

Provision for Traveller Sites Development Plan Document – Options and Preferred Options

Habitat Regulations Assessment

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1 Introduction

AECOM has been appointed by West Lancashire Borough Council ("the Council") to assist in undertaking a Habitats Regulations Assessment (HRA) of the potential effects of the Provision for Traveller Sites Development Plan Document – Options and Preferred Options on the Natura 2000 network and Ramsar sites.

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 sites¹ are given equivalent status). For the purposes of this Habitats Regulations Assessment (HRA) candidate SACs, proposed SPAs and proposed Ramsar sites are all treated as fully designated sites. The need for HRA (also often referred to as Appropriate Assessment or 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 European sites themselves, although the sites have a significant role in delivering favourable conservation status.

Box 1. The legislative basis for Appropriate Assessment

Habitats Directive 1992

"Any plan or project not directly connected with or necessary to the management of the 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 site in view of the 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 site in view of that site's 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".

Chapter 2 of this report explains the process by which the HRA has been carried out. Chapter 3 explores the relevant pathways of impact resulting from the selection of traveller sites. Chapter 4 provides the results of the screening of the three preferred sites contained within the DPD. The conclusion of the HRA is then summarised in Chapter 5.

¹ Wetlands of International Importance designated under the Ramsar Convention 1979

2 Methodology

2.1 Introduction

This section sets out our approach and methodology for undertaking the HRA.

2.2 A Proportionate Assessment

Project-related HRA often requires bespoke survey work and novel data generation in order to accurately determine the significance of effects. In other words, 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.

However, the draft CLG guidance² makes it clear that when implementing HRA of land-use plans, the 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.*”

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 tiers.

2.3 The Process of HRA

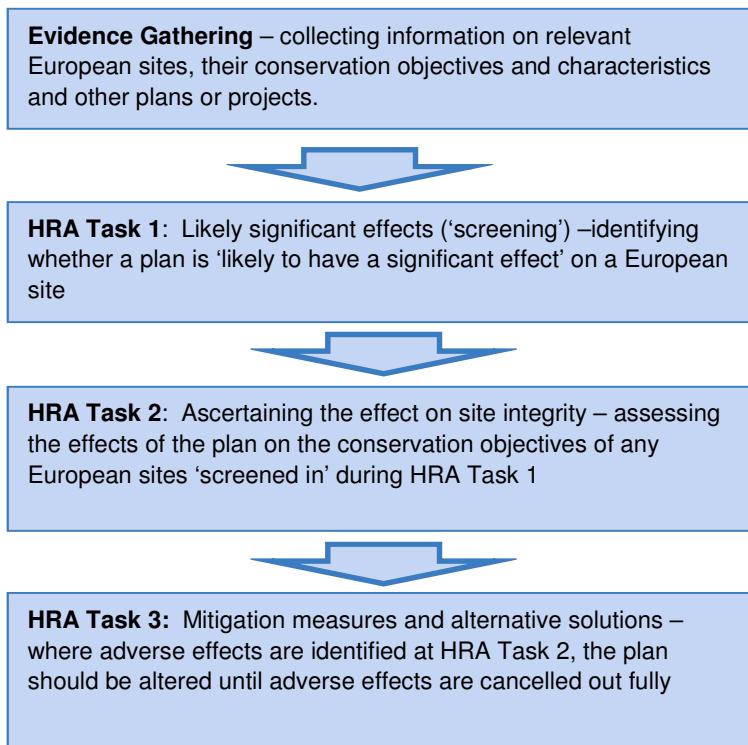
The HRA is likely to be carried out in the continuing absence of formal central Government guidance. CLG released a consultation paper on AA of Plans in 2006³. As yet, no further formal guidance has emerged from CLG. However, Natural England has produced its own informal internal guidance and Countryside Council for Wales has produced guidance for Welsh authorities which has been produced to supplement Technical Advice Note 5: Nature Conservation and Planning (2009). Although there is no requirement for an HRA to follow either guidance, both have been referred to in producing this final version of the HRA.

Figure 1 below outlines the stages of HRA according to current draft CLG guidance (which, since it is Central Government and West Lancashire Borough is an English authority has been considered to take precedence over other sources of 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 likely significant effects remain.

² CLG (2006) Planning for the Protection of European Sites, Consultation Paper

³ Ibid

Figure 1: Four-Stage Approach to Habitats Regulations Assessment



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 DPD. The following process has been adopted for carrying out the subsequent stages of the HRA.

2.4 Task One: Likely Significant Effect Test (Screening)

The first stage of any Habitats Regulations Assessment is a Likely Significant Effect (LSE) 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?*"

In evaluating significance, AECOM has relied on our professional judgement as well as stakeholder consultation. The level of detail concerning developments that will be permitted under land use plans is rarely sufficient to make a detailed quantification of effects. Therefore, we have again taken a precautionary approach (in the absence of more precise data) assuming as the default position that if an adverse effect cannot be confidently ruled out, avoidance or mitigation measures must be provided. This is in line with CLG guidance that the level of detail of the assessment, whilst meeting the relevant requirements of the Habitats Regulations, should be 'appropriate' to the level of plan or project that it addresses.

Task One: determination of likely significant effects is the purpose of this document.

2.5 Physical scope of the HRA

The physical scope of the HRA is dictated to a large extent by the potential pathways for impact that exist. In determining the potential pathways of impact associated with the three traveller sites, it is important to understand that a traveller sites DPD is not aimed at increasing the population of the area, but is rather concerned with ensuring that there are sufficient legal pitches available for traveller needs. As such, there is no basis to assume that the provision of the three preferred sites identified in this DPD would lead to an increase in the population of West Lancashire.

If an increase in the population can be discounted then the principal pathways of impact are associated with whether any of the actual preferred sites would be likely to lead to any disturbance effects on sensitive European sites through proximity, or loss of important supporting habitat outside the boundaries of the European sites. This pathway is discussed further in Chapter 3.

Based on the potential pathways identified above, the physical scope of the HRA is as shown in Table 1.

Table 1: Physical scope of the HRA

European site	Reason for inclusion
Martin Mere SPA/Ramsar site	Located 1.7km from the preferred traveller sites at its closest point.
Ribble and Alt Estuaries SPA/Ramsar site and Sefton Coast SAC	Located 2km from the preferred traveller sites at its closest point.

Further details regarding the interest features and vulnerabilities of the European sites included within the scope of the HRA are given below. All baseline data relating to these European Sites presented in subsequent Chapters of this report is taken from Joint Nature Conservancy Council websites (JNCC) unless otherwise stated.

2.6 The ‘in combination’ scope

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. In practice, ‘in combination assessment’ is of greatest importance when the DPD would otherwise be screened out because the individual contribution is inconsequential. It is neither practical nor necessary to assess the ‘in combination’ effects of the DPD within the context of all other plans and projects within the locality. The principal other plans and projects that we are considering are:

- Housing figures identified for West Lancashire as a whole, and housing figures for neighbouring authorities, along with policies relating to employment provision and any significant infrastructure.
- HRA of the West Lancashire Local Plan, and any HRAs for Local Plans of surrounding authorities.

- 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;
- United Utilities Final Draft Water Resource Management Plan 2015-2040;
- West Lancashire Borough Council Open Space Study (2012);
- Lancashire County Council Local Transport Plan 3 (2011-2021); and
- Environment Agency North West River Basin Management Plan.

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 full HRA on each of these plans.

3 Pathways of Impact

3.1 Introduction

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.6⁴).

The following indirect pathways of impact were considered relevant to the Habitats Regulations Assessment of the Travellers DPD.

3.2 Disturbance

The proximity of new development sites to European sites designated for sensitive species (such as over-wintering birds) can result in noise and visual disturbance.

Human activity can affect birds either directly (e.g. through causing them to flee) or indirectly (e.g. through damaging their habitat or rendering it less usable through, for example, light pollution). The most obvious direct effect is that of immediate mortality 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/death⁵.

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 roads⁶.

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.

⁴ 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>

⁵ Riley, J. 2003. Review of Recreational Disturbance Research on Selected Wildlife in Scotland. Scottish Natural Heritage.

⁶ 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

3.3 Loss of Offsite Habitat of Value to Qualifying Species

While most European sites have been geographically defined in order to encompass the key features that are necessary for coherence of their structure and function, this is not the case for all such sites. Due to the highly mobile nature of waterfowl it is inevitable that areas of habitat of crucial importance to the maintenance of their populations are outside the physical limits of the European site for which they are an interest feature. However, this area will still be essential for maintenance of the structure and function of the interest feature for which the site was designated and land use plans that may affect this land should still therefore be subject to HRA.

In examining the potential constraints for offshore wind development in the region in 2008 the RSPB and Lancashire Wildlife Trust published a mapping exercise that identified sensitive areas for pink-footed geese and whooper swans. These include a zone of sensitivity for pink-footed geese and mapping for whooper swan generated as 1km squares of sensitivity rather than more precise habitat zones as prepared for the geese. It is understood that work is currently underway to update this exercise on a more national basis and if the data become available during the timetable of this project the HRA will be updated to take it into account. However, for the time being, these data (presented in Appendix 1 of this report) have been used to determine proximity of preferred sites to sensitive areas for SPA birds.

4 Background to European sites

4.1 Martin Mere

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.

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.

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

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)

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)

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 ferina*), mallard (*Anas platyrhynchos*), teal (*Anas crecca*), wigeon (*Anas penelope*), pintail, pink-footed geese, whooper swan, and Bewick's swan.

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 Current Pressures

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.

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.

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 Ribble & Alt Estuaries/Sefton Coast

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.

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.

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.

4.5 Reasons for Designation

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:

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;

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.

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.

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*.

The Ribble and Alt Estuaries also qualifies as a 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.

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).

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.

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.

4.6 Historic Trends and Current Pressures

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).

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).

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 on 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 foreshore⁷;

⁷ Wildlife Trust (2006) – The Wildlife Trust For Lancashire, Manchester And North Merseyside (2006). *Uses and abuses.*

- 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)⁸;
- 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;
- 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.

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.

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).

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;

[Online]. Available at: <http://www.lancswt.org.uk/Learning%20&%20Discovery/theirishsea/usesandabuses.htm> (accessed 15th June 2009).

⁸ (Wildlife Trust, 2006 and Ribble Estuary Strategy Steering Group, 1997)

- 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.

5 Screening of Travellers Sites Preferred Options

5.1 Introduction

The Travellers Sites DPD essentially presents three preferred sites. Of these, one site: Land west of The Quays, Burscough, is already permitted. As such, it is excluded from this HRA. The remaining two sites are:

- Sugar Stubbs Lane, Banks 3 pitches
- Pool Hey Caravan Park, Scarisbrick 6 pitches

This screening assessment therefore examines the proximity of these sites to the Martin Mere SPA and Ribble & Alt Estuaries SPA and determines whether these sites would constitute important supporting habitat for SPA birds.

Table 2: Likely Significant Effect of Preferred Sites

Site	Proximity to European sites	Sensitive habitat for SPA birds?	Likely Significant Effect?
Sugar Stubbs Lane, Banks	2km from Ribble & Alt Estuaries 6.5km from Martin Mere	Site is within a whooper swan 1km square but habitat is bare ground/scrub and is unsuitable.	No
Pool Hey Caravan Park, Scarisbrick	6km from Ribble & Alt Estuaries 4km from Martin Mere	Site lies within a whooper swan 1km square and a pink-footed goose area but constitutes bare ground and caravans and is unsuitable.	No

6 Role of Other Plans and Projects

The other plans and projects that have the potential to create likely significant adverse effects on Martin Mere SPA and Ramsar are as follows.

In considering disturbance of bird species for which the SPA/Ramsar are designated, the HRA of the West Lancashire Local Plan concluded that policy wording was sufficient to be able to confirm that this was unlikely. Despite a presumption in favour of sustainable development, policy SP1 (A Sustainable Development Framework for West Lancashire) indicates that future development in West Lancashire will have to demonstrate compliance with other policies in the Local Plan. These provide robust protection for development affecting European sites. The Local Plan states that:

'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'.

The Council has prepared an SPD for Yew Tree Farm, and this is also subject to commitment to provide an ornithological survey report as part of any planning applications (See p13 and p43 of that SPD). The Local Plan makes it clear that all other potential developments within West Lancashire that might occur on land supporting designated bird species will be subject to the same caveats as Yew Tree Farm.

Given these safeguards it can be concluded that no likely significant effects on Martin Mere SPA and Ramsar site will arise, through disturbance of qualifying bird species, as a result of the Yew Tree Farm SPD either alone or in combination with other plans and projects. Therefore there will be no in combination effect with the Travellers SPD.

With regard to water quality, the HRA of the West Lancashire Local Plan states that:

'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.'

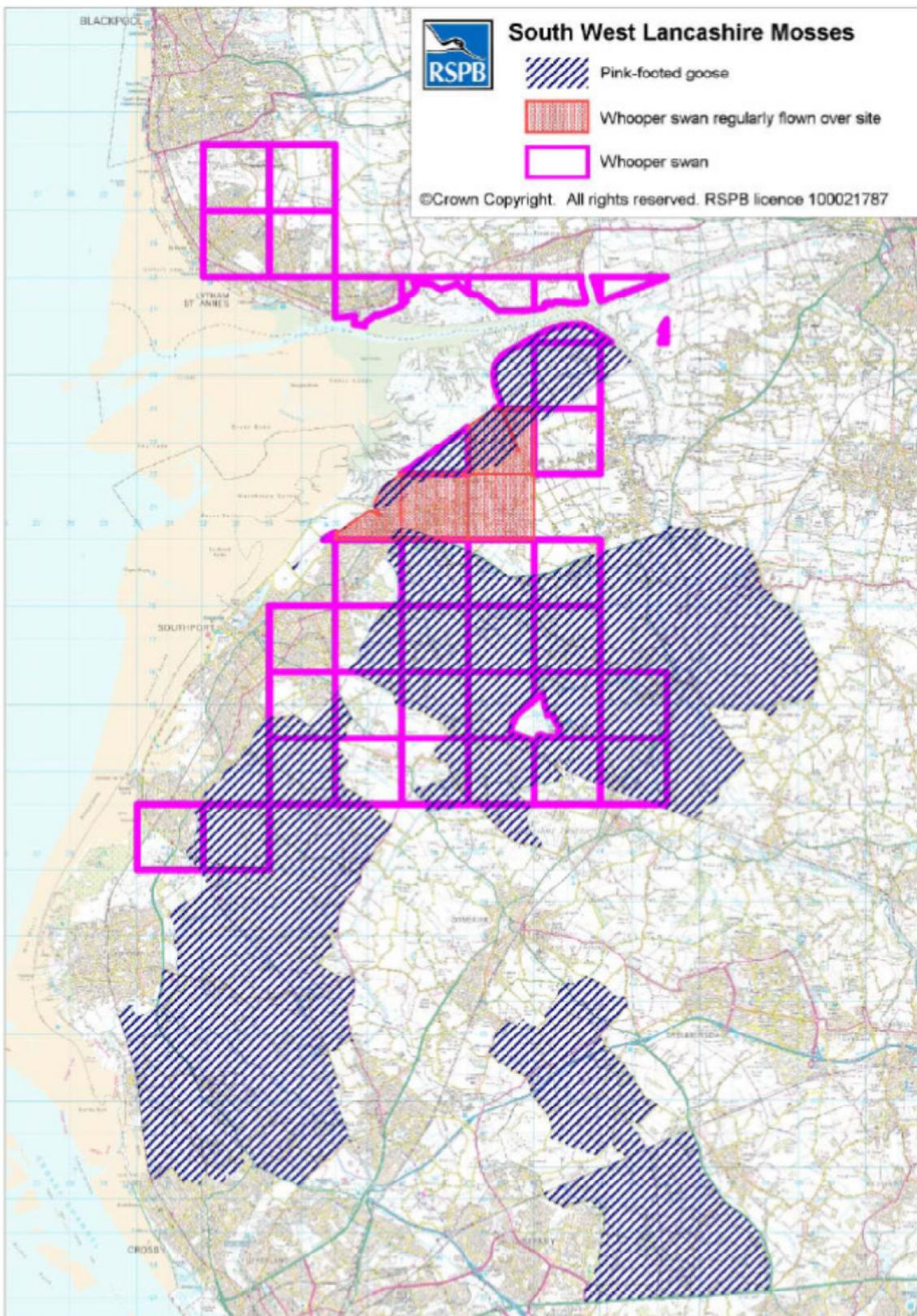
Given this, it can be concluded that other developments will not contribute to increased nutrient enrichment at Martin Mere, since they should conform with Local Plan policy.

Due primarily to the unsuitability of habitat, distance from European sites and/or lack of being within a sensitive area for SPA/Ramsar birds, there is no mechanism for any of the preferred traveller sites to operate in combination with these other projects and plans.

7 Conclusions

The HRA of the Traveller Sites DPD Options and Preferred Options has been able to conclude that no likely significant effects will occur on European sites either alone or in combination with other projects and plans.

8 Appendix 1 – Qualifying Bird Species Sensitivity Map: South West Lancashire



About AECOM

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