Up Holland</td><td>2,400 dwellings</td><td>52 ha</td></tr>
<tr><td>Ormskirk with Aughton</td><td>750 dwellings</td><td>-</td></tr>
<tr><td>Burscough</td><td>850 dwellings</td><td>13 ha</td></tr>
<tr><td>Northern Parishes</td><td>400 dwellings</td><td>3.5 ha</td></tr>
<tr><td>Eastern Parishes</td><td>100 dwellings</td><td>6.5 ha*</td></tr>
<tr><td>Western Parishes</td><td>150 dwellings</td><td>-</td></tr>
</table>
* includes 5 ha at Simonswood Employment Area

The above housing and employment land development should initially be prioritised to sites within the existing built-up areas of the Regional Town/ Key Service Centres and the Key / Rural Sustainable Villages (including appropriate greenfield sites). However, it is recognised that in order to meet the above housing and employment land development targets for Ormskirk with Aughton and Burscough and to enable a small expansion of the Edge Hill University campus, a small amount of land is proposed for release from the Green Belt in the Local Plan (2012-2027). This land involves three specific sites:

• Yew Tree Farm, Liverpool Road South, Burscough – for 500 dwellings, 10 ha of new employment land and new community infrastructure (see Policy SP3)
• Grove Farm, High Lane, Ormskirk – for 250 dwellings (see Policy RS1)
• Edge Hill University, St Helen's Road, Ormskirk – 10 ha for new university buildings, car parking and new access road (see Policy EC4)

It is anticipated that the Yew Tree Farm and Grove Farm sites will only begin to be developed from 2020 onwards, allowing time to deliver sites within existing built-up areas first and to resolve waste water treatment infrastructure constraints affecting those sites. It may be appropriate to bring this land forward for development in advance of land
</td></tr>
</table>

Policy number/ name	Key Features of Local Plan Publication Policies (all figures are taken from the Publication Local Plan Report 2012)
	within the existing built-up areas if it is required to ensure delivery of the development targets. However, bringing forward such development in advance of 2020 would be subject to the provision of the appropriate infrastructure required for the development proposals, especially for waste water treatment infrastructure. The planned expansion of the Edge Hill University campus may come forward relatively early in the plan period, subject to the provision of appropriate infrastructure improvements. In order to deliver sustainable development in West Lancashire, this Local Plan also sets out policies on a range of strategic and planning issues including: • The regeneration of Skelmersdale town centre (designated as a Strategic Development Site in Policy SP2) and the maintenance of the Borough's other town and local centres; • Facilitating economic growth in the Borough, including the rural economy; • Ensuring residential provision for all parts of the community; • The provision of strategic and local services and infrastructure; • Addressing climate change through low carbon energy solutions and sustainable design and by avoiding unnecessary flood risk; and • Protecting and enhancing the valuable biodiversity, landscape, heritage and green infrastructure assets of the Borough. Should monitoring of residential completions show that development targets for the Local Plan period are not being delivered due to unforeseen circumstances or if new evidence emerges that demonstrates a need to increase development targets, the Council may choose to enact all or part of the "Plan B" set out in the Local Plan by releasing land for development that has been removed from the Green Belt and safeguarded for this purpose.
Policy SP2 Skelmersdale Town Centre – A Strategic Development Site	Proposals for the enhancement, regeneration and redevelopment of Skelmersdale Town Centre within the Strategic Development Site defined on the Proposals Map will be supported. A revitalised Skelmersdale Town Centre is vital to the wider regeneration of the town. All proposals will be expected to conform to the broad principles as indicated in the masterplan shown at Figure 4.2 below. 1. The following should form the key principles for any development proposals:

Policy number/ name	Key Features of Local Plan Publication Policies (all figures are taken from the Publication Local Plan Report 2012)
	• Make Skelmersdale a leisure, recreational and retail centre of excellence within the North West • Ensure that the parks and open space in and around the Town Centre are integral to the regeneration and are more accessible to Skelmersdale's communities and visitors • Reconnect the Town Centre with surrounding communities through the building of new roads and footpaths. • Increase the number of residents in the Town Centre and diversify the style and range of residential accommodation available. • Ensure that high quality low carbon design will be the key to creating a vibrant Town Centre. 2. The following are the key development aims of the strategic site: • Development linking the Concourse and Asda / West Lancashire College to include a range and mix of uses including retailing (food and non-food), leisure, entertainment (including a cinema), office space, residential and green space. • A new supermarket either close to or integrated with the Concourse Centre or, alternatively, close to the new developments in 2(i) above. Should the supermarket be adjacent to the developments in 2(i) above an active retail frontage should be maintained. Any supermarket proposal should form part of an integrated regeneration scheme and facilitate the delivery of an improved retail and leisure offer for the town centre, linking the Concourse and the Asda / College. • New housing with approximately 800 units to be delivered over the Local Plan period. All housing areas should be of a high quality of design. • The Firbeck estate should be improved through the remodelling of the existing housing stock and the provision of new housing and landscaped areas where appropriate, linking to a high quality housing scheme on the adjacent Findon site. • 10% of all housing should be affordable in order to meet local housing needs • New office development will be permitted within the town centre area indicated on the plan. Retail uses would also be permitted in this area • Delph House and Whelmar House should continue to be used for office uses, but should redevelopment

Policy number/ name	Key Features of Local Plan Publication Policies (all figures are taken from the Publication Local Plan Report 2012)
	opportunities occur replacement offices or non-food bulky goods retail would be appropriate. • Improved pedestrian and cycle linkages into the Town Centre from surrounding residential areas. • To ensure maximum practical integration, an improved western entrance into the Concourse Centre to link with the new high street and a relocated bus station, and re-use of the top floor of the Concourse to provide office, leisure or retail uses. • Major improvements to the Tawd Valley and the River Tawd corridor to make it a key feature of, and integrate it into, the town centre, with the creation of a Formal Park for the Town Centre adjacent to the TawdValley. In addition, general improvements will be made to green infrastructure in the town along with conserving and enhancing biodiversity. • To maximise decentralised energy opportunities and low carbon design. • All development to be of the highest quality of design in terms of buildings and public realm, having full regard to the relationships between buildings and spaces. • The site of the former college (adjacent to Glenburn School) is designated as a Development Opportunity Site appropriate for either improved educational facilities, office accommodation or housing development. • The adjacent Glenburn School site should be enhanced as an educational facility and development will be permitted on the site to allow this to be achieved. Development which would prejudice the delivery of any aspect of the Town Centre regeneration scheme, either in terms of its location or the viability of other elements of the scheme, will not be permitted.
Policy SP3 Yew Tree Farm, Burscough - A Strategic Development Site	An area to the west of Burscough has been identified for a Strategic Development Site on the site of Yew Tree Farm that should deliver: • Residential development for at least 500 new dwellings and safeguarded land for up to 500 more dwellings in the future (post 2027); • 10 ha of new employment land as an extension to the existing employment area and safeguarded land for up to 10 ha more in the future (post 2027); • A new town park for Burscough, with a Management Trust to co-ordinate and fund the maintenance of the park;

Policy number/ name	Key Features of Local Plan Publication Policies (all figures are taken from the Publication Local Plan Report 2012)
	• A linear park / cycle route across the site to link in with a wider Ormskirk to Burscough linear park / cycle route; • A new Primary School and other local community facilities that cannot be appropriately accommodated elsewhere in the town; • A decentralised energy network facility, including district heat and energy infrastructure, which will provide heat and electricity for the entire site and possibly beyond the site boundary; • Appropriate highway access for the site on Liverpool Road South and Tollgate Road, together with a suitable internal road network; • Traffic mitigation measures to improve Liverpool Road South and protect other local roads • A robust and implementable Travel Plan for the entire site to address the provision of, and accessibility to, frequent public transport services and to improve pedestrian and cycling links with Burscough town centre, rail stations and Ormskirk; • Measures to address the surface water drainage issues on the Yew Tree Farm site and in Burscough generally to the satisfaction of the Environment Agency, United Utilities and the Lead Local Flood Authority; • Financial contributions to improve the health care facilities and other existing community facilities in the town; and • Financial contributions to improve public transport services and facilities and to improve cycling and walking facilities. The Strategic Development Site will involve the release of approximately 74 ha of Green Belt to enable development but at least 30 ha of this will be safeguarded from development until at least 2027. The precise layout of the site will be defined through a separate masterplan that will be prepared in consultation with local residents. Development of the site will be required to conform to this masterplan. Development on this site will not be able to commence until the Local Planning Authority are satisfied that infrastructure constraints in relation to waste water treatment have been resolved, or can be through development. At this time, it is not anticipated that the waste water treatment infrastructure constraint affecting Burscough will be resolved until 2020 and so development of this site could not commence until this is resolved. If this constraint was to be resolved earlier than 2020, development could also commence earlier provided that all other infrastructure constraints are resolved and that it would not prejudice the delivery of development in Skelmersdale (especially the town centre) or on brownfield sites in Ormskirk or Burscough

Policy number/ name	Key Features of Local Plan Publication Policies (all figures are taken from the Publication Local Plan Report 2012)
	The employment aspect of the development may come forward in advance of 2020 if the infrastructure is in place to support it and if there is no available land remaining in the existing employment areas adjacent to the site that is available or suitable for the employment uses required. Development in this Strategic Development Site should be of a high quality of design and be of a high standard in relation to energy efficiency in line with Code for Sustainable Homes and Building Research Establishment Environmental Assessment Method (BREEAM), the specific level of which will be set in future detailed guidance for this site. The scale and massing of development should be appropriate, given the site's edge of built-up area location, in accordance with the Council's Design Guide SPD. Any development of the site should have consideration to its impact on nearby heritage assets and implement appropriate mitigation measures to minimise any negative impact on these assets.
Policy GN1 Settlement Boundaries	The boundaries of West Lancashire's settlements, and land outside those boundaries designated as Protected Land, are shown on the Proposals Map. <u>A. Development within settlement boundaries</u> Within settlement boundaries, development on brownfield land will be encouraged, subject to other relevant Local Plan policies being satisfied. Development proposals on greenfield sites within settlement boundaries will be assessed against all relevant Local Plan policies applying to the site, including, but not limited to, policies on settlements' development targets, infrastructure, open and recreational space and nature conservation, as well as any land designations or allocations. <u>B. Development outside settlement boundaries</u> Development proposals within the Green Belt will be assessed against national policy and any relevant Local Plan policies. Development on Protected Land will only be permitted where it retains or enhances the rural character of the area, for example small scale, low intensity tourism and leisure uses, and forestry and horticulture related uses. Small scale affordable housing (i.e. 10 units or fewer), or small scale rural employment (i.e. up to 1,000 square metres) or community facilities to meet an identified local need may be permitted on Protected Land, provided that a sequential site search has been carried out in accordance with Policy GN5. If it is demonstrated that there are no sequentially preferable sites within the settlement boundary, then the most sustainable Protected Land sites closest to the village centre should be considered first, followed by sites which are further from the village centre where a problem of

Policy number/ name	Key Features of Local Plan Publication Policies (all figures are taken from the Publication Local Plan Report 2012)
	dereliction would be removed. Only after this search sequence has been satisfied should other sites outside the settlement boundary be considered.
Policy GN2 Safeguarded Land	The land identified on the Proposals Map as safeguarded land is within the settlement boundaries but will be protected from development and planning permission will be refused for development proposals which would prejudice the development of this land in the future. This safeguarding is necessary for one of the following two reasons: • It is allocated for the "Plan B" – such land will be safeguarded for the development needs of the "Plan B" should it be required. If the "Plan B" is not required then this land will be safeguarded for development needs beyond 2027. • It is safeguarded for development needs beyond 2027 – these sites will only be considered for development after 2027 if there are no longer any other suitable sites within the settlement boundaries to meet any identified development needs at that time. The following sites will be safeguarded from development: 1. "Plan B" sites • Land at Parr's Lane (east), Aughton • Land at Ruff Lane, Ormskirk • Land at Red Cat Lane, Burscough • Land at Mill Lane, Up Holland • Land at Moss Road (west), Halsall • Land at Fine Jane's Farm, Halsall • Land at New Cut Lane, Halsall 2. Safeguarded until 2027 • Land at Yew Tree Farm (south), Burscough • Land at Parr's Lane (west), Aughton • Land at Moss Road (east), Halsall

Policy number/ name	Key Features of Local Plan Publication Policies (all figures are taken from the Publication Local Plan Report 2012)
	• Land at Guinea Hall Lane / Greaves Hall Avenue, Banks The safeguarded land at Yew Tree Farm is not marked on the Proposals Map as it is part of the wider Policy SP3 allocation for a strategic development site and a subsequent masterplan for this allocation will define the precise boundary of the land to be safeguarded until 2027 within this site.
Policy GN3 Criteria for Sustainable Development	Development will be assessed against the following criteria, in addition to meeting other policy requirements within the Local Plan: 1. Design/Setting Proposals for development should: • be of high quality design and be in keeping with Policy EN4 and the West Lancashire Design Guide SPD; • Respect the historic character of the local landscape and townscape; • Retain or create reasonable levels of privacy, amenity and sufficient garden/outdoor space for occupiers of the neighbouring and proposed properties; • Respect visual amenity and complement or enhance any attractive attributes and/or local distinctiveness within its surroundings through sensitive design, including appropriate siting, orientation, scale, materials, landscaping, boundary treatment, detailing and use of art features where appropriate; • Adhere to low carbon sustainable building principles in accordance with Policy EN1; and • In the case of extensions, conversions or alterations to existing buildings, the proposal should relate to the existing building, in terms of design and materials, and should not detract from the character of the street scene. 2. Accessibility and Transport Proposals for development should: • Integrate well with the surrounding area and provides safe, convenient and attractive pedestrian and cycle access; • Prioritise the convenience of pedestrians, cyclists and public transport users over car users, where appropriate; • Ensure that parking provision is made in line with the thresholds set out in Local Plan Policy IF2;

Policy number/ name	Key Features of Local Plan Publication Policies (all figures are taken from the Publication Local Plan Report 2012)
	• Provide Transport Assessments and Travel Plans for proposals for development over a certain size in line with the latest DfT guidance; • Create an environment that is accessible to all sectors of the community including children, elderly people, and people with disabilities; • Provide, where appropriate, suitable provision for public transport including bus stops and shelters; • Incorporate suitable and safe access and road layout design, in line with latest standards. 3. Reducing Flood Risk The Council will ensure development does not result in unacceptable flood risk or drainage problems by requiring development to: • Take account of the Council's Strategic Flood Risk Assessment (Level 1 and 2) along with advice and guidance from the Lead Local Flood Authority (Lancashire County Council), the Environment Agency and the National Planning Policy Framework; • Be located away from Flood Zones 2 and 3 wherever possible, with the exception of water compatible uses and key infrastructure; • Satisfy the sequential and, if necessary, the exceptions test as set out within National Guidance, for proposals within Flood Zones 2 and 3 on sites that have not been allocated within the Local Plan; • Be supported by a Flood Risk Assessment for all proposals within Flood Zones 2 and 3 that satisfy both the sequential and exceptions tests and for proposals within Critical Drainage Areas(10) within Flood Zone 1 or on sites larger than 1 hectare within Flood Zone 1; • Where appropriate and feasible, incorporate sustainable drainage systems where there is a risk of surface water flooding within or beyond the site; and • Achieve a reduction in surface water run-off of at least 30% on previously developed land, rising to a minimum of 50% in Critical Drainage Areas. 5. Landscaping and the Natural Environment

Policy number/ name	Key Features of Local Plan Publication Policies (all figures are taken from the Publication Local Plan Report 2012)
	Proposals for development should: • Maintain or enhances the distinctive character and visual quality of any Landscape Character Areas in which it is located; • Provide sufficient landscaped buffer zones and appropriate levels of public open space / greenspace to limit the impact of development on adjoining sensitive uses and the open countryside; • Minimise the loss of trees, hedgerows, and areas of ecological value, or, where loss is unavoidable, provides for their like for like replacement or enhancement of features of ecological value; • Incorporate new habitat creation where possible; • Incorporate and enhance the landscape and nature conservation value of any water features, such as streams, ditches and ponds located within the site and provide appropriately sized buffers between them and the development. 6. Other environmental considerations • Be designed to minimise any reduction in air quality; • Incorporate recycling collection facilities; • Provide minimum levels of lighting required for proposed floodlights whilst having regard for any potential adverse impacts and ensuring any light spillage is minimised; • In coal mining development referral areas, take account of issues such as land instability and where appropriate, a coal mining risk assessment report will be required. • Minimise the risk from all types of pollution and contamination; • Ensure the protection of water quality and ground water resources and, where possible, seek improvement; and • Seek to remediate and restore contaminated land. In accordance with the Council's validation checklist, a Design and Access Statement should be submitted with any application for proposals of a certain scale or those on sensitive sites.

Policy number/ name	Key Features of Local Plan Publication Policies (all figures are taken from the Publication Local Plan Report 2012)
Policy GN4 Demonstrating Viability	1. Applicants proposing the redevelopment of a site (or re-use of a building) for alternative uses not directly in accordance with other Local Plan policies will be required to submit a Viability Statement as part of a planning application. Redevelopment resulting in the loss of any of the following uses, though this list is not exhaustive, will require preparation of a Viability Statement: i. Commercial / industrial (B1, B2 or B8); ii. Retail (A1); and iii. Agricultural workers' dwellings. 2. The Viability Statement should provide proof of marketing and demonstrate that there is no realistic prospect of retaining or re-using the site in its current use. The viability case will be considered along with other policy considerations. Proof of marketing should include all of the following criteria: i. The land / premises has been widely marketed through an agent or surveyor at a price that reflects its current market or rental value for employment purposes, and no reasonable offer has been refused. For consistency, any commercial / industrial property should also be recorded on the Council's sites and premises search facility. The period of marketing should be 18 months for commercial / industrial, 6 months for retail and 12 months for agricultural workers' dwellings. ii. The land / premises has been regularly advertised in the local press and regional press, property press, specialist trade papers and any free papers covering relevant areas. This should initially be weekly advertising for the first month, followed by monthly advertising for the remainder of the marketing period. iii. The land / premises has been continuously included on the agent's website, the agent's own papers and lists of commercial / business premises for the marketing period. iv. There has been an agent's advertisement board on each site frontage to the highway throughout the marketing period. v. Evidence that local property agents, specialist commercial agents and local businesses have been contacted and sent mail shots or hard copies of particulars to explore whether they can make use of the premises. 3. The Viability Statement should also detail the following information: i. Details of current occupation of the buildings and where this function would be relocated; ii. Details as to why the site location makes it unsuitable for existing uses, including consideration for redevelopment of

Policy number/ name	Key Features of Local Plan Publication Policies (all figures are taken from the Publication Local Plan Report 2012)
	the site for modern premises of that use – having regard for access/highways issues and potential lack of public transport serving the site; iii. Any physical constraints making the site difficult to accommodate existing uses; iv. Environmental considerations/amenity issues; v. Consideration, firstly, for a mixed-use scheme involving the existing use and other compatible uses, secondly, for other employment generating uses such as those relating to tourism, leisure, retail and residential institutions and, thirdly, of the viability of providing affordable housing on the site, which could meet a specific local need, before consideration of market housing. In certain cases, for example, where a significant departure from policy is proposed, the Council may seek to independently verify the Viability Statement, and the applicant will be expected to bear the cost of independent verification.
Policy GN5 Sequential Tests	Sequential tests will be required for the following types of development: • Retail and other town centre uses on sites outside town centres (in line with national policy) • Affordable housing, employment uses, or community facilities on Protected Land (Policy GN1) • Affordable housing in the Green Belt (Policy RS1) • Gypsy and Traveller sites in the Green Belt (Policy RS4) • Accommodation for temporary agricultural / horticultural workers (Policy RS5) • Office developments outside settlement centres (Policy IF1) In undertaking a sequential site search, the onus is on the applicant to demonstrate that there are no alternative sites in preferable locations that could reasonably be expected to accommodate the proposed development within the expected project timeframe. To achieve a satisfactory sequential test, the Council will expect the following from applicants: • Area of search: This will usually be the settlement, ward or parish in which the proposed development site lies, but could also include adjacent settlements, wards, parishes or boroughs. For major development proposals and those

Policy number/ name	Key Features of Local Plan Publication Policies (all figures are taken from the Publication Local Plan Report 2012)
	at risk from flooding, the area of search will be wider, and may include the whole Borough. • Comprehensiveness of search: Evidence should be provided of a rigorous investigation of relevant sources of information to find sequentially preferable sites. • Availability / viability / deliverability of sequentially preferable sites: Evidence should be provided to demonstrate that landowners / site occupiers or their agents have been contacted to discuss the possibility of selling or developing the land, and, on any site rejected on viability grounds, financial information submitted to show on what basis that it would be unviable to proceed with the proposed development. • Suitability: The test should take account of the suitability of sequentially preferable sites to accommodate the proposed development.
EC1 The Economy and Employment Land	<u>1. Overall provision of employment land:</u> The delivery of 75 ha of new employment development (B1, B2 and B8 uses) will be promoted in West Lancashire between 2012 and 2027. Such a requirement will be met as follows: 52 ha of new employment development will be provided in the Skelmersdale area through the development of existing allocations and the regeneration of vacant and under-used premises on Pimbo, Gillibrands and Stanley Industrial Estates as well as the development of existing allocations at XL Business Park and White Moss Business Park. The remaining 23 ha of the 75 ha target will be provided through: • Existing allocations and remodelling of the Burscough industrial estates (3 ha); • Extension of the Burscough industrial estates into the Green Belt (10 ha); • Existing allocations and remodelling of Simonswood Industrial Estate (5 ha); and • Existing allocations and new opportunities for rural employment sites in rural areas (5 ha). Employment development in West Lancashire should continue to provide for the advanced manufacturing and distribution industries but should also encourage higher quality business premises and offices for business and professional services, the health sector, the media industry and other sectors related to research and degree courses provided at Edge Hill University. The “green” construction and “green” technology sectors will also be encouraged to locate in West Lancashire and developers should work with such businesses to ensure appropriate premises are

Policy number/ name	Key Features of Local Plan Publication Policies (all figures are taken from the Publication Local Plan Report 2012)
	provided. 2. Managing development on employment land: A. *Strategic Employment Sites* - On the following sites, as detailed on the Proposals Map, the Council will require a mix of industrial, business, storage and distribution uses (B1, B2 and B8) and will allow A1 retail warehouses on a like-for-like basis of existing A1 premises: 1. Pimbo Industrial Estate 2. Stanley Industrial Estate/XL Business Park 3. Gillibrands Industrial Estate 4. Burscough Industrial Estate 5. Ormskirk Employment Area/Hattersley Court On the following Strategic Employment Site, the Council will only permit B1 use classes (offices and research and development) and other significant employment generating uses in use classes C1 and D1: 6. White Moss Business Park 7. Ormskirk Business Area B. *Other Significant Employment Sites* - On the following sites, as detailed on the Proposals Map, the Council will permit industrial, business, storage and distribution uses (B1, B2 and B8): 1. Westgate, Skelmersdale 2. Chequer Lane, Up Holland 3. Ormskirk Employment Area 4. Southport Road / Green Lane, Ormskirk 5. Abbey Lane, Burscough 6. Platts Lane, Burscough 7. Briars Lane, Burscough

Policy number/ name	Key Features of Local Plan Publication Policies (all figures are taken from the Publication Local Plan Report 2012)
	8. Orrell Lane, Burscough 9. Red Cat Lane, Burscough 10. North Quarry, Appley Bridge 11. Appley Lane North, Appley Bridge 12. Simonswood Industrial Estate C. *Other Existing Employment Sites* - On other employment sites the Council will permit industrial, business, storage and distribution uses (B1, B2 and B8). The redevelopment of individual existing employment sites for other uses will be considered where a viability case can be put forward (in line with Policy GN4) and where the provisions of Policy EC2 and EC3 are met, where relevant. D.The Council will take account of the following factors when assessing all development proposals for employment uses: i) The accommodation should be flexible & suitable to potentially meet changing future employment needs, and in particular to provide for the requirements of local businesses and small firms; ii) The scale, bulk and appearance of the proposal should be compatible with the character of its surroundings; iii) The development must not significantly harm the amenities of nearby occupiers nor cause unacceptable adverse environmental impact on the surrounding area; iv) The scale of development should be compatible with the level of existing or potential public transport accessibility, and the on-street parking situation. Where additional infrastructure is required due to the scale of the development, such a development will be required to fund the necessary infrastructure to support it via appropriate means; v) The nature of the business sector proposed. The Council will seek to ensure that opportunities are provided for local people and, where necessary, developers will be encouraged to implement relevant training programmes.
Policy EC2 The Rural Economy	The irreversible development of open, agricultural land will only be permitted where it would not result in the loss of the best and most versatile agricultural land, except where absolutely necessary to deliver development allocated within this Local Plan or strategic infrastructure, or development associated with the agricultural use of the land. Employment opportunities in the rural areas of the Borough are limited, and therefore the Council will protect the continued employment use of existing employment sites. This could include any type of employment use, including

Policy number/ name	Key Features of Local Plan Publication Policies (all figures are taken from the Publication Local Plan Report 2012)
	agriculture and farming, and may not be merely restricted to B1, B2 and B8 land uses. Where it can be robustly demonstrated that the site is unsuitable for an ongoing viable employment use (in accordance with the requirements of Policy GN4), the Council will consider alternative uses where this is in accordance with other policies in the Local Plan. As a general approach, the re-use of existing buildings within rural areas will be supported where they would otherwise be left vacant. Proposals for new or significant extensions to agricultural produce packing and distribution facilities will be permitted in rural areas provided that: • there is not a more suitable alternative site located within a nearby employment area; • the proposed use remains linked, operationally, to the agricultural use of the land; • the majority of the produce processed on the site is grown upon holdings located in the local area; • the loss of agricultural land is kept to a minimum and, where there is a choice, that the lowest grade of agricultural land is used; and • traffic generated can be satisfactorily accommodated on the local road network and will not be detrimental to residential amenity The promotion and enhancement of tourism and the natural economy in the Borough's countryside will be encouraged through agricultural diversification to create small -scale, sensitively designed visitor attractions and accommodation which: • take advantage of some of the Borough's natural and heritage assets such as the canal network and Rufford Old Hall; • promote walking and cycling routes including long distance routes and linkages to national networks; and • contribute to the Ribble Coast and Wetlands Regional Park and its enjoyment by visitors. In order to support economic recovery and growth the Council will support the roll out of high speed broadband in line with the Lancashire Broadband Plan. Encouragement will also be given towards the delivery of renewable and green energy projects. Land allocated for the purpose of Rural Employment is as follows: a) Land between Greaves Hall Avenue and Southport New Road, Banks Development for this site will be expected to

Policy number/ name	Key Features of Local Plan Publication Policies (all figures are taken from the Publication Local Plan Report 2012)
	proceed in strict accordance with the site specific requirements outlined in the West Lancashire Level 2 SFRA. In addition to the above site, the Council will assess other proposals for rural employment on a site by site basis and having regard for other policies within the Local Plan.
Policy EC3 Rural Development Opportunities	The development of some brownfield sites within more rural parts of the Borough for mixed uses will be permitted in order to stimulate the rural economy and provide much needed housing. High quality design will be essential in such areas. The following sites are allocated as 'Rural Development Opportunities': • Greaves Hall Hospital, Banks (Development for this site will be expected to proceed in strict accordance with the site specific requirements outlined in the West Lancashire Level 2 SFRA.) • East Quarry, Appley Bridge • Alty's Brickwork's, Hesketh Bank (not all of this site will comprise built development and a masterplanning exercise will be required) • Tarleton Mill, Tarleton On the above named sites a mix of the following uses will be permitted: • Uses falling into classes B1, B2 and B8; • Wider employment generating uses where a case can be made to demonstrate that new jobs will be created; • Residential uses, particularly those meeting an identified need; • Leisure, recreational and community uses; • Essential services and infrastructure. In the interest of the rural economy, employment generating uses will be required to form part of any proposal, the level of which will be determined on a site by site basis and in accordance with national and local planning policy.
Policy EC4	Through the Local Plan the Council will seek to maximise the role and benefit of EdgeHill University as a key asset to the Borough, in terms of the employment opportunities and community benefits it provides, investment in the local area

Policy number/ name	Key Features of Local Plan Publication Policies (all figures are taken from the Publication Local Plan Report 2012)
Edge Hill University	and the up-skilling of the population, whilst seeking to minimise any adverse impacts on Ormskirk and the wider environment. The following key principles are promoted: • Supporting the continued growth, development and improvement of Edge Hill University and its facilities within the existing campus and via an extension into the Green Belt to the south east of no more than 10 hectares, where such development incorporates measures to alleviate any existing or newly created traffic and / or housing impacts; • Requiring a masterplanned approach to future development within the Green Belt; • Working with the University to develop travel plans and parking strategies to encourage sustainable travel and improve access to the campus; • Improving the University accommodation offer and concentrating new student accommodation within the existing and / or extended campus in accordance with Policy RS3; • Where possible, creating links between the University, local businesses and the community sector, in terms of both information sharing and learning programmes, to ensure that the University continues to contribute to the local economy and social inclusion in the Borough; and • Where possible, ensuring that the benefits of the University and its future growth and development are also directed to those communities where educational attainment is lower through specific programmes, and where possible and appropriate, led by private sector employers.
Policy RS1 Residential Development	<u>A. Development within Settlement Boundaries</u> Subject to other relevant policies being satisfied, residential development will be permitted within the Borough's settlements as set out below. Within the Regional Town, Key Service Centres, Key Sustainable Villages and Rural Sustainable Villages (as defined by Policy SP1), residential development will be permitted on brownfield sites, and on greenfield sites not protected by other policies, subject to the proposals conforming with all other planning policy. The following sites, as shown on the Proposals Map, are specifically allocated for residential development, and delivery of these sites should conform to forthcoming masterplans / development briefs to be prepared for each site:

Policy number/ name	Key Features of Local Plan Publication Policies (all figures are taken from the Publication Local Plan Report 2012)
	• Skelmersdale Town Centre • Yew Tree Farm, Burscough • Grove Farm, Ormskirk • Land at Firswood Road, Lathom / Skelmersdale • Land at Whalleys, Skelmersdale • Chequer Lane, Up Holland Within Small Rural Villages, the appropriate re-use of an existing building, and very limited infill development (i.e. up to 4 units) will be permitted for market housing. Infill developments of 5 or more units may also be permitted where proposals provide the minimum amount of market housing to make the scheme financially viable, with the remainder of the housing being made available as affordable housing. On such sites, it will be expected that the affordable housing provision should be not less than 50% of all housing on the site. B. Development outside Settlement Boundaries On Protected Land, small-scale 100% affordable housing (i.e. up to 10 units) may be permitted where it is proven that there are no suitable sites within the nearest or adjacent settlement, in accordance with Policy GN5 (Sequential Tests). Within the Green Belt, very limited affordable housing (i.e. up to 4 units) may be permitted where it is proven that there are no suitable sites in non-Green Belt areas, in accordance with Policy GN5. C Development on garden land When considering proposals for residential development on garden land, careful attention will need to be paid to relevant policies, including, but not limited to, those relating to the amenity of nearby residents, access, biodiversity, and design. D. Density The density of residential development within West Lancashire should be a minimum of 30 dwellings per hectare, subject to the specific context for each site. Densities of less than 30 dwellings per hectare will only be permitted where special circumstances are demonstrated. Higher densities (in the order of 40-50 dwellings per hectare, or more, where appropriate) will be expected on sites with access to good public transport facilities and services.

Policy number/ name	Key Features of Local Plan Publication Policies (all figures are taken from the Publication Local Plan Report 2012)
	When considering the possibility of high density development, the Council will seek to ensure that there is no unacceptable negative impact on local infrastructure or highway safety, and that adequate open space can be provided. The achievement of higher residential densities should not be at the expense of good design nor of the amenity of the occupiers of the proposed or existing neighbouring properties. E. Provision for all ages Development proposals for accommodation designed specifically for the elderly will be encouraged within settlements, provided that they are accessible by public transport or within a reasonable walking distance of community facilities such as shops, medical services and public open space. In order to help meet the needs of an ageing population in West Lancashire, the Council will expect that at least 20% of units within residential developments of 15 or more dwellings should be designed specifically to accommodate the elderly. New homes will be expected to meet the Lifetime Homes Standard, except where it is demonstrated that it would clearly be inappropriate for particular dwellings to meet the Standard. F. Management of housing land supply Should the supply of housing begin to grow too large (i.e. a situation emerges where there is a significant over-supply of housing relative to housing targets, either for the Borough as a whole, or for an individual settlement), and if it is clear that the over-supply of housing would cause harm to local or wider policy objectives, the Council may consider implementing some form of restraint, either Borough-wide or settlement-specific, provided this is clearly necessary and appropriate.
Policy RS2 Affordable and Specialist Housing	Outside of Skelmersdale, affordable and specialist housing will be required as a proportion of new residential developments of 8 or more dwellings, as follows:

<table>
<tr><th>Policy number/ name</th><th>Key Features of Local Plan Publication Policies (all figures are taken from the Publication Local Plan Report 2012)</th></tr>
<tr><td></td><td>
<table>
<tr><th>Proposed development size
(number of units)</th><th>Affordable housing requirement
(minimum % of units)</th></tr>
<tr><td>8-9</td><td>25%</td></tr>
<tr><td>10-14</td><td>30%</td></tr>
<tr><td>15 and above</td><td>35%</td></tr>
</table>
Within residential developments in Skelmersdale town centre, 10% of units will be required to be affordable, in accordance with Policy SP2. Elsewhere in Skelmersdale, no affordable housing will be required for developments of fewer than 15 units, whilst on sites of 15 or more dwellings, 20% of units will be required to be affordable, with up to 30% on greenfield sites on the edge of the built-up area.
Within Small Rural Villages, as defined by the settlement hierarchy in Policy SP1, affordable housing should be provided on sites comprising 5 or more dwellings, as defined in Policy RS1.
The Council will take account of viability when assessing individual schemes. If a level of affordable housing lower than those set out above is proposed for a specific scheme, the Council will expect robust information on viability to be provided by the applicant. The Council may seek to have such information independently verified in certain cases, with any costs associated with the verification expected to be met by the applicant, before approving a scheme with lower levels of affordable housing than those specified above.
A forthcoming Supplementary Planning Document (SPD) will provide more detailed policy to aid the implementation of affordable housing. In the future, such an SPD may vary the proportion of affordable housing required on sites from the levels stated above, depending on the viability, costs and expected income of the developments at the time that planning applications are submitted. Similarly, if future Housing Needs Studies indicate a change in the Borough's Housing Need, the SPD may vary the percentage requirements for affordable housing from those specified above.
In accordance with Policies GN1 and RS1, affordable housing schemes to meet an identified local need will be supported in the Borough’s non-Green Belt settlements; small scale affordable housing developments (i.e. up to 10 units) may be permitted on non-Green Belt land outside settlements, provided that a sequential site search for sites within settlement areas has been carried out in accordance with Policy GN5; and very limited affordable housing developments (i.e. up to 4 units) may be permitted in the Green Belt, provided that a sequential site search for sites
</td></tr>
</table>

Policy number/ name	Key Features of Local Plan Publication Policies (all figures are taken from the Publication Local Plan Report 2012)
	within areas excluded from the Green Belt has been carried out in accordance with Policy GN5. The precise requirements for tenure, size and type of affordable housing units will be negotiated on a case-by-case basis, having regard to the viability of individual sites and local need. Further details will be set out in the Affordable Housing SPD. The Council will usually expect the following: • Tenure - the affordable housing provided should be a range of sizes and types, reflecting the sizes and types of market units to be provided through the development proposal. • Lifetime Homes - the Council expects all affordable units to be built to Lifetime Homes Standard. • On / off-site provision - affordable housing should be provided on the development site, unless there are exceptional circumstances which would justify provision elsewhere. Such off-site provision should be provided in the locality of the development site. **Specialist housing for the elderly** Specialist housing for the elderly will be provided in sustainable locations via specific schemes for elderly accommodation (e.g. Extra Care and Sheltered Accommodation), and through the requirement in Policy RS1 that, in schemes of 15 dwellings or more, 20% of new residential units should be designed specifically as accommodation suitable for the elderly.
Policy RS3 Provision of Student Accommodation	A. Purpose-Built Student Accommodation Proposals for the construction of purpose-built student accommodation will be supported within the University Campus or within any extension of the campus proposed in accordance with Policy EC4, where the need for increased provision of student accommodation associated with EdgeHill University is demonstrated by evidence. The development of purpose-built student accommodation elsewhere in Ormskirk and Aughton will be restricted, except where: • an over-riding need for such accommodation is demonstrated; • demand for the conversion of existing dwelling houses to HMOs will be demonstrably reduced; and • it will not negatively impact the amenity of surrounding uses, especially residential uses. When assessing the potential impact of purpose-built student accommodation on the amenity of the surrounding areas, the Council will also have regard to the presence of any HMOs in the vicinity.

Policy number/ name	Key Features of Local Plan Publication Policies (all figures are taken from the Publication Local Plan Report 2012)
	<u>B Houses in Multiple Occupation</u> When assessing proposals for conversion of a dwelling house to a House in Multiple Occupation (HMO), the Council will have regard to the proportion of existing properties in use as, or with permission to become, an HMO, either in the street as a whole, or within the nearest 60 properties in the same street, whichever is the smaller. Where levels of HMOs reach or exceed the percentages specified in the table below, proposals for further HMOs will not be permitted. The Council will also have regard to any purpose-built student accommodation in the same street, or section of the street.

Policy number/ name	Key Features of Local Plan Publication Policies (all figures are taken from the Publication Local Plan Report 2012)

Category	Max %	Description of street	Streets
Category A	15%	Typically A- and B- classified roads and other important routes in Ormskirk which tend to have the highest levels of traffic and are within easy walking distance from the University.	Aughton Street (section outside Primary Shopping Area), Moor Street (section outside Primary Shopping Area), Park Road, Derby Street West, Knowsley Road, Stanley Street, St. Helens Road, Wigan Road.
Category B	10%	Typically unclassified roads that have relatively high levels of through traffic, and / or roads with a significant amount of non-residential uses present, within reasonable distance of the University, usually further away than Category A roads.	Burscough Road, Burscough Street (section outside Primary Shopping Area), Southport Road (section east of County Road only), County Road, Derby Street, Green Lane, Hants Lane, Moorgate (section outside Primary Shopping Area), New Court Way, Railway Road (section outside Primary Shopping Area), Ruff Lane.
Category C	5%	All other streets in the Ormskirk area covered by the Article 4 Direction on HMOs (or in any other areas covered by other Article 4 Directions in the future).	-

Within the primary shopping area of Ormskirk, as defined on the Proposals Map, a greater proportion than 15% of residential properties above ground floor level will be permitted to function as HMOs, subject to there being no unacceptable impact on the residential amenity of the primary shopping area or on the supply of accommodation for other town centre uses (for example, offices, or storage for ground floor retail units).

When assessing proposals for changes of use to HMOs, the regard will be had towards any potential clustering of

Policy number/ name	Key Features of Local Plan Publication Policies (all figures are taken from the Publication Local Plan Report 2012)
	HMOs and the effects of this on nearby properties. The Council will not permit the conversion to HMOs of any new housing built in Ormskirk following the adoption of the emerging Local Plan, regardless of its location, and notwithstanding the limits in the above table, other than that created as part of purpose-built student accommodation. This policy is applicable in conjunction with an Article 4 Direction relating to HMOs and covering Ormskirk and Aughton. If in future years, there is evidence that HMOs are becoming an issue in settlements outside of Ormskirk and Aughton, and Article 4 Directions are implemented to cover such areas, the principles of Policy RS3 will apply to such areas.
Policy RS4 Provision for Gypsy and Traveller and Travelling Show People	<u>1. Number of Pitches</u> In order to meet the established need for Gypsies and Travellers and travelling Showpeople within West Lancashire the following number of pitches/plots should be provided by 2027: • 21 permanent pitches for Gypsies and Travellers on up to 3 sites • 14 transit pitches for Gypsies and Travellers on 1 site • 7 permanent plots for Travelling Showpeople on 1 site <u>2. Broad Location</u> These sites should be broadly located as follows: • Permanent gypsy and traveller pitches shall be located close to the M58 corridor and within, or close to, Scarisbrick • Transit pitches shall be located close to the M58 corridor • Plots for travelling showpeople shall be located within the Burscough area or close to the M58 corridor. Provision should be made in the above locations only, unless it can be demonstrated that appropriate sites cannot be provided in these locations. Sites within the Green Belt in these broad locations will be considered where applicants can demonstrate that there are no other suitable sites within the locality and within settlement areas. This must be done by complying with the requirements of the sequential test as per Policy GN5 Sequential Tests. In order to ensure that all sites are fit for purpose and will provide sufficient residential amenity to both members of the

Policy number/ name	Key Features of Local Plan Publication Policies (all figures are taken from the Publication Local Plan Report 2012)
	settled and traveller community all sites must meet the criteria set out below. 3. Criteria All sites outside the broad location above must comply with the criteria below and be within the main settlement areas as defined on the proposals map. A. Proposals for establishing of Gypsy/Traveller and Travelling Show People sites will only be considered if: • The intended occupants must meet the definition of Gypsies and Travellers and Travelling Show People as defined by national guidance for traveller sites. • The site will provide no more than 15 pitches unless it can be demonstrated that there is genuine need for a larger site. B. Proposed sites must be located sustainably and must meet the following criteria: • The site must be within 1 mile of a motorway or a Class A road, with the road access onto the site being of a sufficient quality and size to enable access onto and off the site by heavy vehicles such as trailers or static caravans. • The site must be located within 1 mile (or 20 minute walk) of public transport facilities and services in order to access GP's and other health services, education, jobs and training and local services. • The location will not cause a significant nuisance or impact upon the amenity of neighbouring properties. • Proposals for Gypsy/Traveller and travelling showpeople sites should be well planned and include soft landscaping and play areas for children where suitable. C. In order to ensure that the health and safety and quality of life of the intended occupants is protected, sites must meet the following: • Sites will avoid contaminated land unless it can be demonstrated that suitable mitigation measures can be delivered. • Sites must be on stable and level land suitable for caravans • Sites must provide a safe environment for the intended occupants

Policy number/ name	Key Features of Local Plan Publication Policies (all figures are taken from the Publication Local Plan Report 2012)
	• Sites must be capable of providing adequate access to all emergency vehicles. • Sites will not be considered in areas defined as flood zone 2 or 3 on Environment Agency maps. • Sites must have access to sanitation facilities, a mains water supply and drainage or the applicant must demonstrate that they can be provided. • Consideration needs to be given to the health and safety of potential residents, particularly that of children. Where there are potential issues (including proximity to tips, electricity pylons, industrial areas etc) individual risk assessments must be carried out. D. As well as meeting the above criteria, sites for travelling show people will be allowed to accommodate mixed use yards, i.e they can accommodate both caravans and space for storage and equipment. E. A transit site will be considered providing it meets the above criteria and does not exceed the number of pitches required by this policy and provided that the applicant can demonstrate that they can and will enforce a suitable time limit on how long pitches are occupied. F. Sites within the Green Belt will not be considered except within the broad locations identified in (2) above.
Policy RS5 Accommodation for Temporary Agricultural / Horticultural Workers	The reuse of existing buildings within village settlements and the Green Belt for accommodation for temporary agricultural and/or horticultural workers will be permitted provided that it complies with other policy in this Local Plan and national Green Belt policy. The provision of non-permanent accommodation, appropriate to both the identified need and the location, will be permitted where it can be demonstrated that: i. there is a requirement to provide accommodation to satisfy a clearly identified need for temporary agricultural / horticultural workers; ii. there are no existing buildings in the locality which are suitable, or capable of being made suitable, for accommodating temporary workers; iii. the site chosen is the most suitable in the locality, taking into account other policies in this Local Plan; iv. any impact on visual amenity, residential amenity, highway safety, landscape, wildlife and countryside character is minimised to an acceptable level; and v. proposals include measures to protect the character of the local area, including retention of existing trees and hedges, implementation of landscape planting, improvement of any damaged or derelict land involved and improvement of

<table>
<tr><th>Policy number/ name</th><th>Key Features of Local Plan Publication Policies (all figures are taken from the Publication Local Plan Report 2012)</th></tr>
<tr><td></td><td>boundary treatments.

In all cases of non-permanent accommodation, the permission will be subject to a time-limiting condition of five years from the date of the accommodation being sited on the site or the date of the planning permission, whichever is the earlier, unless the evidence of need demonstrates that a shorter time-limited condition is warranted.</td></tr>
<tr><td>Policy IF1

Maintaining Vibrant Town and Local Centres</td><td>Retail and other appropriate town centre development will be encouraged in town and local centres, in line with national policy. Retail and other uses normally associated with town centres will be resisted in out-of-centre locations unless a specific need is proven for the proposed development and there is no suitable site within a town or local centre.

When assessing proposals outside of town centres for comparison retail that involve an increase in floorspace of over 500m2 gross, or for supermarkets / superstores that involve an increase in floorspace of over 1,000m2 gross, an impact assessment will be required.

The hierarchy of town centres within West Lancashire is as follows:

<table>
<tr><th>Hierarchy</th><th>Centres</th></tr>
<tr><td>1: Town Centre</td><td>Skelmersdale, Ormskirk, Burscough</td></tr>
<tr><td>2: Large Village Centre</td><td>Tarleton, Hesketh Bank, Up Holland, Banks, Parbold</td></tr>
<tr><td>3: Small Village Centres and Local Centres</td><td>All other centres, as defined on the Proposals Map</td></tr>
</table>

The Proposals Map shows the location of all town, village and local centres, and defines the primary shopping areas of town centres.

Within the primary shopping areas of Ormskirk and Burscough town centres, within Skelmersdale town centre as a whole and within local centres proposals for the change of use from retail (i.e. Class A1 of the Use Classes Order) to other uses will be required to meet the following criteria:

• The proposal, when taken cumulatively with other existing or consented non-retail uses, does not have a detrimental effect upon the vitality and viability of the centre;</td></tr>
</table>

Policy number/ name	Key Features of Local Plan Publication Policies (all figures are taken from the Publication Local Plan Report 2012)
	• The proposal retains a ground floor shop front with windows and display; • Any proposed non-A1 use should, wherever possible, have operational hours that include at least a part of traditional opening times (i.e. 9am – 5pm). Uses that involve operational hours in the evening or night should not create inappropriate disturbance to residents or other users of the town centre and surrounding areas; • There is evidence that the unit has been marketed as a retail unit in accordance with Policy GN4. At least 70% of ground floor units within each local centre and primary shopping area should remain in Class A1 retail use. A unit within a primary shopping area should only be released from a Class A1 retail use if at least 70% of the units within the immediate area and within the centre as a whole are in Class A1 use. The Council will not necessarily take the approach of allowing all proposals for change of use away from A1 until the proportion of units in A1 use drops down to, or below, 70%. When assessing the effect of the change of use of A1 floorspace upon the vitality and viability of a PSA, the following factors should be taken into account: • The size (amount of floorspace) of the unit proposed for change from retail to other uses and whether this is significant in relation to the total retail floorspace of the PSA; • The extent of alternative provision in the centre and in the wider area, including the range of retail units remaining, and their size, type and quality; • The level of demand for retail units in the PSA; • The nature of the immediate area; • Whether conversion of the unit in question would cause the proportion of A1 uses to drop to around, or less than, the target (70%) of ground floor units in the immediate area, or in the PSA; • Any traffic / highways issues that may arise from certain A1 uses, especially in a pedestrianised area such as Ormskirk town centre; and • Whether the proposed use is a typical town-centre use, and the likely contribution it would make towards the vitality and viability of the centre compared with the original retail unit. • In the case of proposals to bring a vacant Class A1 retail unit back into non-A1 use, a judgement should be made as to whether the loss of inactive A1 floorspace for another active use outweighs any negative impact associated

Policy number/ name	Key Features of Local Plan Publication Policies (all figures are taken from the Publication Local Plan Report 2012)
	with loss of the A1 floorspace. Similar principles to the above will apply, where relevant, when assessing proposals for non-retail use of retail units in local centres and in Skelmersdale Town Centre. Development proposals within Skelmersdale Town Centre must be in accordance with Policy SP2, and must ensure that the vitality and viability of the Concourse is protected. Other uses in Town Centres Within town centres, a diversity of uses will be encouraged outside the Primary Shopping Area, and above ground floor level within the primary shopping area, in order to maximise centres' vitality and viability, to encourage an evening economy, and to improve safety and security by increasing natural surveillance of the centre. Such uses may include cultural facilities, restaurants and cafés, drinking establishments and nightclubs, financial and professional services, offices and residential uses, student accommodation, as well as uses relating to non-residential institutions and leisure / recreation uses that are appropriate in a town centre. Office development will be encouraged within or on the edge of the town centres of Skelmersdale, Ormskirk and Burscough, and on sites allocated for Class B1 development. Office uses will be permitted elsewhere within settlements, provided that they comply with other Local Plan policies, they are of a suitable scale, and they do not have an unacceptable impact on their locality, for example in terms of traffic generation. New office developments should be readily accessible by public transport. Proposals for office developments of more than 1,000 m2 outside town centres should demonstrate that there are no town centre sites that could be developed, in line with Policy GN5 (Sequential Tests). Any proposals for office developments within the Primary Shopping Area will still be subject to the policy above regarding the change of use from retail (Class A1) uses.
Policy IF2 Enabling Sustainable Transport Choice	1. Transport Infrastructure A In order to secure the long term future and viability of the Borough, and to allow for the increased movement of people and goods expected, the Council will work with neighbouring authorities and transport providers to improve accessibility across the Borough, improve safety and quality of life for residents and reduce the Borough's carbon footprint. Over the Local Plan period the Council will seek to: • improve community health and well-being by providing alternative means of transport such as walking and cycling. This should be achieved through the provision of additional footpaths and cycleways (including towpaths) where appropriate; • reducing the environmental impact of transport through suitable mitigation and design;

Policy number/ name	Key Features of Local Plan Publication Policies (all figures are taken from the Publication Local Plan Report 2012)
	• reduce transport emissions such as carbon dioxide and other greenhouse gases by encouraging greater usage of public transport facilities; • reduce congestion in the Borough's key service centres to promote competitiveness, with particular reference to Burscough and Ormskirk; • preparing and actively promoting travel plans for all new developments, including both employment and residential, in accordance with DfT guidance on transport assessments; and • improve public transport to rural parts of the Borough and where appropriate support and implement innovative rural transport initiatives and support the shift towards new technologies and fuels by promoting low carbon travel choices and encouraging the development of ultra low carbon / electric vehicles and associated infrastructure B The Council will support the delivery of and not allow development which could prejudice the delivery of the following schemes: • The proposed A570 Ormskirk bypass; • Implementation of measures in Ormskirk to improve the highway network; • A new rail station in Skelmersdale including new track, and electrification of existing track, as appropriate • An appropriate rail link made between the Ormskirk-Preston line and Southport-Wigan line • Electrification of the railway line between Ormskirk and Burscough • The remodelling of the bus station at Ormskirk, providing improved linkages with Ormskirk Railway station • A new bus station for Skelmersdale town centre • Improved car park management within Ormskirk • The provision of 4 linear parks between Ormskirk and Skelmersdale, Ormskirk and Burscough, Tarleton and Hesketh Bank and along the former railway line at Banks; • a comprehensive cycle network for commuter and leisure journeys providing links across the Borough and linking in with cross boundary cycle networks; • Any potential park and ride schemes associated with public transport connections

<table>
<tr><th>Policy number/ name</th><th>Key Features of Local Plan Publication Policies (all figures are taken from the Publication Local Plan Report 2012)</th></tr>
<tr><td></td><td>

Any potential green travel improvements associated with access to the Edge Hill University campus on St Helens Road, Ormskirk;
Use of the land at the railway pad at the West Quarry, Appley Bridge for a small-scale rail facility; and
The proposed Green Lane Link Road in Tarleton.

c) Major transport schemes listed above including new rail infrastructure and the proposed A570 Ormskirk bypass will have regard to biodiversity and must provide appropriate mitigation measures as recommended in Policy EN2.

d) Developments adjacent to, or affecting, rail lines (including resulting in a material increase or change of character of the traffic using a rail crossing of a railway) will only be permitted with the agreement of Network Rail.

2. Parking Standards

<u>A Residential Development</u>

Proposals for residential development will be required to meet the following standards for car parking provision:

<table>
<tr><th>Type of development</th><th>Number of parking spaces</th><th>Cycle Parking Provision</th><th>Disabled parking Provision</th></tr>
<tr><td>Dwellings with 1 bedroom</td><td>1</td><td>1 communal space per 5 dwellings</td><td>1 space per 10 dwellings</td></tr>
<tr><td>Dwellings with 2-3 bedrooms</td><td>2</td><td>1 communal space per 5 dwellings</td><td>1 space per 10 dwellings</td></tr>
<tr><td>Dwellings with 4+bedrooms</td><td>3</td><td>1 communal space per 5 dwellings</td><td>1 space per 10 dwellings</td></tr>
</table>
Table 8.1

<u>B. Non-Residential Development</u>

Parking standards for non-residential developments are set out within Appendix F.

The Council will support development which seeks to encourage the use of public transport. Locations that are considered more sustainable and well served by public transport by the Council may be considered appropriate for
</td></tr>
</table>

Policy number/ name	Key Features of Local Plan Publication Policies (all figures are taken from the Publication Local Plan Report 2012)
	reduced levels of parking provision. Proposals for provision above or below the recommended parking standards will be supported by evidence detailing the local circumstances that justify a deviation from the policy. These local circumstances will include: • The location of the development – urban /rural, within walking or easy cycling distance of a range of services and facilities; • The proposed use; • Levels of local parking provision, and any local parking congestion issues; • The distance to public transport facilities, and the quality (frequency / reliability / connection to main routes or interchanges) of the public transport provision in question; • The quality of provision for cyclists: cycle parking, dedicated cycling facilities, access points to site, quality of design and provision; • The quality of provision for pedestrians; and • Evidence of local parking congestion. Consideration will be given to allowing proposed developments to share car parking spaces where these joint developments have communal car parks and where it can be demonstrated that the different uses have peaks of usage that do not coincide. 3. Electric Vehicle Recharging Points and Reducing Transport Emissions In addition to the above, developments may also be required to provide Electric Vehicle Recharging (EVR) points and a Low Emissions Strategy statement. Where a Transport Assessment, a Transport Statement or a Travel Plan is required (as advised in PPG 13 and LTP3), a Low Emission Strategy statement should be integrated within this work, explaining actions for carbon reductions and reductions in toxic air pollutant emissions. This requirement will mostly apply to larger developments. In order to support the development of the LES statement, information on the types of mitigation measures and low emission technologies and a national toolkit will be available online to guide applicants in the future (http://www.lowemissionsstrategies.org). This will help assess the amount of transport emissions resulting from the proposed development. Developers will be able to assess the costs, effects and benefits from adopting low emission

<table>
<tr><th>Policy number/ name</th><th>Key Features of Local Plan Publication Policies (all figures are taken from the Publication Local Plan Report 2012)</th></tr>
<tr><td></td><td>fuels, technologies and infrastructure

EVRs will be required for all types of new developments that require parking provision. The minimum provision of parking bays and charging points for Electric Vehicles in new developments will be as follows:

<table><tr><td>All dwelling houses with at least one off-street parking space or garage space integral to the curtilage of the property:</td><td>One charging point per house.</td></tr><tr><td>All residential properties served by communal parking areas for the use of those properties only:</td><td>At least one or 10% (whichever is the greater) of parking spaces must be marked out for use by electric vehicles only, together with an adequate charging infrastructure and cabling for each marked bay</td></tr><tr><td>All other development:</td><td>At least one or 10% (whichever is the greater) of parking spaces must be marked out for use by electric vehicles only, together with an adequate charging infrastructure and cabling for each marked bay</td></tr></table></td></tr>
<tr><td>Policy IF3

Service Accessibility and Infrastructure for Growth</td><td>Development will be required to provide essential site service and communications infrastructure and demonstrate that it will support infrastructure requirements as set out in the Infrastructure Delivery Plan.

In order for West Lancashire to protect and create sustainable places for communities to enjoy, proposals for development should:

• make the most of existing infrastructure by focusing on sustainable locations with the best infrastructure capacity;
• mitigate any negative impacts to the quality of the existing infrastructure as a result of new development;
• where appropriate, contribute towards improvements to existing infrastructure and provision of new infrastructure, as required to support the needs of the development;
• where appropriate, demonstrate how access to services will be achieved by means other than the car; and
• where appropriate, demonstrate how the range of local social and community services and facilities available will</td></tr>
</table>

Policy number/ name	Key Features of Local Plan Publication Policies (all figures are taken from the Publication Local Plan Report 2012)
	be suitable and accessible for the intended user(s) of the development. New development proposed in the areas of Ormskirk, Burscough, Rufford and Scarisbrick that are affected by limitations on waste water treatment, must be phased to ensure delivery of the development coincides with the delivery of an appropriate solution which meets the standards of the Council, the Undertaker and the Regulators. The Council will support the delivery of broadband and communications technology to all parts of the Borough and will encourage and facilitate its use in line with national policy. <u>Community Facilities</u> Development proposals for new public facilities and services should be co-located where possible, creating "community hubs" and providing a range of services in one sustainable and accessible location. Where new facilities are required independent of new development, they should be located in the most accessible location available. The loss of any community facilities such as (but not limited too) pubs, post offices, community centres and open space will be resisted unless it can be demonstrated that the facility is no longer needed, or can be relocated elsewhere that is equally accessible by the community.
Policy IF4 Developer Contributions	New development will be expected to contribute to mitigating its impact on infrastructure, services and the environment and to contribute to the requirements of the community. This may be secured as a planning obligation through a Section 106 agreement, where the development would otherwise be unacceptable and through the Community Infrastructure Levy (CIL), at such a time when the Council has prepared a Charging Schedule. The types of infrastructure that developments may be required to provide contributions for include but are not limited to: • Utilities and Waste (where the provision does not fall within the utility providers legislative obligations); • Flood prevention and sustainable drainage measures; • Transport (highway, rail, bus and cycle / footpath network, canal and any associated facilities); • Community Infrastructure (such as health, education, libraries, public realm); • Green Infrastructure (such as outdoor sports facilities, open space, parks, allotments, play areas, enhancing and conserving biodiversity); • Climate change and energy initiatives through allowable solutions;

Policy number/ name	Key Features of Local Plan Publication Policies (all figures are taken from the Publication Local Plan Report 2012)
	• Affordable housing; and • Skelmersdale Town Centre Regeneration. Where appropriate, the Council will permit developers to provide the necessary infrastructure themselves as part of their development proposals, rather than making financial contributions.
Policy EN1 Low Carbon Development and Energy Infrastructure	1. Low Carbon Design The Council will mitigate against and adapt to climate change by requiring all development to: • i. achieve the Code for Sustainable Homes Level 3 as a minimum standard for new residential development and conversions, rising to Level 4 and Level 6 in line with the increases to Part L of the Building Regulations; • ii. achieve the BREEAM 'very good' standard as a minimum for new commercial buildings of more than 1000m^2, rising to 'excellent' and "zero carbon" in line with the increases to Part L of the Building Regulations; • iii. consider the requirements of the Governments emerging 'Allowable Solutions' Framework; and • iv. be resilient to climate change by incorporating shading and Sustainable Drainage Systems and locating it away from areas at risk of flooding in line with Policy GN3. The above standards are in line with the implementation of the revisions to Part L of the contemporary Building Regulations and are a minimum only. Development will be expected to set out how improvements are achieved within an Energy Statement as part of any planning application. These standards will apply until any other national or locally-determined standard is required. 2. Low and Zero Carbon Energy Infrastructure The Council will deliver climate change mitigation and energy security measures by: • Requiring all major developments to explore the potential for a district heating or decentralised energy network, particularly on those sites of strategic importance. • Requiring development located where a decentralised or district heat network is planned to be constructed and sited to allow future connectivity at a later date or phase. • Using potential 'Allowable Solutions' funds to support carbon saving projects.

Policy number/ name	Key Features of Local Plan Publication Policies (all figures are taken from the Publication Local Plan Report 2012)
	• Supporting proposals for renewable, low carbon or decentralised energy schemes provided they can demonstrate that they will not result in unacceptable harm to the local environment, having regard to Policy EN2, which cannot be satisfactorily addressed and which is not outweighed by the benefits of such proposals. Renewable and low carbon energy development proposals within the Green Belt will need to demonstrate that the harm to the Green Belt is outweighed by the wider benefits of the development. 3. Wind Energy Development Wind energy development potential is significant within West Lancashire and developers are required to provide evidence to support their proposals considering the following: i. singular or cumulative impacts on landscape character and value; ii. impact on local residents (including flicker noise and shadow flicker); iii. ecological impact including migration routes of protected bird species; iv. impacts on land resources including agricultural land and areas of deep peat; v. Impacts on the historic environment and assets; vi. community benefits of the proposal; and vii. impacts on aviation navigation systems and communications. The evidence will be required to demonstrate that any impacts can be satisfactorily addressed but need only be proportional to the scale and nature of development.
Policy EN2 Preserving and Enhancing West Lancashire's Natural Environment	Development proposals which seek to enhance, preserve and improve the biodiversity or geological value of West Lancashire will be supported in principle. In order to do this development must meet the requirements set out below: <u>1. Biodiversity</u> The Council will: • Protect and safeguard all sites of international, national, county and local level importance including all Ramsar, Special Protection Areas, National Nature Reserves, Sites Special Scientific Interest, Regionally Geologically Important Sites, biological heritage and nature conservation sites; • Support the development of the Ribble Coast and Wetlands Regional Park with the vision that by 2020 the Ribble

Policy number/ name	Key Features of Local Plan Publication Policies (all figures are taken from the Publication Local Plan Report 2012)
	Coast and Wetlands Regional Park will become an internationally recognised area; and • Provide and support a network of strategic green links between the rural areas, river corridors and green spaces to provide a network of green corridors that will provide habitats to support biodiversity and prevent fragmentation of the natural environment. • The development of recreation will be targeted in areas which are not sensitive to visitor pressures - the protection of biodiversity will be considered over and above the development of recreation in sensitive areas of Natura 2000 and Ramsar Sites or where conflict arises. In addition to the provisions of national and European law, and the requirements of national planning policy, development must adhere to the provisions set out below. <u>A. Nature Conservation Sites</u> This policy applies to all presently designated nature conservation sites, as shown on the Proposals Map, and to any sites or networks that may be identified in the future by appropriate agencies. Development that would directly or indirectly affect any County Biological Heritage Site, Local Nature Reserve, Regionally Important Geological / Geomorphological Site or Local Nature Conservation Site, will be considered only where it is necessary to meet an overriding local public need or where it is in relation to the purposes of the Nature Conservation Sites. Where development is considered necessary, adequate mitigation measures and compensatory habitat creation will be required through planning conditions and / or obligations, with the aim of providing an overall improvement in the site's biodiversity value. Where compensatory habitat is provided it should be of equal area, if not larger and more diverse than what is being replaced. Where there is reason to suspect that there may be protected species on or close to a proposed development site, planning applications should be accompanied by a survey assessing the presence of such species and, where appropriate, making provision for their needs. <u>B Damage to nature conservation assets</u> The following definition of what constitutes damage to natural environmental assets will be used in assessing applications potentially impacting upon assets: • Loss of the undeveloped open character of a part, parts or all of the ecological framework;

Policy number/ name	Key Features of Local Plan Publication Policies (all figures are taken from the Publication Local Plan Report 2012)
	• Reducing the width or causing direct or indirect severance of the ecological framework or any part of it; • Restricting the potential for lateral movement of wildlife; • Causing the degradation of the ecological functions of the ecological framework or any part it; • Directly or indirectly damaging or severing links between green spaces, wildlife corridors and the open countryside; and • Impeding links to ecological frameworks recognised by neighbouring planning authorities. <u>C Trees and Hedgerows</u> The Council will encourage the creation of new woodlands where appropriate. Development involving the loss of, or damage to, Woodlands or trees of significant amenity, screening, wildlife or historical value will only be permitted where the development is required to meet a need that could not be met elsewhere. In such cases the developer will be required to replace the trees lost on site with ones of at least equal value either on site or in that locality where it is unsuitable for the trees to be located on the particular site. Conditions will be imposed or legal agreements made to ensure such mitigation measures are carried out. All development should: • Include appropriate landscaping plans, which incorporate suitable tree planting that integrates well with all existing trees. This should be done in accordance with guidance contained in national guidance BS. 5837:2012 and any subsequent document; • Both new and existing trees should be maintained by the owner of the site in accordance with guidance contained in BS .5837:2012 and any subsequent document; • Promote an increase in tree cover where it would not threaten other vulnerable habitats; and • Avoid encroachment into the canopy area or root spread of trees considered worthy of retention; Development will not be permitted where insufficient information has been provided to enable the Council to assess the effects on trees. This level of detail should be in accordance with BS.5837: 2012- Trees in relation to design, demolition and construction or any subsequent document.

Policy number/ name	Key Features of Local Plan Publication Policies (all figures are taken from the Publication Local Plan Report 2012)
	Development will also not be permitted that would directly or indirectly damage existing mature or ancient woodland or veteran trees. D. Land Resources Development will have regard to the conservation of the Borough's deep peat resources. Development on the most important agricultural land (Grades 1, 2 and 3a) will not be permitted unless it can be demonstrated that there are no other sites suitable to accommodate the development. This excludes land that has an environmental importance or designation or that provides habitat for protected species. E. Coastal Zone Development within the Borough's Coastal Zones, as defined on the Proposals Map, will be limited to that which is essential in meeting the needs of coastal navigation, amenity and informal recreation, tourism and leisure, flood protection, fisheries, nature conservation and / or agriculture. Development will not be allowed which would allow the loss of secondary sea embankments. Development in Marine areas as defined by the Marine Management Organisation (MMO) must be in line with Marine Policy Statements and Marine Management Plans. F Landscape Character New development will be required to take advantage of its landscape setting and historic landscapes by having regard to the different landscape character types across the Borough. Development likely to affect landscapes or their key features will only be permitted where it makes a positive contribution to them. The level of protection afforded will depend on the quality, importance and uniqueness of the landscape in question as defined in SPG Natural Areas and Areas of Landscape History Importance and any subsequent documents. The active use of the Borough's landscapes through leisure and tourism will be promoted where this is compatible with objectives relating to their protection. Proactive management of the Borough's landscape, for the benefit of carbon retention, biodiversity and flood prevention will also be supported. In addition, development will be permitted where it meets the following criteria: • The development maintains or enhances the distinctive character and visual quality of the Landscape Character Area, as shown on the Proposals Map, in which it is located; • It respects the historic character of the local landscape and townscape, as defined by the Areas of Landscape

Policy number/ name	Key Features of Local Plan Publication Policies (all figures are taken from the Publication Local Plan Report 2012)
	History Importance shown on the Proposals Map; and • It compliments or enhances any attractive attributes of its surroundings through sensitive design which includes appropriate siting, orientation, scale, materials, landscaping, boundary treatment, detailing and use of art features where appropriate'.
Policy EN3 Provision of Green Infrastructure and Open Recreation Space	<u>1. Green Infrastructure</u> The Council will: • provide a green infrastructure strategy which supports the provision of a network of multi functional green space including open space, sports facilities, recreational and play opportunities, flood storage, habitat creation, footpaths and cycleways, food growing and climate change mitigation. The network will facilitate active lifestyles by providing leisure spaces within walking distance of people's homes, schools and work; • require development to contribute to the green infrastructure strategy and enhance as well as protect and safeguard the existing network of green links, open spaces and sports facilities, and secure additional areas where deficiencies are identified - this will be achieved through contributions to open space as outlined within Policy IF4; • provide open space and sports facilities in line with an appraisal of local context and community need with particular regard to the impact of site development on biodiversity; and • seek to deliver new recreational opportunities including the proposed linear parks between Ormskirk-Skelmersdale, along the River Douglas at Tarleton and Hesketh Bank and the former railway line in Banks; • support the development of new allotments and protect existing allotments from development; and • support the Ribble Coast and Wetlands Regional Park and associated infrastructure. <u>2. Open Space and Recreation Facilities</u> A. Development should be strongly resisted if it results in the loss of existing open space or sports facilities (including school playing fields) unless the following conditions are met: • The open space has been identified by the Council as being under used, poor quality or poorly located; • the proposed development would be ancillary to the use of the site as open space and the benefits to recreation would outweigh any loss of the open area; or

Policy number/ name	Key Features of Local Plan Publication Policies (all figures are taken from the Publication Local Plan Report 2012)
	• Successful mitigation takes place and alternative, improved provision is provided in the same locality. This should include improvements to the quality and quantity of provision to the benefit of the local community B. Development will not be permitted where: • Development would effect the open characteristic of the area • Development would restrict access to publicly accessible Green Space • Development would adversely effect biodiversity in the locality • Development would result in the loss of Green Spaces, Corridors and the Countryside. • The open space contributes to the distinctive form, character and setting of a settlement • The open space is a focal point within the built up area • The open space provides a setting for important buildings (being listed or of local historic importance) or scheduled ancient monuments. • Proposals contradict other policies contained within the Local Plan. C. Development for outdoor sports and recreational facilities will be permitted within settlement boundaries providing that the facility is required and supported by local residents and does not conflict with other policies contained with the Local Plan. Appropriate development for outdoor sports and recreation facilities may be permitted in the Green Belt in accordance within national policy. D. Where deficiencies in existing open recreation space provision exist, as demonstrated in the Council's Open Space, Sports and Recreation study and any subsequent document, new residential development will be expected to provide public open space on-site (where appropriate) or a financial contribution towards the provision of off-site public open space to meet the demand created by the new development or enhancement of existing areas of public open space which could be upgraded to meet the demand created by the new development. E. Facilities for informal countryside recreational activities are proposed at the following sites as shown on the proposals map 1. Hunters Hill, Wrightington 2. Parbold Hill, Parbold

Policy number/ name	Key Features of Local Plan Publication Policies (all figures are taken from the Publication Local Plan Report 2012)
	3. Platts Lane and Mill Dam Lane, Burscough F. Proposals will also be developed to protect and improve facilities at existing countryside recreation sites shown on the proposals map: 1. Beacon Country Park, Skelmersdale 2. Tawd Valley Park, Skelmersdale 3. Fairy Glen, Appley Bridge 4. Dean Wood, Up Holland 5. Abbey Lakes, Up Holland 6. Ruff Wood, Ormskirk 7. Platts Lane Lake, Burscough 8. Chequer Lane, Up Holland G. New children's play areas are proposed on sites shown on the Proposals Map at: 1. Latham Avenue, Parbold (0.2 ha) 2. Tabbys Nook Newburgh (0.2 ha) 3. Redgate, Ormskirk (1.0 ha) 4. Elm Place, Ormskirk (0.6ha) 5. Land East of Eavesdale, Skelmersdale (0.9 ha) 6. Bescar Lane, Bescar (0.2 ha) 7. Pickles Drive, Burscough
Policy EN4 Preserving and Enhancing West	1. Quality Design High quality and inclusive design will be required for all new developments and will be expected to:

Policy number/ name	Key Features of Local Plan Publication Policies (all figures are taken from the Publication Local Plan Report 2012)
Lancashire's Built Environment	• be high quality and inspiring design and in keeping with the West Lancashire Design Guide SPD; • be adaptable to climate change through construction principles; • create safe and secure environments that reduce the opportunities for crime. A crime impact statement may be required in accordance with the Council's validation checklist; • contribute to creating a 'sense of place' by responding positively to the setting and local distinctiveness of the area in relation to the scale of development, site layout, building style and design, materials and landscaping; • fully integrate with existing streets and paths to ensure safety for pedestrian, vehicles and cycle users; • create attractive public spaces to promote healthy and inclusive communities, making use of well designed open space, landscaping and public art, where appropriate. <u>2. Cultural and Heritage Assets</u> The historic environment has an aesthetic value and promotes local distinctiveness and helps define our sense of place. In order to protect and enhance historic assets whilst facilitating economic development through regeneration, leisure and tourism, the following principles will be applied: A. There will be a presumption in favour of the conservation of designated heritage assets. Regard should be had for the following criteria: • Development will not be permitted that will adversely affect a listed building, a scheduled monument, a conservation area, historic park or garden, or important archaeological remains; • Development affecting the historic environment should seek to preserve or enhance the heritage asset and any features of specific historic, archaeological, architectural or artistic interest; • In all cases there will be an expectation that any new development will enhance the historic environment in the first instance, unless there are no identifiable opportunities available; • In instances where existing features have a negative impact on the historic environment, as identified through character appraisals, the Local Planning Authority will request the removal of the features that undermine the historic environment as part of any proposed development. B. Substantial harm or loss of a listed building, park or garden will only be permitted in exceptional circumstances where

Policy number/ name	Key Features of Local Plan Publication Policies (all figures are taken from the Publication Local Plan Report 2012)
	it can be demonstrated that: a) the substantial harm to, or loss of significance of, the heritage asset is necessary in order to deliver substantial public benefits that outweigh that harm or loss; or the nature of the heritage asset prevents all reasonable uses of the site; b) no viable use of the heritage asset itself can be found in the medium term that will enable its conservation (evidence of appropriate marketing and reasonable endeavours should be provided in line with Policy GN4); c) conservation through grant-funding or some form of charitable or public ownership is not possible; and d) the harm to or loss of the heritage asset is outweighed by the benefits of bringing the site back into use. C. There will be a presumption in favour of the protection and enhancement of existing buildings and built areas which do not have Listed Building or Conservation Area status but have a particular local importance or character which it is desirable to keep. Such buildings or groups of buildings will be identified through a Local List which will be adopted by the Council. 4. Heritage Statements and / or Archaeological Evaluations will be required for proposals related to, or impacting on, the setting of heritage assets and/or known or possible archaeological sites, in order that sufficient information is provided to assess the impacts of development on historic environment assets, together with any proposed mitigation measures. 5. Where possible, opportunities to mitigate and adapt to the effects of climate change will be encouraged. Re-use of heritage assets and, where suitable, modification so as to reduce carbon emissions and secure sustainable development will be permitted where appropriate. The public benefit of mitigating the effects of climate change should be weighed against any harm to the significance of the heritage asset.

Appendix 4: River Douglas Catchment

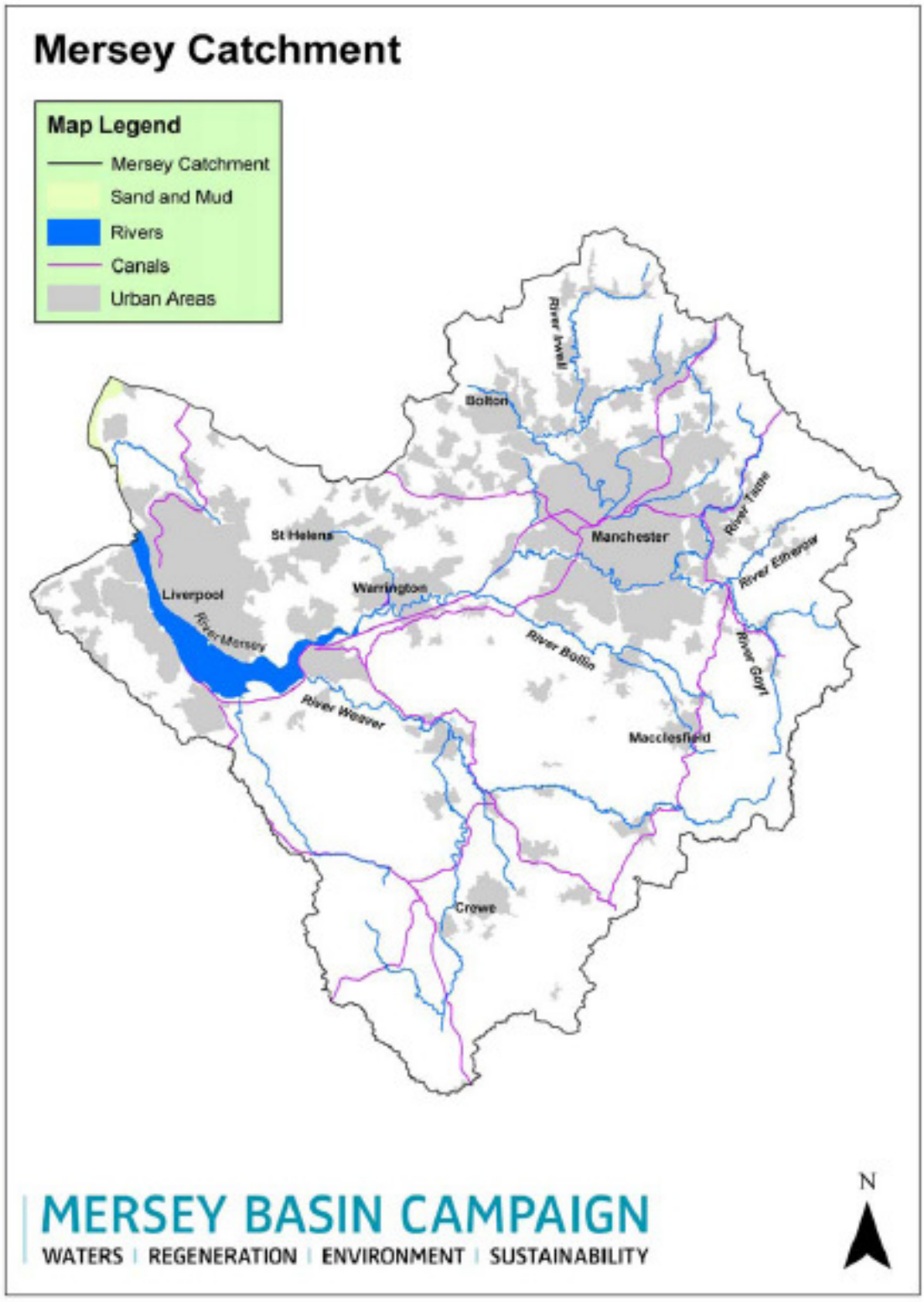
Appendix 5: Energy Priority Zones

Appendix 6: Qualifying Bird Species Sensitivity Map: South West Lancashire

Source RSPB and Lancashire Wildlife Trust (July 2008) Wind Turbines, Sensitive Bird Populations and Peat Soils: A Spatial Planning Guide for on-shore wind farm developments in Lancashire, Cheshire, Greater Manchester and Merseyside.

Appendix 7: River Mersey catchment

Map taken from the Mersey Basin Campaign publication River Mersey: 6 Minute Expert (undated)



Appendix 8: Appraisal of proposed development sites

This table investigates whether development of sites named in the Local Plan have the potential to affect supporting habitat for Martin Mere SPA/ Ramsar site or Ribble & Alt Estuaries SPA/ Ramsar site.

Policy number	Site allocated	Comments	Conclusions
SP3, GN2, RS1, EC1	Yew Tree Farm, Burscough (adjacent to Burscough Industrial Estate)	The RSPB sensitivity map (Appendix 6) identifies a large area to the north and west within 1km of the proposed site as sensitive habitat for pink-footed geese and whooper swans. Aerial photographs indicate that the site currently supports arable farmland which appears to meet the basic habitat requirements of wintering pink-footed geese and whooper swans. The existing industrial area does not meet the basic habitat requirements for qualifying bird species. However, redevelopment of the existing site could result in noise and/ or visual disturbance to wintering birds using the adjacent sensitive area.	The proposed development site is not currently identified as supporting habitat for the SPA/ Ramsar sites, and therefore there is no barrier to allocation of the site in the Local Plan, as no effects on the SPA/ Ramsar sites can be expected based on the current information. However, the site has potential to be used as supporting habitat in the future, as the distribution of qualifying bird species may change over time. It is also noted that the habitats on the site may change, which may affect their suitability for qualifying bird species. In order to ensure compliance with legislation, national policy and policy EN2 of the Local Plan when determining planning applications for this site, the applicant should submit an Ornithology Report containing sufficient information to demonstrate that consideration has been given to the potential for effects on wintering birds and, if necessary, that suitable mitigation measures will be implemented to address this to the satisfaction of the Council. This will allow the project to be screened against the Habitats Regulations (or equivalent current legislation) and relevant national and local policy.

Policy number	Site allocated	Comments	Conclusions
GN2	Land at Parr's Lane, Aughton	The RSPB sensitivity map identifies a large area to the south and east within 1km of the proposed site as sensitive habitat for pink-footed geese. Aerial photographs indicate that the site currently supports a mixture of arable farmland, grassland, woodland and hedgerows. The grassland has a small field size and there are well-developed hedgerows and small woodlands. This combination of features is not favoured by wintering pink-footed geese, which prefer areas with open views. The arable fields are of a suitable size, but have residential properties immediately adjacent – again, this is unfavourable for pink-footed geese, which prefer quiet areas with little human activity. Taking this into account, the site would appear to be unlikely to support significant numbers of wintering pink-footed geese.	The site is unlikely to provide supporting habitat in respect of SPA/ Ramsar qualifying species. As such, allocation of this site is not considered likely to have any tangible effects on SPA/ Ramsar sites.
GN2	Land at Ruff Lane, Ormskirk	The RSPB sensitivity map identifies a large area to the south-east within 1km of the proposed site as sensitive habitat for pink-footed geese. Aerial photographs indicate that the site is surrounded by tall hedges / trees and supports unmanaged shrubby or tall herb vegetation. These habitats are unattractive to pink-footed geese. Taking this into account, the site would appear to be unlikely to support significant numbers of wintering pink-footed geese.	The site is unlikely to provide supporting habitat in respect of SPA/ Ramsar qualifying species. As such, allocation of this site is not considered likely to have any tangible effects on SPA/ Ramsar sites.

Policy number	Site allocated	Comments	Conclusions
GN2	Land at Red Cat Lane, Burscough	The site is located approximately 1.7km south-west of Martin Mere SPA/Ramsar. The RSPB sensitivity map identifies a sensitive area for pink-footed geese and whooper swans which includes the proposed site. Aerial photographs indicate that the site is partly surrounded by existing residential development and supports a combination of arable and grass fields and garden-like small enclosures. Whilst the site could potentially meet the feeding requirements of qualifying bird species, the level of human activity is likely to be quite high, plus the site is screened from more suitable habitat to the north by trees and shrubs. this combination of features is unattractive to qualifying bird species, so it appears unlikely that the site itself would support them in significant numbers. However, development of the sie might have potential to result in disturbance to birds using suitable habitat to the north.	Wintering birds are highly mobile and move between roosting/ feeding sites according to weather, food availability, etc. Therefore, provided that there is sufficient supporting habitat in the overall area, temporary disturbance of a small area of supporting habitat is not generally considered to affect SPA/ Ramsar site integrity. Additionally, there are a number of measures available to prospective developers to avoid and/or mitigate noise and visual disturbance. Taking this into account, it is unlikely that development of the site would have a tangible effect on the overall integrity of Martin Mere SPA/ Ramsar site. However, there is a possibility of in-combination effects with other future developments which also have the potential to result in disturbance (see below). This can only be assessed when the timing of development proposals is known, i.e., at planning application stage. In order to ensure compliance with legislation, national policy and policy EN2 of the Local Plan when determining planning applications for this site, the applicant should submit an Ornithology Report containing sufficient information to demonstrate that consideration has been given to the potential for disturbance of wintering birds and, if necessary, that suitable mitigation measures will be implemented to address this to the satisfaction of the Council. This will allow the Council to screen the project against the Habitats Regulations (or current equivalent legislation) and relevant national and local policy.

Policy number	Site allocated	Comments	Conclusions
GN2	Land at Mill Lane, Up Holland	The site is over 5km away from sensitive habitats as identified by the RSPB sensitivity map. Aerial photographs indicate that the site is partly arable land and partly playing field/ amenity greenspace, and is surrounded by existing housing. Taking this into account, the site would appear to be unlikely to support significant numbers of wintering pink-footed geese.	The site is unlikely to provide supporting habitat in respect of SPA/ Ramsar qualifying species. As such, allocation of this site is not considered likely to have any tangible effects on SPA/ Ramsar sites.
GN2	Land at Moss Road, Halsall	This site is located within a whooper swan sensitive area and with a sensitive area for pink-footed geese directly adjacent to the south. The site currently supports allotments, small grass fields, and medium sized arable fields in the southern portion adjacent to the identified pink-footed area. Allotments and small fields are generally unattractive to qualifying bird species, as they do not offer the wide open views preferred by these birds. The arable fields are potentially more suitable, but are hemmed in by existing residential development to the south. Overall, it appears unlikely that the site would support significant numbers of qualifying bird species, nor does it seem likely that development of the site would result in disturbance of qualifying bird species.	Whilst impacts on wintering birds from redevelopment of the site appear unlikely, it is important to acknowledge and address the fact that the site lies in an area identified as sensitive for wintering birds when considering future planning applications. In order to ensure compliance with legislation, national policy and policy EN2 of the Local Plan when determining planning applications for this site, the applicant should submit an Ornithology Report containing sufficient information to demonstrate that consideration has been given to the potential for effects on wintering birds and, if necessary, that suitable mitigation measures will be implemented to address this to the satisfaction of the Council. This will allow the Council to screen the project against the Habitats Regulations (or current equivalent legislation) and relevant national and local policy.

Policy number	Site allocated	Comments	Conclusions
GN2	Land at Fine Jane's Farm, Halsall	The site is located within an area identified as sensitive for whooper swan and adjacent to a sensitive area for pink-footed geese. The site was formerly a poultry farm and is fully developed with buildings and hardstanding. As such, the site does not meet the basic habitat requirements of whooper swan or pink-footed geese and is unlikely to support qualifying bird species in significant numbers. Redevelopment of the site could result in noise and/or visual disturbance to wintering birds using the adjacent sensitive area but this is a very theoretical risk at this stage.	A decision would have to be taken at a planning application stage as to whether disturbance of birds using adjacent land was an issue requiring consideration as part of the application, This is not appropriate for a strategic plan and therefore no specific recommendations are made for incorporation into the Local Plan. Natural England have stated in their most recent (February 2012) consultation response that in their opinion this site would not pose a risk to the integrity of the SPA.

Policy number	Site allocated	Comments	Conclusions
GN2	Land at New Cut Lane, Halsall	This site lies in an area designated as sensitive for pink-footed geese. It is adjacent to an area identified as sensitive for whooper swan. Halsall and Plex Mosses SBI is immediately to the south of the site – this is known to be an internationally important roosting site for pink-footed geese in its own right, with average peak counts of around 6,000 geese in the mid-1990s[88]. The proposed development site consists mainly of grassland with a small field size and areas of trees and scrub. Whilst this could theoretically provide feeding habitat for pink-footed geese, they prefer sites with wide open views and are seldom found in visually enclosed areas such as the proposed development site. It therefore appears unlikely that the site would support significant numbers of qualifying bird species. However, redevelopment of the site could result in noise and/or visual disturbance to wintering birds using the adjacent sensitive area.	Wintering birds are highly mobile and move between roosting/ feeding sites according to weather, food availability, etc. Therefore, provided that there is sufficient supporting habitat in the overall area, temporary disturbance of a small area of supporting habitat is not generally considered to affect SPA/ Ramsar site integrity. Additionally, there are a number of measures available to prospective developers to avoid and/or mitigate noise and visual disturbance. Taking this into account, it is unlikely that development of the site would have a tangible effect on the overall integrity of SPA/ Ramsar sites. However, there is a possibility of in-combination effects with other future developments which also have the potential to result in disturbance (see below). This can only be assessed when the timing of development proposals is known, i.e., at planning application stage. In order to ensure compliance with legislation, national policy and policy EN2 of the Local Plan when determining planning applications for this site, the applicant should submit an Ornithology Report containing sufficient information to demonstrate that consideration has been given to the potential for disturbance of wintering birds and, if necessary, that suitable mitigation measures will be implemented to address this to the satisfaction of the Council. This will allow the Council to screen the project against the Habitats Regulations (or current equivalent legislation) and relevant national and local policy.

Policy number	Site allocated	Comments	Conclusions
GN2	Land at Guinea Hall Lane / Greaves Hall Avenue, Banks	This site is located in an area identified as sensitive for whooper swan and adjacent to a designated sensitive area for pink-footed geese. The site is adjacent to existing housing and the A565 dual carriageway road. Existing habitats based on aerial photographs are primarily grass fields with a medium field size and frequent trees and hedgerows. These features are not favourable for wintering birds, which tend to concentrate on sites with wide open views. As such, it is unlikely that the site is used by significant numbers of these birds. However, redevelopment of the site could result in noise and/ or visual disturbance to wintering birds using the adjacent sensitive area.	Wintering birds are highly mobile and move between roosting/ feeding sites according to weather, food availability, etc. Therefore, provided that there is sufficient supporting habitat in the overall area, temporary disturbance of a small area of supporting habitat is not generally considered to affect SPA/ Ramsar site integrity. Additionally, there are a number of measures available to prospective developers to avoid and/or mitigate noise and visual disturbance. Taking this into account, it is unlikely that development of the site would have a tangible effect on the overall integrity of SPA/ Ramsar sites. However, there is a possibility of in-combination effects with other future developments which also have the potential to result in disturbance (see below). This can only be assessed when the timing of development proposals is known, i.e., at planning application stage. In order to ensure compliance with legislation, national policy and policy EN2 of the Local Plan when determining planning applications for this site, the applicant should submit an Ornithology Report containing sufficient information to demonstrate that consideration has been given to the potential for disturbance of wintering birds and, if necessary, that suitable mitigation measures will be implemented to address this to the satisfaction of the Council. This will allow the Council to screen the project against the Habitats Regulations (or current equivalent legislation) and relevant national and local policy.

Policy number	Site allocated	Comments	Conclusions
EC1	Pimbo Industrial Estate	The proposal at this site is for use of existing allocations and regeneration of vacant/ under-used sites within the existing footprint of the industrial estate. The site is approximately 1km away from an area designated as sensitive for pink-footed geese. The existing industrial estate and immediately adjacent small pockets of undeveloped land are unfavourable for wintering pink-footed geese, as the basic habitat requirements of arable /pasture land for food and wide open views do not appear to be met.	The site is unlikely to provide supporting habitat in respect of SPA/ Ramsar qualifying species. As such, allocation of this site is not considered likely to have any tangible effects on SPA/ Ramsar sites.
EC1	Stanley Industrial Estate	The proposal at this site is for use of existing allocations and regeneration of vacant/ under-used sites within the existing footprint of the industrial estate. The site is approximately 1km away from the nearest area designated as sensitive for pink-footed geese by the RSPB. The existing industrial estate does not meet the basic habitat requirements for wintering pink-footed geese. Judging by aerial photographs available online, the undeveloped land within existing allocations supports unmanaged grassland. This could potentially meet the needs of feeding pink-footed geese, but the immediate proximity of major industrial development is likely to result in high levels of human activity. Overall, the site is considered unfavourable for pink-footed geese.	The site is unlikely to provide supporting habitat in respect of SPA/ Ramsar qualifying species. As such, allocation of this site is not considered likely to have any tangible effects on SPA/ Ramsar sites.

Policy number	Site allocated	Comments	Conclusions
EC1	Gillibrands Industrial Estate	The proposal at this site is for use of existing allocations and regeneration of vacant/ under-used sites within the existing footprint of the industrial estate. The site is approximately 1km away from the nearest area designated as sensitive for pink-footed geese by the RSPB. The existing industrial estate does not meet the basic habitat requirements for wintering pink-footed geese.	The site is unlikely to provide supporting habitat in respect of SPA/ Ramsar qualifying species. As such, allocation of this site is not considered likely to have any tangible effects on SPA/ Ramsar sites.
EC1	White Moss Business Park	The proposal at this site is for development of existing allocations for employment land. The site is approximately 1km away from the nearest area designated as sensitive for pink-footed geese by the RSPB. The existing industrial estate does not meet the basic habitat requirements for wintering pink-footed geese. Judging by aerial photographs available online, the undeveloped land within existing allocations supports unmanaged grassland. This could potentially meet the needs of feeding pink-footed geese, but the immediate proximity of industrial development is likely to result in high levels of human activity. Overall, the site is considered unfavourable for pink-footed geese.	The site is unlikely to provide supporting habitat in respect of SPA/ Ramsar qualifying species. As such, allocation of this site is not considered likely to have any tangible effects on SPA/ Ramsar sites.

Policy number	Site allocated	Comments	Conclusions
EC1	Ormskirk Employment Area	Ormskirk Employment Area consists of land off Burscough Street, Ormskirk. This site is approximately 1km away from the nearest area designated as sensitive for pink-footed geese. The site is already more or less fully developed for industrial purposes. As such, the site does not appear to meet the basic habitat requirements of pink-footed geese.	The site is unlikely to provide supporting habitat in respect of SPA/ Ramsar qualifying species. As such, allocation of this site is not considered likely to have any tangible effects on SPA/ Ramsar sites.
EC1	Southport Road/ Green Lane, Ormskirk	This site is approximately 1km away from the nearest area designated as sensitive for pink-footed geese. The site is already more or less fully developed for industrial purposes. As such, the site does not appear to meet the basic habitat requirements of pink-footed geese.	The site is unlikely to provide supporting habitat in respect of SPA/ Ramsar qualifying species. As such, allocation of this site is not considered likely to have any tangible effects on SPA/ Ramsar sites.
EC1	Abbey Lane, Burscough	This site is approximately 3km south of Martin Mere SPA/Ramsar and approximately 2km away from the nearest area designated as sensitive for pink-footed geese. The area adjacent to the railway line is already developed for industrial purposes. The area shown as safeguarded on the previous Local Plan Proposals Map appears to support unmanaged grassland with several tracks and paths through it. Given the location of this land adjacent to existing industrial development and residential properties, it appears unlikely that the undeveloped land would be used by significant numbers of pink-footed geese.	The site is unlikely to provide supporting habitat in respect of SPA/ Ramsar qualifying species. As such, allocation of this site is not considered likely to have any tangible effects on SPA/ Ramsar sites.

Policy number	Site allocated	Comments	Conclusions
EC1	Platts Lane, Burscough	This site is approximately 3km south of Martin Mere SPA/Ramsar and approximately 2km away from the nearest area designated as sensitive for pink-footed geese. The area allocated in the previous Local Plan has been fully developed and is surrounded by residential properties except to the north where there is a small pocket of former agricultural land which now appears unmanaged. This could potentially meet the needs of feeding pink-footed geese, but the immediate proximity of urban development is likely to result in high levels of human activity. Overall, the site is considered unfavourable for pink-footed geese.	The site is unlikely to provide supporting habitat in respect of SPA/ Ramsar qualifying species. As such, allocation of this site is not considered likely to have any tangible effects on SPA/ Ramsar sites.

Policy number	Site allocated	Comments	Conclusions
EC1	Briars Lane, Burscough	This site is approximately 3.5km south of Martin Mere SPA/Ramsar and approximately 1km away from the nearest area designated as sensitive for pink-footed geese and whooper swans. The land allocated for development in the previous Local Plan has been partly developed. According to aerial photographs, the northern and western part remains undeveloped (adjacent to Delph Drive/ Oak Drive) and supports grassland. This could potentially meet the needs of feeding pink-footed geese, but the immediate proximity of urban development is likely to result in high levels of human activity. Overall, the site is considered unfavourable for pink-footed geese.	The site is unlikely to provide supporting habitat in respect of SPA/ Ramsar qualifying species. As such, allocation of this site is not considered likely to have any tangible effects on SPA/ Ramsar sites.
EC1	Orrell Lane, Burscough	This site is under 2km from Martin Mere SPA/Ramsar and is within an area identified as sensitive for whooper swans. The site is also within 500m of an area designated as sensitive for pink-footed geese. The land allocated for development in the previous Local plan has been fully developed, and does not meet the basic habitat requirements of wintering bird species. Redevelopment of the site could result in noise and/or visual disturbance to wintering birds using the adjacent sensitive areas but that is a very theoretical risk.	A decision would have to be taken at a planning application stage as to whether disturbance of birds using adjacent land was an issue requiring consideration as part of the application, This is not appropriate for a strategic plan and therefore no specific recommendations are made for incorporation into the Local Plan. Natural England have stated in their most recent (February 2012) consultation response that in their opinion this site would not pose a risk to the integrity of the SPA.

Policy number	Site allocated	Comments	Conclusions
EC1	Red Cat Lane, Burscough	This site is under 2km from Martin Mere SPA/Ramsar and is within an area identified as sensitive for whooper swans and pink-footed geese. The land allocated for development in the previous Local plan has been fully developed, and does not meet the basic habitat requirements of wintering bird species. However, redevelopment of the site could result in noise and/or visual disturbance to wintering birds using the adjacent sensitive areas.	Wintering birds are highly mobile and move between roosting/ feeding sites according to weather, food availability, etc. Therefore, provided that there is sufficient supporting habitat in the overall area, temporary disturbance of a small area of supporting habitat is not generally considered to affect SPA/ Ramsar site integrity. Additionally, there are a number of measures available to prospective developers to avoid and/or mitigate noise and visual disturbance. Taking this into account, it is unlikely that development of the site would have a tangible effect on the overall integrity of SPA/ Ramsar sites. However, there is a possibility of in-combination effects with other future developments which also have the potential to result in disturbance (see below). This can only be assessed when the timing of development proposals is known, i.e., at planning application stage. In order to ensure compliance with legislation, national policy and policy EN2 of the Local Plan when determining planning applications for this site, the applicant should submit an Ornithology Report containing sufficient information to demonstrate that consideration has been given to the potential for disturbance of wintering birds and, if necessary, that suitable mitigation measures will be implemented to address this to the satisfaction of the Council. This will allow the Council to screen the project against the Habitats Regulations (or current equivalent legislation) and relevant national and local policy.

Policy number	Site allocated	Comments	Conclusions
EC2	Land between Greaves Hall Avenue and Southport New Road, Banks	This site is located in an area identified as a whooper swan flyover area and sensitive for whooper swan. It is adjacent to an area designated as sensitive for pink-footed geese. The safeguarded land is a small area of apparently unmanaged land surrounded by trees, adjacent to existing housing and the main road. The combination of housing, main road and visual enclosure by trees is unfavourable to pink-footed geese and whooper swans, so it is unlikely that the safeguarded land is used by significant numbers of these birds. However, redevelopment of the site could result in noise and/ or visual disturbance to wintering birds using the adjacent sensitive areas.	Wintering birds are highly mobile and move between roosting/ feeding sites according to weather, food availability, etc. Therefore, provided that there is sufficient supporting habitat in the overall area, temporary disturbance of a small area of supporting habitat is not generally considered to affect SPA/ Ramsar site integrity. Additionally, there are a number of measures available to prospective developers to avoid and/or mitigate noise and visual disturbance. Taking this into account, it is unlikely that development of the site would have a tangible effect on the overall integrity of SPA/ Ramsar sites. However, there is a possibility of in-combination effects with other future developments which also have the potential to result in disturbance (see below). This can only be assessed when the timing of development proposals is known, i.e., at planning application stage. In order to ensure compliance with legislation, national policy and policy EN2 of the Local Plan when determining planning applications for this site, the applicant should submit an Ornithology Report containing sufficient information to demonstrate that consideration has been given to the potential for disturbance of wintering birds and, if necessary, that suitable mitigation measures will be implemented to address this to the satisfaction of the Council. This will allow the Council to screen the project against the Habitats Regulations (or current equivalent legislation) and relevant national and local policy.

Policy number	Site allocated	Comments	Conclusions
EC1	North Quarry, Appley Bridge	Appley Bridge is located at least 3km from the nearest designated sensitive area for pinkfooted geese and whooper swans. The village is located in a rural area dominated by undulating topography, mixed farming with much pasture and, characteristically, numerous linear clough woodlands and well-developed hedgerows. This is very different from the flat arable-dominated areas typically preferred by qualifying bird species.	The site is unlikely to provide supporting habitat in respect of SPA/ Ramsar qualifying species. As such, allocation of this site is not considered likely to have any tangible effects on SPA/ Ramsar sites.
EC1	Westgate, Skelmersdale	This site is located at least 2km from any area identified as sensitive for pink-footed geese or whooper swans. Given the urban location, it is highly unlikely that the site within would support significant numbers of qualifying bird species.	The site is unlikely to provide supporting habitat in respect of SPA/ Ramsar qualifying species. As such, allocation of this site is not considered likely to have any tangible effects on SPA/ Ramsar sites.
EC1	Appley Lane North, Appley Bridge	Appley Bridge is located at least 3km from the nearest designated sensitive area for pinkfooted geese and whooper swans. The village is located in a rural area dominated by undulating topography, mixed farming with much pasture and, characteristically, numerous linear clough woodlands and well-developed hedgerows. This is very different from the flat arable-dominated areas typically preferred by qualifying bird species.	The site is unlikely to provide supporting habitat in respect of SPA/ Ramsar qualifying species. As such, allocation of this site is not considered likely to have any tangible effects on SPA/ Ramsar sites.

Policy number	Site allocated	Comments	Conclusions
EC1	Simonswood Industrial Estate	This site is located adjacent to an area identified as sensitive for pink-footed geese (Simonswood Moss). Undeveloped land allocated in the previous local plan supports potentially suitable habitat for this species.	A decision would have to be taken at a planning application stage as to whether disturbance of birds using adjacent land was an issue requiring consideration as part of the application, This is not appropriate for a strategic plan and therefore no specific recommendations are made for incorporation into the Local Plan. Natural England have stated in their most recent (February 2012) consultation response that in their opinion this site would not pose a risk to the integrity of the SPA.
EC3	Greaves Hall Hospital, Banks	This site is located in an area identified as a whooper swan flyover area and sensitive for whooper swan. It is close to an area designated as sensitive for pink-footed geese. It is understood that the former Greaves Hall Hospital has now been demolished. The remainder of the site is dominated by trees and shrubs, judging by aerial photographs available online. These habitats do not meet the basic habitat requirements for qualifying wintering bird species. The site is completely enclosed by existing residential and employment development and, as such, redevelopment is highly unlikely to result in disturbance of wintering birds.	A decision would have to be taken at a planning application stage as to whether disturbance of birds using adjacent land was an issue requiring consideration as part of the application, This is not appropriate for a strategic plan and therefore no specific recommendations are made for incorporation into the Local Plan. Natural England have stated in their most recent (February 2012) consultation response that in their opinion this site would not pose a risk to the integrity of the SPA.

Policy number	Site allocated	Comments	Conclusions
EC3	Appley Bridge East Quarry	Appley Bridge is located at least 3km from the nearest designated sensitive area for pinkfooted geese and whooper swans. The village is located in a rural area dominated by undulating topography, mixed farming with much pasture and, characteristically, numerous linear clough woodlands and well-developed hedgerows. This is very different from the flat arable-dominated areas typically preferred by qualifying bird species.	The site is unlikely to provide supporting habitat in respect of SPA/ Ramsar qualifying species. As such, allocation of this site is not considered likely to have any tangible effects on SPA/ Ramsar sites.
EC3	Alty's Brickwork's, Hesketh Bank	This site is situated within 500m of a grid square designated as sensitive for whooper swan. The nearest sensitive area for pink-footed geese is approximately 1km to the north. It is bounded by residential development to the west and south, the River Douglas to the east and existing employment land to the north. Aerial photography indicates that the site is use as informal greenspace, with areas of grassland, shrubs and trees interspersed with paths and tracks. This combination of features is unfavourable to wintering birds, so it is considered unlikely that the site supports significant numbers of qualifying bird species. The site is separated from the whooper swan sensitive area by the village of Hesketh Bank, so it is most unlikely that development would have any disturbance effects on qualifying bird species.	The site is unlikely to provide supporting habitat in respect of SPA/ Ramsar qualifying species. As such, allocation of this site is not considered likely to have any tangible effects on SPA/ Ramsar sites.

Policy number	Site allocated	Comments	Conclusions
EC3	Tarleton Mill, Tarleton	This site is located approximately 600m north of an area identified as sensitive for pink-footed geese. The site was previously fully developed with buildings and hardstanding and so does not meet the basic habitat requirements of qualifying bird species.	The site is unlikely to provide supporting habitat in respect of SPA/ Ramsar qualifying species. As such, allocation of this site is not considered likely to have any tangible effects on SPA/ Ramsar sites.
EC4	Extension of Edge Hill University, Ormskirk	The site is located approximately 6 km away from Martin Mere SPA/Ramsar The RSPB sensitivity map identifies a large area to the south-east approximately 500m from the proposed site as sensitive habitat for pink-footed geese. Aerial photographs indicate that the site consists of playing fields and arable land. The sports facilities at the University are open to the public, have floodlighting installed and are home to several football clubs and a hockey club. This indicates that the playing fields are well-used, including during the winter, and so the site is unlikely to support qualifying bird species due to high levels of human activity.	The site is too far from the nearest area of supporting habitat for any conflicts with the integrity of the SPA to be likely.
RS1	Skelmersdale Town Centre	The town centre is located at least 2km from any area identified as sensitive for pink-footed geese or whooper swans. Given the urban location, it is highly unlikely that any site within the town centre would support significant numbers of qualifying bird species.	The site is unlikely to provide supporting habitat in respect of SPA/ Ramsar qualifying species. As such, allocation of this site is not considered likely to have any tangible effects on SPA/ Ramsar sites.

Policy number	Site allocated	Comments	Conclusions
RS1	Grove Farm, Ormskirk	This site supports arable land which meets the basic habitat requirements of qualifying bird species. However, it is located over 1km from the nearest area identified as sensitive for pink-footed geese.	A decision would have to be taken at a planning application stage as to whether disturbance of birds using adjacent land was an issue requiring consideration as part of the application, This is not appropriate for a strategic plan and therefore no specific recommendations are made for incorporation into the Local Plan. Natural England have stated in their most recent (February 2012) consultation response that in their opinion this site would not pose a risk to the integrity of the SPA.
RS1	Land at Firswood Road, Lathom/ Skelmersdale	This site is on the western boundary of Skelmersdale and is not located in an area currently identified as sensitive for qualifying bird species. Whilst the site supports grassland and/or arable habitat which may meet the basic needs of qualifying bird species, it is surrounded by existing residential and employment development and divided by linear belts of shrubs and trees. It is thus unlikely to be attractive to qualifying bird species due to proximity to human activity and lack of the wide open views preferred by these species.	The site is unlikely to provide supporting habitat in respect of SPA/ Ramsar qualifying species. As such, allocation of this site is not considered likely to have any tangible effects on SPA/ Ramsar sites.

Policy number	Site allocated	Comments	Conclusions
RS1	Whalleys, Skelmersdale	These sites are located on the northern boundary of Skelmersdale at some distance from both Martin Mere and the nearest identified sensitive areas for qualifying bird species. Undeveloped land off Whalleys Road and Beacon Lane is adjacent to existing housing and is surrounded by woodland shelterbelts. It is thus unlikely to be attractive to qualifying bird species.	The site is unlikely to provide supporting habitat in respect of SPA/ Ramsar qualifying species. As such, allocation of this site is not considered likely to have any tangible effects on SPA/ Ramsar sites.
RS1, EC1, EN3	Chequer Lane, Up Holland	This site supports arable land which potentially could meet the needs of foraging wintering birds. However, it is bounded by the main road, M58 motorway, plus residential and quarry developments and so is unlikely to be used by qualifying species in significant numbers. It is not located in an area identified as sensitive by the RPSB.	The site is unlikely to provide supporting habitat in respect of SPA/ Ramsar qualifying species. As such, allocation of this site is not considered likely to have any tangible effects on SPA/ Ramsar sites.

Policy number	Site allocated	Comments	Conclusions
RS4	No specific site, to be selected according to criteria as set out in policy RS4.	Locations: Scarisbrick Scarisbrick is located approximately 3km west of Martin Mere in a whooper swan sensitive area. The village is within 1km of areas identified as sensitive for pink-footed geese. Scarisbrick is located within a large area of Green Belt arable land which includes areas within the corridor of the A5147 and A570. For example, the land at Pool Hey Crossing is within the pink-footed geese designated sensitive area, adjacent to arable land offering suitable habitat for qualifying bird species. M58 corridor The M58 corridor includes the area of Green Belt around Bickerstaffe Moss which has been identified as a sensitive area for pink-footed geese. Burscough Burscough village is located approximately 2km from Martin Mere SPA/ Ramsar site and identified sensitive areas for whooper swan and pink-footed geese overlap with parts of the village and immediate environs.	Whilst Policy RS4 makes it clear that sites proposed under this policy should meet the highest standards for environmental and social factors, given that all three areas mentioned in the policy overlap in part with areas identified as sensitive for wintering birds, there is potential for this policy to result in loss of supporting habitat and/or disturbance to wintering birds. Until sites are proposed, however, no realistic assessment of potential effects can be undertaken, and it is not considered reasonable to apply a blanket rule prohibiting development of sites located within the identified sensitive areas. This is because the distribution of qualifying bird species can and does change over time. In order to ensure compliance with legislation, national policy and policy EN2 of the Local Plan when determining planning applications submitted in connection with Policy RS4, the applicant should submit an Ornithology Report containing sufficient information to demonstrate that consideration has been given to the potential for effects on wintering birds and, if necessary, that suitable mitigation measures will be implemented to address this to the satisfaction of the Council. This will allow the Council to screen the project against the Habitats Regulations (or current equivalent legislation) and relevant national and local policy.

Policy number	Site allocated	Comments	Conclusions
IF2	The proposed A570 Ormskirk bypass	The route of the proposed bypass, as shown on the previous Local Plan Proposals Map, is within 500m of a sensitive area for pink-footed geese and supports potentially suitable habitat for wintering qualifying bird species. Consequently, development of the bypass has the potential to result in effects on qualifying bird species.	The proposed development site is not currently identified as supporting habitat for SPA/ Ramsar sites. However, the site has potential to be used as supporting habitat in the future, as the distribution of qualifying bird species may change over time. It is also noted that the habitats on the site may change, which may affect their suitability for qualifying bird species. Wintering birds are highly mobile and move between roosting/ feeding sites according to weather, food availability, etc. Therefore, provided that there is sufficient supporting habitat in the overall area, temporary disturbance of a small area of supporting habitat is not generally considered to affect SPA/ Ramsar site integrity. Additionally, there are a number of measures available to prospective developers to avoid and/or mitigate noise and visual disturbance. Taking this into account, it is unlikely that development of the site would have a tangible effect on the overall integrity of SPA/ Ramsar sites. However, there is a possibility of in-combination effects with other future developments which also have the potential to result in disturbance (see below). This can only be assessed when the timing of development proposals is known, i.e., at planning application stage. In order to ensure compliance with legislation, national policy and policy EN2 of the Local Plan when determining planning applications for this site, the applicant should submit an Ornithology Report containing sufficient information to demonstrate that consideration has been given to the potential for effects on wintering birds and, if necessary, that suitable mitigation measures will be implemented to address this to the satisfaction of the Council. This will allow the Council to screen the project against the Habitats Regulations (or current equivalent legislation) and relevant national and local policy.

Policy number	Site allocated	Comments	Conclusions
IF2	A new rail station in Skelmersdale including new track Location not specified	Areas alongside the railway to the south of Skelmersdale do not overlap with identified areas sensitive for wintering birds, but are close to a sensitive area for pink-footed geese at the western end of town. This is furthest from the town centre, so is unlikely to be selected for the new station, but at this time no proposals for location of the station are available to be assessed. It is therefore possible that the new station and track might result in disturbance to wintering birds if located close to a sensitive area.	Wintering birds are highly mobile and move between roosting/ feeding sites according to weather, food availability, etc. Therefore, provided that there is sufficient supporting habitat in the overall area, temporary disturbance of a small area of supporting habitat is not generally considered to affect SPA/ Ramsar site integrity. Additionally, there are a number of measures available to prospective developers to avoid and/or mitigate noise and visual disturbance. Taking this into account, it is unlikely that development of the site would have a tangible effect on the overall integrity of SPA/ Ramsar sites. However, there is a possibility of in-combination effects with other future developments which also have the potential to result in disturbance (see below). This can only be assessed when the timing of development proposals is known, i.e., at planning application stage. In order to ensure compliance with legislation, national policy and policy EN2 of the Local Plan when determining planning applications for this site, the applicant should submit an Ornithology Report containing sufficient information to demonstrate that consideration has been given to the potential for effects on wintering birds and, if necessary, that suitable mitigation measures will be implemented to address this to the satisfaction of the Council. This will allow the Council to screen the project against the Habitats Regulations (or current equivalent legislation) and relevant national and local policy.

Policy number	Site allocated	Comments	Conclusions
IF2	An appropriate rail link made between the Ormskirk-Preston line and Southport-Wigan line	The previous Local Plan protected land at Burscough to meet the aspirations for a rail link between these two lines. The land at Burscough is located to the north-east of the village in an area identifed as sensitive for whooper swan and pink-footed geese. The area is generally agricultural, but the route of the proposed rail link is clearly visible on aerial photographs as existing disused rail lines dominated by scrub and trees, offering habitats unattractive to qualifying bird species. Therefore, the re-use of the existing disused railway line is unlikely to result in loss of supporting habitat for SPA/ Ramsar sites, although it is acknowledged that disturbance of wintering birds as a result of the proposals is a possibility.	Wintering birds are highly mobile and move between roosting/ feeding sites according to weather, food availability, etc. Therefore, provided that there is sufficient supporting habitat in the overall area, temporary disturbance of a small area of supporting habitat is not generally considered to affect SPA/ Ramsar site integrity. Additionally, there are a number of measures available to prospective developers to avoid and/or mitigate noise and visual disturbance. Taking this into account, it is unlikely that development of the site would have a tangible effect on the overall integrity of SPA/ Ramsar sites. However, there is a possibility of in-combination effects with other future developments which also have the potential to result in disturbance (see below). This can only be assessed when the timing of development proposals is known, i.e., at planning application stage. In order to ensure compliance with legislation, national policy and policy EN2 of the Local Plan when determining planning applications for this site, the applicant should submit an Ornithology Report containing sufficient information to demonstrate that consideration has been given to the potential for disturbance of wintering birds and, if necessary, that suitable mitigation measures will be implemented to address this to the satisfaction of the Council. This will allow the Council to screen the project against the Habitats Regulations (or current equivalent legislation) and relevant national and local policy.

Policy number	Site allocated	Comments	Conclusions
IF2	Improved cycle linkages between Ormskirk and Burscough	Policy IF2 is not specific about what improved cycle linkages between Ormskirk and Burscough might entail, but it is most likely that this would involve improvements to the A59 to provide a cyclepath.	None envisaged.
IF2	Provision of linear parks Assuming the routes of the proposed linear parks are the same as proposed in the previous Local Plan.	The route between Ormskirk and Skelmersdale consists of an existing disused railway dominated by scrub and trees located in an area not identified as sensitive for wintering birds.	The site is unlikely to provide supporting habitat in respect of SPA/ Ramsar qualifying species. As such, allocation of this site is not considered likely to have any tangible effects on SPA/ Ramsar sites.

Policy number	Site allocated	Comments	Conclusions
IF2	Provision of linear parks Assuming the routes of the proposed linear parks are the same as proposed in the previous Local Plan.	The route between Tarleton and Hesketh Bank relates to land alongside the River Douglas which is dominated by scrub and trees and is located in an area not identified as sensitive for wintering birds.	The site is unlikely to provide supporting habitat in respect of SPA/ Ramsar qualifying species. As such, allocation of this site is not considered likely to have any tangible effects on SPA/ Ramsar sites.
IF2	Provision of linear parks Assuming the routes of the proposed linear parks are the same as proposed in the previous Local Plan.	The former railway line at Banks is located in an identified sensitive area for whooper swan. However, it does not in itself consist of suitable habitat for the species. The route of the proposed park is unlikely to be used by significant numbers of birds due to existing high levels of human activity.	Natural England have stated in their most recent (February 2012) consultation response that in their opinion this site would not pose a risk to the integrity of the SPA.

Policy number	Site allocated	Comments	Conclusions
IF2	Any potential park and ride schemes associated with public transport connections	This part of the policy is not specific about locations and reflects instead a general aspiration to encourage people to use public transport. Consequently, no specific effects on qualifying bird species can be identified at this stage. The policy protection set out in Policy EN2 is relevant to any sites promoted under this part of the policy.	None
IF2	West Quarry, Appley Bridge	Appley Bridge is located at least 3km from the nearest designated sensitive area for pinkfooted geese and whooper swans. The village is located in a rural area dominated by undulating topography, mixed farming with much pasture and, characteristically, numerous linear clough woodlands and well-developed hedgerows. This is very different from the flat arable-dominated areas typically preferred by qualifying bird species.	The site is unlikely to provide supporting habitat in respect of SPA/ Ramsar qualifying species. As such, allocation of this site is not considered likely to have any tangible effects on SPA/ Ramsar sites.
IF2	Other elements	Other elements of IF2 are either not geographically linked (e.g. green travel plans), do not involve any land take (e.g. line electrification) or are situated in town centres.	None
EN3	Hunters Hill, Wrightington	This site lies about 1km east of the nearest sensitive area for pink-footed geese. The existing habitats on the site are woodland/ scrub, which are not attractive to qualifying bird species.	The site is unlikely to provide supporting habitat in respect of SPA/ Ramsar qualifying species. As such, allocation of this site is not considered likely to have any tangible effects on SPA/ Ramsar sites.

Policy number	Site allocated	Comments	Conclusions
EN3	Parbold Hill, Parbold	This site lies around 2km east of a designated sensitive area for pink-footed geese. It is a former landfill site restored to grassland with developing scrub and trees which is already in recreational use. As such, it is highly unlikely to be used by qualifying bird species in significant numbers.	The site is unlikely to provide supporting habitat in respect of SPA/ Ramsar qualifying species. As such, allocation of this site is not considered likely to have any tangible effects on SPA/ Ramsar sites.
EN3	Platts Lane, Burscough	Platts Lane recreational sie comprises woodland and a fishing lake; as allocated in the previous Local Plan, the site was proposed for extension south into an agricultural field. The site is less than 1km from pink-footed goose and whooper swan sensitive areas, but it's a grass field surrounded by belts of trees so is unlikely to be attractive to qualifying bird species due to the lack of open views preferred by wintering birds.	The site is unlikely to provide supporting habitat in respect of SPA/ Ramsar qualifying species. As such, allocation of this site is not considered likely to have any tangible effects on SPA/ Ramsar sites.
EN3	Mill Dam Lane, Burscough	This site is approximately 2km away from the nearest area designated as sensitive for pink-footed geese. The area adjacent to the railway line is already developed for industrial purposes. The area shown as safeguarded on the previous Local Plan Proposals Map appears to support unmanaged grassland with several tracks and paths through it. Given the location of this land adjacent to existing industrial development and residential properties, it appears unlikely that the undeveloped land would be used by significant numbers of pink-footed geese.	The site is unlikely to provide supporting habitat in respect of SPA/ Ramsar qualifying species. As such, allocation of this site is not considered likely to have any tangible effects on SPA/ Ramsar sites.

Policy number	Site allocated	Comments	Conclusions
EN3	Beacon Country Park, Skelmersdale	This is an existing site east of Skelmersdale, over 3kms from any area identified as sensitive for wintering bird species. The site is adjacent to existing development including residential and golf course, and offers a mix of grassland, scrub and trees which is unlikely to attract qualifying bird species in significant numbers.	The site is unlikely to provide supporting habitat in respect of SPA/ Ramsar qualifying species. As such, allocation of this site is not considered likely to have any tangible effects on SPA/ Ramsar sites.
EN3	Tawd Valley Park, Skelmersdale	This site is in the middle of Skelmersdale and is surrounded by residential development. It comprises a mix of grassland, scrub and trees which is unlikely to attract qualifying bird species in significant numbers. The site is approximately 2km from the nearest designated sensitive area for birds.	The site is unlikely to provide supporting habitat in respect of SPA/ Ramsar qualifying species. As such, allocation of this site is not considered likely to have any tangible effects on SPA/ Ramsar sites.
EN3	Fairy Glen, Appley Bridge	This is a wooded site about 500m east of Parbold Hill (see above). The site does not meet the basic habitat requirements of qualifying bird species.	The site is unlikely to provide supporting habitat in respect of SPA/ Ramsar qualifying species. As such, allocation of this site is not considered likely to have any tangible effects on SPA/ Ramsar sites.
EN3	Dean Wood, Up Holland	This is a wooded site about 2km east of Beacon Country Park (see above). The site does not meet the basic habitat requirements of qualifying bird species.	The site is unlikely to provide supporting habitat in respect of SPA/ Ramsar qualifying species. As such, allocation of this site is not considered likely to have any tangible effects on SPA/ Ramsar sites.
EN3	Abbey Lakes, Up Holland	This is a wooded site about 1km south of Beacon Country Park (see above). The site does not meet the basic habitat requirements of qualifying bird species, as it supports woodland and a fishing lake.	The site is unlikely to provide supporting habitat in respect of SPA/ Ramsar qualifying species. As such, allocation of this site is not considered likely to have any tangible effects on SPA/ Ramsar sites.

Policy number	Site allocated	Comments	Conclusions
EN3	Ruff Wood, Ormskirk	This is a wooded site adjacent to Edge Hill University (see above). The site does not meet the basic habitat requirements of qualifying bird species.	The site is unlikely to provide supporting habitat in respect of SPA/ Ramsar qualifying species. As such, allocation of this site is not considered likely to have any tangible effects on SPA/ Ramsar sites.
EN3	Latham Avenue, Parbold	This is a little pocket of grass and scrubland on the edge of the village. Whilst the site itself is unlikely to support qualifying bird species, owing to the habitats available, there are adjacent large arable fields which appear to offer suitable habitat. However, the site is over 1km from any areas designated as sensitive for wintering birds.	The site is unlikely to provide supporting habitat in respect of SPA/ Ramsar qualifying species. As such, allocation of this site is not considered likely to have any tangible effects on SPA/ Ramsar sites.
EN3	Tabbys Nook Newburgh	This is a small site completely enclosed by existing housing.	The site is unlikely to provide supporting habitat in respect of SPA/ Ramsar qualifying species. As such, allocation of this site is not considered likely to have any tangible effects on SPA/ Ramsar sites.
EN3	Redgate, Ormskirk	The site is on the edge of the settlement and adjacent to habitat apparently suitable for wintering birds. However, the site is at some distance from identified sensitive areas for qualifying bird species.	The site is unlikely to provide supporting habitat in respect of SPA/ Ramsar qualifying species. As such, allocation of this site is not considered likely to have any tangible effects on SPA/ Ramsar sites.

Policy number	Site allocated	Comments	Conclusions
EN3	Elm Place, Ormskirk	This site is around 2km to the north of an area identified as sensitive for pink-footed geese. The site supports scrub and trees so is unlikely to provide attractive habitat for wintering birds.	The site is unlikely to provide supporting habitat in respect of SPA/ Ramsar qualifying species. As such, allocation of this site is not considered likely to have any tangible effects on SPA/ Ramsar sites.
EN3	Land East of Eavesdale, Skelmersdale	This land is adjacent to Beacon Country Park (see above) and appears to already be in use for recreation.	The site is unlikely to provide supporting habitat in respect of SPA/ Ramsar qualifying species. As such, allocation of this site is not considered likely to have any tangible effects on SPA/ Ramsar sites.

Policy number	Site allocated	Comments	Conclusions
EN3	Bescar Lane, Bescar	This site consists of a tiny pocket of agricultural land at the crossroads of Bescar Lane and Wood Moss/ Drummersdale Lane. It is located in an area identified as sensitive for pink-footed geese and whooper swan and the habitat on the site consists of large arable fields which appear suitable for these species. The presence of residential development immediately adjacent to the site, however, is unfavourable to the presence of significant numbers of wintering birds, due to the likely high levels of human activity in the area. That said, the proposed scheme could have the potential for disturbance to wintering birds using adjacent habitats.	Wintering birds are highly mobile and move between roosting/ feeding sites according to weather, food availability, etc. Therefore, provided that there is sufficient supporting habitat in the overall area, temporary disturbance of a small area of supporting habitat is not generally considered to affect SPA/ Ramsar site integrity. Additionally, there are a number of measures available to prospective developers to avoid and/or mitigate noise and visual disturbance. Taking this into account, it is unlikely that development of the site would have a tangible effect on the overall integrity of SPA/ Ramsar sites. However, there is a possibility of in-combination effects with other future developments which also have the potential to result in disturbance (see below). This can only be assessed when the timing of development proposals is known, i.e., at planning application stage. In order to ensure compliance with legislation, national policy and policy EN2 of the Local Plan when determining planning applications for this site, the applicant should submit an Ornithology Report containing sufficient information to demonstrate that consideration has been given to the potential for disturbance of wintering birds and, if necessary, that suitable mitigation measures will be implemented to address this to the satisfaction of the Council. This will allow the Council to screen the project against the Habitats Regulations (or current equivalent legislation) and relevant national and local policy.

Policy number	Site allocated	Comments	Conclusions
EN3	Pickles Drive, Burscough	Assuming this allocation relates to the square of land to the south-west of Pickles Drive, whilst this is on the outskirts of the village, it is enclosed already by existing housing.	The site is unlikely to provide supporting habitat in respect of SPA/ Ramsar qualifying species. As such, allocation of this site is not considered likely to have any tangible effects on SPA/ Ramsar sites.

Figure 3: West Lancashire Borough and European sites within 20km

Figure 4: Natura 2000 Sites within West Lancashire Borough